RTI Laboratories, Inc.

Date: *21-Oct.-11*

CLIENT: Shaw Environmental & Infrastructure, Inc.
Project: Kirtland AFB
CO#: 501
Tracking #: 140705-036A
Project No.: 140705
Prime Contract: W912DY-10-D0014
Task Order: 02
Lab Order: 1109105

CASE NARRATIVE

SAMPLE RECEIPT:
Samples were received at the RTI Laboratory, Livonia, MI via commercial delivery on 9/2/2011. Samples were received in good condition, except for the sample noted below. The sample set consisted of 37 air samples.

Note: Sample ID 1109105-018 (VA0528): The lid was cracked on the bottle vac sample - unable to perform analyses for TO15 and MA-APH.

SAMPLE ANALYSIS:
Samples were analyzed at the RTI Livonia Laboratory for:
Volatile Organic Compounds – EPA Method TO15
Air-Phase Petroleum Hydrocarbons – MA_APH (Massachusetts DEP APH Method)
Fixed Gases (Noncondensable Gases/Light Hydrocarbons) – ASTM D2504

QUALITY CONTROL:

Volatile Organic Compounds Analyses:

All sample analyses included a Method Blank, CCV, RLVS (CRQL) and Duplicate. All QC parameters were within established control limits except where noted on the QC forms or below. Initial and continuing calibration results were within method specifications. MS tuning parameters were within the acceptable ranges for the method.

Surrogate recoveries were within established control limits.

Analytical Sequence ID 43152:

- Sample ID 1108899-043ADUP elevated RPD for 1,3-Butadiene (200%), 2-Butanone (200%), Acetone (32.3%) and Heptane (200%). RPD results are affected by sample concentrations near or below the LOQ.

Analytical Sequence ID 43192:

- Sample ID 1109555-033ADUP elevated for m,p-Xylene (200%) and Xylenes, total (200%) due to concentration near or below the LOQ.

Air-Phase Petroleum Hydrocarbons Analyses:

All sample analyses included a Method Blank, LCS, LCSD and Duplicate, where applicable. All QC parameters were within established control limits except where noted on the QC summary forms or below. Initial and continuing calibration results were within method specifications.

RTI Laboratories, Inc.

Date: *21-Oct.-11*

CLIENT: Shaw Environmental & Infrastructure, Inc.
Project: Kirtland AFB
CO#: 501
Tracking #: 140705-036A
Project No.: 140705
Prime Contract: W912DY-10-D0014
Task Order: 02
Lab Order: 1109105

CASE NARRATIVE

Surrogate recoveries were within established control limit except as noted below:

Sample ID	4-Bromofluorobenzene
1109105-001	131%
1109105-002	138%
1109105-003	135%
Blank2 VOA1 0916	136%
1109105-002ADUP	137%

Fixed Gases (Noncondensable Gases/Light Hydrocarbons) Analyses:

All sample analyses included a Method Blank, LCS, LCSD and Duplicate, where applicable. All QC parameters were within established control limits except where noted on the QC summary forms or below. Initial and continuing calibration results were within method specifications.

Samples collected in Tedlar bags have a limited holding time as specified by the manufacturer for the collection of volatile organic compounds. There is no known stability data for the analytes of interest for this project collected in Tedlar bags. The standard holding time is 48 hours for Tedlar bags. Due to the nature of the project sample analysis within 48 hours was not feasible

No other problems were noted during the analytical events associated with this project.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Signed: Charles O'Bryan
Charles O'Bryan, Director, Quality Management

Date: 10/21/2011

Bill To: Shaw Environmental, Inc. - Acc. P
P.O. Box 9819
Baton Rouge, LA
70884

1109105

Diane Pohlo
REE Oglo
303-319-8159

CHAIN OF CUSTODY

Ref. Document # 140705-SV029
Page 1 of 2

Shaw Shaw E&I

Project Contact: Pamela Moss
Phone & Email #:

Send Report To: Pamela Moss
Phone/Fax Number: 720-554-8252
Address: 7604 Technology Way Ste 100
City: Denver, CO 80237

Sampler's Name(s): RBaky, T Nagy

Project Number: 140705
Project Name / Location: KAFB-BFF
Purchase Order #:

Shipment Date: 9/26/11
Waybill/Airbill Number: 7523121113
Lab Destination: RTI Carrandras
Lab Contact Name / ph. #: Mike Tracha

	Sample ID Number	Sample Description	Collection Information Date	Time	G/C	Matrix	# of Containers	Container Type	Preservative VOC	NaOH	HNO3	H2SO4	Air	Analyses Requested Annual CEP TO-15	ASTM D-3504	Turn Around Time (Business Days)	
1	VA0395	SVMW02-050-GS-VA0395-Bag	9/23/11	844	G	AS	1	BV	N/A	N/A	N/A	N/A	N/A	✓			648
	VA0395	↓	↓	↓	↓	↓	1	Ted							✓		
2	VA0396	SVMW-07-100-GS-VA0396-Bag	9/23/11	915			1	BV						✓			707
	↓	↓	↓	↓			1	Ted							✓		
3	VA0397	SVMW-07-100-GS-VA0397-FD	↓	↓			1	BV						✓			753
	↓	↓	↓	↓			1	Ted							✓		
4	VA0398	SVMW-07-150-GS-VA0398-Bag	9/23/11	959			1	BV						✓			736
	↓	↓	↓	↓			1	Ted							✓		
5	VA0399	SVMW-09-050-GS-VA0399-Bag	9/24/11	859			1	BV						✓			759
	↓	↓	↓	↓	↓	↓	1	Ted	↓	↓	↓	↓	↓		✓		

Special Instructions:
BV = Bottle Vac
Ted = Tedlar Bag
Please Dispose Samples
* Flammable

QC Data Package Level Required: I II III IV/Project Specific

Relinquished By	Date	Time	Received By	Date	Time
T Nagy	8/26/11	1247	Christian Corradis	9/2/2011	10:25 AM

G/C Codes
C = Composite G = Grab

Matrix Codes
DW = Drinking Water SO = Soil
GW = Ground Water SL = Sludge
WW = Waste Water CP = Chip Samples
SW = Surface Water WP = Wipe Samples
LIQ = Other Liquid SOL = Other Solid
AS = Air Sample SED = Sediment

*2 of 3 received 9/2/2011 10:25 AM
1 of 3 received 9/

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COC Continuation Page

COC Ref. Document # 140705-SV020 Page 2 of 5

Project Number: 140705 Shipment Date: 8/26/11

Project Name / Location: KAFB-BFF

1109105

	Sample ID Number	Sample Description	Collection Information Date	Time	G/C	Matrix	# of Containers	Container Type	Preservative HCl	NaOH	HNO_3	H_2SO_4	Ice		Analyses Requested: Alk-MADEP TD15	Astm D2504									Turn Around Time Requested	
6	VA0400	SVMW 09-100-GS-VA0400-Req	8/24/11	1034	G	AS	1	BV	%	%	%	%	%		✓											6
	↓	↓	↓	↓			1	Ted								✓										
7	VA0401	SVMW-09-250-GS-VA0401-Req	8/24/11	1111			1	BV							✓											71
	↓	↓	↓	↓			1	Ted								✓										
8	VA0412	SVMW-11-050-GS-VA0412-Req	8/25/11	1311			1	BV							✓											67
	↓	↓	↓	↓			1	Ted								✓										
9	VA0413	SVMW-11-100-GS-VA0413-Req	8/25/11	1344			1	BV							✓											7
	↓	↓	↓	↓			1	Ted								✓										
0	VA0414	SVMW-11-250-GS-VA0414-Req	8/25/11	1427			1	BV							✓											T
	↓	↓	↓	↓			1	Ted								✓										
11	VA0415	SVMW-11-250-GS-VA0415-FD	8/25/11	1427			1	BV							✓											65
	↓	↓	↓	↓			1	Ted								✓										
12	VA0416	SVMW-11-350-GS-VA0416-Req	8/25/11	832			1	BV							✓											69
	↓	↓	↓	↓			1	Ted								✓										
3	VA0523	KAFB-106118-025-GS-VA0523-Req	8/24/11	1204			1	BV							✓											71
	↓	↓	↓	↓			1	Ted								✓										
4	VA0524	KAFB-106118-050-GS-VA0524-Req	8/24/11	1232			1	BV							✓											71
	↓	↓	↓	↓	↓	↓	1	Ted	↓	↓	↓	↓	↓			✓										

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COC Continuation Page

COC Ref. Document # 140705-SV020 Page 3 of 5

Project Number: 140705 Shipment Date: 8/26/11

Project Name / Location: KAFB-BPF

1109105

	Sample ID Number	Sample Description	Collection Information Date	Time	G/C	Matrix	# of Containers	Container Type	Preservative HCl	NaOH	HNO_3	H_2SO_4	DI	Analyses Requested APH-MA DEP TO-15	ASTM D 2504									Turn Around Time Requested
15	VA0525	KAFB-100118-060-GS-VA0525-Reg	8/24/11	1311	G	AS	1	BV	N/A	N/A	N/A	N/A	N/A	✓	✓									7
	↓	↓	↓	↓			1	TD							✓									
16	VA0526	KAFB-100118-060-GS-VA0526-FD	8/24/11	1311			1	BV						✓	✓									
	↓	↓	↓	↓			1	TD							✓									
17	VA0527	KAFB-100118-265-GS-VA0527-Reg	8/24/11	1530			1	BV						✓	✓									
	↓	↓	↓	↓			1	TD							✓									
18	VA0528	KAFB-100118-350-GS-VA0528-Reg	8/25/11	902			1	BV						✓	✓									
	↓	↓	↓	↓			1	TD							✓									
19	VA0529	KAFB-100118-950-GS-VA0529-Reg	8/25/11	945			1	BV						✓	✓									
	↓	↓	↓	↓			1	TD							✓									
20	VA0579	KAFB-100117-025-GS-VA0579-Reg	8/18/11	1343			1	BV						✓	✓									
	↓	↓	↓	↓			1	Tedl							✓									
21	VA0580	KAFB-100117-050-GS-VA0580-Reg	8/18/11	1412			1	BV						✓	✓									
	↓	↓	↓	↓			1	Tedl							✓									
22	VA0581	KAFB-100117-150-GS-VA0581-Reg	8/18/11	1451			1	BV						✓	✓									
	↓	↓	↓	↓			1	Tedl							✓									
23	VA0582	KAFB-100117-250-GS-VA0582-Reg	8/18/11	1527			1	BV						✓	✓									
	↓	↓	↓	↓	↓	↓	1	Tedl	↓	↓	↓	↓	↓		✓									

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COC Continuation Page

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Project Number: 140705 Shipment Date: 8/26/11

Project Name / Location: KAFB-BFP

1109105

	Sample ID Number	Sample Description	Collection Information Date	Time	G/C	Matrix	# of Containers	Container Type	Preservative HCl	NaOH	HNO3	H2SO4	Ice	Analyses Requested APH-MA DRP	TEIC	ASTM D 2504	Turn Around Time Requested
14	VA0583	KAFB-106127-350GS-VA0583-Rq	8/09/11	1316	G	AS	1	BV	%	%	%	%	%	✓			55
	↓	↓	↓	↓			1	TD							✓		
15	VA0584	KAFB-106127-450GS-VA0584-Rq	8/09/11	1416			1	BV						✓			56
	↓	↓	↓	↓			1	TD							✓		
16	VA0654	KAFB-106138-025GS-VA0654-Rq	8/22/11	912			1	BV						✓			46
	↓	↓	↓	↓			1	TD							✓		
17	VA0655	KAFB-106138-050GS-VA0655-Rq	8/22/11	947			1	BV						✓			54
	↓	↓	↓	↓			1	TD							✓		
18	VA0656	KAFB-106138-150GS-VA0656-Rq	8/22/11	1020			1	BV						✓			51
	↓	↓	↓	↓			1	TD							✓		
19	VA0657	KAFB-106138-150GS-VA0657-FD	8/22/11	1020			1	BV						✓			52
	↓	↓	↓	↓			1	Ted							✓		
30	VA0658	KAFB-106138-250GS-VA0658-Rq	8/22/11	1118			1	BV						✓			69
	↓	↓	↓	↓			1	Ted							✓		
31	VA0659	KAFB-106138-350GS-VA0659-Rq	8/22/11	1322			1	BV						✓			75
	↓	↓	↓	↓			1	Ted							✓		
32	VA0660	KAFB-106138-450GS-VA0660-Rq	8/22/11	1403			1	BV						✓			75
	↓	↓	↓	↓	↓	↓	1	Ted	↓	↓	↓	↓	↓		✓		

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COC Continuation Page

COC Ref. Document # 140705-SV020 Page 5 of 5

Project Number: 140705 Shipment Date: 8/26/11

Project Name / Location: KAFB-BFP

1109105

	Sample ID Number	Sample Description	Collection Information Date	Time	G/C	Matrix	# of Containers	Container type	Preservative HCl	NaOH	HNO3	H2SO4	Ice	Analyses Requested APH-MA DEP TEH	ASTM D 2502	Turn Around Time Requested	
33	VA0692	SVAW-02-050-GS-VA0692-Rg	8/23/11	1221	G	AS	1	BV	n/a	n/a	n/a	n/a	n/a	✓			850
	↓	↓	↓	↓			1	TD							✓		
34	VA0693	SVAW-02-100-GS-VA0693-Rg	8/23/11	1255			1	BV						✓			710
	↓	↓	↓	↓			1	TD							✓		
35	VA0694	SVAW-02-150-GS-VA0694-TD	↓	↓			1	BV						✓			711
	↓	↓	↓	↓			1	TD							✓		
36	VA0695	SVAW-02-150-GS-VA0695-Rg	8/23/11	1354			1	BV						✓			715
	↓	↓	↓	↓			1	TD							✓		
	~~VA0696~~		~~↓~~	~~↓~~			1	BV									
37	VA8037-TB	FieldBlk-BW-VA8037-TB-TB	8/19/11	1500			1	BV						✓			761
							1	TD									
							1	BV									
							1	TD									
							1	BV									
							1	TD									
							1	BV									
							1	TD									
							1	BV									
							1	TD	↓	↓	↓	↓	↓				

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CUSTODY SEAL
DATE 8/26/11
SIGNATURE

QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

T - 10 Door: 1249
MI 48150
UPST 346284 MI 482 9-02

UPS GROUND

1Z10335E0341020918

P250135 3140267 Sep 01 02 05 05 2011 US 06059 N

5 LBS 3 OF 3
DWT: 13,10,11

FROM:
RONDA BAILEY
(505) 917-0645
KAFB BFF/SHAW E & I, INC.
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4125 3122

SHIP TO:
MICHAEL TRUCHAN
(734) 422-8000
RTI LABORATORIES
31628 GLENDALE ST.
LIVONIA MI 48150

REF 1:
REF 2:

CUSTODY SEAL
DATE 8/26/11
SIGNATURE

P/P
RDOUS MATERIALS - GROUND ONLY
1 6

Missing cooler
9/12/2011

www.ammara.com

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Sample Receipt Checklist

Client Name: **SHA04** Date and Time Received: **9/2/2011 10:25:00 AM**

Work Order Number **1109105** RcptNo: **1** Received by: **Christine Conradis**

Completed by: Reviewed by:

Completed Date: 9/6/2011 11:45:40 AM Reviewed Date: 9/14/2011 6:07:20 PM

Carrier name: UPS

Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐	Not Present	☐
Are matrices correctly identified on Chain of custody?	Yes ☑	No ☐		
Is it clear what analyses were requested?	Yes ☑	No ☐		
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present	☑
Samples in proper container/bottle?	Yes ☑	No ☐		
Were correct preservatives used and noted?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
Were container lables complete (ID, Pres, Date)?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Was an attempt made to cool the samples?	Yes ☐	No ☑		
All samples received at a temp. of > 0° C to 6.0° C?	Yes ☐	No ☑		
Response when temperature is outside of range:	Not required			
Preservative added to bottles:				
Sample Temp. taken and recorded upon receipt?	Yes ☐	No ☑	To	°C
Water - Were bubbles absent in VOC vials?	Yes ☐	No ☐	No Vials	☑
Water - Was there Chlorine Present?	Yes ☐	No ☐	NA	☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	No Water	☑
Are Samples considered acceptable?	Yes ☑	No ☐		
Custody Seals present?	Yes ☑	No ☐		
Traffic Report or Packing Lists present?	Yes ☐	No ☑		
Airbill or Sticker?	Air Bill ☑	Sticker ☐	Not Present	☐
Airbill No:	1Z10335E0341020918			
Sample Tags Present?	Yes ☐	No ☑		
Sample Tags Listed on COC?	Yes ☐	No ☑		
Tag Numbers:				
Sample Condition?	Intact ☑	Broken ☐	Leaking	☐

Case Number: SDG: SAS:

Adjusted? _____ Checked by

Any No and/or NA (not applicable) response must be detailed in the comments section below.

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1109105-001A	Container-01 of 01	Bottle				
1109105-001B	Container-01 of 01	Bottle				
1109105-002A	Container-01 of 01	Bottle				
1109105-002B	Container-01 of 01	Bottle				
1109105-003A	Container-01 of 01	Bottle				
1109105-003B	Container-01 of 01	Bottle				
1109105-004A	Container-01 of 01	Bottle				
1109105-004B	Container-01 of 01	Bottle				
1109105-005A	Container-01 of 01	Bottle				
1109105-005B	Container-01 of 01	Bottle				
1109105-006A	Container-01 of 01	Bottle				
1109105-006B	Container-01 of 01	Bottle				
1109105-007A	Container-01 of 01	Bottle				
1109105-007B	Container-01 of 01	Bottle				
1109105-008A	Container-01 of 01	Bottle				
1109105-008B	Container-01 of 01	Bottle				
1109105-009A	Container-01 of 01	Bottle				
1109105-009B	Container-01 of 01	Bottle				
1109105-010A	Container-01 of 01	Bottle				
1109105-010B	Container-01 of 01	Bottle				
1109105-011A	Container-01 of 01	Bottle				
1109105-011B	Container-01 of 01	Bottle				
1109105-012A	Container-01 of 01	Bottle				
1109105-012B	Container-01 of 01	Bottle				
1109105-013A	Container-01 of 01	Bottle				
1109105-013B	Container-01 of 01	Bottle				
1109105-014A	Container-01 of 01	Bottle				
1109105-014B	Container-01 of 01	Bottle				
1109105-015A	Container-01 of 01	Bottle				
1109105-015B	Container-01 of 01	Bottle				
1109105-016A	Container-01 of 01	Bottle				
1109105-016B	Container-01 of 01	Bottle				
1109105-017A	Container-01 of 01	Bottle				
1109105-017B	Container-01 of 01	Bottle				

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1109105-018B	Container-01 of 01	Bottle				
1109105-019A	Container-01 of 01	Bottle				
1109105-019B	Container-01 of 01	Bottle				
1109105-020A	Container-01 of 01	Bottle				
1109105-020B	Container-01 of 01	Bottle				
1109105-021A	Container-01 of 01	Bottle				
1109105-021B	Container-01 of 01	Bottle				
1109105-022A	Container-01 of 01	Bottle				
1109105-022B	Container-01 of 01	Bottle				
1109105-023A	Container-01 of 01	Bottle				
1109105-023B	Container-01 of 01	Bottle				
1109105-024A	Container-01 of 01	Bottle				
1109105-024B	Container-01 of 01	Bottle				
1109105-025A	Container-01 of 01	Bottle				
1109105-025B	Container-01 of 01	Bottle				
1109105-026A	Container-01 of 01	Bottle				
1109105-026B	Container-01 of 01	Bottle				
1109105-027A	Container-01 of 01	Bottle				
1109105-027B	Container-01 of 01	Bottle				
1109105-028A	Container-01 of 01	Bottle				
1109105-028B	Container-01 of 01	Bottle				
1109105-029A	Container-01 of 01	Bottle				
1109105-029B	Container-01 of 01	Bottle				
1109105-030A	Container-01 of 01	Bottle				
1109105-030B	Container-01 of 01	Bottle				
1109105-031A	Container-01 of 01	Bottle				
1109105-031B	Container-01 of 01	Bottle				
1109105-032A	Container-01 of 01	Bottle				
1109105-032B	Container-01 of 01	Bottle				
1109105-033A	Container-01 of 01	Bottle				
1109105-033B	Container-01 of 01	Bottle				
1109105-034A	Container-01 of 01	Bottle				
1109105-034B	Container-01 of 01	Bottle				
1109105-035A	Container-01 of 01	Bottle				

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1109105-035B	Container-01 of 01	Bottle				
1109105-036A	Container-01 of 01	Bottle				
1109105-036B	Container-01 of 01	Bottle				
1109105-037A	Container-01 of 01	Bottle				

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client Contacted? ☐ Yes ☑ No ☐ NA Person Contacted:

Contact Mode: ☐ Phone: ☐ Fax: ☐ Email: ☐ In Person:

Client Instructions:

Date Contacted: Contacted By:

Regarding:

CorrectiveAction:

Comments:
2 out of 3 boxes received 9/2/2011. 1 out of 3 boxes returned and received at a later date (9/6/2011). CC

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Workorder Sample Summary

WO#: 1109105
20-Oct-11

CLIENT: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1109105-001	VA0395		8/23/2011 8:44:00 AM	9/2/2011 10:25:00 AM	Air
1109105-001	VA0395		8/23/2011 8:44:00 AM	9/2/2011 10:25:00 AM	Air
1109105-002	VA0396		8/23/2011 9:15:00 AM	9/2/2011 10:25:00 AM	Air
1109105-002	VA0396		8/23/2011 9:15:00 AM	9/2/2011 10:25:00 AM	Air
1109105-003	VA0397		8/23/2011 9:15:00 AM	9/2/2011 10:25:00 AM	Air
1109105-003	VA0397		8/23/2011 9:15:00 AM	9/2/2011 10:25:00 AM	Air
1109105-004	VA0398		8/23/2011 9:59:00 AM	9/2/2011 10:25:00 AM	Air
1109105-004	VA0398		8/23/2011 9:59:00 AM	9/2/2011 10:25:00 AM	Air
1109105-005	VA0399		8/24/2011 8:58:00 AM	9/2/2011 10:25:00 AM	Air
1109105-005	VA0399		8/24/2011 8:58:00 AM	9/2/2011 10:25:00 AM	Air
1109105-006	VA0400		8/24/2011 10:34:00 AM	9/2/2011 10:25:00 AM	Air
1109105-006	VA0400		8/24/2011 10:34:00 AM	9/2/2011 10:25:00 AM	Air
1109105-007	VA0401		8/24/2011 11:11:00 AM	9/2/2011 10:25:00 AM	Air
1109105-007	VA0401		8/24/2011 11:11:00 AM	9/2/2011 10:25:00 AM	Air
1109105-008	VA0412		8/25/2011 1:11:00 PM	9/2/2011 10:25:00 AM	Air
1109105-008	VA0412		8/25/2011 1:11:00 PM	9/2/2011 10:25:00 AM	Air
1109105-009	VA0413		8/25/2011 1:44:00 PM	9/2/2011 10:25:00 AM	Air
1109105-009	VA0413		8/25/2011 1:44:00 PM	9/2/2011 10:25:00 AM	Air
1109105-010	VA0414		8/25/2011 2:27:00 PM	9/2/2011 10:25:00 AM	Air
1109105-010	VA0414		8/25/2011 2:27:00 PM	9/2/2011 10:25:00 AM	Air
1109105-011	VA0415		8/25/2011 2:27:00 PM	9/2/2011 10:25:00 AM	Air
1109105-011	VA0415		8/25/2011 2:27:00 PM	9/2/2011 10:25:00 AM	Air
1109105-012	VA0416		8/26/2011 8:32:00 AM	9/2/2011 10:25:00 AM	Air
1109105-012	VA0416		8/26/2011 8:32:00 AM	9/2/2011 10:25:00 AM	Air
1109105-013	VA0523		8/24/2011 12:04:00 PM	9/2/2011 10:25:00 AM	Air
1109105-013	VA0523		8/24/2011 12:04:00 PM	9/2/2011 10:25:00 AM	Air
1109105-014	VA0524		8/24/2011 12:32:00 PM	9/2/2011 10:25:00 AM	Air
1109105-014	VA0524		8/24/2011 12:32:00 PM	9/2/2011 10:25:00 AM	Air
1109105-015	VA0525		8/24/2011 1:11:00 PM	9/2/2011 10:25:00 AM	Air
1109105-015	VA0525		8/24/2011 1:11:00 PM	9/2/2011 10:25:00 AM	Air
1109105-016	VA0526		8/24/2011 1:11:00 PM	9/2/2011 10:25:00 AM	Air
1109105-016	VA0526		8/24/2011 1:11:00 PM	9/2/2011 10:25:00 AM	Air
1109105-017	VA0527		8/24/2011 3:30:00 PM	9/2/2011 10:25:00 AM	Air
1109105-017	VA0527		8/24/2011 3:30:00 PM	9/2/2011 10:25:00 AM	Air

RTI LABORATORIES, INC.

RTI
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Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Workorder Sample Summary

WO#: 1109105
20-Oct-11

CLIENT: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1109105-018	VA0528		8/25/2011 9:02:00 AM	9/2/2011 10:25:00 AM	Air
1109105-018	VA0528		8/25/2011 9:02:00 AM	9/2/2011 10:25:00 AM	Air
1109105-019	VA0529		8/25/2011 9:45:00 AM	9/2/2011 10:25:00 AM	Air
1109105-019	VA0529		8/25/2011 9:45:00 AM	9/2/2011 10:25:00 AM	Air
1109105-020	VA0579		8/18/2011 1:43:00 PM	9/2/2011 10:25:00 AM	Air
1109105-020	VA0579		8/18/2011 1:43:00 PM	9/2/2011 10:25:00 AM	Air
1109105-021	VA0580		8/18/2011 2:12:00 PM	9/2/2011 10:25:00 AM	Air
1109105-021	VA0580		8/18/2011 2:12:00 PM	9/2/2011 10:25:00 AM	Air
1109105-022	VA0581		8/18/2011 2:51:00 PM	9/2/2011 10:25:00 AM	Air
1109105-022	VA0581		8/18/2011 2:51:00 PM	9/2/2011 10:25:00 AM	Air
1109105-023	VA0582		8/18/2011 3:27:00 PM	9/2/2011 10:25:00 AM	Air
1109105-023	VA0582		8/18/2011 3:27:00 PM	9/2/2011 10:25:00 AM	Air
1109105-024	VA0583		8/19/2011 1:16:00 PM	9/2/2011 10:25:00 AM	Air
1109105-024	VA0583		8/19/2011 1:16:00 PM	9/2/2011 10:25:00 AM	Air
1109105-025	VA0584		8/19/2011 2:16:00 PM	9/2/2011 10:25:00 AM	Air
1109105-025	VA0584		8/19/2011 2:16:00 PM	9/2/2011 10:25:00 AM	Air
1109105-026	VA0654		8/22/2011 9:12:00 AM	9/2/2011 10:25:00 AM	Air
1109105-026	VA0654		8/22/2011 9:12:00 AM	9/2/2011 10:25:00 AM	Air
1109105-027	VA0655		8/22/2011 9:47:00 AM	9/2/2011 10:25:00 AM	Air
1109105-027	VA0655		8/22/2011 9:47:00 AM	9/2/2011 10:25:00 AM	Air
1109105-028	VA0656		8/22/2011 10:20:00 AM	9/2/2011 10:25:00 AM	Air
1109105-028	VA0656		8/22/2011 10:20:00 AM	9/2/2011 10:25:00 AM	Air
1109105-029	VA0657		8/22/2011 10:20:00 AM	9/2/2011 10:25:00 AM	Air
1109105-029	VA0657		8/22/2011 10:20:00 AM	9/2/2011 10:25:00 AM	Air
1109105-030	VA0658		8/22/2011 11:18:00 AM	9/2/2011 10:25:00 AM	Air
1109105-030	VA0658		8/22/2011 11:18:00 AM	9/2/2011 10:25:00 AM	Air
1109105-031	VA0659		8/22/2011 1:22:00 PM	9/2/2011 10:25:00 AM	Air
1109105-031	VA0659		8/22/2011 1:22:00 PM	9/2/2011 10:25:00 AM	Air
1109105-032	VA0660		8/22/2011 2:03:00 PM	9/2/2011 10:25:00 AM	Air
1109105-032	VA0660		8/22/2011 2:03:00 PM	9/2/2011 10:25:00 AM	Air
1109105-033	VA0692		8/23/2011 12:21:00 PM	9/2/2011 10:25:00 AM	Air
1109105-033	VA0692		8/23/2011 12:21:00 PM	9/2/2011 10:25:00 AM	Air
1109105-034	VA0693		8/23/2011 12:55:00 PM	9/2/2011 10:25:00 AM	Air
1109105-034	VA0693		8/23/2011 12:55:00 PM	9/2/2011 10:25:00 AM	Air

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Workorder Sample Summary

WO#: 1109105

20-Oct-11

CLIENT: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1109105-035	VA0694		8/23/2011 12:55:00 PM	9/2/2011 10:25:00 AM	Air
1109105-035	VA0694		8/23/2011 12:55:00 PM	9/2/2011 10:25:00 AM	Air
1109105-036	VA0695		8/23/2011 1:54:00 PM	9/2/2011 10:25:00 AM	Air
1109105-036	VA0695		8/23/2011 1:54:00 PM	9/2/2011 10:25:00 AM	Air
1109105-037	VA8037-TB		8/19/2011 3:00:00 PM	9/2/2011 10:25:00 AM	Air

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DATES REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1109105-001A	VA0395	8/23/2011 8:44:00 AM	Air	Air-Phase Petroleum Hydrocarbons			9/18/2011 2:05:00 PM
				Volatile Organic Compounds			9/21/2011 8:03:00 AM
1109105-001B				Noncondensable Gases and Light Hydrocarbons			9/20/2011 8:37:00 PM
1109105-002A	VA0396	8/23/2011 9:15:00 AM		Air-Phase Petroleum Hydrocarbons			9/18/2011 7:59:00 AM
				Volatile Organic Compounds			9/20/2011 2:54:00 AM
1109105-002B				Noncondensable Gases and Light Hydrocarbons			9/20/2011 8:56:00 PM
1109105-003A	VA0397			Air-Phase Petroleum Hydrocarbons			9/18/2011 10:18:00 AM
				Volatile Organic Compounds			9/24/2011 3:33:00 AM
1109105-003B				Noncondensable Gases and Light Hydrocarbons			9/20/2011 9:22:00 PM
1109105-004A	VA0398	8/23/2011 9:59:00 AM		Air-Phase Petroleum Hydrocarbons			9/18/2011 2:56:00 PM
				Volatile Organic Compounds			9/29/2011 9:19:00 PM
1109105-004B				Noncondensable Gases and Light Hydrocarbons			9/20/2011 9:52:00 PM
1109105-005A	VA0399	8/24/2011 8:58:00 AM		Air-Phase Petroleum Hydrocarbons			9/28/2011 6:20:00 PM
				Volatile Organic Compounds			9/19/2011 9:22:00 PM
1109105-005B				Noncondensable Gases and Light Hydrocarbons			9/22/2011 1:54:00 PM
1109105-006A	VA0400	8/24/2011 10:34:00 AM		Air-Phase Petroleum Hydrocarbons			9/24/2011 1:57:00 AM
				Volatile Organic Compounds			9/20/2011 12:20:00 PM
1109105-006B				Noncondensable Gases and Light Hydrocarbons			9/22/2011 2:14:00 PM
1109105-007A	VA0401	8/24/2011 11:11:00 AM		Air-Phase Petroleum Hydrocarbons			9/18/2011 3:42:00 AM
				Volatile Organic Compounds			9/20/2011 10:23:00 AM
1109105-007B				Noncondensable Gases and Light Hydrocarbons			9/22/2011 2:33:00 PM

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DATES REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1109105-008A	VA0412	8/25/2011 1:11:00 PM	Air	Air-Phase Petroleum Hydrocarbons			9/27/2011 5:15:00 AM
				Volatile Organic Compounds			9/30/2011 12:56:00 AM
1109105-008B				Noncondensable Gases and Light Hydrocarbons			9/22/2011 3:18:00 PM
1109105-009A	VA0413	8/25/2011 1:44:00 PM		Air-Phase Petroleum Hydrocarbons			9/29/2011 3:48:00 PM
				Volatile Organic Compounds			9/30/2011 8:10:00 PM
1109105-009B				Noncondensable Gases and Light Hydrocarbons			9/22/2011 3:45:00 PM
1109105-010A	VA0414	8/25/2011 2:27:00 PM		Air-Phase Petroleum Hydrocarbons			9/28/2011 7:44:00 PM
				Volatile Organic Compounds			9/30/2011 2:18:00 AM
1109105-010B				Noncondensable Gases and Light Hydrocarbons			9/22/2011 4:06:00 PM
1109105-011A	VA0415			Air-Phase Petroleum Hydrocarbons			9/27/2011 7:19:00 AM
				Volatile Organic Compounds			9/30/2011 2:59:00 AM
1109105-011B				Noncondensable Gases and Light Hydrocarbons			9/22/2011 4:26:00 PM
1109105-012A	VA0416	8/26/2011 8:32:00 AM		Air-Phase Petroleum Hydrocarbons			9/27/2011 8:43:00 AM
				Volatile Organic Compounds			9/30/2011 7:32:00 AM
1109105-012B				Noncondensable Gases and Light Hydrocarbons			9/22/2011 5:00:00 PM
1109105-013A	VA0523	8/24/2011 12:04:00 PM		Air-Phase Petroleum Hydrocarbons			9/24/2011 2:42:00 AM
				Volatile Organic Compounds			9/20/2011 11:25:00 AM
1109105-013B				Noncondensable Gases and Light Hydrocarbons			9/22/2011 5:20:00 PM
1109105-014A	VA0524	8/24/2011 12:32:00 PM		Air-Phase Petroleum Hydrocarbons			9/24/2011 3:27:00 AM
				Volatile Organic Compounds			9/20/2011 1:24:00 PM
1109105-014B				Noncondensable Gases and Light Hydrocarbons			9/22/2011 5:40:00 PM

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DATES REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1109105-015A	VA0525	8/24/2011 1:11:00 PM	Air	Air-Phase Petroleum Hydrocarbons			9/24/2011 4:12:00 AM
				Volatile Organic Compounds			9/20/2011 2:23:00 PM
1109105-015B				Noncondensable Gases and Light Hydrocarbons			9/22/2011 7:12:00 PM
1109105-016A	VA0526			Air-Phase Petroleum Hydrocarbons			9/24/2011 5:00:00 AM
				Volatile Organic Compounds			9/29/2011 10:45:00 PM
1109105-016B				Noncondensable Gases and Light Hydrocarbons			9/22/2011 7:36:00 PM
1109105-017A	VA0527	8/24/2011 3:30:00 PM		Air-Phase Petroleum Hydrocarbons			9/24/2011 9:17:00 AM
				Volatile Organic Compounds			9/30/2011 7:29:00 PM
1109105-017B				Noncondensable Gases and Light Hydrocarbons			9/22/2011 7:56:00 PM
1109105-018B	VA0528	8/25/2011 9:02:00 AM		Noncondensable Gases and Light Hydrocarbons			9/22/2011 8:15:00 PM
1109105-019A	VA0529	8/25/2011 9:45:00 AM		Air-Phase Petroleum Hydrocarbons			9/24/2011 6:30:00 AM
				Volatile Organic Compounds			9/30/2011 12:15:00 AM
1109105-019B				Noncondensable Gases and Light Hydrocarbons			9/22/2011 8:44:00 PM
1109105-020A	VA0579	8/18/2011 1:43:00 PM		Air-Phase Petroleum Hydrocarbons			9/23/2011 4:50:00 AM
				Volatile Organic Compounds			9/24/2011 9:26:00 AM
1109105-020B				Noncondensable Gases and Light Hydrocarbons			9/16/2011 6:03:00 PM
1109105-021A	VA0580	8/18/2011 2:12:00 PM		Air-Phase Petroleum Hydrocarbons			9/23/2011 5:39:00 AM
				Volatile Organic Compounds			9/24/2011 10:12:00 AM
1109105-021B				Noncondensable Gases and Light Hydrocarbons			9/16/2011 6:46:00 PM
1109105-022A	VA0581	8/18/2011 2:51:00 PM		Air-Phase Petroleum Hydrocarbons			9/23/2011 6:28:00 AM
				Volatile Organic Compounds			9/20/2011 10:35:00 PM

RTI LABORATORIES, INC.

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DATES REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1109105-022B	VA0581	8/18/2011 2:51:00 PM	Air	Noncondensable Gases and Light Hydrocarbons			9/16/2011 7:09:00 PM
1109105-023A	VA0582	8/18/2011 3:27:00 PM		Air-Phase Petroleum Hydrocarbons			9/23/2011 9:56:00 AM
				Volatile Organic Compounds			9/24/2011 12:18:00 AM
1109105-023B				Noncondensable Gases and Light Hydrocarbons			9/16/2011 7:29:00 PM
1109105-024A	VA0583	8/19/2011 1:16:00 PM		Air-Phase Petroleum Hydrocarbons			9/26/2011 4:37:00 PM
				Volatile Organic Compounds			9/21/2011 12:09:00 AM
1109105-024B				Noncondensable Gases and Light Hydrocarbons			9/16/2011 8:00:00 PM
1109105-025A	VA0584	8/19/2011 2:16:00 PM		Air-Phase Petroleum Hydrocarbons			9/23/2011 12:02:00 PM
				Volatile Organic Compounds			9/21/2011 12:56:00 AM
1109105-025B				Noncondensable Gases and Light Hydrocarbons			9/16/2011 8:46:00 PM
1109105-026A	VA0654	8/22/2011 9:12:00 AM		Air-Phase Petroleum Hydrocarbons			9/23/2011 10:38:00 AM
				Volatile Organic Compounds			9/21/2011 10:00:00 AM
1109105-026B				Noncondensable Gases and Light Hydrocarbons			9/20/2011 1:44:00 PM
1109105-027A	VA0655	8/22/2011 9:47:00 AM		Air-Phase Petroleum Hydrocarbons			9/23/2011 11:20:00 AM
				Volatile Organic Compounds			9/21/2011 11:29:00 AM
1109105-027B				Noncondensable Gases and Light Hydrocarbons			9/20/2011 2:13:00 PM
1109105-028A	VA0656	8/22/2011 10:20:00 AM		Air-Phase Petroleum Hydrocarbons			9/23/2011 2:05:00 PM
				Volatile Organic Compounds			9/21/2011 1:30:00 PM
1109105-028B				Noncondensable Gases and Light Hydrocarbons			9/20/2011 2:33:00 PM
1109105-029A	VA0657			Air-Phase Petroleum Hydrocarbons			9/23/2011 2:53:00 PM
				Volatile Organic Compounds			9/21/2011 4:51:00 AM

RTI LABORATORIES, INC.

RTI
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TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 8:44:00 AM

Project: Kirtland AFB

Lab ID: 1109105-001 **Matrix:** AIR

Client Sample ID VA0395

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.39	0.10		%	1	9/20/2011 8:37:00 PM
Carbon Monoxide	ND	0.10		%	1	9/20/2011 8:37:00 PM
Methane	ND	0.50		%	1	9/20/2011 8:37:00 PM
Nitrogen	80	0.10		%	1	9/20/2011 8:37:00 PM
Oxygen	19	0.10		%	1	9/20/2011 8:37:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800		ppbv	800	9/21/2011 8:03:00 AM
1,1,2,2-Tetrachloroethane	ND	800		ppbv	800	9/21/2011 8:03:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800		ppbv	800	9/21/2011 8:03:00 AM
1,1,2-Trichloroethane	ND	800		ppbv	800	9/21/2011 8:03:00 AM
1,1-Dichloroethane	ND	800		ppbv	800	9/21/2011 8:03:00 AM
1,1-Dichloroethene	ND	800		ppbv	800	9/21/2011 8:03:00 AM
1,2,4-Trichlorobenzene	ND	800		ppbv	800	9/21/2011 8:03:00 AM
1,2,4-Trimethylbenzene	ND	800		ppbv	800	9/21/2011 8:03:00 AM
1,2-Dibromoethane	ND	800		ppbv	800	9/21/2011 8:03:00 AM
1,2-Dichlorobenzene	ND	800		ppbv	800	9/21/2011 8:03:00 AM
1,2-Dichloroethane	ND	800		ppbv	800	9/21/2011 8:03:00 AM
1,2-Dichloropropane	ND	800		ppbv	800	9/21/2011 8:03:00 AM
1,3,5-Trimethylbenzene	ND	800		ppbv	800	9/21/2011 8:03:00 AM
1,3-Butadiene	ND	800		ppbv	800	9/21/2011 8:03:00 AM
1,3-Dichlorobenzene	ND	800		ppbv	800	9/21/2011 8:03:00 AM
1,4-Dichlorobenzene	ND	800		ppbv	800	9/21/2011 8:03:00 AM
1,4-Dioxane	ND	800		ppbv	800	9/21/2011 8:03:00 AM
2-Butanone	ND	800		ppbv	800	9/21/2011 8:03:00 AM
2-Hexanone	ND	800		ppbv	800	9/21/2011 8:03:00 AM
2-Propanol	ND	800		ppbv	800	9/21/2011 8:03:00 AM
4-Methyl-2-pentanone	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Acetone	1,000	800		ppbv	800	9/21/2011 8:03:00 AM
Benzene	8,600	800		ppbv	800	9/21/2011 8:03:00 AM
Benzyl chloride	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Bromodichloromethane	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Bromoform	ND	800		ppbv	800	9/21/2011 8:03:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 8:44:00 AM

Project: Kirtland AFB

Lab ID: 1109105-001 **Matrix:** AIR

Client Sample ID VA0395

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Carbon disulfide	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Carbon tetrachloride	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Chlorobenzene	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Chlorodibromomethane	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Chloroethane	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Chloroform	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Chloromethane	ND	800		ppbv	800	9/21/2011 8:03:00 AM
cis-1,2-Dichloroethene	ND	800		ppbv	800	9/21/2011 8:03:00 AM
cis-1,3-dichloropropene	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Cyclohexane	2,500	1,600		ppbv	800	9/21/2011 8:03:00 AM
Dichlorodifluoromethane	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Ethanol	ND	4,000		ppbv	800	9/21/2011 8:03:00 AM
Ethyl acetate	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Ethylbenzene	ND	1,600		ppbv	800	9/21/2011 8:03:00 AM
Heptane	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Hexachlorobutadiene	ND	1,600		ppbv	800	9/21/2011 8:03:00 AM
m,p-Xylene	ND	1,600		ppbv	800	9/21/2011 8:03:00 AM
Methylene chloride	1,800	4,000	J	ppbv	800	9/21/2011 8:03:00 AM
Naphthalene	ND	800		ppbv	800	9/21/2011 8:03:00 AM
n-Hexane	2,300	1,600		ppbv	800	9/21/2011 8:03:00 AM
o-Xylene	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Propylene	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Styrene	ND	800		ppbv	800	9/21/2011 8:03:00 AM
tert-Butyl Methyl Ether	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Tetrachloroethene	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Tetrahydrofuran	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Toluene	1,300	800		ppbv	800	9/21/2011 8:03:00 AM
trans-1,2-Dichloroethene	ND	800		ppbv	800	9/21/2011 8:03:00 AM
trans-1,3-dichloropropene	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Trichloroethene	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Trichlorofluoromethane	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Vinyl acetate	ND	800		ppbv	800	9/21/2011 8:03:00 AM
Vinyl chloride	ND	800		ppbv	800	9/21/2011 8:03:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 8:44:00 AM

Project: Kirtland AFB

Lab ID: 1109105-001 **Matrix:** AIR

Client Sample ID VA0395

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	ND	2,400		ppbv	800	9/21/2011 8:03:00 AM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	800	9/21/2011 8:03:00 AM
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	110,000	47,000		µg/m³	400	9/18/2011 2:05:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	9/18/2011 2:05:00 PM
C9-C12 Aliphatic Hydrocarbons	17,000	76,000	J	µg/m³	400	9/18/2011 2:05:00 PM
Surr: 4-Bromofluorobenzene	131	70-130	S	%REC	400	9/18/2011 2:05:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 9:15:00 AM

Project: Kirtland AFB

Lab ID: 1109105-002 **Matrix:** AIR

Client Sample ID VA0396

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	1.9	0.10		%	1	9/20/2011 8:56:00 PM
Carbon Monoxide	ND	0.10		%	1	9/20/2011 8:56:00 PM
Methane	ND	0.50		%	1	9/20/2011 8:56:00 PM
Nitrogen	80	0.10		%	1	9/20/2011 8:56:00 PM
Oxygen	17	0.10		%	1	9/20/2011 8:56:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
1,1-Dichloroethane	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
1,1-Dichloroethene	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
1,2-Dibromoethane	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
1,2-Dichloroethane	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
1,2-Dichloropropane	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
1,3-Butadiene	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
1,4-Dioxane	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
2-Butanone	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
2-Hexanone	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
2-Propanol	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Acetone	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Benzene	34,000	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Benzyl chloride	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Bromodichloromethane	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Bromoform	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 9:15:00 AM

Project: Kirtland AFB

Lab ID: 1109105-002 **Matrix:** AIR

Client Sample ID VA0396

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Carbon disulfide	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Carbon tetrachloride	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Chlorobenzene	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Chlorodibromomethane	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Chloroethane	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Chloroform	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Chloromethane	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Cyclohexane	57,000	16,000		ppbv	8000	9/20/2011 2:54:00 AM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Ethanol	ND	40,000		ppbv	8000	9/20/2011 2:54:00 AM
Ethyl acetate	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Ethylbenzene	ND	16,000		ppbv	8000	9/20/2011 2:54:00 AM
Heptane	12,000	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Hexachlorobutadiene	ND	16,000		ppbv	8000	9/20/2011 2:54:00 AM
m,p-Xylene	ND	16,000		ppbv	8000	9/20/2011 2:54:00 AM
Methylene chloride	ND	40,000		ppbv	8000	9/20/2011 2:54:00 AM
Naphthalene	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
n-Hexane	48,000	16,000		ppbv	8000	9/20/2011 2:54:00 AM
o-Xylene	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Propylene	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Styrene	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Tetrachloroethene	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Tetrahydrofuran	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Toluene	37,000	8,000		ppbv	8000	9/20/2011 2:54:00 AM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Trichloroethene	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Trichlorofluoromethane	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Vinyl acetate	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM
Vinyl chloride	ND	8,000		ppbv	8000	9/20/2011 2:54:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 9:15:00 AM

Project: Kirtland AFB

Lab ID: 1109105-002 **Matrix:** AIR

Client Sample ID VA0396

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	ND	24,000		ppbv	8000	9/20/2011 2:54:00 AM
Surr: 4-Bromofluorobenzene	116	70-130		%REC	8000	9/20/2011 2:54:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	3,200,000	940,000		µg/m³	8000	9/18/2011 7:59:00 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	9/18/2011 7:59:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	9/18/2011 7:59:00 AM
Surr: 4-Bromofluorobenzene	138	70-130	S	%REC	8000	9/18/2011 7:59:00 AM

Qualifiers:				
	*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Estimated concentration	M	Manual Integration used to determine area response
	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 9:15:00 AM

Project: Kirtland AFB

Lab ID: 1109105-003 **Matrix:** AIR

Client Sample ID VA0397

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	2.1	0.10		%	1	9/20/2011 9:22:00 PM
Carbon Monoxide	ND	0.10		%	1	9/20/2011 9:22:00 PM
Methane	ND	0.50		%	1	9/20/2011 9:22:00 PM
Nitrogen	81	0.10		%	1	9/20/2011 9:22:00 PM
Oxygen	17	0.10		%	1	9/20/2011 9:22:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
1,3-Butadiene	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
1,4-Dioxane	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
2-Butanone	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
2-Hexanone	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
2-Propanol	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Acetone	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Benzene	27,000	800	H	ppbv	800	9/24/2011 3:33:00 AM
Benzyl chloride	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Bromodichloromethane	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Bromoform	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 9:15:00 AM

Project: Kirtland AFB

Lab ID: 1109105-003 **Matrix:** AIR

Client Sample ID VA0397

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Carbon disulfide	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Carbon tetrachloride	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Chlorobenzene	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Chlorodibromomethane	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Chloroethane	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Chloroform	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Chloromethane	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Cyclohexane	46,000	1,600	H	ppbv	800	9/24/2011 3:33:00 AM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Ethanol	ND	4,000	H	ppbv	800	9/24/2011 3:33:00 AM
Ethyl acetate	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Ethylbenzene	ND	1,600	H	ppbv	800	9/24/2011 3:33:00 AM
Heptane	11,000	800	H	ppbv	800	9/24/2011 3:33:00 AM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/24/2011 3:33:00 AM
m,p-Xylene	1,600	1,600	JH	ppbv	800	9/24/2011 3:33:00 AM
Methylene chloride	ND	4,000	H	ppbv	800	9/24/2011 3:33:00 AM
Naphthalene	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
n-Hexane	41,000	1,600	H	ppbv	800	9/24/2011 3:33:00 AM
o-Xylene	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Propylene	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Styrene	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Tetrachloroethene	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Tetrahydrofuran	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Toluene	40,000	800	H	ppbv	800	9/24/2011 3:33:00 AM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Trichloroethene	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Vinyl acetate	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM
Vinyl chloride	ND	800	H	ppbv	800	9/24/2011 3:33:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 9:15:00 AM

Project: Kirtland AFB

Lab ID: 1109105-003 **Matrix:** AIR

Client Sample ID VA0397

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	1,600	2,400	JH	ppbv	800	9/24/2011 3:33:00 AM
Surr: 4-Bromofluorobenzene	112	70-130	H	%REC	800	9/24/2011 3:33:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	2,400,000	940,000		µg/m³	8000	9/18/2011 10:18:00 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	9/18/2011 10:18:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	9/18/2011 10:18:00 AM
Surr: 4-Bromofluorobenzene	135	70-130	S	%REC	8000	9/18/2011 10:18:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 9:59:00 AM

Project: Kirtland AFB

Lab ID: 1109105-004 **Matrix:** AIR

Client Sample ID VA0398

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	2.1	0.10		%	1	9/20/2011 9:52:00 PM
Carbon Monoxide	ND	0.10		%	1	9/20/2011 9:52:00 PM
Methane	ND	0.50		%	1	9/20/2011 9:52:00 PM
Nitrogen	80	0.10		%	1	9/20/2011 9:52:00 PM
Oxygen	17	0.10		%	1	9/20/2011 9:52:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
1,1-Dichloroethane	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
1,1-Dichloroethene	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
1,2,4-Trimethylbenzene	73	40	H	ppbv	40	9/29/2011 9:19:00 PM
1,2-Dibromoethane	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
1,2-Dichloroethane	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
1,2-Dichloropropane	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
1,3,5-Trimethylbenzene	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
1,3-Butadiene	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
1,4-Dioxane	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
2-Butanone	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
2-Hexanone	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
2-Propanol	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Acetone	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Benzene	440	40	H	ppbv	40	9/29/2011 9:19:00 PM
Benzyl chloride	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Bromodichloromethane	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Bromoform	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 9:59:00 AM

Project: Kirtland AFB

Lab ID: 1109105-004 **Matrix:** AIR

Client Sample ID VA0398

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Carbon disulfide	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Carbon tetrachloride	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Chlorobenzene	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Chlorodibromomethane	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Chloroethane	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Chloroform	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Chloromethane	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Cyclohexane	600	80	H	ppbv	40	9/29/2011 9:19:00 PM
Dichlorodifluoromethane	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Ethanol	ND	200	H	ppbv	40	9/29/2011 9:19:00 PM
Ethyl acetate	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Ethylbenzene	49	80	JH	ppbv	40	9/29/2011 9:19:00 PM
Heptane	270	40	H	ppbv	40	9/29/2011 9:19:00 PM
Hexachlorobutadiene	ND	80	H	ppbv	40	9/29/2011 9:19:00 PM
m,p-Xylene	260	80	H	ppbv	40	9/29/2011 9:19:00 PM
Methylene chloride	ND	200	H	ppbv	40	9/29/2011 9:19:00 PM
Naphthalene	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
n-Hexane	270	80	H	ppbv	40	9/29/2011 9:19:00 PM
o-Xylene	84	40	H	ppbv	40	9/29/2011 9:19:00 PM
Propylene	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Styrene	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Tetrachloroethene	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Tetrahydrofuran	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Toluene	1,800	40	H	ppbv	40	9/29/2011 9:19:00 PM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Trichloroethene	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Trichlorofluoromethane	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Vinyl acetate	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM
Vinyl chloride	ND	40	H	ppbv	40	9/29/2011 9:19:00 PM

Qualifiers:

*X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 9:59:00 AM

Project: Kirtland AFB

Lab ID: 1109105-004 **Matrix:** AIR

Client Sample ID VA0398

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	340	120	H	ppbv	40	9/29/2011 9:19:00 PM
Surr: 4-Bromofluorobenzene	96.0	70-130	H	%REC	40	9/29/2011 9:19:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	220,000	47,000		µg/m³	400	9/18/2011 2:56:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	9/18/2011 2:56:00 PM
C9-C12 Aliphatic Hydrocarbons	17,000	76,000	J	µg/m³	400	9/18/2011 2:56:00 PM
Surr: 4-Bromofluorobenzene	129	70-130		%REC	400	9/18/2011 2:56:00 PM

Qualifiers:				
	*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Estimated concentration	M	Manual Integration used to determine area response
	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 8:58:00 AM

Project: Kirtland AFB

Lab ID: 1109105-005 **Matrix:** AIR

Client Sample ID VA0399

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	6.6	0.10		%	1	9/22/2011 1:54:00 PM
Carbon Monoxide	ND	0.10		%	1	9/22/2011 1:54:00 PM
Methane	ND	0.50		%	1	9/22/2011 1:54:00 PM
Nitrogen	86	0.10		%	1	9/22/2011 1:54:00 PM
Oxygen	5.3	0.10		%	1	9/22/2011 1:54:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
1,1-Dichloroethane	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
1,1-Dichloroethene	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
1,2-Dibromoethane	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
1,2-Dichloroethane	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
1,2-Dichloropropane	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
1,3-Butadiene	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
1,4-Dioxane	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
2-Butanone	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
2-Hexanone	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
2-Propanol	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Acetone	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Benzene	170,000	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Benzyl chloride	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Bromodichloromethane	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Bromoform	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 8:58:00 AM

Project: Kirtland AFB

Lab ID: 1109105-005 **Matrix:** AIR

Client Sample ID VA0399

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Carbon disulfide	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Carbon tetrachloride	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Chlorobenzene	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Chlorodibromomethane	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Chloroethane	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Chloroform	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Chloromethane	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Cyclohexane	430,000	16,000		ppbv	8000	9/19/2011 9:22:00 PM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Ethanol	ND	40,000		ppbv	8000	9/19/2011 9:22:00 PM
Ethyl acetate	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Ethylbenzene	ND	16,000		ppbv	8000	9/19/2011 9:22:00 PM
Heptane	140,000	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Hexachlorobutadiene	ND	16,000		ppbv	8000	9/19/2011 9:22:00 PM
m,p-Xylene	13,000	16,000	J	ppbv	8000	9/19/2011 9:22:00 PM
Methylene chloride	ND	40,000		ppbv	8000	9/19/2011 9:22:00 PM
Naphthalene	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
n-Hexane	480,000	16,000		ppbv	8000	9/19/2011 9:22:00 PM
o-Xylene	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Propylene	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Styrene	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Tetrachloroethene	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Tetrahydrofuran	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Toluene	120,000	8,000		ppbv	8000	9/19/2011 9:22:00 PM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Trichloroethene	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Trichlorofluoromethane	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Vinyl acetate	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM
Vinyl chloride	ND	8,000		ppbv	8000	9/19/2011 9:22:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 8:58:00 AM

Project: Kirtland AFB

Lab ID: 1109105-005 **Matrix:** AIR

Client Sample ID VA0399

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	13,000	24,000	J	ppbv	8000	9/19/2011 9:22:00 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	8000	9/19/2011 9:22:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	22,000,000	2,300,000	H	µg/m³	20000	9/28/2011 6:20:00 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	H	µg/m³	20000	9/28/2011 6:20:00 PM
C9-C12 Aliphatic Hydrocarbons	750,000	3,800,000	JH	µg/m³	20000	9/28/2011 6:20:00 PM
Surr: 4-Bromofluorobenzene	107	70-130	H	%REC	20000	9/28/2011 6:20:00 PM

Qualifiers:

*X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 10:34:00 AM

Project: Kirtland AFB

Lab ID: 1109105-006 **Matrix:** AIR

Client Sample ID VA0400

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	4.7	0.10		%	1	9/22/2011 2:14:00 PM
Carbon Monoxide	ND	0.10		%	1	9/22/2011 2:14:00 PM
Methane	ND	0.50		%	1	9/22/2011 2:14:00 PM
Nitrogen	85	0.10		%	1	9/22/2011 2:14:00 PM
Oxygen	9.4	0.10		%	1	9/22/2011 2:14:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800		ppbv	800	9/20/2011 12:20:00 PM
1,1,2,2-Tetrachloroethane	ND	800		ppbv	800	9/20/2011 12:20:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800		ppbv	800	9/20/2011 12:20:00 PM
1,1,2-Trichloroethane	ND	800		ppbv	800	9/20/2011 12:20:00 PM
1,1-Dichloroethane	ND	800		ppbv	800	9/20/2011 12:20:00 PM
1,1-Dichloroethene	ND	800		ppbv	800	9/20/2011 12:20:00 PM
1,2,4-Trichlorobenzene	ND	800		ppbv	800	9/20/2011 12:20:00 PM
1,2,4-Trimethylbenzene	900	800		ppbv	800	9/20/2011 12:20:00 PM
1,2-Dibromoethane	ND	800		ppbv	800	9/20/2011 12:20:00 PM
1,2-Dichlorobenzene	ND	800		ppbv	800	9/20/2011 12:20:00 PM
1,2-Dichloroethane	ND	800		ppbv	800	9/20/2011 12:20:00 PM
1,2-Dichloropropane	ND	800		ppbv	800	9/20/2011 12:20:00 PM
1,3,5-Trimethylbenzene	ND	800		ppbv	800	9/20/2011 12:20:00 PM
1,3-Butadiene	ND	800		ppbv	800	9/20/2011 12:20:00 PM
1,3-Dichlorobenzene	ND	800		ppbv	800	9/20/2011 12:20:00 PM
1,4-Dichlorobenzene	ND	800		ppbv	800	9/20/2011 12:20:00 PM
1,4-Dioxane	ND	800		ppbv	800	9/20/2011 12:20:00 PM
2-Butanone	ND	800		ppbv	800	9/20/2011 12:20:00 PM
2-Hexanone	ND	800		ppbv	800	9/20/2011 12:20:00 PM
2-Propanol	990	800		ppbv	800	9/20/2011 12:20:00 PM
4-Methyl-2-pentanone	ND	800		ppbv	800	9/20/2011 12:20:00 PM
Acetone	3,200	800		ppbv	800	9/20/2011 12:20:00 PM
Benzene	8,400	800		ppbv	800	9/20/2011 12:20:00 PM
Benzyl chloride	ND	800		ppbv	800	9/20/2011 12:20:00 PM
Bromodichloromethane	ND	800		ppbv	800	9/20/2011 12:20:00 PM
Bromoform	ND	800		ppbv	800	9/20/2011 12:20:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 10:34:00 AM

Project: Kirtland AFB

Lab ID: 1109105-006 **Matrix:** AIR

Client Sample ID VA0400

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	800		ppbv	800	9/20/2011 12:20:00 PM
Carbon disulfide	ND	800		ppbv	800	9/20/2011 12:20:00 PM
Carbon tetrachloride	ND	800		ppbv	800	9/20/2011 12:20:00 PM
Chlorobenzene	ND	800		ppbv	800	9/20/2011 12:20:00 PM
Chlorodibromomethane	ND	800		ppbv	800	9/20/2011 12:20:00 PM
Chloroethane	ND	800		ppbv	800	9/20/2011 12:20:00 PM
Chloroform	ND	800		ppbv	800	9/20/2011 12:20:00 PM
Chloromethane	ND	800		ppbv	800	9/20/2011 12:20:00 PM
cis-1,2-Dichloroethene	ND	800		ppbv	800	9/20/2011 12:20:00 PM
cis-1,3-dichloropropene	ND	800		ppbv	800	9/20/2011 12:20:00 PM
Cyclohexane	21,000	1,600		ppbv	800	9/20/2011 12:20:00 PM
Dichlorodifluoromethane	ND	800		ppbv	800	9/20/2011 12:20:00 PM
Ethanol	1,700	4,000	J	ppbv	800	9/20/2011 12:20:00 PM
Ethyl acetate	ND	800		ppbv	800	9/20/2011 12:20:00 PM
Ethylbenzene	1,000	1,600	J	ppbv	800	9/20/2011 12:20:00 PM
Heptane	9,000	800		ppbv	800	9/20/2011 12:20:00 PM
Hexachlorobutadiene	ND	1,600		ppbv	800	9/20/2011 12:20:00 PM
m,p-Xylene	2,500	1,600		ppbv	800	9/20/2011 12:20:00 PM
Methylene chloride	8,800	4,000		ppbv	800	9/20/2011 12:20:00 PM
Naphthalene	ND	800		ppbv	800	9/20/2011 12:20:00 PM
n-Hexane	22,000	1,600		ppbv	800	9/20/2011 12:20:00 PM
o-Xylene	900	800		ppbv	800	9/20/2011 12:20:00 PM
Propylene	ND	800		ppbv	800	9/20/2011 12:20:00 PM
Styrene	ND	800		ppbv	800	9/20/2011 12:20:00 PM
tert-Butyl Methyl Ether	ND	800		ppbv	800	9/20/2011 12:20:00 PM
Tetrachloroethene	ND	800		ppbv	800	9/20/2011 12:20:00 PM
Tetrahydrofuran	ND	800		ppbv	800	9/20/2011 12:20:00 PM
Toluene	14,000	800		ppbv	800	9/20/2011 12:20:00 PM
trans-1,2-Dichloroethene	ND	800		ppbv	800	9/20/2011 12:20:00 PM
trans-1,3-dichloropropene	ND	800		ppbv	800	9/20/2011 12:20:00 PM
Trichloroethene	ND	800		ppbv	800	9/20/2011 12:20:00 PM
Trichlorofluoromethane	ND	800		ppbv	800	9/20/2011 12:20:00 PM
Vinyl acetate	ND	800		ppbv	800	9/20/2011 12:20:00 PM
Vinyl chloride	ND	800		ppbv	800	9/20/2011 12:20:00 PM

Qualifiers:

*X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 10:34:00 AM

Project: Kirtland AFB

Lab ID: 1109105-006 **Matrix:** AIR

Client Sample ID VA0400

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	3,400	2,400		ppbv	800	9/20/2011 12:20:00 PM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	800	9/20/2011 12:20:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	810,000	94,000	H	µg/m³	800	9/24/2011 1:57:00 AM
C9-C10 Aromatic Hydrocarbons	33,000	110,000	JH	µg/m³	800	9/24/2011 1:57:00 AM
C9-C12 Aliphatic Hydrocarbons	210,000	150,000	H	µg/m³	800	9/24/2011 1:57:00 AM
Surr: 4-Bromofluorobenzene	104	70-130	H	%REC	800	9/24/2011 1:57:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 11:11:00 AM

Project: Kirtland AFB

Lab ID: 1109105-007 **Matrix:** AIR

Client Sample ID VA0401

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.39	0.10		%	1	9/22/2011 2:33:00 PM
Carbon Monoxide	ND	0.10		%	1	9/22/2011 2:33:00 PM
Methane	ND	0.50		%	1	9/22/2011 2:33:00 PM
Nitrogen	78	0.10		%	1	9/22/2011 2:33:00 PM
Oxygen	20	0.10		%	1	9/22/2011 2:33:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800		ppbv	800	9/20/2011 10:23:00 AM
1,1,2,2-Tetrachloroethane	ND	800		ppbv	800	9/20/2011 10:23:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800		ppbv	800	9/20/2011 10:23:00 AM
1,1,2-Trichloroethane	ND	800		ppbv	800	9/20/2011 10:23:00 AM
1,1-Dichloroethane	ND	800		ppbv	800	9/20/2011 10:23:00 AM
1,1-Dichloroethene	ND	800		ppbv	800	9/20/2011 10:23:00 AM
1,2,4-Trichlorobenzene	ND	800		ppbv	800	9/20/2011 10:23:00 AM
1,2,4-Trimethylbenzene	ND	800		ppbv	800	9/20/2011 10:23:00 AM
1,2-Dibromoethane	ND	800		ppbv	800	9/20/2011 10:23:00 AM
1,2-Dichlorobenzene	ND	800		ppbv	800	9/20/2011 10:23:00 AM
1,2-Dichloroethane	ND	800		ppbv	800	9/20/2011 10:23:00 AM
1,2-Dichloropropane	ND	800		ppbv	800	9/20/2011 10:23:00 AM
1,3,5-Trimethylbenzene	ND	800		ppbv	800	9/20/2011 10:23:00 AM
1,3-Butadiene	ND	800		ppbv	800	9/20/2011 10:23:00 AM
1,3-Dichlorobenzene	ND	800		ppbv	800	9/20/2011 10:23:00 AM
1,4-Dichlorobenzene	ND	800		ppbv	800	9/20/2011 10:23:00 AM
1,4-Dioxane	ND	800		ppbv	800	9/20/2011 10:23:00 AM
2-Butanone	ND	800		ppbv	800	9/20/2011 10:23:00 AM
2-Hexanone	ND	800		ppbv	800	9/20/2011 10:23:00 AM
2-Propanol	850	800		ppbv	800	9/20/2011 10:23:00 AM
4-Methyl-2-pentanone	ND	800		ppbv	800	9/20/2011 10:23:00 AM
Acetone	1,400	800		ppbv	800	9/20/2011 10:23:00 AM
Benzene	18,000	800		ppbv	800	9/20/2011 10:23:00 AM
Benzyl chloride	ND	800		ppbv	800	9/20/2011 10:23:00 AM
Bromodichloromethane	ND	800		ppbv	800	9/20/2011 10:23:00 AM
Bromoform	ND	800		ppbv	800	9/20/2011 10:23:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
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TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 11:11:00 AM

Project: Kirtland AFB

Lab ID: 1109105-007 **Matrix:** AIR

Client Sample ID VA0401

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	800		ppbv	800	9/20/2011 10:23:00 AM
Carbon disulfide	ND	800		ppbv	800	9/20/2011 10:23:00 AM
Carbon tetrachloride	ND	800		ppbv	800	9/20/2011 10:23:00 AM
Chlorobenzene	ND	800		ppbv	800	9/20/2011 10:23:00 AM
Chlorodibromomethane	ND	800		ppbv	800	9/20/2011 10:23:00 AM
Chloroethane	ND	800		ppbv	800	9/20/2011 10:23:00 AM
Chloroform	ND	800		ppbv	800	9/20/2011 10:23:00 AM
Chloromethane	ND	800		ppbv	800	9/20/2011 10:23:00 AM
cis-1,2-Dichloroethene	ND	800		ppbv	800	9/20/2011 10:23:00 AM
cis-1,3-dichloropropene	ND	800		ppbv	800	9/20/2011 10:23:00 AM
Cyclohexane	12,000	1,600		ppbv	800	9/20/2011 10:23:00 AM
Dichlorodifluoromethane	ND	800		ppbv	800	9/20/2011 10:23:00 AM
Ethanol	1,900	4,000	J	ppbv	800	9/20/2011 10:23:00 AM
Ethyl acetate	ND	800		ppbv	800	9/20/2011 10:23:00 AM
Ethylbenzene	ND	1,600		ppbv	800	9/20/2011 10:23:00 AM
Heptane	4,000	800		ppbv	800	9/20/2011 10:23:00 AM
Hexachlorobutadiene	ND	1,600		ppbv	800	9/20/2011 10:23:00 AM
m,p-Xylene	1,900	1,600		ppbv	800	9/20/2011 10:23:00 AM
Methylene chloride	5,700	4,000		ppbv	800	9/20/2011 10:23:00 AM
Naphthalene	ND	800		ppbv	800	9/20/2011 10:23:00 AM
n-Hexane	12,000	1,600		ppbv	800	9/20/2011 10:23:00 AM
o-Xylene	900	800		ppbv	800	9/20/2011 10:23:00 AM
Propylene	ND	800		ppbv	800	9/20/2011 10:23:00 AM
Styrene	ND	800		ppbv	800	9/20/2011 10:23:00 AM
tert-Butyl Methyl Ether	ND	800		ppbv	800	9/20/2011 10:23:00 AM
Tetrachloroethene	ND	800		ppbv	800	9/20/2011 10:23:00 AM
Tetrahydrofuran	ND	800		ppbv	800	9/20/2011 10:23:00 AM
Toluene	10,000	800		ppbv	800	9/20/2011 10:23:00 AM
trans-1,2-Dichloroethene	ND	800		ppbv	800	9/20/2011 10:23:00 AM
trans-1,3-dichloropropene	ND	800		ppbv	800	9/20/2011 10:23:00 AM
Trichloroethene	ND	800		ppbv	800	9/20/2011 10:23:00 AM
Trichlorofluoromethane	ND	800		ppbv	800	9/20/2011 10:23:00 AM
Vinyl acetate	ND	800		ppbv	800	9/20/2011 10:23:00 AM
Vinyl chloride	ND	800		ppbv	800	9/20/2011 10:23:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 11:11:00 AM

Project: Kirtland AFB

Lab ID: 1109105-007 **Matrix:** AIR

Client Sample ID VA0401

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	2,800	2,400		ppbv	800	9/20/2011 10:23:00 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	800	9/20/2011 10:23:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	750,000	94,000		µg/m³	800	9/18/2011 3:42:00 AM
C9-C10 Aromatic Hydrocarbons	97,000	110,000	J	µg/m³	800	9/18/2011 3:42:00 AM
C9-C12 Aliphatic Hydrocarbons	230,000	150,000		µg/m³	800	9/18/2011 3:42:00 AM
Surr: 4-Bromofluorobenzene	125	70-130		%REC	800	9/18/2011 3:42:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/25/2011 1:11:00 PM

Project: Kirtland AFB

Lab ID: 1109105-008 **Matrix:** AIR

Client Sample ID VA0412

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	7.2	0.10		%	1	9/22/2011 3:18:00 PM
Carbon Monoxide	ND	0.10		%	1	9/22/2011 3:18:00 PM
Methane	ND	0.50		%	1	9/22/2011 3:18:00 PM
Nitrogen	87	0.10		%	1	9/22/2011 3:18:00 PM
Oxygen	4.9	0.10		%	1	9/22/2011 3:18:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
1,1,2-Trichloroethane	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
1,1-Dichloroethane	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
1,1-Dichloroethene	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
1,2,4-Trichlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
1,2,4-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
1,2-Dibromoethane	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
1,2-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
1,2-Dichloroethane	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
1,2-Dichloropropane	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
1,3,5-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
1,3-Butadiene	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
1,3-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
1,4-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
1,4-Dioxane	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
2-Butanone	34,000	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
2-Hexanone	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
2-Propanol	8,500	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
4-Methyl-2-pentanone	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Acetone	190,000	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Benzene	100,000	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Benzyl chloride	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Bromodichloromethane	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Bromoform	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
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TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/25/2011 1:11:00 PM

Project: Kirtland AFB

Lab ID: 1109105-008 **Matrix:** AIR

Client Sample ID VA0412

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Carbon disulfide	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Carbon tetrachloride	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Chlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Chlorodibromomethane	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Chloroethane	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Chloroform	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Chloromethane	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
cis-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
cis-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Cyclohexane	500,000	16,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Dichlorodifluoromethane	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Ethanol	ND	40,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Ethyl acetate	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Ethylbenzene	13,000	16,000	JH	ppbv	8000	9/30/2011 12:56:00 AM
Heptane	220,000	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Hexachlorobutadiene	ND	16,000	H	ppbv	8000	9/30/2011 12:56:00 AM
m,p-Xylene	34,000	16,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Methylene chloride	ND	40,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Naphthalene	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
n-Hexane	180,000	16,000	H	ppbv	8000	9/30/2011 12:56:00 AM
o-Xylene	9,400	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Propylene	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Styrene	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
tert-Butyl Methyl Ether	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Tetrachloroethene	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Tetrahydrofuran	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Toluene	390,000	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
trans-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
trans-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Trichloroethene	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Trichlorofluoromethane	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Vinyl acetate	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Vinyl chloride	ND	8,000	H	ppbv	8000	9/30/2011 12:56:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/25/2011 1:11:00 PM

Project: Kirtland AFB

Lab ID: 1109105-008 **Matrix:** AIR

Client Sample ID VA0412

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	44,000	24,000	H	ppbv	8000	9/30/2011 12:56:00 AM
Surr: 4-Bromofluorobenzene	110	70-130	H	%REC	8000	9/30/2011 12:56:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	18,000,000	940,000	H	µg/m³	8000	9/27/2011 5:15:00 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	H	µg/m³	8000	9/27/2011 5:15:00 AM
C9-C12 Aliphatic Hydrocarbons	780,000	1,500,000	JH	µg/m³	8000	9/27/2011 5:15:00 AM
Surr: 4-Bromofluorobenzene	102	70-130	H	%REC	8000	9/27/2011 5:15:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/25/2011 1:44:00 PM

Project: Kirtland AFB

Lab ID: 1109105-009 **Matrix:** AIR

Client Sample ID VA0413

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	6.7	0.10		%	1	9/22/2011 3:45:00 PM
Carbon Monoxide	ND	0.10		%	1	9/22/2011 3:45:00 PM
Methane	ND	0.50		%	1	9/22/2011 3:45:00 PM
Nitrogen	86	0.10		%	1	9/22/2011 3:45:00 PM
Oxygen	4.3	0.10		%	1	9/22/2011 3:45:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
1,1,2,2-Tetrachloroethane	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
1,1,2-Trichloroethane	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
1,1-Dichloroethane	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
1,1-Dichloroethene	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
1,2,4-Trichlorobenzene	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
1,2,4-Trimethylbenzene	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
1,2-Dibromoethane	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
1,2-Dichlorobenzene	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
1,2-Dichloroethane	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
1,2-Dichloropropane	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
1,3,5-Trimethylbenzene	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
1,3-Butadiene	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
1,3-Dichlorobenzene	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
1,4-Dichlorobenzene	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
1,4-Dioxane	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
2-Butanone	42,000	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
2-Hexanone	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
2-Propanol	24,000	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
4-Methyl-2-pentanone	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Acetone	220,000	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Benzene	180,000	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Benzyl chloride	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Bromodichloromethane	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Bromoform	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/25/2011 1:44:00 PM

Project: Kirtland AFB

Lab ID: 1109105-009 **Matrix:** AIR

Client Sample ID VA0413

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Carbon disulfide	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Carbon tetrachloride	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Chlorobenzene	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Chlorodibromomethane	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Chloroethane	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Chloroform	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Chloromethane	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
cis-1,2-Dichloroethene	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
cis-1,3-dichloropropene	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Cyclohexane	880,000	40,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Dichlorodifluoromethane	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Ethanol	ND	100,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Ethyl acetate	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Ethylbenzene	ND	40,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Heptane	420,000	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Hexachlorobutadiene	ND	40,000	H	ppbv	20000	9/30/2011 8:10:00 PM
m,p-Xylene	ND	40,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Methylene chloride	ND	100,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Naphthalene	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
n-Hexane	920,000	40,000	H	ppbv	20000	9/30/2011 8:10:00 PM
o-Xylene	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Propylene	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Styrene	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
tert-Butyl Methyl Ether	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Tetrachloroethene	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Tetrahydrofuran	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Toluene	280,000	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
trans-1,2-Dichloroethene	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
trans-1,3-dichloropropene	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Trichloroethene	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Trichlorofluoromethane	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Vinyl acetate	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Vinyl chloride	ND	20,000	H	ppbv	20000	9/30/2011 8:10:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/25/2011 1:44:00 PM

Project: Kirtland AFB

Lab ID: 1109105-009 **Matrix:** AIR

Client Sample ID VA0413

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	ND	60,000	H	ppbv	20000	9/30/2011 8:10:00 PM
Surr: 4-Bromofluorobenzene	111	70-130	H	%REC	20000	9/30/2011 8:10:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	62,000,000	4,700,000	H	µg/m³	40000	9/29/2011 3:48:00 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300,000	H	µg/m³	40000	9/29/2011 3:48:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600,000	H	µg/m³	40000	9/29/2011 3:48:00 PM
Surr: 4-Bromofluorobenzene	112	70-130	H	%REC	40000	9/29/2011 3:48:00 PM

Qualifiers:

*X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/25/2011 2:27:00 PM

Project: Kirtland AFB

Lab ID: 1109105-010 **Matrix:** AIR

Client Sample ID VA0414

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	1.0	0.10		%	1	9/22/2011 4:06:00 PM
Carbon Monoxide	ND	0.10		%	1	9/22/2011 4:06:00 PM
Methane	ND	0.50		%	1	9/22/2011 4:06:00 PM
Nitrogen	79	0.10		%	1	9/22/2011 4:06:00 PM
Oxygen	19	0.10		%	1	9/22/2011 4:06:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
1,1,2-Trichloroethane	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
1,1-Dichloroethane	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
1,1-Dichloroethene	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
1,2,4-Trichlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
1,2,4-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
1,2-Dibromoethane	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
1,2-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
1,2-Dichloroethane	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
1,2-Dichloropropane	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
1,3,5-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
1,3-Butadiene	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
1,3-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
1,4-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
1,4-Dioxane	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
2-Butanone	98,000	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
2-Hexanone	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
2-Propanol	70,000	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
4-Methyl-2-pentanone	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Acetone	530,000	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Benzene	95,000	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Benzyl chloride	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Bromodichloromethane	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Bromoform	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/25/2011 2:27:00 PM

Project: Kirtland AFB

Lab ID: 1109105-010 **Matrix:** AIR

Client Sample ID VA0414

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Carbon disulfide	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Carbon tetrachloride	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Chlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Chlorodibromomethane	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Chloroethane	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Chloroform	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Chloromethane	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
cis-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
cis-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Cyclohexane	470,000	16,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Dichlorodifluoromethane	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Ethanol	ND	40,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Ethyl acetate	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Ethylbenzene	25,000	16,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Heptane	520,000	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Hexachlorobutadiene	ND	16,000	H	ppbv	8000	9/30/2011 2:18:00 AM
m,p-Xylene	75,000	16,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Methylene chloride	ND	40,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Naphthalene	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
n-Hexane	190,000	16,000	H	ppbv	8000	9/30/2011 2:18:00 AM
o-Xylene	19,000	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Propylene	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Styrene	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
tert-Butyl Methyl Ether	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Tetrachloroethene	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Tetrahydrofuran	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Toluene	530,000	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
trans-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
trans-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Trichloroethene	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Trichlorofluoromethane	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Vinyl acetate	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Vinyl chloride	ND	8,000	H	ppbv	8000	9/30/2011 2:18:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
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Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/25/2011 2:27:00 PM

Project: Kirtland AFB

Lab ID: 1109105-010 **Matrix:** AIR

Client Sample ID VA0414

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	94,000	24,000	H	ppbv	8000	9/30/2011 2:18:00 AM
Surr: 4-Bromofluorobenzene	102	70-130	H	%REC	8000	9/30/2011 2:18:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	36,000,000	2,300,000	H	µg/m³	20000	9/28/2011 7:44:00 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	H	µg/m³	20000	9/28/2011 7:44:00 PM
C9-C12 Aliphatic Hydrocarbons	1,300,000	3,800,000	JH	µg/m³	20000	9/28/2011 7:44:00 PM
Surr: 4-Bromofluorobenzene	106	70-130	H	%REC	20000	9/28/2011 7:44:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/25/2011 2:27:00 PM

Project: Kirtland AFB

Lab ID: 1109105-011 **Matrix:** AIR

Client Sample ID VA0415

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.84	0.10		%	1	9/22/2011 4:26:00 PM
Carbon Monoxide	ND	0.10		%	1	9/22/2011 4:26:00 PM
Methane	ND	0.50		%	1	9/22/2011 4:26:00 PM
Nitrogen	79	0.10		%	1	9/22/2011 4:26:00 PM
Oxygen	19	0.10		%	1	9/22/2011 4:26:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
1,1,2-Trichloroethane	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
1,1-Dichloroethane	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
1,1-Dichloroethene	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
1,2,4-Trichlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
1,2,4-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
1,2-Dibromoethane	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
1,2-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
1,2-Dichloroethane	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
1,2-Dichloropropane	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
1,3,5-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
1,3-Butadiene	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
1,3-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
1,4-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
1,4-Dioxane	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
2-Butanone	63,000	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
2-Hexanone	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
2-Propanol	38,000	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
4-Methyl-2-pentanone	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Acetone	370,000	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Benzene	68,000	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Benzyl chloride	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Bromodichloromethane	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Bromoform	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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TEL: 7344228000 FAX: 7344225342
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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/25/2011 2:27:00 PM

Project: Kirtland AFB

Lab ID: 1109105-011 **Matrix:** AIR

Client Sample ID VA0415

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Carbon disulfide	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Carbon tetrachloride	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Chlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Chlorodibromomethane	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Chloroethane	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Chloroform	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Chloromethane	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
cis-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
cis-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Cyclohexane	340,000	16,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Dichlorodifluoromethane	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Ethanol	ND	40,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Ethyl acetate	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Ethylbenzene	19,000	16,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Heptane	420,000	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Hexachlorobutadiene	ND	16,000	H	ppbv	8000	9/30/2011 2:59:00 AM
m,p-Xylene	58,000	16,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Methylene chloride	ND	40,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Naphthalene	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
n-Hexane	97,000	16,000	H	ppbv	8000	9/30/2011 2:59:00 AM
o-Xylene	16,000	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Propylene	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Styrene	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
tert-Butyl Methyl Ether	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Tetrachloroethene	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Tetrahydrofuran	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Toluene	440,000	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
trans-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
trans-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Trichloroethene	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Trichlorofluoromethane	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Vinyl acetate	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Vinyl chloride	ND	8,000	H	ppbv	8000	9/30/2011 2:59:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/25/2011 2:27:00 PM

Project: Kirtland AFB

Lab ID: 1109105-011 **Matrix:** AIR

Client Sample ID VA0415

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	74,000	24,000	H	ppbv	8000	9/30/2011 2:59:00 AM
Surr: 4-Bromofluorobenzene	109	70-130	H	%REC	8000	9/30/2011 2:59:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	17,000,000	940,000	H	µg/m³	8000	9/27/2011 7:19:00 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	H	µg/m³	8000	9/27/2011 7:19:00 AM
C9-C12 Aliphatic Hydrocarbons	960,000	1,500,000	JH	µg/m³	8000	9/27/2011 7:19:00 AM
Surr: 4-Bromofluorobenzene	104	70-130	H	%REC	8000	9/27/2011 7:19:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/26/2011 8:32:00 AM

Project: Kirtland AFB

Lab ID: 1109105-012 **Matrix:** AIR

Client Sample ID VA0416

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	1.0	0.10		%	1	9/22/2011 5:00:00 PM
Carbon Monoxide	ND	0.10		%	1	9/22/2011 5:00:00 PM
Methane	ND	0.50		%	1	9/22/2011 5:00:00 PM
Nitrogen	79	0.10		%	1	9/22/2011 5:00:00 PM
Oxygen	19	0.10		%	1	9/22/2011 5:00:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
1,1,2-Trichloroethane	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
1,1-Dichloroethane	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
1,1-Dichloroethene	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
1,2,4-Trichlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
1,2,4-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
1,2-Dibromoethane	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
1,2-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
1,2-Dichloroethane	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
1,2-Dichloropropane	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
1,3,5-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
1,3-Butadiene	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
1,3-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
1,4-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
1,4-Dioxane	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
2-Butanone	92,000	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
2-Hexanone	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
2-Propanol	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
4-Methyl-2-pentanone	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Acetone	420,000	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Benzene	250,000	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Benzyl chloride	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Bromodichloromethane	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Bromoform	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
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TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/26/2011 8:32:00 AM

Project: Kirtland AFB

Lab ID: 1109105-012 **Matrix:** AIR

Client Sample ID VA0416

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Carbon disulfide	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Carbon tetrachloride	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Chlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Chlorodibromomethane	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Chloroethane	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Chloroform	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Chloromethane	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
cis-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
cis-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Cyclohexane	600,000	16,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Dichlorodifluoromethane	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Ethanol	ND	40,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Ethyl acetate	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Ethylbenzene	12,000	16,000	JH	ppbv	8000	9/30/2011 7:32:00 AM
Heptane	380,000	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Hexachlorobutadiene	ND	16,000	H	ppbv	8000	9/30/2011 7:32:00 AM
m,p-Xylene	37,000	16,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Methylene chloride	ND	40,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Naphthalene	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
n-Hexane	380,000	16,000	H	ppbv	8000	9/30/2011 7:32:00 AM
o-Xylene	9,800	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Propylene	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Styrene	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
tert-Butyl Methyl Ether	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Tetrachloroethene	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Tetrahydrofuran	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Toluene	370,000	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
trans-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
trans-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Trichloroethene	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Trichlorofluoromethane	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Vinyl acetate	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Vinyl chloride	ND	8,000	H	ppbv	8000	9/30/2011 7:32:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/26/2011 8:32:00 AM

Project: Kirtland AFB

Lab ID: 1109105-012 **Matrix:** AIR

Client Sample ID VA0416

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	46,000	24,000	H	ppbv	8000	9/30/2011 7:32:00 AM
Surr: 4-Bromofluorobenzene	109	70-130	H	%REC	8000	9/30/2011 7:32:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	14,000,000	940,000	H	µg/m³	8000	9/27/2011 8:43:00 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	H	µg/m³	8000	9/27/2011 8:43:00 AM
C9-C12 Aliphatic Hydrocarbons	480,000	1,500,000	JH	µg/m³	8000	9/27/2011 8:43:00 AM
Surr: 4-Bromofluorobenzene	104	70-130	H	%REC	8000	9/27/2011 8:43:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 12:04:00 PM

Project: Kirtland AFB

Lab ID: 1109105-013 **Matrix:** AIR

Client Sample ID VA0523

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.38	0.10		%	1	9/22/2011 5:20:00 PM
Carbon Monoxide	ND	0.10		%	1	9/22/2011 5:20:00 PM
Methane	ND	0.50		%	1	9/22/2011 5:20:00 PM
Nitrogen	78	0.10		%	1	9/22/2011 5:20:00 PM
Oxygen	21	0.10		%	1	9/22/2011 5:20:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	9/20/2011 11:25:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	9/20/2011 11:25:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	9/20/2011 11:25:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	9/20/2011 11:25:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	9/20/2011 11:25:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	9/20/2011 11:25:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	9/20/2011 11:25:00 AM
1,2,4-Trimethylbenzene	440	400		ppbv	400	9/20/2011 11:25:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	9/20/2011 11:25:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	9/20/2011 11:25:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	9/20/2011 11:25:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	9/20/2011 11:25:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	9/20/2011 11:25:00 AM
1,3-Butadiene	ND	400		ppbv	400	9/20/2011 11:25:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	9/20/2011 11:25:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	9/20/2011 11:25:00 AM
1,4-Dioxane	ND	400		ppbv	400	9/20/2011 11:25:00 AM
2-Butanone	ND	400		ppbv	400	9/20/2011 11:25:00 AM
2-Hexanone	ND	400		ppbv	400	9/20/2011 11:25:00 AM
2-Propanol	700	400		ppbv	400	9/20/2011 11:25:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Acetone	730	400		ppbv	400	9/20/2011 11:25:00 AM
Benzene	2,100	400		ppbv	400	9/20/2011 11:25:00 AM
Benzyl chloride	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Bromodichloromethane	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Bromoform	ND	400		ppbv	400	9/20/2011 11:25:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 12:04:00 PM

Project: Kirtland AFB

Lab ID: 1109105-013 **Matrix:** AIR

Client Sample ID VA0523

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Carbon disulfide	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Carbon tetrachloride	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Chlorobenzene	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Chlorodibromomethane	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Chloroethane	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Chloroform	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Chloromethane	ND	400		ppbv	400	9/20/2011 11:25:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	9/20/2011 11:25:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Cyclohexane	4,800	800		ppbv	400	9/20/2011 11:25:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Ethanol	940	2,000	J	ppbv	400	9/20/2011 11:25:00 AM
Ethyl acetate	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Ethylbenzene	410	800	J	ppbv	400	9/20/2011 11:25:00 AM
Heptane	2,200	400		ppbv	400	9/20/2011 11:25:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	9/20/2011 11:25:00 AM
m,p-Xylene	1,000	800		ppbv	400	9/20/2011 11:25:00 AM
Methylene chloride	3,800	2,000		ppbv	400	9/20/2011 11:25:00 AM
Naphthalene	ND	400		ppbv	400	9/20/2011 11:25:00 AM
n-Hexane	3,400	800		ppbv	400	9/20/2011 11:25:00 AM
o-Xylene	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Propylene	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Styrene	ND	400		ppbv	400	9/20/2011 11:25:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Tetrachloroethene	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Tetrahydrofuran	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Toluene	4,600	400		ppbv	400	9/20/2011 11:25:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	9/20/2011 11:25:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Trichloroethene	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Vinyl acetate	ND	400		ppbv	400	9/20/2011 11:25:00 AM
Vinyl chloride	ND	400		ppbv	400	9/20/2011 11:25:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 12:04:00 PM

Project: Kirtland AFB

Lab ID: 1109105-013 **Matrix:** AIR

Client Sample ID VA0523

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	1,000	1,200	J	ppbv	400	9/20/2011 11:25:00 AM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	400	9/20/2011 11:25:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	290,000	94,000	H	µg/m³	800	9/24/2011 2:42:00 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000	H	µg/m³	800	9/24/2011 2:42:00 AM
C9-C12 Aliphatic Hydrocarbons	90,000	150,000	JH	µg/m³	800	9/24/2011 2:42:00 AM
Surr: 4-Bromofluorobenzene	106	70-130	H	%REC	800	9/24/2011 2:42:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 12:32:00 PM

Project: Kirtland AFB

Lab ID: 1109105-014 **Matrix:** AIR

Client Sample ID VA0524

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.91	0.10		%	1	9/22/2011 5:40:00 PM
Carbon Monoxide	ND	0.10		%	1	9/22/2011 5:40:00 PM
Methane	ND	0.50		%	1	9/22/2011 5:40:00 PM
Nitrogen	79	0.10		%	1	9/22/2011 5:40:00 PM
Oxygen	19	0.10		%	1	9/22/2011 5:40:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	9/20/2011 1:24:00 PM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	9/20/2011 1:24:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	9/20/2011 1:24:00 PM
1,1,2-Trichloroethane	ND	400		ppbv	400	9/20/2011 1:24:00 PM
1,1-Dichloroethane	ND	400		ppbv	400	9/20/2011 1:24:00 PM
1,1-Dichloroethene	ND	400		ppbv	400	9/20/2011 1:24:00 PM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	9/20/2011 1:24:00 PM
1,2,4-Trimethylbenzene	490	400		ppbv	400	9/20/2011 1:24:00 PM
1,2-Dibromoethane	ND	400		ppbv	400	9/20/2011 1:24:00 PM
1,2-Dichlorobenzene	ND	400		ppbv	400	9/20/2011 1:24:00 PM
1,2-Dichloroethane	ND	400		ppbv	400	9/20/2011 1:24:00 PM
1,2-Dichloropropane	ND	400		ppbv	400	9/20/2011 1:24:00 PM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	9/20/2011 1:24:00 PM
1,3-Butadiene	ND	400		ppbv	400	9/20/2011 1:24:00 PM
1,3-Dichlorobenzene	ND	400		ppbv	400	9/20/2011 1:24:00 PM
1,4-Dichlorobenzene	ND	400		ppbv	400	9/20/2011 1:24:00 PM
1,4-Dioxane	ND	400		ppbv	400	9/20/2011 1:24:00 PM
2-Butanone	ND	400		ppbv	400	9/20/2011 1:24:00 PM
2-Hexanone	ND	400		ppbv	400	9/20/2011 1:24:00 PM
2-Propanol	740	400		ppbv	400	9/20/2011 1:24:00 PM
4-Methyl-2-pentanone	ND	400		ppbv	400	9/20/2011 1:24:00 PM
Acetone	2,400	400		ppbv	400	9/20/2011 1:24:00 PM
Benzene	2,100	400		ppbv	400	9/20/2011 1:24:00 PM
Benzyl chloride	ND	400		ppbv	400	9/20/2011 1:24:00 PM
Bromodichloromethane	ND	400		ppbv	400	9/20/2011 1:24:00 PM
Bromoform	ND	400		ppbv	400	9/20/2011 1:24:00 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 12:32:00 PM

Project: Kirtland AFB

Lab ID: 1109105-014 **Matrix:** AIR

Client Sample ID VA0524

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	400		ppbv	400	9/20/2011 1:24:00 PM
Carbon disulfide	ND	400		ppbv	400	9/20/2011 1:24:00 PM
Carbon tetrachloride	ND	400		ppbv	400	9/20/2011 1:24:00 PM
Chlorobenzene	ND	400		ppbv	400	9/20/2011 1:24:00 PM
Chlorodibromomethane	ND	400		ppbv	400	9/20/2011 1:24:00 PM
Chloroethane	ND	400		ppbv	400	9/20/2011 1:24:00 PM
Chloroform	ND	400		ppbv	400	9/20/2011 1:24:00 PM
Chloromethane	ND	400		ppbv	400	9/20/2011 1:24:00 PM
cis-1,2-Dichloroethene	ND	400		ppbv	400	9/20/2011 1:24:00 PM
cis-1,3-dichloropropene	ND	400		ppbv	400	9/20/2011 1:24:00 PM
Cyclohexane	3,200	800		ppbv	400	9/20/2011 1:24:00 PM
Dichlorodifluoromethane	ND	400		ppbv	400	9/20/2011 1:24:00 PM
Ethanol	1,900	2,000	J	ppbv	400	9/20/2011 1:24:00 PM
Ethyl acetate	ND	400		ppbv	400	9/20/2011 1:24:00 PM
Ethylbenzene	420	800	J	ppbv	400	9/20/2011 1:24:00 PM
Heptane	1,700	400		ppbv	400	9/20/2011 1:24:00 PM
Hexachlorobutadiene	ND	800		ppbv	400	9/20/2011 1:24:00 PM
m,p-Xylene	1,100	800		ppbv	400	9/20/2011 1:24:00 PM
Methylene chloride	17,000	2,000		ppbv	400	9/20/2011 1:24:00 PM
Naphthalene	ND	400		ppbv	400	9/20/2011 1:24:00 PM
n-Hexane	6,400	800		ppbv	400	9/20/2011 1:24:00 PM
o-Xylene	410	400		ppbv	400	9/20/2011 1:24:00 PM
Propylene	ND	400		ppbv	400	9/20/2011 1:24:00 PM
Styrene	ND	400		ppbv	400	9/20/2011 1:24:00 PM
tert-Butyl Methyl Ether	ND	400		ppbv	400	9/20/2011 1:24:00 PM
Tetrachloroethene	ND	400		ppbv	400	9/20/2011 1:24:00 PM
Tetrahydrofuran	ND	400		ppbv	400	9/20/2011 1:24:00 PM
Toluene	4,200	400		ppbv	400	9/20/2011 1:24:00 PM
trans-1,2-Dichloroethene	ND	400		ppbv	400	9/20/2011 1:24:00 PM
trans-1,3-dichloropropene	ND	400		ppbv	400	9/20/2011 1:24:00 PM
Trichloroethene	ND	400		ppbv	400	9/20/2011 1:24:00 PM
Trichlorofluoromethane	ND	400		ppbv	400	9/20/2011 1:24:00 PM
Vinyl acetate	ND	400		ppbv	400	9/20/2011 1:24:00 PM
Vinyl chloride	ND	400		ppbv	400	9/20/2011 1:24:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 12:32:00 PM

Project: Kirtland AFB

Lab ID: 1109105-014 **Matrix:** AIR

Client Sample ID VA0524

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	1,500	1,200		ppbv	400	9/20/2011 1:24:00 PM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	400	9/20/2011 1:24:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	250,000	94,000	H	µg/m³	800	9/24/2011 3:27:00 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000	H	µg/m³	800	9/24/2011 3:27:00 AM
C9-C12 Aliphatic Hydrocarbons	97,000	150,000	JH	µg/m³	800	9/24/2011 3:27:00 AM
Surr: 4-Bromofluorobenzene	106	70-130	H	%REC	800	9/24/2011 3:27:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 1:11:00 PM

Project: Kirtland AFB

Lab ID: 1109105-015 **Matrix:** AIR

Client Sample ID VA0525

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.65	0.10		%	1	9/22/2011 7:12:00 PM
Carbon Monoxide	ND	0.10		%	1	9/22/2011 7:12:00 PM
Methane	ND	0.50		%	1	9/22/2011 7:12:00 PM
Nitrogen	81	0.10		%	1	9/22/2011 7:12:00 PM
Oxygen	18	0.10		%	1	9/22/2011 7:12:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	9/20/2011 2:23:00 PM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	9/20/2011 2:23:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	9/20/2011 2:23:00 PM
1,1,2-Trichloroethane	ND	400		ppbv	400	9/20/2011 2:23:00 PM
1,1-Dichloroethane	ND	400		ppbv	400	9/20/2011 2:23:00 PM
1,1-Dichloroethene	ND	400		ppbv	400	9/20/2011 2:23:00 PM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	9/20/2011 2:23:00 PM
1,2,4-Trimethylbenzene	580	400		ppbv	400	9/20/2011 2:23:00 PM
1,2-Dibromoethane	ND	400		ppbv	400	9/20/2011 2:23:00 PM
1,2-Dichlorobenzene	ND	400		ppbv	400	9/20/2011 2:23:00 PM
1,2-Dichloroethane	ND	400		ppbv	400	9/20/2011 2:23:00 PM
1,2-Dichloropropane	ND	400		ppbv	400	9/20/2011 2:23:00 PM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	9/20/2011 2:23:00 PM
1,3-Butadiene	ND	400		ppbv	400	9/20/2011 2:23:00 PM
1,3-Dichlorobenzene	ND	400		ppbv	400	9/20/2011 2:23:00 PM
1,4-Dichlorobenzene	ND	400		ppbv	400	9/20/2011 2:23:00 PM
1,4-Dioxane	ND	400		ppbv	400	9/20/2011 2:23:00 PM
2-Butanone	580	400		ppbv	400	9/20/2011 2:23:00 PM
2-Hexanone	ND	400		ppbv	400	9/20/2011 2:23:00 PM
2-Propanol	ND	400		ppbv	400	9/20/2011 2:23:00 PM
4-Methyl-2-pentanone	ND	400		ppbv	400	9/20/2011 2:23:00 PM
Acetone	2,900	400		ppbv	400	9/20/2011 2:23:00 PM
Benzene	2,900	400		ppbv	400	9/20/2011 2:23:00 PM
Benzyl chloride	ND	400		ppbv	400	9/20/2011 2:23:00 PM
Bromodichloromethane	ND	400		ppbv	400	9/20/2011 2:23:00 PM
Bromoform	ND	400		ppbv	400	9/20/2011 2:23:00 PM

Qualifiers:

**/X*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 1:11:00 PM

Project: Kirtland AFB

Lab ID: 1109105-015 **Matrix:** AIR

Client Sample ID VA0525

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	400		ppbv	400	9/20/2011 2:23:00 PM
Carbon disulfide	ND	400		ppbv	400	9/20/2011 2:23:00 PM
Carbon tetrachloride	ND	400		ppbv	400	9/20/2011 2:23:00 PM
Chlorobenzene	ND	400		ppbv	400	9/20/2011 2:23:00 PM
Chlorodibromomethane	ND	400		ppbv	400	9/20/2011 2:23:00 PM
Chloroethane	ND	400		ppbv	400	9/20/2011 2:23:00 PM
Chloroform	ND	400		ppbv	400	9/20/2011 2:23:00 PM
Chloromethane	ND	400		ppbv	400	9/20/2011 2:23:00 PM
cis-1,2-Dichloroethene	ND	400		ppbv	400	9/20/2011 2:23:00 PM
cis-1,3-dichloropropene	ND	400		ppbv	400	9/20/2011 2:23:00 PM
Cyclohexane	4,100	800		ppbv	400	9/20/2011 2:23:00 PM
Dichlorodifluoromethane	ND	400		ppbv	400	9/20/2011 2:23:00 PM
Ethanol	ND	2,000		ppbv	400	9/20/2011 2:23:00 PM
Ethyl acetate	ND	400		ppbv	400	9/20/2011 2:23:00 PM
Ethylbenzene	570	800	J	ppbv	400	9/20/2011 2:23:00 PM
Heptane	2,100	400		ppbv	400	9/20/2011 2:23:00 PM
Hexachlorobutadiene	ND	800		ppbv	400	9/20/2011 2:23:00 PM
m,p-Xylene	1,500	800		ppbv	400	9/20/2011 2:23:00 PM
Methylene chloride	1,200	2,000	J	ppbv	400	9/20/2011 2:23:00 PM
Naphthalene	ND	400		ppbv	400	9/20/2011 2:23:00 PM
n-Hexane	2,700	800		ppbv	400	9/20/2011 2:23:00 PM
o-Xylene	560	400		ppbv	400	9/20/2011 2:23:00 PM
Propylene	ND	400		ppbv	400	9/20/2011 2:23:00 PM
Styrene	ND	400		ppbv	400	9/20/2011 2:23:00 PM
tert-Butyl Methyl Ether	ND	400		ppbv	400	9/20/2011 2:23:00 PM
Tetrachloroethene	ND	400		ppbv	400	9/20/2011 2:23:00 PM
Tetrahydrofuran	ND	400		ppbv	400	9/20/2011 2:23:00 PM
Toluene	6,100	400		ppbv	400	9/20/2011 2:23:00 PM
trans-1,2-Dichloroethene	ND	400		ppbv	400	9/20/2011 2:23:00 PM
trans-1,3-dichloropropene	ND	400		ppbv	400	9/20/2011 2:23:00 PM
Trichloroethene	ND	400		ppbv	400	9/20/2011 2:23:00 PM
Trichlorofluoromethane	ND	400		ppbv	400	9/20/2011 2:23:00 PM
Vinyl acetate	ND	400		ppbv	400	9/20/2011 2:23:00 PM
Vinyl chloride	ND	400		ppbv	400	9/20/2011 2:23:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 1:11:00 PM

Project: Kirtland AFB

Lab ID: 1109105-015 **Matrix:** AIR

Client Sample ID VA0525

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	2,100	1,200		ppbv	400	9/20/2011 2:23:00 PM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	400	9/20/2011 2:23:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	460,000	94,000	H	µg/m³	800	9/24/2011 4:12:00 AM
C9-C10 Aromatic Hydrocarbons	33,000	110,000	JH	µg/m³	800	9/24/2011 4:12:00 AM
C9-C12 Aliphatic Hydrocarbons	98,000	150,000	JH	µg/m³	800	9/24/2011 4:12:00 AM
Surr: 4-Bromofluorobenzene	105	70-130	H	%REC	800	9/24/2011 4:12:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 1:11:00 PM

Project: Kirtland AFB

Lab ID: 1109105-016 **Matrix:** AIR

Client Sample ID VA0526

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.74	0.10		%	1	9/22/2011 7:36:00 PM
Carbon Monoxide	ND	0.10		%	1	9/22/2011 7:36:00 PM
Methane	ND	0.50		%	1	9/22/2011 7:36:00 PM
Nitrogen	81	0.10		%	1	9/22/2011 7:36:00 PM
Oxygen	18	0.10		%	1	9/22/2011 7:36:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
1,3-Butadiene	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
1,4-Dioxane	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
2-Butanone	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
2-Hexanone	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
2-Propanol	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Acetone	1,200	800	H	ppbv	800	9/29/2011 10:45:00 PM
Benzene	2,400	800	H	ppbv	800	9/29/2011 10:45:00 PM
Benzyl chloride	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Bromodichloromethane	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Bromoform	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 1:11:00 PM

Project: Kirtland AFB

Lab ID: 1109105-016 **Matrix:** AIR

Client Sample ID VA0526

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Carbon disulfide	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Carbon tetrachloride	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Chlorobenzene	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Chlorodibromomethane	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Chloroethane	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Chloroform	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Chloromethane	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Cyclohexane	4,100	1,600	H	ppbv	800	9/29/2011 10:45:00 PM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Ethanol	ND	4,000	H	ppbv	800	9/29/2011 10:45:00 PM
Ethyl acetate	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Ethylbenzene	ND	1,600	H	ppbv	800	9/29/2011 10:45:00 PM
Heptane	2,000	800	H	ppbv	800	9/29/2011 10:45:00 PM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/29/2011 10:45:00 PM
m,p-Xylene	950	1,600	JH	ppbv	800	9/29/2011 10:45:00 PM
Methylene chloride	ND	4,000	H	ppbv	800	9/29/2011 10:45:00 PM
Naphthalene	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
n-Hexane	2,900	1,600	H	ppbv	800	9/29/2011 10:45:00 PM
o-Xylene	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Propylene	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Styrene	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Tetrachloroethene	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Tetrahydrofuran	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Toluene	4,100	800	H	ppbv	800	9/29/2011 10:45:00 PM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Trichloroethene	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Vinyl acetate	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM
Vinyl chloride	ND	800	H	ppbv	800	9/29/2011 10:45:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 1:11:00 PM

Project: Kirtland AFB

Lab ID: 1109105-016 **Matrix:** AIR

Client Sample ID VA0526

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	950	2,400	JH	ppbv	800	9/29/2011 10:45:00 PM
Surr: 4-Bromofluorobenzene	110	70-130	H	%REC	800	9/29/2011 10:45:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	520,000	94,000	H	µg/m³	800	9/24/2011 5:00:00 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000	H	µg/m³	800	9/24/2011 5:00:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	H	µg/m³	800	9/24/2011 5:00:00 AM
Surr: 4-Bromofluorobenzene	106	70-130	H	%REC	800	9/24/2011 5:00:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 3:30:00 PM

Project: Kirtland AFB

Lab ID: 1109105-017 **Matrix:** AIR

Client Sample ID VA0527

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.32	0.10		%	1	9/22/2011 7:56:00 PM
Carbon Monoxide	ND	0.10		%	1	9/22/2011 7:56:00 PM
Methane	ND	0.50		%	1	9/22/2011 7:56:00 PM
Nitrogen	80	0.10		%	1	9/22/2011 7:56:00 PM
Oxygen	18	0.10		%	1	9/22/2011 7:56:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
1,3-Butadiene	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
1,4-Dioxane	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
2-Butanone	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
2-Hexanone	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
2-Propanol	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Acetone	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Benzene	43,000	800	H	ppbv	800	9/30/2011 7:29:00 PM
Benzyl chloride	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Bromodichloromethane	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Bromoform	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 3:30:00 PM

Project: Kirtland AFB

Lab ID: 1109105-017 **Matrix:** AIR

Client Sample ID VA0527

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Carbon disulfide	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Carbon tetrachloride	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Chlorobenzene	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Chlorodibromomethane	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Chloroethane	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Chloroform	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Chloromethane	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Cyclohexane	16,000	1,600	H	ppbv	800	9/30/2011 7:29:00 PM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Ethanol	ND	4,000	H	ppbv	800	9/30/2011 7:29:00 PM
Ethyl acetate	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Ethylbenzene	810	1,600	JH	ppbv	800	9/30/2011 7:29:00 PM
Heptane	3,300	800	H	ppbv	800	9/30/2011 7:29:00 PM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/30/2011 7:29:00 PM
m,p-Xylene	1,500	1,600	JH	ppbv	800	9/30/2011 7:29:00 PM
Methylene chloride	ND	4,000	H	ppbv	800	9/30/2011 7:29:00 PM
Naphthalene	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
n-Hexane	14,000	1,600	H	ppbv	800	9/30/2011 7:29:00 PM
o-Xylene	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Propylene	2,300	800	H	ppbv	800	9/30/2011 7:29:00 PM
Styrene	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Tetrachloroethene	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Tetrahydrofuran	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Toluene	71,000	800	H	ppbv	800	9/30/2011 7:29:00 PM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Trichloroethene	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Vinyl acetate	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM
Vinyl chloride	ND	800	H	ppbv	800	9/30/2011 7:29:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/24/2011 3:30:00 PM

Project: Kirtland AFB

Lab ID: 1109105-017 **Matrix:** AIR

Client Sample ID VA0527

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	1,500	2,400	JH	ppbv	800	9/30/2011 7:29:00 PM
Surr: 4-Bromofluorobenzene	119	70-130	H	%REC	800	9/30/2011 7:29:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	2,900,000	940,000	H	µg/m³	8000	9/24/2011 9:17:00 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	H	µg/m³	8000	9/24/2011 9:17:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	H	µg/m³	8000	9/24/2011 9:17:00 AM
Surr: 4-Bromofluorobenzene	107	70-130	H	%REC	8000	9/24/2011 9:17:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/25/2011 9:02:00 AM

Project: Kirtland AFB

Lab ID: 1109105-018 **Matrix:** AIR

Client Sample ID VA0528

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.067	0.10	J	%	1	9/22/2011 8:15:00 PM
Carbon Monoxide	ND	0.10		%	1	9/22/2011 8:15:00 PM
Methane	ND	0.50		%	1	9/22/2011 8:15:00 PM
Nitrogen	78	0.10		%	1	9/22/2011 8:15:00 PM
Oxygen	21	0.10		%	1	9/22/2011 8:15:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/25/2011 9:45:00 AM

Project: Kirtland AFB

Lab ID: 1109105-019 **Matrix:** AIR

Client Sample ID VA0529

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.28	0.10		%	1	9/22/2011 8:44:00 PM
Carbon Monoxide	ND	0.10		%	1	9/22/2011 8:44:00 PM
Methane	ND	0.50		%	1	9/22/2011 8:44:00 PM
Nitrogen	80	0.10		%	1	9/22/2011 8:44:00 PM
Oxygen	20	0.10		%	1	9/22/2011 8:44:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
1,3-Butadiene	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
1,4-Dioxane	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
2-Butanone	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
2-Hexanone	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
2-Propanol	960	800	H	ppbv	800	9/30/2011 12:15:00 AM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Acetone	2,900	800	H	ppbv	800	9/30/2011 12:15:00 AM
Benzene	6,000	800	H	ppbv	800	9/30/2011 12:15:00 AM
Benzyl chloride	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Bromodichloromethane	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Bromoform	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/25/2011 9:45:00 AM

Project: Kirtland AFB

Lab ID: 1109105-019 **Matrix:** AIR

Client Sample ID VA0529

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Carbon disulfide	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Carbon tetrachloride	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Chlorobenzene	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Chlorodibromomethane	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Chloroethane	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Chloroform	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Chloromethane	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Cyclohexane	10,000	1,600	H	ppbv	800	9/30/2011 12:15:00 AM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Ethanol	ND	4,000	H	ppbv	800	9/30/2011 12:15:00 AM
Ethyl acetate	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Ethylbenzene	ND	1,600	H	ppbv	800	9/30/2011 12:15:00 AM
Heptane	2,300	800	H	ppbv	800	9/30/2011 12:15:00 AM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/30/2011 12:15:00 AM
m,p-Xylene	1,200	1,600	JH	ppbv	800	9/30/2011 12:15:00 AM
Methylene chloride	3,500	4,000	JH	ppbv	800	9/30/2011 12:15:00 AM
Naphthalene	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
n-Hexane	8,200	1,600	H	ppbv	800	9/30/2011 12:15:00 AM
o-Xylene	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Propylene	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Styrene	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Tetrachloroethene	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Tetrahydrofuran	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Toluene	38,000	800	H	ppbv	800	9/30/2011 12:15:00 AM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Trichloroethene	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Vinyl acetate	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM
Vinyl chloride	ND	800	H	ppbv	800	9/30/2011 12:15:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/25/2011 9:45:00 AM

Project: Kirtland AFB

Lab ID: 1109105-019 **Matrix:** AIR

Client Sample ID VA0529

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	1,200	2,400	JH	ppbv	800	9/30/2011 12:15:00 AM
Surr: 4-Bromofluorobenzene	114	70-130	H	%REC	800	9/30/2011 12:15:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	1,000,000	94,000		µg/m³	800	9/24/2011 6:30:00 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	9/24/2011 6:30:00 AM
C9-C12 Aliphatic Hydrocarbons	33,000	150,000	J	µg/m³	800	9/24/2011 6:30:00 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	800	9/24/2011 6:30:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/18/2011 1:43:00 PM

Project: Kirtland AFB

Lab ID: 1109105-020 **Matrix:** AIR

Client Sample ID VA0579

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.29	0.10		%	1	9/16/2011 6:03:00 PM
Carbon Monoxide	ND	0.10		%	1	9/16/2011 6:03:00 PM
Methane	ND	0.50		%	1	9/16/2011 6:03:00 PM
Nitrogen	79	0.10		%	1	9/16/2011 6:03:00 PM
Oxygen	21	0.10		%	1	9/16/2011 6:03:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
1,1-Dichloroethane	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
1,1-Dichloroethene	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
1,2,4-Trimethylbenzene	370	40	H	ppbv	40	9/24/2011 9:26:00 AM
1,2-Dibromoethane	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
1,2-Dichloroethane	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
1,2-Dichloropropane	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
1,3,5-Trimethylbenzene	100	40	H	ppbv	40	9/24/2011 9:26:00 AM
1,3-Butadiene	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
1,4-Dioxane	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
2-Butanone	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
2-Hexanone	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
2-Propanol	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
Acetone	48	40	H	ppbv	40	9/24/2011 9:26:00 AM
Benzene	200	40	H	ppbv	40	9/24/2011 9:26:00 AM
Benzyl chloride	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
Bromodichloromethane	58	40	H	ppbv	40	9/24/2011 9:26:00 AM
Bromoform	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
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TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/18/2011 1:43:00 PM

Project: Kirtland AFB

Lab ID: 1109105-020 **Matrix:** AIR

Client Sample ID VA0579

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
Carbon disulfide	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
Carbon tetrachloride	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
Chlorobenzene	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
Chlorodibromomethane	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
Chloroethane	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
Chloroform	410	40	H	ppbv	40	9/24/2011 9:26:00 AM
Chloromethane	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
Cyclohexane	430	80	H	ppbv	40	9/24/2011 9:26:00 AM
Dichlorodifluoromethane	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
Ethanol	ND	200	H	ppbv	40	9/24/2011 9:26:00 AM
Ethyl acetate	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
Ethylbenzene	260	80	H	ppbv	40	9/24/2011 9:26:00 AM
Heptane	660	40	H	ppbv	40	9/24/2011 9:26:00 AM
Hexachlorobutadiene	ND	80	H	ppbv	40	9/24/2011 9:26:00 AM
m,p-Xylene	890	80	H	ppbv	40	9/24/2011 9:26:00 AM
Methylene chloride	ND	200	H	ppbv	40	9/24/2011 9:26:00 AM
Naphthalene	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
n-Hexane	210	80	H	ppbv	40	9/24/2011 9:26:00 AM
o-Xylene	250	40	H	ppbv	40	9/24/2011 9:26:00 AM
Propylene	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
Styrene	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
Tetrachloroethene	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
Tetrahydrofuran	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
Toluene	1,600	40	H	ppbv	40	9/24/2011 9:26:00 AM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
Trichloroethene	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
Trichlorofluoromethane	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
Vinyl acetate	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM
Vinyl chloride	ND	40	H	ppbv	40	9/24/2011 9:26:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/18/2011 1:43:00 PM

Project: Kirtland AFB

Lab ID: 1109105-020 **Matrix:** AIR

Client Sample ID VA0579

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	1,100	120	H	ppbv	40	9/24/2011 9:26:00 AM
Surr: 4-Bromofluorobenzene	79.9	70-130	H	%REC	40	9/24/2011 9:26:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	140,000	47,000	H	µg/m³	400	9/23/2011 4:50:00 AM
C9-C10 Aromatic Hydrocarbons	33,000	53,000	JH	µg/m³	400	9/23/2011 4:50:00 AM
C9-C12 Aliphatic Hydrocarbons	160,000	76,000	H	µg/m³	400	9/23/2011 4:50:00 AM
Surr: 4-Bromofluorobenzene	104	70-130	H	%REC	400	9/23/2011 4:50:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/18/2011 2:12:00 PM

Project: Kirtland AFB

Lab ID: 1109105-021 **Matrix:** AIR

Client Sample ID VA0580

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.28	0.10		%	1	9/16/2011 6:46:00 PM
Carbon Monoxide	ND	0.10		%	1	9/16/2011 6:46:00 PM
Methane	ND	0.50		%	1	9/16/2011 6:46:00 PM
Nitrogen	79	0.10		%	1	9/16/2011 6:46:00 PM
Oxygen	21	0.10		%	1	9/16/2011 6:46:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
1,1-Dichloroethane	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
1,1-Dichloroethene	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
1,2,4-Trimethylbenzene	320	40	H	ppbv	40	9/24/2011 10:12:00 AM
1,2-Dibromoethane	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
1,2-Dichloroethane	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
1,2-Dichloropropane	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
1,3,5-Trimethylbenzene	88	40	H	ppbv	40	9/24/2011 10:12:00 AM
1,3-Butadiene	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
1,4-Dioxane	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
2-Butanone	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
2-Hexanone	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
2-Propanol	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
Acetone	59	40	H	ppbv	40	9/24/2011 10:12:00 AM
Benzene	300	40	H	ppbv	40	9/24/2011 10:12:00 AM
Benzyl chloride	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
Bromodichloromethane	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
Bromoform	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM

Qualifiers:

*X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
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RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/18/2011 2:12:00 PM

Project: Kirtland AFB

Lab ID: 1109105-021 **Matrix:** AIR

Client Sample ID VA0580

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
Carbon disulfide	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
Carbon tetrachloride	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
Chlorobenzene	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
Chlorodibromomethane	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
Chloroethane	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
Chloroform	210	40	H	ppbv	40	9/24/2011 10:12:00 AM
Chloromethane	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
Cyclohexane	820	80	H	ppbv	40	9/24/2011 10:12:00 AM
Dichlorodifluoromethane	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
Ethanol	ND	200	H	ppbv	40	9/24/2011 10:12:00 AM
Ethyl acetate	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
Ethylbenzene	260	80	H	ppbv	40	9/24/2011 10:12:00 AM
Heptane	1,000	40	H	ppbv	40	9/24/2011 10:12:00 AM
Hexachlorobutadiene	ND	80	H	ppbv	40	9/24/2011 10:12:00 AM
m,p-Xylene	820	80	H	ppbv	40	9/24/2011 10:12:00 AM
Methylene chloride	ND	200	H	ppbv	40	9/24/2011 10:12:00 AM
Naphthalene	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
n-Hexane	340	80	H	ppbv	40	9/24/2011 10:12:00 AM
o-Xylene	220	40	H	ppbv	40	9/24/2011 10:12:00 AM
Propylene	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
Styrene	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
Tetrachloroethene	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
Tetrahydrofuran	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
Toluene	2,100	40	H	ppbv	40	9/24/2011 10:12:00 AM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
Trichloroethene	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
Trichlorofluoromethane	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
Vinyl acetate	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM
Vinyl chloride	ND	40	H	ppbv	40	9/24/2011 10:12:00 AM

Qualifiers:

*X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/18/2011 2:12:00 PM

Project: Kirtland AFB

Lab ID: 1109105-021 **Matrix:** AIR

Client Sample ID VA0580

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	1,000	120	H	ppbv	40	9/24/2011 10:12:00 AM
Surr: 4-Bromofluorobenzene	81.4	70-130	H	%REC	40	9/24/2011 10:12:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	200,000	47,000	H	µg/m³	400	9/23/2011 5:39:00 AM
C9-C10 Aromatic Hydrocarbons	34,000	53,000	JH	µg/m³	400	9/23/2011 5:39:00 AM
C9-C12 Aliphatic Hydrocarbons	190,000	76,000	H	µg/m³	400	9/23/2011 5:39:00 AM
Surr: 4-Bromofluorobenzene	105	70-130	H	%REC	400	9/23/2011 5:39:00 AM

Qualifiers:

*X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/18/2011 2:51:00 PM

Project: Kirtland AFB

Lab ID: 1109105-022 **Matrix:** AIR

Client Sample ID VA0581

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.16	0.10		%	1	9/16/2011 7:09:00 PM
Carbon Monoxide	ND	0.10		%	1	9/16/2011 7:09:00 PM
Methane	ND	0.50		%	1	9/16/2011 7:09:00 PM
Nitrogen	79	0.10		%	1	9/16/2011 7:09:00 PM
Oxygen	20	0.10		%	1	9/16/2011 7:09:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
1,3-Butadiene	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
1,4-Dioxane	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
2-Butanone	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
2-Hexanone	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
2-Propanol	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Acetone	2,500	800	H	ppbv	800	9/20/2011 10:35:00 PM
Benzene	1,600	800	H	ppbv	800	9/20/2011 10:35:00 PM
Benzyl chloride	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Bromodichloromethane	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Bromoform	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/18/2011 2:51:00 PM

Project: Kirtland AFB

Lab ID: 1109105-022 **Matrix:** AIR

Client Sample ID VA0581

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Carbon disulfide	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Carbon tetrachloride	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Chlorobenzene	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Chlorodibromomethane	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Chloroethane	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Chloroform	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Chloromethane	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Cyclohexane	2,900	1,600	H	ppbv	800	9/20/2011 10:35:00 PM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Ethanol	ND	4,000	H	ppbv	800	9/20/2011 10:35:00 PM
Ethyl acetate	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Ethylbenzene	ND	1,600	H	ppbv	800	9/20/2011 10:35:00 PM
Heptane	2,300	800	H	ppbv	800	9/20/2011 10:35:00 PM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/20/2011 10:35:00 PM
m,p-Xylene	1,600	1,600	JH	ppbv	800	9/20/2011 10:35:00 PM
Methylene chloride	6,000	4,000	H	ppbv	800	9/20/2011 10:35:00 PM
Naphthalene	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
n-Hexane	3,200	1,600	H	ppbv	800	9/20/2011 10:35:00 PM
o-Xylene	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Propylene	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Styrene	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Tetrachloroethene	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Tetrahydrofuran	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Toluene	5,900	800	H	ppbv	800	9/20/2011 10:35:00 PM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Trichloroethene	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Vinyl acetate	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM
Vinyl chloride	ND	800	H	ppbv	800	9/20/2011 10:35:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/18/2011 2:51:00 PM

Project: Kirtland AFB

Lab ID: 1109105-022 **Matrix:** AIR

Client Sample ID VA0581

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	1,600	2,400	JH	ppbv	800	9/20/2011 10:35:00 PM
Surr: 4-Bromofluorobenzene	107	70-130	H	%REC	800	9/20/2011 10:35:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	210,000	47,000	H	µg/m³	400	9/23/2011 6:28:00 AM
C9-C10 Aromatic Hydrocarbons	30,000	53,000	JH	µg/m³	400	9/23/2011 6:28:00 AM
C9-C12 Aliphatic Hydrocarbons	160,000	76,000	H	µg/m³	400	9/23/2011 6:28:00 AM
Surr: 4-Bromofluorobenzene	103	70-130	H	%REC	400	9/23/2011 6:28:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/18/2011 3:27:00 PM

Project: Kirtland AFB

Lab ID: 1109105-023 **Matrix:** AIR

Client Sample ID VA0582

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.12	0.10		%	1	9/16/2011 7:29:00 PM
Carbon Monoxide	ND	0.10		%	1	9/16/2011 7:29:00 PM
Methane	ND	0.50		%	1	9/16/2011 7:29:00 PM
Nitrogen	78	0.10		%	1	9/16/2011 7:29:00 PM
Oxygen	21	0.10		%	1	9/16/2011 7:29:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
1,2,4-Trimethylbenzene	1,200	800	H	ppbv	800	9/24/2011 12:18:00 AM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
1,3-Butadiene	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
1,4-Dioxane	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
2-Butanone	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
2-Hexanone	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
2-Propanol	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
Acetone	6,600	800	H	ppbv	800	9/24/2011 12:18:00 AM
Benzene	1,500	800	H	ppbv	800	9/24/2011 12:18:00 AM
Benzyl chloride	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
Bromodichloromethane	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
Bromoform	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/18/2011 3:27:00 PM

Project: Kirtland AFB

Lab ID: 1109105-023 **Matrix:** AIR

Client Sample ID VA0582

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
Carbon disulfide	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
Carbon tetrachloride	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
Chlorobenzene	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
Chlorodibromomethane	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
Chloroethane	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
Chloroform	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
Chloromethane	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
Cyclohexane	3,100	1,600	H	ppbv	800	9/24/2011 12:18:00 AM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
Ethanol	ND	4,000	H	ppbv	800	9/24/2011 12:18:00 AM
Ethyl acetate	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
Ethylbenzene	1,400	1,600	JH	ppbv	800	9/24/2011 12:18:00 AM
Heptane	3,200	800	H	ppbv	800	9/24/2011 12:18:00 AM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/24/2011 12:18:00 AM
m,p-Xylene	3,400	1,600	H	ppbv	800	9/24/2011 12:18:00 AM
Methylene chloride	57,000	4,000	H	ppbv	800	9/24/2011 12:18:00 AM
Naphthalene	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
n-Hexane	3,400	1,600	H	ppbv	800	9/24/2011 12:18:00 AM
o-Xylene	1,100	800	H	ppbv	800	9/24/2011 12:18:00 AM
Propylene	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
Styrene	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
Tetrachloroethene	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
Tetrahydrofuran	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
Toluene	8,600	800	H	ppbv	800	9/24/2011 12:18:00 AM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
Trichloroethene	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
Vinyl acetate	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM
Vinyl chloride	ND	800	H	ppbv	800	9/24/2011 12:18:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/18/2011 3:27:00 PM

Project: Kirtland AFB

Lab ID: 1109105-023 **Matrix:** AIR

Client Sample ID VA0582

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	4,500	2,400	H	ppbv	800	9/24/2011 12:18:00 AM
Surr: 4-Bromofluorobenzene	94.6	70-130	H	%REC	800	9/24/2011 12:18:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	160,000	47,000	H	µg/m³	400	9/23/2011 9:56:00 AM
C9-C10 Aromatic Hydrocarbons	18,000	53,000	JH	µg/m³	400	9/23/2011 9:56:00 AM
C9-C12 Aliphatic Hydrocarbons	120,000	76,000	H	µg/m³	400	9/23/2011 9:56:00 AM
Surr: 4-Bromofluorobenzene	101	70-130	H	%REC	400	9/23/2011 9:56:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/19/2011 1:16:00 PM

Project: Kirtland AFB

Lab ID: 1109105-024 **Matrix:** AIR

Client Sample ID VA0583

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.28	0.10		%	1	9/16/2011 8:00:00 PM
Carbon Monoxide	ND	0.10		%	1	9/16/2011 8:00:00 PM
Methane	ND	0.50		%	1	9/16/2011 8:00:00 PM
Nitrogen	79	0.10		%	1	9/16/2011 8:00:00 PM
Oxygen	21	0.10		%	1	9/16/2011 8:00:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
1,3-Butadiene	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
1,4-Dioxane	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
2-Butanone	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
2-Hexanone	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
2-Propanol	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Acetone	1,700	800	H	ppbv	800	9/21/2011 12:09:00 AM
Benzene	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Benzyl chloride	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Bromodichloromethane	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Bromoform	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/19/2011 1:16:00 PM

Project: Kirtland AFB

Lab ID: 1109105-024 **Matrix:** AIR

Client Sample ID VA0583

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Carbon disulfide	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Carbon tetrachloride	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Chlorobenzene	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Chlorodibromomethane	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Chloroethane	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Chloroform	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Chloromethane	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Cyclohexane	7,200	1,600	H	ppbv	800	9/21/2011 12:09:00 AM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Ethanol	ND	4,000	H	ppbv	800	9/21/2011 12:09:00 AM
Ethyl acetate	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Ethylbenzene	ND	1,600	H	ppbv	800	9/21/2011 12:09:00 AM
Heptane	1,900	800	H	ppbv	800	9/21/2011 12:09:00 AM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/21/2011 12:09:00 AM
m,p-Xylene	ND	1,600	H	ppbv	800	9/21/2011 12:09:00 AM
Methylene chloride	4,100	4,000	H	ppbv	800	9/21/2011 12:09:00 AM
Naphthalene	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
n-Hexane	9,800	1,600	H	ppbv	800	9/21/2011 12:09:00 AM
o-Xylene	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Propylene	2,800	800	H	ppbv	800	9/21/2011 12:09:00 AM
Styrene	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Tetrachloroethene	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Tetrahydrofuran	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Toluene	2,400	800	H	ppbv	800	9/21/2011 12:09:00 AM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Trichloroethene	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Vinyl acetate	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM
Vinyl chloride	ND	800	H	ppbv	800	9/21/2011 12:09:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/19/2011 1:16:00 PM

Project: Kirtland AFB

Lab ID: 1109105-024 **Matrix:** AIR

Client Sample ID VA0583

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	ND	2,400	H	ppbv	800	9/21/2011 12:09:00 AM
Surr: 4-Bromofluorobenzene	110	70-130	H	%REC	800	9/21/2011 12:09:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	3,300,000	940,000	H	µg/m³	8000	9/26/2011 4:37:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	H	µg/m³	8000	9/26/2011 4:37:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	H	µg/m³	8000	9/26/2011 4:37:00 PM
Surr: 4-Bromofluorobenzene	104	70-130	H	%REC	8000	9/26/2011 4:37:00 PM

Qualifiers:

*X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/19/2011 2:16:00 PM

Project: Kirtland AFB

Lab ID: 1109105-025 **Matrix:** AIR

Client Sample ID VA0584

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.20	0.10		%	1	9/16/2011 8:46:00 PM
Carbon Monoxide	ND	0.10		%	1	9/16/2011 8:46:00 PM
Methane	ND	0.50		%	1	9/16/2011 8:46:00 PM
Nitrogen	80	0.10		%	1	9/16/2011 8:46:00 PM
Oxygen	20	0.10		%	1	9/16/2011 8:46:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
1,3-Butadiene	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
1,4-Dioxane	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
2-Butanone	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
2-Hexanone	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
2-Propanol	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Acetone	1,000	800	H	ppbv	800	9/21/2011 12:56:00 AM
Benzene	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Benzyl chloride	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Bromodichloromethane	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Bromoform	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/19/2011 2:16:00 PM

Project: Kirtland AFB

Lab ID: 1109105-025 **Matrix:** AIR

Client Sample ID VA0584

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Carbon disulfide	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Carbon tetrachloride	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Chlorobenzene	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Chlorodibromomethane	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Chloroethane	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Chloroform	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Chloromethane	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Cyclohexane	24,000	1,600	H	ppbv	800	9/21/2011 12:56:00 AM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Ethanol	ND	4,000	H	ppbv	800	9/21/2011 12:56:00 AM
Ethyl acetate	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Ethylbenzene	ND	1,600	H	ppbv	800	9/21/2011 12:56:00 AM
Heptane	4,800	800	H	ppbv	800	9/21/2011 12:56:00 AM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/21/2011 12:56:00 AM
m,p-Xylene	940	1,600	JH	ppbv	800	9/21/2011 12:56:00 AM
Methylene chloride	ND	4,000	H	ppbv	800	9/21/2011 12:56:00 AM
Naphthalene	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
n-Hexane	23,000	1,600	H	ppbv	800	9/21/2011 12:56:00 AM
o-Xylene	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Propylene	2,500	800	H	ppbv	800	9/21/2011 12:56:00 AM
Styrene	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Tetrachloroethene	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Tetrahydrofuran	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Toluene	5,500	800	H	ppbv	800	9/21/2011 12:56:00 AM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Trichloroethene	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Vinyl acetate	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM
Vinyl chloride	ND	800	H	ppbv	800	9/21/2011 12:56:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/19/2011 2:16:00 PM

Project: Kirtland AFB

Lab ID: 1109105-025 **Matrix:** AIR

Client Sample ID VA0584

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	940	2,400	JH	ppbv	800	9/21/2011 12:56:00 AM
Surr: 4-Bromofluorobenzene	109	70-130	H	%REC	800	9/21/2011 12:56:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	9,600,000	940,000	H	µg/m³	8000	9/23/2011 12:02:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	H	µg/m³	8000	9/23/2011 12:02:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	H	µg/m³	8000	9/23/2011 12:02:00 PM
Surr: 4-Bromofluorobenzene	104	70-130	H	%REC	8000	9/23/2011 12:02:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/22/2011 9:12:00 AM

Project: Kirtland AFB

Lab ID: 1109105-026 **Matrix:** AIR

Client Sample ID VA0654

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	1.7	0.10		%	1	9/20/2011 1:44:00 PM
Carbon Monoxide	ND	0.10		%	1	9/20/2011 1:44:00 PM
Methane	ND	0.50		%	1	9/20/2011 1:44:00 PM
Nitrogen	79	0.10		%	1	9/20/2011 1:44:00 PM
Oxygen	19	0.10		%	1	9/20/2011 1:44:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
1,1-Dichloroethane	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
1,1-Dichloroethene	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
1,2,4-Trimethylbenzene	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
1,2-Dibromoethane	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
1,2-Dichloroethane	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
1,2-Dichloropropane	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
1,3,5-Trimethylbenzene	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
1,3-Butadiene	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
1,4-Dioxane	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
2-Butanone	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
2-Hexanone	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
2-Propanol	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Acetone	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Benzene	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Benzyl chloride	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Bromodichloromethane	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Bromoform	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/22/2011 9:12:00 AM

Project: Kirtland AFB

Lab ID: 1109105-026 **Matrix:** AIR

Client Sample ID VA0654

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Carbon disulfide	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Carbon tetrachloride	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Chlorobenzene	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Chlorodibromomethane	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Chloroethane	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Chloroform	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Chloromethane	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Cyclohexane	84	80	H	ppbv	40	9/21/2011 10:00:00 AM
Dichlorodifluoromethane	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Ethanol	ND	200	H	ppbv	40	9/21/2011 10:00:00 AM
Ethyl acetate	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Ethylbenzene	ND	80	H	ppbv	40	9/21/2011 10:00:00 AM
Heptane	48	40	H	ppbv	40	9/21/2011 10:00:00 AM
Hexachlorobutadiene	ND	80	H	ppbv	40	9/21/2011 10:00:00 AM
m,p-Xylene	49	80	JH	ppbv	40	9/21/2011 10:00:00 AM
Methylene chloride	ND	200	H	ppbv	40	9/21/2011 10:00:00 AM
Naphthalene	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
n-Hexane	ND	80	H	ppbv	40	9/21/2011 10:00:00 AM
o-Xylene	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Propylene	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Styrene	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Tetrachloroethene	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Tetrahydrofuran	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Toluene	76	40	H	ppbv	40	9/21/2011 10:00:00 AM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Trichloroethene	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Trichlorofluoromethane	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Vinyl acetate	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM
Vinyl chloride	ND	40	H	ppbv	40	9/21/2011 10:00:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/22/2011 9:12:00 AM

Project: Kirtland AFB

Lab ID: 1109105-026 **Matrix:** AIR

Client Sample ID VA0654

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	49	120	JH	ppbv	40	9/21/2011 10:00:00 AM
Surr: 4-Bromofluorobenzene	103	70-130	H	%REC	40	9/21/2011 10:00:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	11,000	4,700	H	µg/m³	40	9/23/2011 10:38:00 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	H	µg/m³	40	9/23/2011 10:38:00 AM
C9-C12 Aliphatic Hydrocarbons	4,300	7,600	JH	µg/m³	40	9/23/2011 10:38:00 AM
Surr: 4-Bromofluorobenzene	102	70-130	H	%REC	40	9/23/2011 10:38:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/22/2011 9:47:00 AM

Project: Kirtland AFB

Lab ID: 1109105-027 **Matrix:** AIR

Client Sample ID VA0655

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	1.1	0.10		%	1	9/20/2011 2:13:00 PM
Carbon Monoxide	ND	0.10		%	1	9/20/2011 2:13:00 PM
Methane	ND	0.50		%	1	9/20/2011 2:13:00 PM
Nitrogen	80	0.10		%	1	9/20/2011 2:13:00 PM
Oxygen	19	0.10		%	1	9/20/2011 2:13:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
1,1-Dichloroethane	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
1,1-Dichloroethene	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
1,2,4-Trimethylbenzene	76	40	H	ppbv	40	9/21/2011 11:29:00 AM
1,2-Dibromoethane	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
1,2-Dichloroethane	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
1,2-Dichloropropane	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
1,3,5-Trimethylbenzene	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
1,3-Butadiene	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
1,4-Dioxane	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
2-Butanone	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
2-Hexanone	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
2-Propanol	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Acetone	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Benzene	66	40	H	ppbv	40	9/21/2011 11:29:00 AM
Benzyl chloride	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Bromodichloromethane	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Bromoform	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM

Qualifiers:

*X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/22/2011 9:47:00 AM

Project: Kirtland AFB

Lab ID: 1109105-027 **Matrix:** AIR

Client Sample ID VA0655

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Carbon disulfide	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Carbon tetrachloride	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Chlorobenzene	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Chlorodibromomethane	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Chloroethane	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Chloroform	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Chloromethane	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Cyclohexane	300	80	H	ppbv	40	9/21/2011 11:29:00 AM
Dichlorodifluoromethane	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Ethanol	ND	200	H	ppbv	40	9/21/2011 11:29:00 AM
Ethyl acetate	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Ethylbenzene	63	80	JH	ppbv	40	9/21/2011 11:29:00 AM
Heptane	190	40	H	ppbv	40	9/21/2011 11:29:00 AM
Hexachlorobutadiene	ND	80	H	ppbv	40	9/21/2011 11:29:00 AM
m,p-Xylene	160	80	H	ppbv	40	9/21/2011 11:29:00 AM
Methylene chloride	ND	200	H	ppbv	40	9/21/2011 11:29:00 AM
Naphthalene	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
n-Hexane	81	80	H	ppbv	40	9/21/2011 11:29:00 AM
o-Xylene	64	40	H	ppbv	40	9/21/2011 11:29:00 AM
Propylene	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Styrene	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Tetrachloroethene	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Tetrahydrofuran	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Toluene	340	40	H	ppbv	40	9/21/2011 11:29:00 AM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Trichloroethene	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Trichlorofluoromethane	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Vinyl acetate	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM
Vinyl chloride	ND	40	H	ppbv	40	9/21/2011 11:29:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/22/2011 9:47:00 AM

Project: Kirtland AFB

Lab ID: 1109105-027 **Matrix:** AIR

Client Sample ID VA0655

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	230	120	H	ppbv	40	9/21/2011 11:29:00 AM
Surr: 4-Bromofluorobenzene	88.3	70-130	H	%REC	40	9/21/2011 11:29:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	26,000	4,700	H	µg/m³	40	9/23/2011 11:20:00 AM
C9-C10 Aromatic Hydrocarbons	2,500	5,300	JH	µg/m³	40	9/23/2011 11:20:00 AM
C9-C12 Aliphatic Hydrocarbons	19,000	7,600	H	µg/m³	40	9/23/2011 11:20:00 AM
Surr: 4-Bromofluorobenzene	102	70-130	H	%REC	40	9/23/2011 11:20:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/22/2011 10:20:00 AM

Project: Kirtland AFB

Lab ID: 1109105-028 **Matrix:** AIR

Client Sample ID VA0656

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.14	0.10		%	1	9/20/2011 2:33:00 PM
Carbon Monoxide	ND	0.10		%	1	9/20/2011 2:33:00 PM
Methane	ND	0.50		%	1	9/20/2011 2:33:00 PM
Nitrogen	79	0.10		%	1	9/20/2011 2:33:00 PM
Oxygen	20	0.10		%	1	9/20/2011 2:33:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
1,1-Dichloroethane	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
1,1-Dichloroethene	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
1,2,4-Trimethylbenzene	68	40	H	ppbv	40	9/21/2011 1:30:00 PM
1,2-Dibromoethane	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
1,2-Dichloroethane	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
1,2-Dichloropropane	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
1,3,5-Trimethylbenzene	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
1,3-Butadiene	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
1,4-Dioxane	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
2-Butanone	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
2-Hexanone	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
2-Propanol	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Acetone	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Benzene	42	40	H	ppbv	40	9/21/2011 1:30:00 PM
Benzyl chloride	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Bromodichloromethane	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Bromoform	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
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RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/22/2011 10:20:00 AM

Project: Kirtland AFB

Lab ID: 1109105-028 **Matrix:** AIR

Client Sample ID VA0656

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Carbon disulfide	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Carbon tetrachloride	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Chlorobenzene	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Chlorodibromomethane	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Chloroethane	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Chloroform	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Chloromethane	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Cyclohexane	210	80	H	ppbv	40	9/21/2011 1:30:00 PM
Dichlorodifluoromethane	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Ethanol	ND	200	H	ppbv	40	9/21/2011 1:30:00 PM
Ethyl acetate	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Ethylbenzene	44	80	JH	ppbv	40	9/21/2011 1:30:00 PM
Heptane	130	40	H	ppbv	40	9/21/2011 1:30:00 PM
Hexachlorobutadiene	ND	80	H	ppbv	40	9/21/2011 1:30:00 PM
m,p-Xylene	120	80	H	ppbv	40	9/21/2011 1:30:00 PM
Methylene chloride	ND	200	H	ppbv	40	9/21/2011 1:30:00 PM
Naphthalene	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
n-Hexane	58	80	JH	ppbv	40	9/21/2011 1:30:00 PM
o-Xylene	47	40	H	ppbv	40	9/21/2011 1:30:00 PM
Propylene	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Styrene	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Tetrachloroethene	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Tetrahydrofuran	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Toluene	190	40	H	ppbv	40	9/21/2011 1:30:00 PM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Trichloroethene	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Trichlorofluoromethane	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Vinyl acetate	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM
Vinyl chloride	ND	40	H	ppbv	40	9/21/2011 1:30:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/22/2011 10:20:00 AM

Project: Kirtland AFB

Lab ID: 1109105-028 **Matrix:** AIR

Client Sample ID VA0656

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	160	120	H	ppbv	40	9/21/2011 1:30:00 PM
Surr: 4-Bromofluorobenzene	93.2	70-130	H	%REC	40	9/21/2011 1:30:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	130,000	47,000	H	µg/m³	400	9/23/2011 2:05:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	H	µg/m³	400	9/23/2011 2:05:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	H	µg/m³	400	9/23/2011 2:05:00 PM
Surr: 4-Bromofluorobenzene	101	70-130	H	%REC	400	9/23/2011 2:05:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/22/2011 10:20:00 AM

Project: Kirtland AFB

Lab ID: 1109105-029 **Matrix:** AIR

Client Sample ID VA0657

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.14	0.10		%	1	9/20/2011 3:20:00 PM
Carbon Monoxide	ND	0.10		%	1	9/20/2011 3:20:00 PM
Methane	ND	0.50		%	1	9/20/2011 3:20:00 PM
Nitrogen	80	0.10		%	1	9/20/2011 3:20:00 PM
Oxygen	20	0.10		%	1	9/20/2011 3:20:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800		ppbv	800	9/21/2011 4:51:00 AM
1,1,2,2-Tetrachloroethane	ND	800		ppbv	800	9/21/2011 4:51:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800		ppbv	800	9/21/2011 4:51:00 AM
1,1,2-Trichloroethane	ND	800		ppbv	800	9/21/2011 4:51:00 AM
1,1-Dichloroethane	ND	800		ppbv	800	9/21/2011 4:51:00 AM
1,1-Dichloroethene	ND	800		ppbv	800	9/21/2011 4:51:00 AM
1,2,4-Trichlorobenzene	ND	800		ppbv	800	9/21/2011 4:51:00 AM
1,2,4-Trimethylbenzene	ND	800		ppbv	800	9/21/2011 4:51:00 AM
1,2-Dibromoethane	ND	800		ppbv	800	9/21/2011 4:51:00 AM
1,2-Dichlorobenzene	ND	800		ppbv	800	9/21/2011 4:51:00 AM
1,2-Dichloroethane	ND	800		ppbv	800	9/21/2011 4:51:00 AM
1,2-Dichloropropane	ND	800		ppbv	800	9/21/2011 4:51:00 AM
1,3,5-Trimethylbenzene	ND	800		ppbv	800	9/21/2011 4:51:00 AM
1,3-Butadiene	ND	800		ppbv	800	9/21/2011 4:51:00 AM
1,3-Dichlorobenzene	ND	800		ppbv	800	9/21/2011 4:51:00 AM
1,4-Dichlorobenzene	ND	800		ppbv	800	9/21/2011 4:51:00 AM
1,4-Dioxane	ND	800		ppbv	800	9/21/2011 4:51:00 AM
2-Butanone	ND	800		ppbv	800	9/21/2011 4:51:00 AM
2-Hexanone	ND	800		ppbv	800	9/21/2011 4:51:00 AM
2-Propanol	ND	800		ppbv	800	9/21/2011 4:51:00 AM
4-Methyl-2-pentanone	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Acetone	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Benzene	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Benzyl chloride	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Bromodichloromethane	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Bromoform	ND	800		ppbv	800	9/21/2011 4:51:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
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Revision v2

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/22/2011 10:20:00 AM

Project: Kirtland AFB

Lab ID: 1109105-029 **Matrix:** AIR

Client Sample ID VA0657

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Carbon disulfide	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Carbon tetrachloride	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Chlorobenzene	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Chlorodibromomethane	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Chloroethane	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Chloroform	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Chloromethane	ND	800		ppbv	800	9/21/2011 4:51:00 AM
cis-1,2-Dichloroethene	ND	800		ppbv	800	9/21/2011 4:51:00 AM
cis-1,3-dichloropropene	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Cyclohexane	2,000	1,600		ppbv	800	9/21/2011 4:51:00 AM
Dichlorodifluoromethane	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Ethanol	ND	4,000		ppbv	800	9/21/2011 4:51:00 AM
Ethyl acetate	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Ethylbenzene	ND	1,600		ppbv	800	9/21/2011 4:51:00 AM
Heptane	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Hexachlorobutadiene	ND	1,600		ppbv	800	9/21/2011 4:51:00 AM
m,p-Xylene	ND	1,600		ppbv	800	9/21/2011 4:51:00 AM
Methylene chloride	ND	4,000		ppbv	800	9/21/2011 4:51:00 AM
Naphthalene	ND	800		ppbv	800	9/21/2011 4:51:00 AM
n-Hexane	1,700	1,600		ppbv	800	9/21/2011 4:51:00 AM
o-Xylene	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Propylene	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Styrene	ND	800		ppbv	800	9/21/2011 4:51:00 AM
tert-Butyl Methyl Ether	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Tetrachloroethene	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Tetrahydrofuran	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Toluene	1,500	800		ppbv	800	9/21/2011 4:51:00 AM
trans-1,2-Dichloroethene	ND	800		ppbv	800	9/21/2011 4:51:00 AM
trans-1,3-dichloropropene	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Trichloroethene	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Trichlorofluoromethane	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Vinyl acetate	ND	800		ppbv	800	9/21/2011 4:51:00 AM
Vinyl chloride	ND	800		ppbv	800	9/21/2011 4:51:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/22/2011 10:20:00 AM

Project: Kirtland AFB

Lab ID: 1109105-029 **Matrix:** AIR

Client Sample ID VA0657

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	ND	2,400		ppbv	800	9/21/2011 4:51:00 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	800	9/21/2011 4:51:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	120,000	47,000	H	µg/m³	400	9/23/2011 2:53:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	H	µg/m³	400	9/23/2011 2:53:00 PM
C9-C12 Aliphatic Hydrocarbons	52,000	76,000	JH	µg/m³	400	9/23/2011 2:53:00 PM
Surr: 4-Bromofluorobenzene	103	70-130	H	%REC	400	9/23/2011 2:53:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/22/2011 11:18:00 AM

Project: Kirtland AFB

Lab ID: 1109105-030 **Matrix:** AIR

Client Sample ID VA0658

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.27	0.10		%	1	9/20/2011 3:42:00 PM
Carbon Monoxide	ND	0.10		%	1	9/20/2011 3:42:00 PM
Methane	ND	0.50		%	1	9/20/2011 3:42:00 PM
Nitrogen	78	0.10		%	1	9/20/2011 3:42:00 PM
Oxygen	21	0.10		%	1	9/20/2011 3:42:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
1,1-Dichloroethane	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
1,1-Dichloroethene	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
1,2,4-Trimethylbenzene	92	40	H	ppbv	40	9/24/2011 10:59:00 AM
1,2-Dibromoethane	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
1,2-Dichloroethane	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
1,2-Dichloropropane	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
1,3,5-Trimethylbenzene	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
1,3-Butadiene	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
1,4-Dioxane	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
2-Butanone	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
2-Hexanone	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
2-Propanol	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Acetone	57	40	H	ppbv	40	9/24/2011 10:59:00 AM
Benzene	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Benzyl chloride	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Bromodichloromethane	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Bromoform	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/22/2011 11:18:00 AM

Project: Kirtland AFB

Lab ID: 1109105-030 **Matrix:** AIR

Client Sample ID VA0658

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Carbon disulfide	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Carbon tetrachloride	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Chlorobenzene	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Chlorodibromomethane	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Chloroethane	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Chloroform	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Chloromethane	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Cyclohexane	160	80	H	ppbv	40	9/24/2011 10:59:00 AM
Dichlorodifluoromethane	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Ethanol	ND	200	H	ppbv	40	9/24/2011 10:59:00 AM
Ethyl acetate	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Ethylbenzene	56	80	JH	ppbv	40	9/24/2011 10:59:00 AM
Heptane	130	40	H	ppbv	40	9/24/2011 10:59:00 AM
Hexachlorobutadiene	ND	80	H	ppbv	40	9/24/2011 10:59:00 AM
m,p-Xylene	150	80	H	ppbv	40	9/24/2011 10:59:00 AM
Methylene chloride	ND	200	H	ppbv	40	9/24/2011 10:59:00 AM
Naphthalene	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
n-Hexane	45	80	JH	ppbv	40	9/24/2011 10:59:00 AM
o-Xylene	61	40	H	ppbv	40	9/24/2011 10:59:00 AM
Propylene	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Styrene	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Tetrachloroethene	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Tetrahydrofuran	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Toluene	240	40	H	ppbv	40	9/24/2011 10:59:00 AM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Trichloroethene	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Trichlorofluoromethane	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Vinyl acetate	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM
Vinyl chloride	ND	40	H	ppbv	40	9/24/2011 10:59:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
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TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/22/2011 11:18:00 AM

Project: Kirtland AFB

Lab ID: 1109105-030 **Matrix:** AIR

Client Sample ID VA0658

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	210	120	H	ppbv	40	9/24/2011 10:59:00 AM
Surr: 4-Bromofluorobenzene	93.1	70-130	H	%REC	40	9/24/2011 10:59:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	120,000	47,000	H	µg/m³	400	9/23/2011 3:42:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	H	µg/m³	400	9/23/2011 3:42:00 PM
C9-C12 Aliphatic Hydrocarbons	60,000	76,000	JH	µg/m³	400	9/23/2011 3:42:00 PM
Surr: 4-Bromofluorobenzene	104	70-130	H	%REC	400	9/23/2011 3:42:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/22/2011 1:22:00 PM

Project: Kirtland AFB

Lab ID: 1109105-031 **Matrix:** AIR

Client Sample ID VA0659

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.20	0.10		%	1	9/20/2011 4:04:00 PM
Carbon Monoxide	ND	0.10		%	1	9/20/2011 4:04:00 PM
Methane	ND	0.50		%	1	9/20/2011 4:04:00 PM
Nitrogen	78	0.10		%	1	9/20/2011 4:04:00 PM
Oxygen	21	0.10		%	1	9/20/2011 4:04:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
1,1-Dichloroethane	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
1,1-Dichloroethene	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
1,2,4-Trimethylbenzene	88	40	H	ppbv	40	9/24/2011 11:46:00 AM
1,2-Dibromoethane	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
1,2-Dichloroethane	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
1,2-Dichloropropane	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
1,3,5-Trimethylbenzene	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
1,3-Butadiene	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
1,4-Dioxane	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
2-Butanone	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
2-Hexanone	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
2-Propanol	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Acetone	56	40	H	ppbv	40	9/24/2011 11:46:00 AM
Benzene	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Benzyl chloride	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Bromodichloromethane	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Bromoform	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

RTI
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Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/22/2011 1:22:00 PM

Project: Kirtland AFB

Lab ID: 1109105-031 **Matrix:** AIR

Client Sample ID VA0659

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Carbon disulfide	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Carbon tetrachloride	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Chlorobenzene	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Chlorodibromomethane	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Chloroethane	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Chloroform	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Chloromethane	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Cyclohexane	170	80	H	ppbv	40	9/24/2011 11:46:00 AM
Dichlorodifluoromethane	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Ethanol	ND	200	H	ppbv	40	9/24/2011 11:46:00 AM
Ethyl acetate	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Ethylbenzene	47	80	JH	ppbv	40	9/24/2011 11:46:00 AM
Heptane	120	40	H	ppbv	40	9/24/2011 11:46:00 AM
Hexachlorobutadiene	ND	80	H	ppbv	40	9/24/2011 11:46:00 AM
m,p-Xylene	130	80	H	ppbv	40	9/24/2011 11:46:00 AM
Methylene chloride	ND	200	H	ppbv	40	9/24/2011 11:46:00 AM
Naphthalene	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
n-Hexane	44	80	JH	ppbv	40	9/24/2011 11:46:00 AM
o-Xylene	53	40	H	ppbv	40	9/24/2011 11:46:00 AM
Propylene	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Styrene	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Tetrachloroethene	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Tetrahydrofuran	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Toluene	200	40	H	ppbv	40	9/24/2011 11:46:00 AM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Trichloroethene	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Trichlorofluoromethane	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Vinyl acetate	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM
Vinyl chloride	ND	40	H	ppbv	40	9/24/2011 11:46:00 AM

Qualifiers:

**/X*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/22/2011 1:22:00 PM

Project: Kirtland AFB

Lab ID: 1109105-031 **Matrix:** AIR

Client Sample ID VA0659

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	180	120	H	ppbv	40	9/24/2011 11:46:00 AM
Surr: 4-Bromofluorobenzene	97.8	70-130	H	%REC	40	9/24/2011 11:46:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	20,000	4,700	H	µg/m³	40	9/26/2011 3:55:00 PM
C9-C10 Aromatic Hydrocarbons	3,200	5,300	JH	µg/m³	40	9/26/2011 3:55:00 PM
C9-C12 Aliphatic Hydrocarbons	22,000	7,600	H	µg/m³	40	9/26/2011 3:55:00 PM
Surr: 4-Bromofluorobenzene	105	70-130	H	%REC	40	9/26/2011 3:55:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/22/2011 2:03:00 PM

Project: Kirtland AFB

Lab ID: 1109105-032 **Matrix:** AIR

Client Sample ID VA0660

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.12	0.10		%	1	9/20/2011 4:47:00 PM
Carbon Monoxide	ND	0.10		%	1	9/20/2011 4:47:00 PM
Methane	ND	0.50		%	1	9/20/2011 4:47:00 PM
Nitrogen	78	0.10		%	1	9/20/2011 4:47:00 PM
Oxygen	21	0.10		%	1	9/20/2011 4:47:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
1,1-Dichloroethane	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
1,1-Dichloroethene	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
1,2,4-Trimethylbenzene	100	40	H	ppbv	40	9/24/2011 12:34:00 PM
1,2-Dibromoethane	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
1,2-Dichloroethane	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
1,2-Dichloropropane	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
1,3,5-Trimethylbenzene	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
1,3-Butadiene	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
1,4-Dioxane	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
2-Butanone	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
2-Hexanone	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
2-Propanol	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Acetone	83	40	H	ppbv	40	9/24/2011 12:34:00 PM
Benzene	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Benzyl chloride	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Bromodichloromethane	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Bromoform	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/22/2011 2:03:00 PM

Project: Kirtland AFB

Lab ID: 1109105-032 **Matrix:** AIR

Client Sample ID VA0660

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Carbon disulfide	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Carbon tetrachloride	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Chlorobenzene	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Chlorodibromomethane	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Chloroethane	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Chloroform	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Chloromethane	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Cyclohexane	210	80	H	ppbv	40	9/24/2011 12:34:00 PM
Dichlorodifluoromethane	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Ethanol	ND	200	H	ppbv	40	9/24/2011 12:34:00 PM
Ethyl acetate	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Ethylbenzene	58	80	JH	ppbv	40	9/24/2011 12:34:00 PM
Heptane	150	40	H	ppbv	40	9/24/2011 12:34:00 PM
Hexachlorobutadiene	ND	80	H	ppbv	40	9/24/2011 12:34:00 PM
m,p-Xylene	160	80	H	ppbv	40	9/24/2011 12:34:00 PM
Methylene chloride	ND	200	H	ppbv	40	9/24/2011 12:34:00 PM
Naphthalene	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
n-Hexane	54	80	JH	ppbv	40	9/24/2011 12:34:00 PM
o-Xylene	64	40	H	ppbv	40	9/24/2011 12:34:00 PM
Propylene	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Styrene	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Tetrachloroethene	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Tetrahydrofuran	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Toluene	250	40	H	ppbv	40	9/24/2011 12:34:00 PM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Trichloroethene	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Trichlorofluoromethane	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Vinyl acetate	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM
Vinyl chloride	ND	40	H	ppbv	40	9/24/2011 12:34:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/22/2011 2:03:00 PM

Project: Kirtland AFB

Lab ID: 1109105-032 **Matrix:** AIR

Client Sample ID VA0660

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	220	120	H	ppbv	40	9/24/2011 12:34:00 PM
Surr: 4-Bromofluorobenzene	96.4	70-130	H	%REC	40	9/24/2011 12:34:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	280,000	47,000		µg/m³	400	9/18/2011 7:11:00 AM
C9-C10 Aromatic Hydrocarbons	36,000	53,000	J	µg/m³	400	9/18/2011 7:11:00 AM
C9-C12 Aliphatic Hydrocarbons	76,000	76,000		µg/m³	400	9/18/2011 7:11:00 AM
Surr: 4-Bromofluorobenzene	126	70-130		%REC	400	9/18/2011 7:11:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 12:21:00 PM

Project: Kirtland AFB

Lab ID: 1109105-033 **Matrix:** AIR

Client Sample ID VA0692

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	2.7	0.10		%	1	9/20/2011 5:18:00 PM
Carbon Monoxide	ND	0.10		%	1	9/20/2011 5:18:00 PM
Methane	ND	0.50		%	1	9/20/2011 5:18:00 PM
Nitrogen	82	0.10		%	1	9/20/2011 5:18:00 PM
Oxygen	15	0.10		%	1	9/20/2011 5:18:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
1,3-Butadiene	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
1,4-Dioxane	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
2-Butanone	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
2-Hexanone	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
2-Propanol	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Acetone	1,800	800	H	ppbv	800	9/24/2011 5:07:00 AM
Benzene	4,600	800	H	ppbv	800	9/24/2011 5:07:00 AM
Benzyl chloride	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Bromodichloromethane	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Bromoform	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM

Qualifiers:

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J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 12:21:00 PM

Project: Kirtland AFB

Lab ID: 1109105-033 **Matrix:** AIR

Client Sample ID VA0692

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Carbon disulfide	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Carbon tetrachloride	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Chlorobenzene	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Chlorodibromomethane	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Chloroethane	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Chloroform	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Chloromethane	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Cyclohexane	810	1,600	JH	ppbv	800	9/24/2011 5:07:00 AM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Ethanol	ND	4,000	H	ppbv	800	9/24/2011 5:07:00 AM
Ethyl acetate	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Ethylbenzene	ND	1,600	H	ppbv	800	9/24/2011 5:07:00 AM
Heptane	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/24/2011 5:07:00 AM
m,p-Xylene	ND	1,600	H	ppbv	800	9/24/2011 5:07:00 AM
Methylene chloride	8,700	4,000	H	ppbv	800	9/24/2011 5:07:00 AM
Naphthalene	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
n-Hexane	6,600	1,600	H	ppbv	800	9/24/2011 5:07:00 AM
o-Xylene	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Propylene	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Styrene	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Tetrachloroethene	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Tetrahydrofuran	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Toluene	940	800	H	ppbv	800	9/24/2011 5:07:00 AM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Trichloroethene	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Vinyl acetate	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM
Vinyl chloride	ND	800	H	ppbv	800	9/24/2011 5:07:00 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
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RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 12:21:00 PM

Project: Kirtland AFB

Lab ID: 1109105-033 **Matrix:** AIR

Client Sample ID VA0692

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	ND	2,400	H	ppbv	800	9/24/2011 5:07:00 AM
Surr: 4-Bromofluorobenzene	109	70-130	H	%REC	800	9/24/2011 5:07:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	9,900,000	940,000		µg/m³	8000	9/18/2011 11:01:00 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	9/18/2011 11:01:00 AM
C9-C12 Aliphatic Hydrocarbons	380,000	1,500,000	J	µg/m³	8000	9/18/2011 11:01:00 AM
Surr: 4-Bromofluorobenzene	124	70-130		%REC	8000	9/18/2011 11:01:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 12:55:00 PM

Project: Kirtland AFB

Lab ID: 1109105-034 **Matrix:** AIR

Client Sample ID VA0693

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	4.6	0.10		%	1	9/20/2011 5:37:00 PM
Carbon Monoxide	ND	0.10		%	1	9/20/2011 5:37:00 PM
Methane	ND	0.50		%	1	9/20/2011 5:37:00 PM
Nitrogen	83	0.10		%	1	9/20/2011 5:37:00 PM
Oxygen	10	0.10		%	1	9/20/2011 5:37:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
1,1-Dichloroethane	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
1,1-Dichloroethene	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
1,2-Dibromoethane	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
1,2-Dichloroethane	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
1,2-Dichloropropane	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
1,3-Butadiene	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
1,4-Dioxane	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
2-Butanone	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
2-Hexanone	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
2-Propanol	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Acetone	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Benzene	270,000	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Benzyl chloride	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Bromodichloromethane	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Bromoform	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM

Qualifiers:

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J	Estimated concentration	M	Manual Integration used to determine area response
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RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 12:55:00 PM

Project: Kirtland AFB

Lab ID: 1109105-034 **Matrix:** AIR

Client Sample ID VA0693

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Carbon disulfide	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Carbon tetrachloride	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Chlorobenzene	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Chlorodibromomethane	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Chloroethane	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Chloroform	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Chloromethane	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Cyclohexane	740,000	40,000	H	ppbv	20000	9/29/2011 10:00:00 PM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Ethanol	ND	40,000		ppbv	8000	9/20/2011 6:07:00 AM
Ethyl acetate	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Ethylbenzene	8,000	16,000	J	ppbv	8000	9/20/2011 6:07:00 AM
Heptane	260,000	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Hexachlorobutadiene	ND	16,000		ppbv	8000	9/20/2011 6:07:00 AM
m,p-Xylene	18,000	16,000		ppbv	8000	9/20/2011 6:07:00 AM
Methylene chloride	ND	40,000		ppbv	8000	9/20/2011 6:07:00 AM
Naphthalene	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
n-Hexane	540,000	40,000	H	ppbv	20000	9/29/2011 10:00:00 PM
o-Xylene	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Propylene	8,400	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Styrene	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Tetrachloroethene	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Tetrahydrofuran	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Toluene	350,000	20,000	H	ppbv	20000	9/29/2011 10:00:00 PM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Trichloroethene	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Trichlorofluoromethane	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Vinyl acetate	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM
Vinyl chloride	ND	8,000		ppbv	8000	9/20/2011 6:07:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 12:55:00 PM

Project: Kirtland AFB

Lab ID: 1109105-034 **Matrix:** AIR

Client Sample ID VA0693

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	18,000	24,000	J	ppbv	8000	9/20/2011 6:07:00 AM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	8000	9/20/2011 6:07:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	26,000,000	2,300,000	H	µg/m³	20000	9/28/2011 4:55:00 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	H	µg/m³	20000	9/28/2011 4:55:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000	H	µg/m³	20000	9/28/2011 4:55:00 PM
Surr: 4-Bromofluorobenzene	109	70-130	H	%REC	20000	9/28/2011 4:55:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 12:55:00 PM

Project: Kirtland AFB

Lab ID: 1109105-035 **Matrix:** AIR

Client Sample ID VA0694

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	4.3	0.10		%	1	9/20/2011 6:54:00 PM
Carbon Monoxide	ND	0.10		%	1	9/20/2011 6:54:00 PM
Methane	ND	0.50		%	1	9/20/2011 6:54:00 PM
Nitrogen	84	0.10		%	1	9/20/2011 6:54:00 PM
Oxygen	11	0.10		%	1	9/20/2011 6:54:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
1,1-Dichloroethane	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
1,1-Dichloroethene	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
1,2-Dibromoethane	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
1,2-Dichloroethane	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
1,2-Dichloropropane	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
1,3-Butadiene	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
1,4-Dioxane	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
2-Butanone	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
2-Hexanone	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
2-Propanol	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Acetone	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Benzene	150,000	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Benzyl chloride	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Bromodichloromethane	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Bromoform	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 12:55:00 PM

Project: Kirtland AFB

Lab ID: 1109105-035 **Matrix:** AIR

Client Sample ID VA0694

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Carbon disulfide	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Carbon tetrachloride	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Chlorobenzene	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Chlorodibromomethane	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Chloroethane	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Chloroform	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Chloromethane	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Cyclohexane	460,000	16,000		ppbv	8000	9/20/2011 6:56:00 AM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Ethanol	ND	40,000		ppbv	8000	9/20/2011 6:56:00 AM
Ethyl acetate	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Ethylbenzene	ND	16,000		ppbv	8000	9/20/2011 6:56:00 AM
Heptane	170,000	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Hexachlorobutadiene	ND	16,000		ppbv	8000	9/20/2011 6:56:00 AM
m,p-Xylene	12,000	16,000	J	ppbv	8000	9/20/2011 6:56:00 AM
Methylene chloride	ND	40,000		ppbv	8000	9/20/2011 6:56:00 AM
Naphthalene	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
n-Hexane	390,000	16,000		ppbv	8000	9/20/2011 6:56:00 AM
o-Xylene	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Propylene	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Styrene	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Tetrachloroethene	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Tetrahydrofuran	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Toluene	290,000	8,000		ppbv	8000	9/20/2011 6:56:00 AM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Trichloroethene	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Trichlorofluoromethane	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Vinyl acetate	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM
Vinyl chloride	ND	8,000		ppbv	8000	9/20/2011 6:56:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 12:55:00 PM

Project: Kirtland AFB

Lab ID: 1109105-035 **Matrix:** AIR

Client Sample ID VA0694

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	12,000	24,000	J	ppbv	8000	9/20/2011 6:56:00 AM
Surr: 4-Bromofluorobenzene	116	70-130		%REC	8000	9/20/2011 6:56:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	19,000,000	2,300,000	H	µg/m³	20000	9/28/2011 5:38:00 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	H	µg/m³	20000	9/28/2011 5:38:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000	H	µg/m³	20000	9/28/2011 5:38:00 PM
Surr: 4-Bromofluorobenzene	110	70-130	H	%REC	20000	9/28/2011 5:38:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 1:54:00 PM

Project: Kirtland AFB

Lab ID: 1109105-036 **Matrix:** AIR

Client Sample ID VA0695

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	1.3	0.10		%	1	9/20/2011 8:13:00 PM
Carbon Monoxide	ND	0.10		%	1	9/20/2011 8:13:00 PM
Methane	ND	0.50		%	1	9/20/2011 8:13:00 PM
Nitrogen	80	0.10		%	1	9/20/2011 8:13:00 PM
Oxygen	18	0.10		%	1	9/20/2011 8:13:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
1,1-Dichloroethane	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
1,1-Dichloroethene	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
1,2-Dibromoethane	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
1,2-Dichloroethane	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
1,2-Dichloropropane	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
1,3-Butadiene	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
1,4-Dioxane	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
2-Butanone	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
2-Hexanone	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
2-Propanol	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Acetone	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Benzene	35,000	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Benzyl chloride	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Bromodichloromethane	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Bromoform	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 1:54:00 PM

Project: Kirtland AFB

Lab ID: 1109105-036 **Matrix:** AIR

Client Sample ID VA0695

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Bromomethane	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Carbon disulfide	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Carbon tetrachloride	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Chlorobenzene	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Chlorodibromomethane	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Chloroethane	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Chloroform	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Chloromethane	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Cyclohexane	49,000	16,000		ppbv	8000	9/20/2011 7:45:00 AM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Ethanol	ND	40,000		ppbv	8000	9/20/2011 7:45:00 AM
Ethyl acetate	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Ethylbenzene	ND	16,000		ppbv	8000	9/20/2011 7:45:00 AM
Heptane	13,000	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Hexachlorobutadiene	ND	16,000		ppbv	8000	9/20/2011 7:45:00 AM
m,p-Xylene	ND	16,000		ppbv	8000	9/20/2011 7:45:00 AM
Methylene chloride	ND	40,000		ppbv	8000	9/20/2011 7:45:00 AM
Naphthalene	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
n-Hexane	56,000	16,000		ppbv	8000	9/20/2011 7:45:00 AM
o-Xylene	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Propylene	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Styrene	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Tetrachloroethene	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Tetrahydrofuran	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Toluene	24,000	8,000		ppbv	8000	9/20/2011 7:45:00 AM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Trichloroethene	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Trichlorofluoromethane	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Vinyl acetate	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM
Vinyl chloride	ND	8,000		ppbv	8000	9/20/2011 7:45:00 AM

Qualifiers:

**/X*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/23/2011 1:54:00 PM

Project: Kirtland AFB

Lab ID: 1109105-036 **Matrix:** AIR

Client Sample ID VA0695

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Xylenes, Total	ND	24,000		ppbv	8000	9/20/2011 7:45:00 AM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	8000	9/20/2011 7:45:00 AM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	9,500,000	940,000		µg/m³	8000	9/18/2011 1:12:00 PM
C9-C10 Aromatic Hydrocarbons	290,000	1,100,000	J	µg/m³	8000	9/18/2011 1:12:00 PM
C9-C12 Aliphatic Hydrocarbons	640,000	1,500,000	J	µg/m³	8000	9/18/2011 1:12:00 PM
Surr: 4-Bromofluorobenzene	129	70-130		%REC	8000	9/18/2011 1:12:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/19/2011 3:00:00 PM

Project: Kirtland AFB

Lab ID: 1109105-037 **Matrix:** AIR

Client Sample ID VA8037-TB

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
1,1,2,2-Tetrachloroethane	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
1,1,2-Trichloroethane	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
1,1-Dichloroethane	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
1,1-Dichloroethene	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
1,2,4-Trichlorobenzene	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
1,2,4-Trimethylbenzene	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
1,2-Dibromoethane	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
1,2-Dichlorobenzene	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
1,2-Dichloroethane	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
1,2-Dichloropropane	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
1,3,5-Trimethylbenzene	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
1,3-Butadiene	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
1,3-Dichlorobenzene	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
1,4-Dichlorobenzene	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
1,4-Dioxane	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
2-Butanone	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
2-Hexanone	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
2-Propanol	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
4-Methyl-2-pentanone	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Acetone	7.8	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Benzene	210	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Benzyl chloride	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Bromodichloromethane	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Bromoform	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Bromomethane	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Carbon disulfide	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Carbon tetrachloride	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Chlorobenzene	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Chlorodibromomethane	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Chloroethane	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Chloroform	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Chloromethane	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109105**

Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/19/2011 3:00:00 PM

Project: Kirtland AFB

Lab ID: 1109105-037 **Matrix:** AIR

Client Sample ID VA8037-TB

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
cis-1,2-Dichloroethene	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
cis-1,3-dichloropropene	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Cyclohexane	270	8.0	H	ppbv	4	9/21/2011 9:17:00 AM
Dichlorodifluoromethane	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Ethanol	ND	20	H	ppbv	4	9/21/2011 9:17:00 AM
Ethyl acetate	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Ethylbenzene	ND	8.0	H	ppbv	4	9/21/2011 9:17:00 AM
Heptane	98	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Hexachlorobutadiene	ND	8.0	H	ppbv	4	9/21/2011 9:17:00 AM
m,p-Xylene	8.8	8.0	H	ppbv	4	9/21/2011 9:17:00 AM
Methylene chloride	ND	20	H	ppbv	4	9/21/2011 9:17:00 AM
Naphthalene	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
n-Hexane	300	8.0	H	ppbv	4	9/21/2011 9:17:00 AM
o-Xylene	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Propylene	6.5	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Styrene	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
tert-Butyl Methyl Ether	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Tetrachloroethene	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Tetrahydrofuran	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Toluene	220	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
trans-1,2-Dichloroethene	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
trans-1,3-dichloropropene	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Trichloroethene	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Trichlorofluoromethane	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Vinyl acetate	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Vinyl chloride	ND	4.0	H	ppbv	4	9/21/2011 9:17:00 AM
Xylenes, Total	8.8	12	JH	ppbv	4	9/21/2011 9:17:00 AM
Surr: 4-Bromofluorobenzene	113	70-130	H	%REC	4	9/21/2011 9:17:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v2

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R42915**

Sample ID: **BLANK2 VOA1 0916** SampType: **MBLK** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **42915**

Client ID: **PBW** Batch ID: **R42915** TestNo: **MA_APH** Analysis Date: **9/18/2011** SeqNo: **834250**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	120		89.50		136	70	130				S

Sample ID: **1109105-002ADUP** SampType: **DUP** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **42915**

Client ID: **VA0396** Batch ID: **R42915** TestNo: **MA_APH** Analysis Date: **9/18/2011** SeqNo: **834254**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	3,600,000	940,000						3,197,000	12.5	30	
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000						0	0	30	
Surr: 4-Bromofluorobenzene	980,000		716,000		137	70	130		0	30	S

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceede
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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QC SUMMARY REPORT

WO#: 1109105

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: R42924

Sample ID: **BLK VOA1 091911** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **42924**

Client ID: **PBW** Batch ID: **R42924** TestNo: **TO-15** Analysis Date: **9/19/2011** SeqNo: **834594**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	1.0									
1,1,2,2-Tetrachloroethane	ND	1.0									
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
1,1-Dichloroethane	ND	1.0									
1,1-Dichloroethene	ND	1.0									
1,2,4-Trichlorobenzene	ND	1.0									
1,2,4-Trimethylbenzene	ND	1.0									
1,2-Dibromoethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,2-Dichloroethane	ND	1.0									
1,2-Dichloropropane	ND	1.0									
1,3,5-Trimethylbenzene	ND	1.0									
1,3-Butadiene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
1,4-Dioxane	ND	1.0									
2-Butanone	ND	1.0									
2-Hexanone	ND	1.0									
2-Propanol	ND	1.0									
4-Methyl-2-pentanone	ND	1.0									
Acetone	ND	1.0									
Benzene	ND	1.0									
Benzyl chloride	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceede
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R42924**

Sample ID: **BLK VOA1 091911** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **42924**

Client ID: **PBW** Batch ID: **R42924** TestNo: **TO-15** Analysis Date: **9/19/2011** SeqNo: **834594**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromomethane	ND	1.0									
Carbon disulfide	ND	1.0									
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chlorodibromomethane	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
Chloromethane	ND	1.0									
cis-1,2-Dichloroethene	ND	1.0									
cis-1,3-dichloropropene	ND	1.0									
Cyclohexane	ND	2.0									
Dichlorodifluoromethane	ND	1.0									
Ethanol	ND	5.0									
Ethyl acetate	ND	1.0									
Ethylbenzene	ND	2.0									
Heptane	ND	1.0									
Hexachlorobutadiene	ND	2.0									
m,p-Xylene	ND	2.0									
Methylene chloride	ND	5.0									
Naphthalene	ND	1.0									
n-Hexane	ND	2.0									
o-Xylene	ND	1.0									
Propylene	ND	1.0									
Styrene	ND	1.0									
tert-Butyl Methyl Ether	ND	1.0									
Tetrachloroethene	ND	1.0									

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R42924**

Sample ID: **BLK VOA1 091911** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **42924**

Client ID: **PBW** Batch ID: **R42924** TestNo: **TO-15** Analysis Date: **9/19/2011** SeqNo: **834594**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrahydrofuran	ND	1.0									
Toluene	ND	1.0									
trans-1,2-Dichloroethene	ND	1.0									
trans-1,3-dichloropropene	ND	1.0									
Trichloroethene	ND	1.0									
Trichlorofluoromethane	ND	1.0									
Vinyl acetate	ND	1.0									
Vinyl chloride	ND	1.0									
Xylenes, Total	ND	3.0									
Surr: 4-Bromofluorobenzene	15		12.50		120	70	130				

Sample ID: **1109105-002ADUP** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **42924**

Client ID: **VA0396** Batch ID: **R42924** TestNo: **TO-15** Analysis Date: **9/20/2011** SeqNo: **834597**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	8,000						0	0	25	
1,1,2,2-Tetrachloroethane	ND	8,000						0	0	25	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000						0	0	25	
1,1,2-Trichloroethane	ND	8,000						0	0	25	
1,1-Dichloroethane	ND	8,000						0	0	25	
1,1-Dichloroethene	ND	8,000						0	0	25	
1,2,4-Trichlorobenzene	ND	8,000						0	0	25	
1,2,4-Trimethylbenzene	ND	8,000						0	0	25	
1,2-Dibromoethane	ND	8,000						0	0	25	
1,2-Dichlorobenzene	ND	8,000						0	0	25	
1,2-Dichloroethane	ND	8,000						0	0	25	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R42924**

Sample ID: **1109105-002ADUP** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **42924**

Client ID: **VA0396** Batch ID: **R42924** TestNo: **TO-15** Analysis Date: **9/20/2011** SeqNo: **834597**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloropropane	ND	8,000						0	0	25	
1,3,5-Trimethylbenzene	ND	8,000						0	0	25	
1,3-Butadiene	ND	8,000						0	0	25	
1,3-Dichlorobenzene	ND	8,000						0	0	25	
1,4-Dichlorobenzene	ND	8,000						0	0	25	
1,4-Dioxane	ND	8,000						0	0	25	
2-Butanone	ND	8,000						0	0	25	
2-Hexanone	ND	8,000						0	0	25	
2-Propanol	ND	8,000						0	0	25	
4-Methyl-2-pentanone	ND	8,000						0	0	25	
Acetone	ND	8,000						0	0	25	
Benzene	37,000	8,000						34,400	7.82	25	
Benzyl chloride	ND	8,000						0	0	25	
Bromodichloromethane	ND	8,000						0	0	25	
Bromoform	ND	8,000						0	0	25	
Bromomethane	ND	8,000						0	0	25	
Carbon disulfide	ND	8,000						0	0	25	
Carbon tetrachloride	ND	8,000						0	0	25	
Chlorobenzene	ND	8,000						0	0	25	
Chlorodibromomethane	ND	8,000						0	0	25	
Chloroethane	ND	8,000						0	0	25	
Chloroform	ND	8,000						0	0	25	
Chloromethane	ND	8,000						0	0	25	
cis-1,2-Dichloroethene	ND	8,000						0	0	25	
cis-1,3-dichloropropene	ND	8,000						0	0	25	
Cyclohexane	60,000	16,000						57,200	5.57	25	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceeds
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R42924**

Sample ID: **1109105-002ADUP** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **42924**

Client ID: **VA0396** Batch ID: **R42924** TestNo: **TO-15** Analysis Date: **9/20/2011** SeqNo: **834597**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	ND	8,000						0	0	25	
Ethanol	ND	40,000						0	0	25	
Ethyl acetate	ND	8,000						0	0	25	
Ethylbenzene	ND	16,000						0	0	25	
Heptane	12,000	8,000						12,160	2.60	25	
Hexachlorobutadiene	ND	16,000						0	0	25	
m,p-Xylene	ND	16,000						0	0	25	
Methylene chloride	ND	40,000						0	0	25	
Naphthalene	ND	8,000						0	0	25	
n-Hexane	52,000	16,000						47,920	8.17	25	
o-Xylene	ND	8,000						0	0	25	
Propylene	ND	8,000						0	0	25	
Styrene	ND	8,000						0	0	25	
tert-Butyl Methyl Ether	ND	8,000						0	0	25	
Tetrachloroethene	ND	8,000						0	0	25	
Tetrahydrofuran	ND	8,000						0	0	25	
Toluene	40,000	8,000						37,040	6.88	25	
trans-1,2-Dichloroethene	ND	8,000						0	0	25	
trans-1,3-dichloropropene	ND	8,000						0	0	25	
Trichloroethene	ND	8,000						0	0	25	
Trichlorofluoromethane	ND	8,000						0	0	25	
Vinyl acetate	ND	8,000						0	0	25	
Vinyl chloride	ND	8,000						0	0	25	
Xylenes, Total	ND	24,000						0	0	25	
Surr: 4-Bromofluorobenzene	120,000		100,000		117	70	130		0	25	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for prepatation or analysis exceede
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R42946**

Sample ID: **BLK VOA1 092011** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **42946**

Client ID: **PBW** Batch ID: **R42946** TestNo: **TO-15** Analysis Date: **9/20/2011** SeqNo: **835223**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	1.0									
1,1,2,2-Tetrachloroethane	ND	1.0									
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
1,1-Dichloroethane	ND	1.0									
1,1-Dichloroethene	ND	1.0									
1,2,4-Trichlorobenzene	ND	1.0									
1,2,4-Trimethylbenzene	ND	1.0									
1,2-Dibromoethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,2-Dichloroethane	ND	1.0									
1,2-Dichloropropane	ND	1.0									
1,3,5-Trimethylbenzene	ND	1.0									
1,3-Butadiene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
1,4-Dioxane	ND	1.0									
2-Butanone	ND	1.0									
2-Hexanone	ND	1.0									
2-Propanol	ND	1.0									
4-Methyl-2-pentanone	ND	1.0									
Acetone	ND	1.0									
Benzene	ND	1.0									
Benzyl chloride	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R42946**

Sample ID: **BLK VOA1 092011** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **42946**

Client ID: **PBW** Batch ID: **R42946** TestNo: **TO-15** Analysis Date: **9/20/2011** SeqNo: **835223**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromomethane	ND	1.0									
Carbon disulfide	ND	1.0									
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chlorodibromomethane	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
Chloromethane	ND	1.0									
cis-1,2-Dichloroethene	ND	1.0									
cis-1,3-dichloropropene	ND	1.0									
Cyclohexane	ND	2.0									
Dichlorodifluoromethane	ND	1.0									
Ethanol	ND	5.0									
Ethyl acetate	ND	1.0									
Ethylbenzene	ND	2.0									
Heptane	ND	1.0									
Hexachlorobutadiene	ND	2.0									
m,p-Xylene	ND	2.0									
Methylene chloride	ND	5.0									
Naphthalene	ND	1.0									
n-Hexane	ND	2.0									
o-Xylene	ND	1.0									
Propylene	ND	1.0									
Styrene	ND	1.0									
tert-Butyl Methyl Ether	ND	1.0									
Tetrachloroethene	ND	1.0									

Qualifiers:

**/X*	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceede
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R42946**

Sample ID: **BLK VOA1 092011** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **42946**

Client ID: **PBW** Batch ID: **R42946** TestNo: **TO-15** Analysis Date: **9/20/2011** SeqNo: **835223**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrahydrofuran	ND	1.0									
Toluene	ND	1.0									
trans-1,2-Dichloroethene	ND	1.0									
trans-1,3-dichloropropene	ND	1.0									
Trichloroethene	ND	1.0									
Trichlorofluoromethane	ND	1.0									
Vinyl acetate	ND	1.0									
Vinyl chloride	ND	1.0									
Xylenes, Total	ND	3.0									
Surr: 4-Bromofluorobenzene	14		12.50		112	70	130				

Sample ID: **1109105-027Adup** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **42946**

Client ID: **VA0655** Batch ID: **R42946** TestNo: **TO-15** Analysis Date: **9/21/2011** SeqNo: **835232**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	40						0	0	25	H
1,1,2,2-Tetrachloroethane	ND	40						0	0	25	H
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40						0	0	25	H
1,1,2-Trichloroethane	ND	40						0	0	25	H
1,1-Dichloroethane	ND	40						0	0	25	H
1,1-Dichloroethene	ND	40						0	0	25	H
1,2,4-Trichlorobenzene	ND	40						0	0	25	H
1,2,4-Trimethylbenzene	73	40						75.60	3.23	25	H
1,2-Dibromoethane	ND	40						0	0	25	H
1,2-Dichlorobenzene	ND	40						0	0	25	H
1,2-Dichloroethane	ND	40						0	0	25	H

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceede
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB

BatchID: **R42946**

Sample ID: **1109105-027Adup** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **42946**
Client ID: **VA0655** Batch ID: **R42946** TestNo: **TO-15** Analysis Date: **9/21/2011** SeqNo: **835232**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloropropane	ND	40						0	0	25	H
1,3,5-Trimethylbenzene	ND	40						0	0	25	H
1,3-Butadiene	ND	40						0	0	25	H
1,3-Dichlorobenzene	ND	40						0	0	25	H
1,4-Dichlorobenzene	ND	40						0	0	25	H
1,4-Dioxane	ND	40						0	0	25	H
2-Butanone	ND	40						0	0	25	H
2-Hexanone	ND	40						0	0	25	H
2-Propanol	ND	40						0	0	25	H
4-Methyl-2-pentanone	ND	40						0	0	25	H
Acetone	ND	40						0	0	25	H
Benzene	62	40						66.00	6.90	25	H
Benzyl chloride	ND	40						0	0	25	H
Bromodichloromethane	ND	40						0	0	25	H
Bromoform	ND	40						0	0	25	H
Bromomethane	ND	40						0	0	25	H
Carbon disulfide	ND	40						0	0	25	H
Carbon tetrachloride	ND	40						0	0	25	H
Chlorobenzene	ND	40						0	0	25	H
Chlorodibromomethane	ND	40						0	0	25	H
Chloroethane	ND	40						0	0	25	H
Chloroform	ND	40						0	0	25	H
Chloromethane	ND	40						0	0	25	H
cis-1,2-Dichloroethene	ND	40						0	0	25	H
cis-1,3-dichloropropene	ND	40						0	0	25	H
Cyclohexane	290	80						299.2	4.37	25	H

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceede
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R42946**

Sample ID: **1109105-027Adup** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **42946**

Client ID: **VA0655** Batch ID: **R42946** TestNo: **TO-15** Analysis Date: **9/21/2011** SeqNo: **835232**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	ND	40						0	0	25	H
Ethanol	ND	200						0	0	25	H
Ethyl acetate	ND	40						0	0	25	H
Ethylbenzene	60	80						63.20	5.19	25	JH
Heptane	170	40						186.8	7.56	25	H
Hexachlorobutadiene	ND	80						0	0	25	H
m,p-Xylene	150	80						163.6	6.31	25	H
Methylene chloride	ND	200						0	0	25	H
Naphthalene	ND	40						0	0	25	H
n-Hexane	80	80						81.20	1.99	25	JH
o-Xylene	59	40						63.60	7.17	25	H
Propylene	ND	40						0	0	25	H
Styrene	ND	40						0	0	25	H
tert-Butyl Methyl Ether	ND	40						0	0	25	H
Tetrachloroethene	ND	40						0	0	25	H
Tetrahydrofuran	ND	40						0	0	25	H
Toluene	310	40						336.0	8.05	25	H
trans-1,2-Dichloroethene	ND	40						0	0	25	H
trans-1,3-dichloropropene	ND	40						0	0	25	H
Trichloroethene	ND	40						0	0	25	H
Trichlorofluoromethane	ND	40						0	0	25	H
Vinyl acetate	ND	40						0	0	25	H
Vinyl chloride	ND	40						0	0	25	H
Xylenes, Total	210	120						227.2	6.55	25	H
Surr: 4-Bromofluorobenzene	460		500.0		91.0	70	130		0	25	H

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB

BatchID: **R42999**

Sample ID: **BLK2 092111 VOA9** SampType: **MBLK** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **42999**
Client ID: **PBW** Batch ID: **R42999** TestNo: **MA_APH** Analysis Date: **9/22/2011** SeqNo: **836552**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	97	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	93		89.50		103	70	130				

Sample ID: **1108899-009ADUP** SampType: **DUP** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **42999**
Client ID: **ZZZZZZ** Batch ID: **R42999** TestNo: **MA_APH** Analysis Date: **9/23/2011** SeqNo: **836554**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	8,500,000	940,000						8,346,000	1.91	30	H
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	H
C9-C12 Aliphatic Hydrocarbons	1,700,000	1,500,000						1,559,000	10.8	30	H
Surr: 4-Bromofluorobenzene	740,000		716,000		103	70	130		0	30	H

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceede
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB

BatchID: **R43034**

Sample ID: **BLK2 092311 VOA9** SampType: **MBLK** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43034**
Client ID: **PBW** Batch ID: **R43034** TestNo: **MA_APH** Analysis Date: **9/23/2011** SeqNo: **837649**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	90	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	96		89.50		108	70	130				

Sample ID: **1108899-008ADUP** SampType: **DUP** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43034**
Client ID: **ZZZZZZ** Batch ID: **R43034** TestNo: **MA_APH** Analysis Date: **9/23/2011** SeqNo: **837652**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	21,000,000	2,300,000						21,720,000	5.04	30	H
C9-C10 Aromatic Hydrocarbons	ND	2,700,000						0	0	30	H
C9-C12 Aliphatic Hydrocarbons	1,400,000	3,800,000						1,518,000	8.98	30	JH
Surr: 4-Bromofluorobenzene	1,900,000		1,790,000		108	70	130		0	30	H

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceede
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R43035**

Sample ID: **BLK VOA1 092311** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43035**

Client ID: **PBW** Batch ID: **R43035** TestNo: **TO-15** Analysis Date: **9/23/2011** SeqNo: **837687**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	1.0									
1,1,2,2-Tetrachloroethane	ND	1.0									
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
1,1-Dichloroethane	ND	1.0									
1,1-Dichloroethene	ND	1.0									
1,2,4-Trichlorobenzene	ND	1.0									
1,2,4-Trimethylbenzene	ND	1.0									
1,2-Dibromoethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,2-Dichloroethane	ND	1.0									
1,2-Dichloropropane	ND	1.0									
1,3,5-Trimethylbenzene	ND	1.0									
1,3-Butadiene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
1,4-Dioxane	ND	1.0									
2-Butanone	ND	1.0									
2-Hexanone	ND	1.0									
2-Propanol	ND	1.0									
4-Methyl-2-pentanone	ND	1.0									
Acetone	ND	1.0									
Benzene	ND	1.0									
Benzyl chloride	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceede
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: 1109105
20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB

BatchID: R43035

Sample ID: **BLK VOA1 092311** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43035**
Client ID: **PBW** Batch ID: **R43035** TestNo: **TO-15** Analysis Date: **9/23/2011** SeqNo: **837687**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromomethane	ND	1.0									
Carbon disulfide	ND	1.0									
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chlorodibromomethane	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
Chloromethane	ND	1.0									
cis-1,2-Dichloroethene	ND	1.0									
cis-1,3-dichloropropene	ND	1.0									
Cyclohexane	ND	2.0									
Dichlorodifluoromethane	ND	1.0									
Ethanol	ND	5.0									
Ethyl acetate	ND	1.0									
Ethylbenzene	ND	2.0									
Heptane	ND	1.0									
Hexachlorobutadiene	ND	2.0									
m,p-Xylene	ND	2.0									
Methylene chloride	ND	5.0									
Naphthalene	ND	1.0									
n-Hexane	ND	2.0									
o-Xylene	ND	1.0									
Propylene	ND	1.0									
Styrene	ND	1.0									
tert-Butyl Methyl Ether	ND	1.0									
Tetrachloroethene	ND	1.0									

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceede
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB

BatchID: **R43035**

Sample ID: **BLK VOA1 092311** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43035**
Client ID: **PBW** Batch ID: **R43035** TestNo: **TO-15** Analysis Date: **9/23/2011** SeqNo: **837687**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrahydrofuran	ND	1.0									
Toluene	ND	1.0									
trans-1,2-Dichloroethene	ND	1.0									
trans-1,3-dichloropropene	ND	1.0									
Trichloroethene	ND	1.0									
Trichlorofluoromethane	ND	1.0									
Vinyl acetate	ND	1.0									
Vinyl chloride	ND	1.0									
Xylenes, Total	ND	3.0									
Surr: 4-Bromofluorobenzene	14		12.50		109	70	130				

Sample ID: **1108899-014ADUP** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43035**
Client ID: **ZZZZZZ** Batch ID: **R43035** TestNo: **TO-15** Analysis Date: **9/23/2011** SeqNo: **837707**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	8,000						0	0	25	H
1,1,2,2-Tetrachloroethane	ND	8,000						0	0	25	H
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000						0	0	25	H
1,1,2-Trichloroethane	ND	8,000						0	0	25	H
1,1-Dichloroethane	ND	8,000						0	0	25	H
1,1-Dichloroethene	ND	8,000						0	0	25	H
1,2,4-Trichlorobenzene	ND	8,000						0	0	25	H
1,2,4-Trimethylbenzene	ND	8,000						0	0	25	H
1,2-Dibromoethane	ND	8,000						0	0	25	H
1,2-Dichlorobenzene	ND	8,000						0	0	25	H
1,2-Dichloroethane	ND	8,000						0	0	25	H

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: 1109105
20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB

BatchID: R43035

Sample ID: **1108899-014ADUP** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43035**
Client ID: **ZZZZZZ** Batch ID: **R43035** TestNo: **TO-15** Analysis Date: **9/23/2011** SeqNo: **837707**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloropropane	ND	8,000						0	0	25	H
1,3,5-Trimethylbenzene	ND	8,000						0	0	25	H
1,3-Butadiene	ND	8,000						0	0	25	H
1,3-Dichlorobenzene	ND	8,000						0	0	25	H
1,4-Dichlorobenzene	ND	8,000						0	0	25	H
1,4-Dioxane	ND	8,000						0	0	25	H
2-Butanone	10,000	8,000						9,280	9.05	25	H
2-Hexanone	ND	8,000						0	0	25	H
2-Propanol	8,300	8,000						0	200	25	RH
4-Methyl-2-pentanone	ND	8,000						0	0	25	H
Acetone	42,000	8,000						38,000	10.0	25	H
Benzene	54,000	8,000						70,240	26.0	25	RH
Benzyl chloride	ND	8,000						0	0	25	H
Bromodichloromethane	ND	8,000						0	0	25	H
Bromoform	ND	8,000						0	0	25	H
Bromomethane	ND	8,000						0	0	25	H
Carbon disulfide	ND	8,000						0	0	25	H
Carbon tetrachloride	ND	8,000						0	0	25	H
Chlorobenzene	ND	8,000						0	0	25	H
Chlorodibromomethane	ND	8,000						0	0	25	H
Chloroethane	ND	8,000						0	0	25	H
Chloroform	ND	8,000						0	0	25	H
Chloromethane	ND	8,000						0	0	25	H
cis-1,2-Dichloroethene	ND	8,000						0	0	25	H
cis-1,3-dichloropropene	ND	8,000						0	0	25	H
Cyclohexane	290,000	16,000						338,700	15.9	25	H

Qualifiers:
- */X Value exceeds Maximum Contaminant Level
- J Estimated concentration
- R RPD outside accepted recovery limits
- E Value above quantitation range
- M Manual Integration used to determine area response
- RL Reporting Limit
- H Holding times for preparation or analysis exceede
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R43035**

Sample ID: **1108899-014ADUP** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43035**

Client ID: **ZZZZZZ** Batch ID: **R43035** TestNo: **TO-15** Analysis Date: **9/23/2011** SeqNo: **837707**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	ND	8,000						0	0	25	H
Ethanol	21,000	40,000						20,400	3.09	25	JH
Ethyl acetate	ND	8,000						0	0	25	H
Ethylbenzene	10,000	16,000						10,160	2.33	25	JH
Heptane	130,000	8,000						146,600	11.1	25	H
Hexachlorobutadiene	ND	16,000						0	0	25	H
m,p-Xylene	13,000	16,000						13,040	3.02	25	JH
Methylene chloride	ND	40,000						0	0	25	H
Naphthalene	ND	8,000						0	0	25	H
n-Hexane	300,000	16,000						356,700	16.1	25	H
o-Xylene	ND	8,000						0	0	25	H
Propylene	ND	8,000						0	0	25	H
Styrene	ND	8,000						0	0	25	H
tert-Butyl Methyl Ether	ND	8,000						0	0	25	H
Tetrachloroethene	ND	8,000						0	0	25	H
Tetrahydrofuran	ND	8,000						0	0	25	H
Toluene	58,000	8,000						61,360	5.77	25	H
trans-1,2-Dichloroethene	ND	8,000						0	0	25	H
trans-1,3-dichloropropene	ND	8,000						0	0	25	H
Trichloroethene	ND	8,000						0	0	25	H
Trichlorofluoromethane	ND	8,000						0	0	25	H
Vinyl acetate	ND	8,000						0	0	25	H
Vinyl chloride	ND	8,000						0	0	25	H
Xylenes, Total	13,000	24,000						13,040	3.02	25	JH
Surr: 4-Bromofluorobenzene	100,000		100,000		104	70	130		0	25	H

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceeds
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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QC SUMMARY REPORT

WO#: 1109105
20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB

BatchID: R43054

Sample ID: **mblk** SampType: **MBLK** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43054**
Client ID: **PBW** Batch ID: **R43054** TestNo: **ASTM-D2504** Analysis Date: **9/16/2011** SeqNo: **838050**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	ND	0.10									
Carbon Monoxide	ND	0.10									
Methane	ND	0.50									
Nitrogen	ND	0.10									
Oxygen	ND	0.10									

Sample ID: **lcs** SampType: **LCS** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43054**
Client ID: **LCSW** Batch ID: **R43054** TestNo: **ASTM-D2504** Analysis Date: **9/16/2011** SeqNo: **838052**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	2.6	0.10	2.500	0	103	70	130				
Carbon Monoxide	2.4	0.10	2.500	0	97.1	70	130				
Methane	2.1	0.50	2.000	0	103	70	130				
Nitrogen	2.4	0.10	2.500	0	95.2	70	130				
Oxygen	2.2	0.10	2.500	0	87.4	70	130				

Sample ID: **1109105-025bdup** SampType: **DUP** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43054**
Client ID: **VA0584** Batch ID: **R43054** TestNo: **ASTM-D2504** Analysis Date: **9/16/2011** SeqNo: **838060**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	0.19	0.10						0.1960	4.17	20	
Carbon Monoxide	ND	0.10						0	0	20	
Methane	ND	0.50						0	0	20	
Nitrogen	79	0.10						79.92	1.09	20	
Oxygen	20	0.10						20.00	1.26	20	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109105**
20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
BatchID: **R43055**

Sample ID: **mblk** SampType: **MBLK** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43055**
Client ID: **PBW** Batch ID: **R43055** TestNo: **ASTM-D2504** Analysis Date: **9/20/2011** SeqNo: **838063**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	ND	0.10									
Carbon Monoxide	ND	0.10									
Methane	ND	0.50									
Nitrogen	ND	0.10									
Oxygen	ND	0.10									

Sample ID: **lcs** SampType: **LCS** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43055**
Client ID: **LCSW** Batch ID: **R43055** TestNo: **ASTM-D2504** Analysis Date: **9/20/2011** SeqNo: **838065**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	2.3	0.10	2.500	0	92.8	70	130				
Carbon Monoxide	2.4	0.10	2.500	0	97.6	70	130				
Methane	2.0	0.50	2.000	0	101	70	130				
Nitrogen	2.4	0.10	2.500	0	97.7	70	130				
Oxygen	2.3	0.10	2.500	0	93.0	70	130				

Sample ID: **1109105-035bdup** SampType: **DUP** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43055**
Client ID: **VA0694** Batch ID: **R43055** TestNo: **ASTM-D2504** Analysis Date: **9/20/2011** SeqNo: **838077**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	4.3	0.10						4.334	0.509	20	
Carbon Monoxide	ND	0.10						0	0	20	
Methane	ND	0.50						0	0	20	
Nitrogen	83	0.10						83.90	0.859	20	
Oxygen	11	0.10						11.37	0.848	20	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceede
J	Estimated concentration	M	Manual integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB

BatchID: **R43056**

Sample ID: **mblk** SampType: **MBLK** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43056**
Client ID: **PBW** Batch ID: **R43056** TestNo: **ASTM-D2504** Analysis Date: **9/22/2011** SeqNo: **838086**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	ND	0.10									
Carbon Monoxide	ND	0.10									
Methane	ND	0.50									
Nitrogen	ND	0.10									
Oxygen	ND	0.10									

Sample ID: **lcs** SampType: **LCS** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43056**
Client ID: **LCSW** Batch ID: **R43056** TestNo: **ASTM-D2504** Analysis Date: **9/22/2011** SeqNo: **838088**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	2.1	0.10	2.500	0	85.5	70	130				
Carbon Monoxide	2.5	0.10	2.500	0	98.2	70	130				
Methane	2.1	0.50	2.000	0	104	70	130				
Nitrogen	2.7	0.10	2.500	0	106	70	130				
Oxygen	2.5	0.10	2.500	0	101	70	130				

Sample ID: **1109105-014bdup** SampType: **DUP** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43056**
Client ID: **VA0524** Batch ID: **R43056** TestNo: **ASTM-D2504** Analysis Date: **9/22/2011** SeqNo: **838100**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	0.92	0.10						0.9140	0.437	20	
Carbon Monoxide	ND	0.10						0	0	20	
Methane	ND	0.50						0	0	20	
Nitrogen	79	0.10						78.72	0.508	20	
Oxygen	19	0.10						19.06	0.560	20	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
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R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R43069**

Sample ID: **BLK2 092611 VOA9** SampType: **MBLK** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43069**

Client ID: **PBW** Batch ID: **R43069** TestNo: **MA_APH** Analysis Date: **9/26/2011** SeqNo: **838352**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	85	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	97		89.50		108	70	130				

Sample ID: **1109555-033ADUP** SampType: **DUP** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43069**

Client ID: **ZZZZZZ** Batch ID: **R43069** TestNo: **MA_APH** Analysis Date: **9/27/2011** SeqNo: **838360**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	30,000,000	940,000						29,090,000	4.65	30	
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	
C9-C12 Aliphatic Hydrocarbons	370,000	1,500,000						436,800	15.6	30	J
Surr: 4-Bromofluorobenzene	720,000		716,000		101	70	130		0	30	

Qualifiers:

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J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R43117**

Sample ID: **BLK2 092811 VOA9** SampType: **MBLK** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43117**

Client ID: **PBW** Batch ID: **R43117** TestNo: **MA_APH** Analysis Date: **9/28/2011** SeqNo: **839628**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	82	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	100		89.50		112	70	130				

Sample ID: **1109105-010ADUP** SampType: **DUP** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43117**

Client ID: **VA0414** Batch ID: **R43117** TestNo: **MA_APH** Analysis Date: **9/28/2011** SeqNo: **839858**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	38,000,000	2,300,000						36,240,000	4.55	30	H
C9-C10 Aromatic Hydrocarbons	ND	2,700,000						0	0	30	H
C9-C12 Aliphatic Hydrocarbons	1,300,000	3,800,000						1,330,000	5.14	30	JH
Surr: 4-Bromofluorobenzene	1,900,000		1,790,000		105	70	130		0	30	H

Qualifiers:

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R43152**

Sample ID: **1108899-043ADUP** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43152**

Client ID: **ZZZZZZ** Batch ID: **R43152** TestNo: **TO-15** Analysis Date: **9/29/2011** SeqNo: **840606**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	40						0	0	25	H
1,1,2,2-Tetrachloroethane	ND	40						0	0	25	H
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40						0	0	25	H
1,1,2-Trichloroethane	ND	40						0	0	25	H
1,1-Dichloroethane	ND	40						0	0	25	H
1,1-Dichloroethene	ND	40						0	0	25	H
1,2,4-Trichlorobenzene	ND	40						0	0	25	H
1,2,4-Trimethylbenzene	ND	40						0	0	25	H
1,2-Dibromoethane	ND	40						0	0	25	H
1,2-Dichlorobenzene	ND	40						0	0	25	H
1,2-Dichloroethane	ND	40						0	0	25	H
1,2-Dichloropropane	ND	40						0	0	25	H
1,3,5-Trimethylbenzene	ND	40						0	0	25	H
1,3-Butadiene	ND	40						143.2	200	25	RH
1,3-Dichlorobenzene	ND	40						0	0	25	H
1,4-Dichlorobenzene	ND	40						0	0	25	H
1,4-Dioxane	ND	40						0	0	25	H
2-Butanone	ND	40						42.00	200	25	RH
2-Hexanone	ND	40						0	0	25	H
2-Propanol	52	40						53.20	3.05	25	H
4-Methyl-2-pentanone	ND	40						0	0	25	H
Acetone	300	40						421.6	32.3	25	RH
Benzene	470	40						570.4	20.3	25	H
Benzyl chloride	ND	40						0	0	25	H
Bromodichloromethane	ND	40						0	0	25	H
Bromoform	ND	40						0	0	25	H

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R43152**

Sample ID: **1108899-043ADUP** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43152**

Client ID: **ZZZZZZ** Batch ID: **R43152** TestNo: **TO-15** Analysis Date: **9/29/2011** SeqNo: **840606**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromomethane	ND	40						0	0	25	H
Carbon disulfide	ND	40						0	0	25	H
Carbon tetrachloride	ND	40						0	0	25	H
Chlorobenzene	ND	40						0	0	25	H
Chlorodibromomethane	ND	40						0	0	25	H
Chloroethane	ND	40						0	0	25	H
Chloroform	ND	40						0	0	25	H
Chloromethane	ND	40						0	0	25	H
cis-1,2-Dichloroethene	ND	40						0	0	25	H
cis-1,3-dichloropropene	ND	40						0	0	25	H
Cyclohexane	100	80						116.0	12.5	25	H
Dichlorodifluoromethane	ND	40						0	0	25	H
Ethanol	98	200						120.4	20.9	25	JH
Ethyl acetate	ND	40						0	0	25	H
Ethylbenzene	ND	80						0	0	25	H
Heptane	ND	40						43.60	200	25	RH
Hexachlorobutadiene	ND	80						0	0	25	H
m,p-Xylene	ND	80						0	0	25	H
Methylene chloride	ND	200						0	0	25	H
Naphthalene	ND	40						0	0	25	H
n-Hexane	44	80						48.80	9.44	25	JH
o-Xylene	ND	40						0	0	25	H
Propylene	9,100	40						8,899	1.87	25	H
Styrene	ND	40						0	0	25	H
tert-Butyl Methyl Ether	ND	40						0	0	25	H
Tetrachloroethene	ND	40						0	0	25	H

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R43152**

Sample ID: **1108899-043ADUP** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43152**

Client ID: **ZZZZZZ** Batch ID: **R43152** TestNo: **TO-15** Analysis Date: **9/29/2011** SeqNo: **840606**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrahydrofuran	ND	40						0	0	25	H
Toluene	120	40						152.8	22.1	25	H
trans-1,2-Dichloroethene	ND	40						0	0	25	H
trans-1,3-dichloropropene	ND	40						0	0	25	H
Trichloroethene	ND	40						0	0	25	H
Trichlorofluoromethane	ND	40						0	0	25	H
Vinyl acetate	ND	40						0	0	25	H
Vinyl chloride	ND	40						0	0	25	H
Xylenes, Total	ND	120						0	0	25	H
Surr: 4-Bromofluorobenzene	580		500.0		115	70	130		0	25	H

Sample ID: **VOA1 BLK 092711** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43152**

Client ID: **PBW** Batch ID: **R43152** TestNo: **TO-15** Analysis Date: **9/30/2011** SeqNo: **841761**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	1.0									
1,1,2,2-Tetrachloroethane	ND	1.0									
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
1,1-Dichloroethane	ND	1.0									
1,1-Dichloroethene	ND	1.0									
1,2,4-Trichlorobenzene	ND	1.0									
1,2,4-Trimethylbenzene	ND	1.0									
1,2-Dibromoethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,2-Dichloroethane	ND	1.0									

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceede
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R43152**

Sample ID: **VOA1 BLK 092711** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43152**

Client ID: **PBW** Batch ID: **R43152** TestNo: **TO-15** Analysis Date: **9/30/2011** SeqNo: **841761**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloropropane	ND	1.0									
1,3,5-Trimethylbenzene	ND	1.0									
1,3-Butadiene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
1,4-Dioxane	ND	1.0									
2-Butanone	ND	1.0									
2-Hexanone	ND	1.0									
2-Propanol	ND	1.0									
4-Methyl-2-pentanone	ND	1.0									
Acetone	ND	1.0									
Benzene	ND	1.0									
Benzyl chloride	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon disulfide	ND	1.0									
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chlorodibromomethane	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
Chloromethane	ND	1.0									
cis-1,2-Dichloroethene	ND	1.0									
cis-1,3-dichloropropene	ND	1.0									
Cyclohexane	ND	2.0									

Qualifiers:

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Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R43152**

Sample ID: **VOA1 BLK 092711** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43152**

Client ID: **PBW** Batch ID: **R43152** TestNo: **TO-15** Analysis Date: **9/30/2011** SeqNo: **841761**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	ND	1.0									
Ethanol	ND	5.0									
Ethyl acetate	ND	1.0									
Ethylbenzene	ND	2.0									
Heptane	ND	1.0									
Hexachlorobutadiene	ND	2.0									
m,p-Xylene	ND	2.0									
Methylene chloride	ND	5.0									
Naphthalene	ND	1.0									
n-Hexane	ND	2.0									
o-Xylene	ND	1.0									
Propylene	ND	1.0									
Styrene	ND	1.0									
tert-Butyl Methyl Ether	ND	1.0									
Tetrachloroethene	ND	1.0									
Tetrahydrofuran	ND	1.0									
Toluene	ND	1.0									
trans-1,2-Dichloroethene	ND	1.0									
trans-1,3-dichloropropene	ND	1.0									
Trichloroethene	ND	1.0									
Trichlorofluoromethane	ND	1.0									
Vinyl acetate	ND	1.0									
Vinyl chloride	ND	1.0									
Xylenes, Total	ND	3.0									
Surr: 4-Bromofluorobenzene	14		12.50		114	70	130				

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceede
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R43154**

Sample ID: **BLK2 092911 VOA9** SampType: **MBLK** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43154**

Client ID: **PBW** Batch ID: **R43154** TestNo: **MA_APH** Analysis Date: **9/29/2011** SeqNo: **840622**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	79	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	99		89.50		111	70	130				

Sample ID: **1109555-003ADUP** SampType: **DUP** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43154**

Client ID: **ZZZZZZ** Batch ID: **R43154** TestNo: **MA_APH** Analysis Date: **9/29/2011** SeqNo: **840634**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	1,100,000	940,000						0	0	30	
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000						0	0	30	
Surr: 4-Bromofluorobenzene	810,000		716,000		113	70	130		0	30	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R43192**

Sample ID: **VOA1 BLK 093011** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43192**

Client ID: **PBW** Batch ID: **R43192** TestNo: **TO-15** Analysis Date: **9/30/2011** SeqNo: **841737**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	1.0									
1,1,2,2-Tetrachloroethane	ND	1.0									
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
1,1-Dichloroethane	ND	1.0									
1,1-Dichloroethene	ND	1.0									
1,2,4-Trichlorobenzene	ND	1.0									
1,2,4-Trimethylbenzene	ND	1.0									
1,2-Dibromoethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,2-Dichloroethane	ND	1.0									
1,2-Dichloropropane	ND	1.0									
1,3,5-Trimethylbenzene	ND	1.0									
1,3-Butadiene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
1,4-Dioxane	ND	1.0									
2-Butanone	ND	1.0									
2-Hexanone	ND	1.0									
2-Propanol	ND	1.0									
4-Methyl-2-pentanone	ND	1.0									
Acetone	ND	1.0									
Benzene	ND	1.0									
Benzyl chloride	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceede
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: 1109105
20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB

BatchID: R43192

Sample ID: **VOA1 BLK 093011** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43192**
Client ID: **PBW** Batch ID: **R43192** TestNo: **TO-15** Analysis Date: **9/30/2011** SeqNo: **841737**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromomethane	ND	1.0									
Carbon disulfide	ND	1.0									
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chlorodibromomethane	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
Chloromethane	ND	1.0									
cis-1,2-Dichloroethene	ND	1.0									
cis-1,3-dichloropropene	ND	1.0									
Cyclohexane	ND	2.0									
Dichlorodifluoromethane	ND	1.0									
Ethanol	ND	5.0									
Ethyl acetate	ND	1.0									
Ethylbenzene	ND	2.0									
Heptane	ND	1.0									
Hexachlorobutadiene	ND	2.0									
m,p-Xylene	ND	2.0									
Methylene chloride	ND	5.0									
Naphthalene	ND	1.0									
n-Hexane	ND	2.0									
o-Xylene	ND	1.0									
Propylene	ND	1.0									
Styrene	ND	1.0									
tert-Butyl Methyl Ether	ND	1.0									
Tetrachloroethene	ND	1.0									

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceeds
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109105**
20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB

BatchID: **R43192**

Sample ID: **VOA1 BLK 093011** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43192**
Client ID: **PBW** Batch ID: **R43192** TestNo: **TO-15** Analysis Date: **9/30/2011** SeqNo: **841737**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrahydrofuran	ND	1.0									
Toluene	ND	1.0									
trans-1,2-Dichloroethene	ND	1.0									
trans-1,3-dichloropropene	ND	1.0									
Trichloroethene	ND	1.0									
Trichlorofluoromethane	ND	1.0									
Vinyl acetate	ND	1.0									
Vinyl chloride	ND	1.0									
Xylenes, Total	ND	3.0									
Surr: 4-Bromofluorobenzene	14		12.50		112	70	130				

Sample ID: **1109555-033ADUP** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43192**
Client ID: **ZZZZZZ** Batch ID: **R43192** TestNo: **TO-15** Analysis Date: **10/1/2011** SeqNo: **841748**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	20,000						0	0	25	
1,1,2,2-Tetrachloroethane	ND	20,000						0	0	25	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000						0	0	25	
1,1,2-Trichloroethane	ND	20,000						0	0	25	
1,1-Dichloroethane	ND	20,000						0	0	25	
1,1-Dichloroethene	ND	20,000						0	0	25	
1,2,4-Trichlorobenzene	ND	20,000						0	0	25	
1,2,4-Trimethylbenzene	ND	20,000						0	0	25	
1,2-Dibromoethane	ND	20,000						0	0	25	
1,2-Dichlorobenzene	ND	20,000						0	0	25	
1,2-Dichloroethane	ND	20,000						0	0	25	

Qualifiers:
- */X Value exceeds Maximum Contaminant Level
- J Estimated concentration
- R RPD outside accepted recovery limits
- E Value above quantitation range
- M Manual Integration used to determine area response
- RL Reporting Limit
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R43192**

Sample ID: **1109555-033ADUP** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43192**

Client ID: **ZZZZZZ** Batch ID: **R43192** TestNo: **TO-15** Analysis Date: **10/1/2011** SeqNo: **841748**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloropropane	ND	20,000						0	0	25	
1,3,5-Trimethylbenzene	ND	20,000						0	0	25	
1,3-Butadiene	ND	20,000						0	0	25	
1,3-Dichlorobenzene	ND	20,000						0	0	25	
1,4-Dichlorobenzene	ND	20,000						0	0	25	
1,4-Dioxane	ND	20,000						0	0	25	
2-Butanone	ND	20,000						0	0	25	
2-Hexanone	ND	20,000						0	0	25	
2-Propanol	ND	20,000						0	0	25	
4-Methyl-2-pentanone	ND	20,000						0	0	25	
Acetone	21,000	20,000						22,200	3.67	25	
Benzene	460,000	20,000						405,200	12.9	25	
Benzyl chloride	ND	20,000						0	0	25	
Bromodichloromethane	ND	20,000						0	0	25	
Bromoform	ND	20,000						0	0	25	
Bromomethane	ND	20,000						0	0	25	
Carbon disulfide	ND	20,000						0	0	25	
Carbon tetrachloride	ND	20,000						0	0	25	
Chlorobenzene	ND	20,000						0	0	25	
Chlorodibromomethane	ND	20,000						0	0	25	
Chloroethane	ND	20,000						0	0	25	
Chloroform	ND	20,000						0	0	25	
Chloromethane	ND	20,000						0	0	25	
cis-1,2-Dichloroethene	ND	20,000						0	0	25	
cis-1,3-dichloropropene	ND	20,000						0	0	25	
Cyclohexane	1,100,000	40,000						966,200	12.7	25	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceede
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
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QC SUMMARY REPORT

WO#: **1109105**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R43192**

Sample ID: **1109555-033ADUP** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43192**

Client ID: **ZZZZZZ** Batch ID: **R43192** TestNo: **TO-15** Analysis Date: **10/1/2011** SeqNo: **841748**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	ND	20,000						0	0	25	
Ethanol	ND	100,000						0	0	25	
Ethyl acetate	ND	20,000						0	0	25	
Ethylbenzene	ND	40,000						0	0	25	
Heptane	530,000	20,000						461,600	13.1	25	
Hexachlorobutadiene	ND	40,000						0	0	25	
m,p-Xylene	21,000	40,000						0	200	25	JR
Methylene chloride	ND	100,000						0	0	25	
Naphthalene	ND	20,000						0	0	25	
n-Hexane	1,200,000	40,000						1,068,000	14.6	25	
o-Xylene	ND	20,000						0	0	25	
Propylene	23,000	20,000						23,200	0.858	25	
Styrene	ND	20,000						0	0	25	
tert-Butyl Methyl Ether	ND	20,000						0	0	25	
Tetrachloroethene	ND	20,000						0	0	25	
Tetrahydrofuran	ND	20,000						0	0	25	
Toluene	580,000	20,000						530,600	8.38	25	
trans-1,2-Dichloroethene	ND	20,000						0	0	25	
trans-1,3-dichloropropene	ND	20,000						0	0	25	
Trichloroethene	ND	20,000						0	0	25	
Trichlorofluoromethane	ND	20,000						0	0	25	
Vinyl acetate	ND	20,000						0	0	25	
Vinyl chloride	ND	20,000						0	0	25	
Xylenes, Total	21,000	60,000						0	200	25	JR
Surr: 4-Bromofluorobenzene	280,000		250,000		113	70	130		0	25	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI Laboratories

Run ID: VOA1_110919A **Run No.:** 42924

Analytical Run Date: 9/19/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 42924 **Column ID:** 0.25mm, 1.4umFT

Column Length: 30m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 VOA1 091911	BFB_TUNE	TUNE	R42924	9/19/2011 10:38:00 AM	Robert Lynch		
1ppbv ICAL	EPA_TO15	ICAL	R42924	9/19/2011 12:06:00 PM	Robert Lynch		
10ppbv ICAL	EPA_TO15	ICAL	R42924	9/19/2011 12:51:00 PM	Robert Lynch		
12ppbv ICAL	EPA_TO15	ICAL	R42924	9/19/2011 1:35:00 PM	Robert Lynch		
15ppbv ICAL	EPA_TO15	ICAL	R42924	9/19/2011 2:20:00 PM	Robert Lynch		
20ppbv ICAL	EPA_TO15	ICAL	R42924	9/19/2011 3:06:00 PM	Robert Lynch		
30ppbv ICAL	EPA_TO15	ICAL	R42924	9/19/2011 3:53:00 PM	Robert Lynch		
50ppbv ICAL	EPA_TO15	ICAL	R42924	9/19/2011 4:41:00 PM	Robert Lynch		
BFB2 VOA1 091911	BFB_TUNE	TUNE	R42924	9/19/2011 5:26:00 PM	Robert Lynch		
ICV VOA1 091911	EPA_TO15	ICV	R42924	9/19/2011 6:57:00 PM	Robert Lynch		
RLVS1 VOA1 09191	EPA_TO15	RLVS	R42924	9/19/2011 7:45:00 PM	Robert Lynch		
BLK VOA1 091911	EPA_TO15	MBLK	R42924	9/19/2011 8:37:00 PM	Robert Lynch		
1109105-005A	EPA_TO15	SAMP	R42924	9/19/2011 9:22:00 PM	Robert Lynch		
1109105-002A	EPA_TO15	SAMP	R42924	9/20/2011 2:54:00 AM	Robert Lynch		
1109105-002ADUP	EPA_TO15	DUP	R42924	9/20/2011 3:42:00 AM	Robert Lynch		
1109105-034A	EPA_TO15	SAMP	R42924	9/20/2011 6:07:00 AM	Robert Lynch		
1109105-035A	EPA_TO15	SAMP	R42924	9/20/2011 6:56:00 AM	Robert Lynch		
1109105-036A	EPA_TO15	SAMP	R42924	9/20/2011 7:45:00 AM	Robert Lynch		
1109105-007A	EPA_TO15	SAMP	R42924	9/20/2011 10:23:00 AM	Robert Lynch		
1109105-013A	EPA_TO15	SAMP	R42924	9/20/2011 11:25:00 AM	Robert Lynch		
1109105-006A	EPA_TO15	SAMP	R42924	9/20/2011 12:20:00 PM	Robert Lynch		
1109105-014A	EPA_TO15	SAMP	R42924	9/20/2011 1:24:00 PM	Robert Lynch		
1109105-015A	EPA_TO15	SAMP	R42924	9/20/2011 2:23:00 PM	Robert Lynch		
RLVS2 VOA1 09191	EPA_TO15	RLVS	R42924	9/20/2011 3:28:00 PM	Robert Lynch		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
834592	ICV VOA1 091911	EPA_TO15	ICV	:\1\DATA\091911	9/19/2011 6:57:0	1	R42924		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	11.35	11.35		9.6	0	0	0.107	1	0	118%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	9.59	9.59		10	0	0	0.211	1	0	96%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.11	11.11		9.8	0	0	0.108	1	0	113%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.44	9.44		9.8	0	0	0.2	1	0	96%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.83	10.83		9.7	0	0	0.111	1	0	112%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.97	10.97		9.9	0	0	0.097	1	0	111%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	7.49	7.49		9.1	0	0	0.271	1	0	82%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	8.71	8.71		9.8	0	0	0.245	1	0	89%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.32	9.32		9.6	0	0	0.186	1	0	97%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	8.79	8.79		9.7	0	0	0.208	1	0	91%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.01	11.01		9.7	0	0	0.196	1	0	114%	70	130	0%	
1,2-Dichloropropane	A	ppbv	9.92	9.92		9.8	0	0	0.224	1	0	101%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	8.85	8.85		9.7	0	0	0.24	1	0	91%	70	130	0%	
1,3-Butadiene	A	ppbv	10.91	10.91		9.8	0	0	0.152	1	0	111%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	8.88	8.88		9.7	0	0	0.202	1	0	92%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	8.78	8.78		9.6	0	0	0.194	1	0	91%	70	130	0%	
1,4-Dioxane	A	ppbv	10.67	10.67		9.6	0	0	0.128	1	0	111%	70	130	0%	
2-Butanone	A	ppbv	11.06	11.06		9.9	0	0	0.287	1	0	112%	70	130	0%	
2-Hexanone	A	ppbv	10.36	10.36		9.8	0	0	0.135	1	0	106%	70	130	0%	
2-Propanol	A	ppbv	11.57	11.57		10.1	0	0	0.329	1	0	115%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.26	10.26		10	0	0	0.157	1	0	103%	70	130	0%	
Acetone	A	ppbv	11.61	11.61		10	0	0	0.43	1	0	116%	70	130	0%	
Benzene	A	ppbv	10.34	10.34		9.6	0	0	0.126	1	0	108%	70	130	0%	
Benzyl chloride	A	ppbv	9.73	9.73		9.7	0	0	0.155	1	0	100%	70	130	0%	
Bromodichloromethane	A	ppbv	9.83	9.83		9.6	0	0	0.156	1	0	102%	70	130	0%	
Bromoform	A	ppbv	9.49	9.49		9.6	0	0	0.197	1	0	99%	70	130	0%	
Bromomethane	A	ppbv	11.7	11.7		9.3	0	0	0.075	1	0	126%	70	130	0%	
Carbon disulfide	A	ppbv	10.27	10.27		9.7	0	0	0.093	1	0	106%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.64	10.64		9.5	0	0	0.114	1	0	112%	70	130	0%	
Chlorobenzene	A	ppbv	9.79	9.79		9.9	0	0	0.275	1	0	99%	70	130	0%	
Chlorodibromomethane	A	ppbv	9.57	9.57		9.2	0	0	0.165	1	0	104%	70	130	0%	
Chloroethane	A	ppbv	10.37	10.37		9.8	0	0	0.063	1	0	106%	70	130	0%	
Chloroform	A	ppbv	11.16	11.16		9.4	0	0	0.126	1	0	119%	70	130	0%	
Chloromethane	A	ppbv	10.31	10.31		9.8	0	0	0.104	1	0	105%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
834592	ICV VOA1 091911	EPA_TO15	ICV	:\1\DATA\091911	9/19/2011 6:57:0	1	R42924		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
cis-1,2-Dichloroethene	A	ppbv	10.56	10.56		9.8	0	0	0.107	1	0	108%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.49	9.49		9.5	0	0	0.166	1	0	100%	70	130	0%	
Cyclohexane	A	ppbv	11.76	11.76		9.8	0	0	0.684	2	0	120%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.75	9.75		9.2	0	0	0.086	1	0	106%	70	130	0%	
Ethanol	A	ppbv	11.84	11.84		9.2	0	0	1.962	5	0	129%	70	130	0%	
Ethyl acetate	A	ppbv	10.76	10.76		9.8	0	0	0.157	1	0	110%	70	130	0%	
Ethylbenzene	A	ppbv	9.81	9.81		9.8	0	0	0.737	2	0	100%	70	130	0%	
Heptane	A	ppbv	10.95	10.95		9.9	0	0	0.249	1	0	111%	70	130	0%	
Hexachlorobutadiene	A	ppbv	7.55	7.55		9.4	0	0	0.374	2	0	80%	70	130	0%	
m,p-Xylene	A	ppbv	20.65	20.65		19.2	0	0	0.524	2	0	108%	70	130	0%	
Methylene chloride	A	ppbv	11.06	11.06		10	0	0	2.077	5	0	111%	70	130	0%	
n-Hexane	A	ppbv	11.24	11.24		10.1	0	0	0.692	2	0	111%	70	130	0%	
Naphthalene	A	ppbv	7.81	7.81		9.2	0	0	0.247	1	0	85%	70	130	0%	
o-Xylene	A	ppbv	9.86	9.86		10	0	0	0.258	1	0	99%	70	130	0%	
Propylene	A	ppbv	10.77	10.77		10.2	0	0	0.075	1	0	106%	70	130	0%	
Styrene	A	ppbv	9.32	9.32		9.8	0	0	0.263	1	0	95%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.91	10.91		9.9	0	0	0.228	1	0	110%	70	130	0%	
Tetrachloroethene	A	ppbv	9.6	9.6		9.6	0	0	0.148	1	0	100%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.05	11.05		10	0	0	0.201	1	0	111%	70	130	0%	
Toluene	A	ppbv	9.66	9.66		9.8	0	0	0.158	1	0	99%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.02	11.02		9.8	0	0	0.117	1	0	112%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.17	9.17		9.1	0	0	0.171	1	0	101%	70	130	0%	
Trichloroethene	A	ppbv	9.69	9.69		9.6	0	0	0.119	1	0	101%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.44	10.44		9.6	0	0	0.148	1	0	109%	70	130	0%	
Vinyl acetate	A	ppbv	11.31	11.31		9.9	0	0	0.266	1	0	114%	70	130	0%	
Vinyl chloride	A	ppbv	10.31	10.31		9.4	0	0	0.072	1	0	110%	70	130	0%	
Xylenes, Total	C	ppbv	30.51	30.51		29.2	0	0	0.782	3	0	104%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		1.25	0	0	0	0	0	1000%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.53	12.53		12.5	0	0	0	0	0	100%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091911\09191111.D Vial: 11
Acq On : 19 Sep 2011 6:57 pm Operator: RACHEL HILL
Sample : ICV VOA1 091911 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	108	0.00
2	T	Propylene	1.225	1.294	-5.6	107	0.00
3	T	Dichlorodifluoromethane	3.092	3.277	-6.0	108	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.025	2.150	-6.2	109	0.00
5	T	Chloromethane	1.302	1.414	-8.6	105	0.00
6	T	Vinyl chloride	1.810	1.985	-9.7	102	0.00
7	T	1,3-Butadiene	1.413	1.573	-11.3	103	0.00
8	T	Bromomethane	1.349	1.698	-25.9	145	0.00
9	T	Chloroethane	0.710	0.800	-12.7	114	0.00
10	T	Trichlorofluoromethane	2.933	3.190	-8.8	110	0.00
11	T	Ethanol	0.281	0.362	-28.8	149	0.00
12	T	Freon113	2.328	2.638	-13.3	107	0.00
13	T	1,1-Dichloroethene	1.971	2.184	-10.8	108	0.00
14	T	Acetone	1.875	2.178	-16.2	104	0.00
15	T	Carbon disulfide	3.079	3.260	-5.9	107	0.00
16	T	2-Propanol	1.628	1.865	-14.6	108	0.00
17	T	Methylene chloride	1.493	1.651	-10.6	105	0.00
18	T	tert-Butyl Methyl Ether	2.561	2.821	-10.2	98	0.00
19	T	trans-1,2-Dichloroethene	1.844	2.074	-12.5	106	0.00
20	T	n-Hexane	2.043	2.273	-11.3	104	0.00
21	T	1,1-Dichloroethane	2.096	2.340	-11.6	103	0.00
22	T	Vinyl acetate	2.893	3.304	-14.2	97	0.00
23	T	cis-1,2-Dichloroethene	1.089	1.174	-7.8	104	0.00
24	T	2-Butanone	1.856	2.074	-11.7	103	0.00
25	T	Ethyl acetate	2.392	2.628	-9.9	101	0.00
26	T	Tetrahydrofuran	1.265	1.398	-10.5	97	0.00
27	T	Chloroform	2.363	2.690	-13.8	101	0.00
28	T	1,1,1-Trichloroethane	2.274	2.690	-18.3	102	0.00
29	T	Cyclohexane	2.080	2.497	-20.0	101	0.00
30	T	Carbon tetrachloride	2.045	2.291	-12.0	104	0.00
31	T	Benzene	2.739	2.949	-7.7	99	0.00
32	T	1,2-Dichloroethane	1.367	1.552	-13.5	99	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	114	0.00
34	T	Heptane	0.885	0.979	-10.6	99	0.00
35	T	Trichloroethene	0.447	0.451	-0.9	102	0.00
36	T	1,2-Dichloropropane	0.346	0.351	-1.4	101	0.00
37	T	1,4-Dioxane	0.112	0.125	-11.6	129	0.00
38	T	Bromodichloromethane	0.643	0.658	-2.3	104	0.00
39	T	cis-1,3-Dichloropropene	0.512	0.511	0.2	102	0.00
40	T	4-Methyl-2-pentanone	0.243	0.249	-2.5	104	0.00
41	T	Toluene	0.894	0.882	1.3	102	0.00
42	T	trans-1,3-Dichloropropene	0.452	0.455	-0.7	104	0.00
43	T	1,1,2-Trichloroethane	0.306	0.295	3.6	103	0.00
44	T	Tetrachloroethene	0.491	0.491	0.0	105	0.00
45	T	2-Hexanone	0.515	0.545	-5.8	109	0.00
46	T	Chlorodibromomethane	0.491	0.479	2.4	104	0.00
47	T	1,2-Dibromoethane	0.451	0.438	2.9	103	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\091911\09191111.D Vial: 11
Acq On : 19 Sep 2011 6:57 pm Operator: RACHEL HILL
Sample : ICV VOA1 091911 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	Chlorobenzene	0.884	0.874	1.1	103	0.00
50	T	Ethylbenzene	1.488	1.490	-0.1	104	0.00
51	T	m,p-Xylene	1.229	1.322	-7.6	103	0.00
52	T	o-Xylene	1.114	1.099	1.3	105	0.00
53	T	Styrene	0.778	0.740	4.9	101	0.00
54	T	Bromoform	0.583	0.576	1.2	102	0.00
55	S	4-Bromofluorobenzene	0.609	0.610	-0.2	106	0.00
56	T	1,1,2,2-Tetrachloroethane	0.824	0.790	4.1	100	0.00
57	T	4-Ethyltoluene	1.305	1.193	8.6	98	0.00
58	T	1,3,5-Trimethylbenzene	1.106	1.010	8.7	99	0.00
59	T	1,2,4-Trimethylbenzene	1.050	0.933	11.1	97	0.00
60	T	1,3-Dichlorobenzene	0.678	0.621	8.4	97	0.00
61	T	1,4-Dichlorobenzene	0.638	0.583	8.6	97	0.00
62	T	Benzyl chloride	0.821	0.823	-0.2	100	0.00
63	T	1,2-Dichlorobenzene	0.636	0.576	9.4	98	0.00
64	T	1,2,4-Trichlorobenzene	0.163	0.134	17.8	100	0.00
65	T	Hexachlorobutadiene	0.410	0.329	19.8	100	0.00
66		Naphthalene	0.269	0.229	14.9	100	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\091911\09191111.D Vial: 11
Acq On : 19 Sep 2011 6:57 pm Operator: RACHEL HILL
Sample : ICV VOA1 091911 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 19 19:51 2011 Quant Results File: 091911V1.RES

Quant Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration
DataAcq Meth : 091911V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.59	130	558177	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	1712629	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.54	117	1070213	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.19	95	653148	12.53	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 100.24%

Target Compounds						Qvalue
2) Propylene	5.52	41	589417	10.77	ppbv	96
3) Dichlorodifluoromethane	5.59	85	1346165	9.75	ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	911899	10.08	ppbv #	70
5) Chloromethane	6.01	50	599761	10.31	ppbv	99
6) Vinyl chloride	6.22	62	833007	10.31	ppbv	99
7) 1,3-Butadiene	6.28	39	688459	10.91	ppbv	94
8) Bromomethane	6.85	94	705099	11.70	ppbv	99
9) Chloroethane	7.00	64	328610	10.37	ppbv	95
10) Trichlorofluoromethane	7.33	101	1367521	10.44	ppbv #	98
11) Ethanol	7.57	45	148642	11.84	ppbv	99
12) Freon113	8.00	101	1154290	11.11	ppbv	88
13) 1,1-Dichloroethene	8.09	61	965284	10.97	ppbv #	85
14) Acetone	8.18	43	972389	11.61	ppbv #	89
15) Carbon disulfide	8.46	76	1411864	10.27	ppbv #	100
16) 2-Propanol	8.24	45	841118	11.57	ppbv #	1
17) Methylene chloride	8.75	49	737237	11.06	ppbv #	76
18) tert-Butyl Methyl Ether	8.95	73	1247317	10.91	ppbv #	87
19) trans-1,2-Dichloroethene	9.04	61	907585	11.02	ppbv #	80
20) n-Hexane	9.22	57	1025055	11.24	ppbv #	86
21) 1,1-Dichloroethane	9.60	63	1013691	10.83	ppbv #	97
22) Vinyl acetate	9.53	43	1460543	11.31	ppbv #	94
23) cis-1,2-Dichloroethene	10.28	96	513592	10.56	ppbv #	78
24) 2-Butanone	10.25	43	916779	11.06	ppbv #	88
25) Ethyl acetate	10.20	43	1149826	10.76	ppbv #	99
26) Tetrahydrofuran	10.58	42	624059	11.05	ppbv	88
27) Chloroform	10.61	83	1177380	11.16	ppbv	100
28) 1,1,1-Trichloroethane	10.86	97	1153096	11.35	ppbv #	95
29) Cyclohexane	10.86	56	1092758	11.76	ppbv	86
30) Carbon tetrachloride	11.02	117	971850	10.64	ppbv	97
31) Benzene	11.30	78	1264126	10.34	ppbv	93
32) 1,2-Dichloroethane	11.37	62	672349	11.01	ppbv #	97
34) Heptane	11.35	43	1327791	10.95	ppbv #	87
35) Trichloroethene	12.03	130	593064	9.69	ppbv	92
36) 1,2-Dichloropropane	12.38	63	470739	9.92	ppbv	98
37) 1,4-Dioxane	12.46	88	164218	10.67	ppbv #	80
38) Bromodichloromethane	12.67	83	866042	9.83	ppbv	99
39) cis-1,3-Dichloropropene	13.22	75	665478	9.49	ppbv	96
40) 4-Methyl-2-pentanone	13.34	58	341106	10.26	ppbv #	91
41) Toluene	13.63	91	1184039	9.66	ppbv	97
42) trans-1,3-Dichloropropene	13.93	75	567768	9.17	ppbv	94
43) 1,1,2-Trichloroethane	14.20	97	396057	9.44	ppbv	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\091911\09191111.D Vial: 11
Acq On : 19 Sep 2011 6:57 pm Operator: RACHEL HILL
Sample : ICV VOA1 091911 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 19 19:51 2011 Quant Results File: 091911V1.RES

Quant Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration
DataAcq Meth : 091911V1

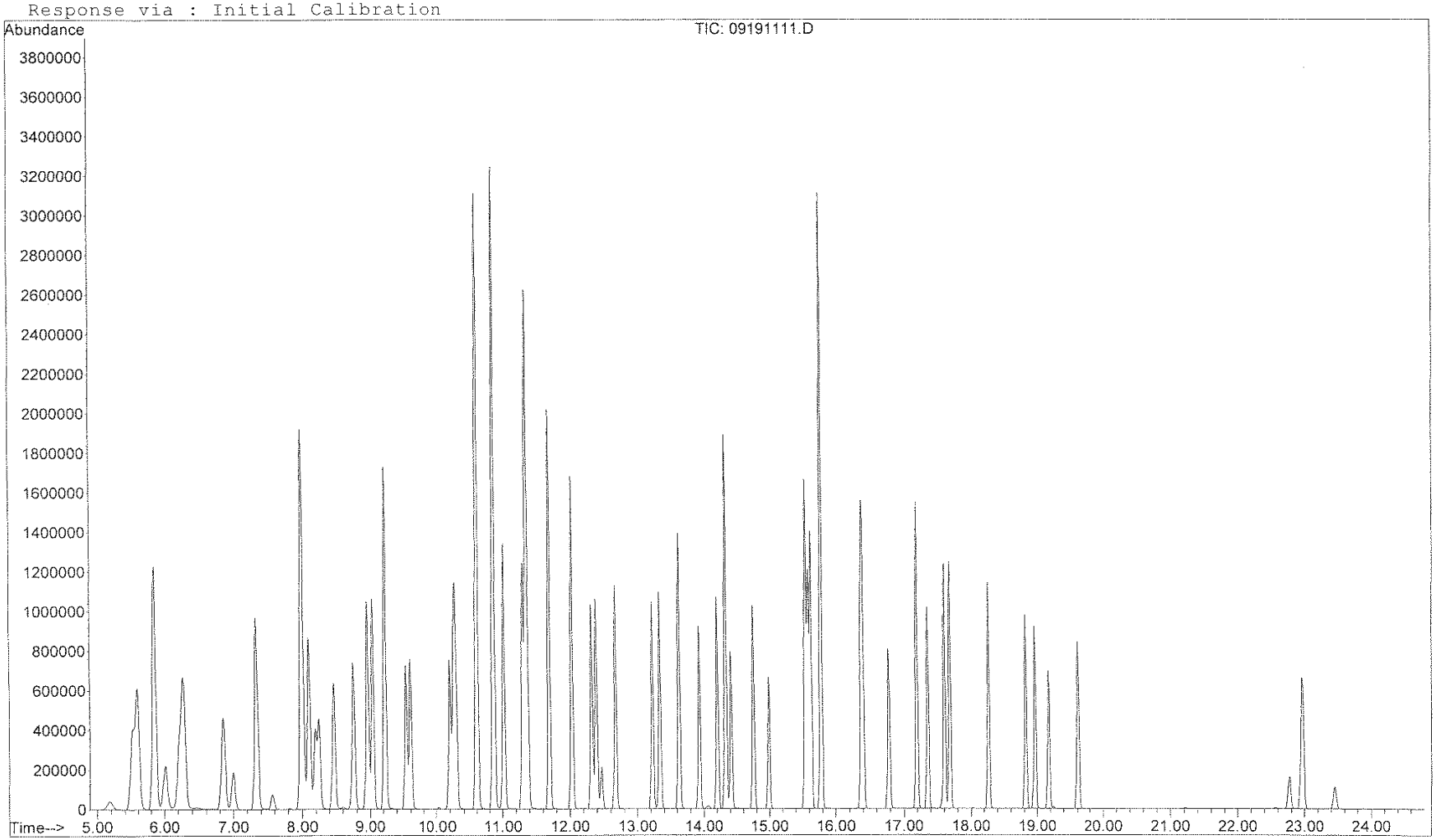
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	Tetrachloroethene	14.33	166	645924	9.60	ppbv		98
45)	2-Hexanone	14.41	43	731267	10.36	ppbv		92
46)	Chlorodibromomethane	14.75	129	643380	9.57	ppbv		99
47)	1,2-Dibromoethane	14.99	107	576550	9.32	ppbv		100
49)	Chlorobenzene	15.58	112	741039	9.79	ppbv	#	84
50)	Ethylbenzene	15.63	91	1249909	9.81	ppbv		90
51)	m,p-Xylene	15.78	91	2173085	20.65	ppbv		90
52)	o-Xylene	16.37	91	941175	9.86	ppbv	#	87
53)	Styrene	16.39	104	620864	9.32	ppbv		95
54)	Bromoform	16.78	173	473816	9.49	ppbv	#	97
56)	1,1,2,2-Tetrachloroethane	17.36	83	676443	9.59	ppbv	#	98
57)	4-Ethyltoluene	17.60	105	1000588	8.95	ppbv		96
58)	1,3,5-Trimethylbenzene	17.68	105	838721	8.85	ppbv		96
59)	1,2,4-Trimethylbenzene	18.27	105	782767	8.71	ppbv		96
60)	1,3-Dichlorobenzene	18.82	146	515572	8.88	ppbv	#	97
61)	1,4-Dichlorobenzene	18.96	146	479506	8.78	ppbv	#	96
62)	Benzyl chloride	19.17	91	683587	9.73	ppbv		95
63)	1,2-Dichlorobenzene	19.61	146	478172	8.79	ppbv	#	97
64)	1,2,4-Trichlorobenzene	22.77	180	104673	7.49	ppbv		96
65)	Hexachlorobutadiene	22.97	225	264894	7.55	ppbv		99
66)	Naphthalene	23.46	128	180021	7.81	ppbv		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\091911\09191111.D Vial: 11
Acq On : 19 Sep 2011 6:57 pm Operator: RACHEL HILL
Sample : ICV VOA1 091911 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 19 19:51 2011 Quant Results File: 091911V1.RES

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_110920A **Run No.:** 42946

Analytical Run Date: 9/20/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 42924 **Column ID:** 0.25mm, 1.4umFT

Column Length: 30m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 VOA1 092011	BFB_TUNE	TUNE	R42946	9/20/2011 4:23:00 PM	Robert Lynch		
CCV VOA1 092011	EPA_TO15	CCV	R42946	9/20/2011 5:07:00 PM	Robert Lynch		
RLVS1 VOA1 09201	EPA_TO15	RLVS	R42946	9/20/2011 7:24:00 PM	Robert Lynch		
BLK VOA1 092011	EPA_TO15	MBLK	R42946	9/20/2011 8:14:00 PM	Robert Lynch		
1109105-022A	EPA_TO15	SAMP	R42946	9/20/2011 10:35:00 PM	Robert Lynch	H	
1109105-024A	EPA_TO15	SAMP	R42946	9/21/2011 12:09:00 AM	Robert Lynch	H	
1109105-025A	EPA_TO15	SAMP	R42946	9/21/2011 12:56:00 AM	Robert Lynch	H	
1109105-029A	EPA_TO15	SAMP	R42946	9/21/2011 4:51:00 AM	Robert Lynch		
1109105-001A	EPA_TO15	SAMP	R42946	9/21/2011 8:03:00 AM	Robert Lynch		
1109105-037A	EPA_TO15	SAMP	R42946	9/21/2011 9:17:00 AM	Robert Lynch	H	
1109105-026A	EPA_TO15	SAMP	R42946	9/21/2011 10:00:00 AM	Robert Lynch	H	
1109105-027A	EPA_TO15	SAMP	R42946	9/21/2011 11:29:00 AM	Robert Lynch	H	
1109105-027Adup	EPA_TO15	DUP	R42946	9/21/2011 12:13:00 PM	Robert Lynch	H	
1109105-028A	EPA_TO15	SAMP	R42946	9/21/2011 1:30:00 PM	Robert Lynch	H	
RLVS2 VOA1 09201	EPA_TO15	RLVS	R42946	9/21/2011 2:25:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 42946

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
835220	BFB1 VOA1 092011	BFB_TUNE	TUNE	\1\DATA\092011	9/20/2011 4:23:0	1	R42946		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0.6	0.6		0	0	0	0	0	0	0%	0	2	0%	
174	M		71.9	71.9		0	0	0	0	0	0	0%	50	120	0%	
175	M		7.1	7.1		0	0	0	0	0	0	0%	4	9	0%	
176	M		101	101		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.8	6.8		0	0	0	0	0	0	0%	5	9	0%	
50	M		25.7	25.7		0	0	0	0	0	0	0%	8	40	0%	
75	M		52.4	52.4		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.9	6.9		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
835221	CCV VOA1 092011	EPA_TO15	CCV	\1\DATA\092011	9/20/2011 5:07:0	1	R42946		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	9.92	9.92		9.6	0	0	0.107	1	0	103%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	9.66	9.66		10	0	0	0.211	1	0	97%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.64	10.64		9.8	0	0	0.108	1	0	109%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	8.57	8.57		9.8	0	0	0.2	1	0	87%	70	130	0%	
1,1-Dichloroethane	A	ppbv	9.66	9.66		9.7	0	0	0.111	1	0	100%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.03	11.03		9.9	0	0	0.097	1	0	111%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	7.5	7.5		9.1	0	0	0.271	1	0	82%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	8.82	8.82		9.8	0	0	0.245	1	0	90%	70	130	0%	
1,2-Dibromoethane	A	ppbv	8.39	8.39		9.6	0	0	0.186	1	0	87%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.34	9.34		9.7	0	0	0.208	1	0	96%	70	130	0%	
1,2-Dichloroethane	A	ppbv	9.3	9.3		9.7	0	0	0.196	1	0	96%	70	130	0%	
1,2-Dichloropropane	A	ppbv	8.64	8.64		9.8	0	0	0.224	1	0	88%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	8.56	8.56		9.7	0	0	0.24	1	0	88%	70	130	0%	
1,3-Butadiene	A	ppbv	11.16	11.16		9.8	0	0	0.152	1	0	114%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.13	9.13		9.7	0	0	0.202	1	0	94%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
835221	CCV VOA1 092011	EPA_TO15	CCV	:\1\DATA\092011	9/20/2011 5:07:0	1	R42946		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	9.12	9.12		9.6	0	0	0.194	1	0	95%	70	130	0%	
1,4-Dioxane	A	ppbv	9.5	9.5		9.6	0	0	0.128	1	0	99%	70	130	0%	
2-Butanone	A	ppbv	10.07	10.07		9.9	0	0	0.287	1	0	102%	70	130	0%	
2-Hexanone	A	ppbv	9.82	9.82		9.8	0	0	0.135	1	0	100%	70	130	0%	
2-Propanol	A	ppbv	11.35	11.35		10.1	0	0	0.329	1	0	112%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	9.45	9.45		10	0	0	0.157	1	0	95%	70	130	0%	
Acetone	A	ppbv	9.76	9.76		10	0	0	0.43	1	0	98%	70	130	0%	
Benzene	A	ppbv	8.82	8.82		9.6	0	0	0.126	1	0	92%	70	130	0%	
Benzyl chloride	A	ppbv	9.57	9.57		9.7	0	0	0.155	1	0	99%	70	130	0%	
Bromodichloromethane	A	ppbv	8.49	8.49		9.6	0	0	0.156	1	0	88%	70	130	0%	
Bromoform	A	ppbv	8.65	8.65		9.6	0	0	0.197	1	0	90%	70	130	0%	
Bromomethane	A	ppbv	8.22	8.22		9.3	0	0	0.075	1	0	88%	70	130	0%	
Carbon disulfide	A	ppbv	10.75	10.75		9.7	0	0	0.093	1	0	111%	70	130	0%	
Carbon tetrachloride	A	ppbv	8.94	8.94		9.5	0	0	0.114	1	0	94%	70	130	0%	M
Chlorobenzene	A	ppbv	8.88	8.88		9.9	0	0	0.275	1	0	90%	70	130	0%	
Chlorodibromomethane	A	ppbv	8.4	8.4		9.2	0	0	0.165	1	0	91%	70	130	0%	
Chloroethane	A	ppbv	10.18	10.18		9.8	0	0	0.063	1	0	104%	70	130	0%	
Chloroform	A	ppbv	10.29	10.29		9.4	0	0	0.126	1	0	109%	70	130	0%	
Chloromethane	A	ppbv	12.1	12.1		9.8	0	0	0.104	1	0	123%	70	130	0%	M
cis-1,2-Dichloroethene	A	ppbv	9.47	9.47		9.8	0	0	0.107	1	0	97%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	8.36	8.36		9.5	0	0	0.166	1	0	88%	70	130	0%	
Cyclohexane	A	ppbv	10.94	10.94		9.8	0	0	0.684	2	0	112%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.85	9.85		9.2	0	0	0.086	1	0	107%	70	130	0%	
Ethanol	A	ppbv	10.91	10.91		9.2	0	0	1.962	5	0	119%	70	130	0%	
Ethyl acetate	A	ppbv	10.09	10.09		9.8	0	0	0.157	1	0	103%	70	130	0%	
Ethylbenzene	A	ppbv	8.96	8.96		9.8	0	0	0.737	2	0	91%	70	130	0%	
Heptane	A	ppbv	10.02	10.02		9.9	0	0	0.249	1	0	101%	70	130	0%	
Hexachlorobutadiene	A	ppbv	7.24	7.24		9.4	0	0	0.374	2	0	77%	70	130	0%	
m,p-Xylene	A	ppbv	18.7	18.7		19.2	0	0	0.524	2	0	97%	70	130	0%	
Methylene chloride	A	ppbv	10.78	10.78		10	0	0	2.077	5	0	108%	70	130	0%	
n-Hexane	A	ppbv	10.57	10.57		10.1	0	0	0.692	2	0	105%	70	130	0%	
Naphthalene	A	ppbv	7.8	7.8		9.2	0	0	0.247	1	0	85%	70	130	0%	
o-Xylene	A	ppbv	9.03	9.03		10	0	0	0.258	1	0	90%	70	130	0%	
Propylene	A	ppbv	11.45	11.45		10.2	0	0	0.075	1	0	112%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
835221	CCV VOA1 092011	EPA_TO15	CCV	\1\DATA\092011	9/20/2011 5:07:0	1	R42946		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	8.83	8.83		9.8	0	0	0.263	1	0	90%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	8.57	8.57		9.9	0	0	0.228	1	0	87%	70	130	0%	
Tetrachloroethene	A	ppbv	8.74	8.74		9.6	0	0	0.148	1	0	91%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.31	10.31		10	0	0	0.201	1	0	103%	70	130	0%	
Toluene	A	ppbv	8.73	8.73		9.8	0	0	0.158	1	0	89%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.15	10.15		9.8	0	0	0.117	1	0	104%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	8.15	8.15		9.1	0	0	0.171	1	0	90%	70	130	0%	
Trichloroethene	A	ppbv	8.57	8.57		9.6	0	0	0.119	1	0	89%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.07	10.07		9.6	0	0	0.148	1	0	105%	70	130	0%	
Vinyl acetate	A	ppbv	9.54	9.54		9.9	0	0	0.266	1	0	96%	70	130	0%	
Vinyl chloride	A	ppbv	10.79	10.79		9.4	0	0	0.072	1	0	115%	70	130	0%	
Xylenes, Total	C	ppbv	27.73	27.73		29.2	0	0	0.782	3	0	95%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		1.25	0	0	0	0	0	1000%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.55	12.55		12.5	0	0	0	0	0	100%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
835222	RLVS1 VOA1 09201	EPA_TO15	RLVS	\1\DATA\092011	9/20/2011 7:24:0	1	R42946		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	0.84	0.84		0.996	0	0	0.107	1	0	84%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.2	1.2		1	0	0	0.211	1	0	120%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	0.87	0.87		0.98	0	0	0.108	1	0	89%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.85	0.85		0.98	0	0	0.2	1	0	87%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.02	1.02		0.97	0	0	0.111	1	0	105%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.01	1.01		0.99	0	0	0.097	1	0	102%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.75	1.75		0.91	0	0	0.271	1	0	192%	70	130	0%	S
1,2,4-Trimethylbenzene	A	ppbv	1.43	1.43		0.98	0	0	0.245	1	0	146%	70	130	0%	S
1,2-Dibromoethane	A	ppbv	0.85	0.85		0.96	0	0	0.186	1	0	89%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.58	1.58		0.97	0	0	0.208	1	0	163%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	1.07	1.07		0.97	0	0	0.196	1	0	110%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.91	0.91		0.98	0	0	0.224	1	0	93%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\092011\09201102.D Vial: 2
Acq On : 20 Sep 2011 5:07 pm Operator: RACHEL HILL
Sample : CCV VOA1 092011 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	82	0.00
2	T	Propylene	1.225	1.375	-12.2	86	0.00
3	T	Dichlorodifluoromethane	3.092	3.309	-7.0	83	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.025	2.136	-5.5	82	0.00
5	T	Chloromethane	1.302	1.658	-27.3	93	0.00
6	T	Vinyl chloride	1.810	2.078	-14.8	81	-0.01
7	T	1,3-Butadiene	1.413	1.610	-13.9	80	-0.01
8	T	Bromomethane	1.349	1.192	11.6	77	0.00
9	T	Chloroethane	0.710	0.785	-10.6	85	0.00
10	T	Trichlorofluoromethane	2.933	3.076	-4.9	80	0.00
11	T	Ethanol	0.281	0.334	-18.9	104	0.00
12	T	Freon113	2.328	2.526	-8.5	77	0.00
13	T	1,1-Dichloroethene	1.971	2.197	-11.5	83	0.00
14	T	Acetone	1.875	1.830	2.4	66	0.00
15	T	Carbon disulfide	3.079	3.412	-10.8	85	0.00
16	T	2-Propanol	1.628	1.829	-12.3	80	-0.01
17	T	Methylene chloride	1.493	1.609	-7.8	78	0.00
18	T	tert-Butyl Methyl Ether	2.561	2.217	13.4	59	0.00
19	T	trans-1,2-Dichloroethene	1.844	1.911	-3.6	74	0.00
20	T	n-Hexane	2.043	2.137	-4.6	74	0.00
21	T	1,1-Dichloroethane	2.096	2.087	0.4	70	0.00
22	T	Vinyl acetate	2.893	2.787	3.7	62	0.00
23	T	cis-1,2-Dichloroethene	1.089	1.052	3.4	71	0.00
24	T	2-Butanone	1.856	1.888	-1.7	72	0.00
25	T	Ethyl acetate	2.392	2.464	-3.0	72	0.00
26	T	Tetrahydrofuran	1.265	1.304	-3.1	68	0.00
27	T	Chloroform	2.363	2.482	-5.0	70	-0.01
28	T	1,1,1-Trichloroethane	2.274	2.350	-3.3	68	0.00
29	T	Cyclohexane	2.080	2.323	-11.7	72	-0.01
30	T	Carbon tetrachloride	2.045	1.926	5.8	67	0.00
31	T	Benzene	2.739	2.518	8.1	64	0.00
32	T	1,2-Dichloroethane	1.367	1.311	4.1	63	-0.01
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	89	0.00
34	T	Heptane	0.885	0.896	-1.2	72	0.00
35	T	Trichloroethene	0.447	0.399	10.7	71	0.00
36	T	1,2-Dichloropropane	0.346	0.306	11.6	69	0.00
37	T	1,4-Dioxane	0.112	0.111	0.9	90	-0.01
38	T	Bromodichloromethane	0.643	0.568	11.7	71	0.00
39	T	cis-1,3-Dichloropropene	0.512	0.451	11.9	70	0.00
40	T	4-Methyl-2-pentanone	0.243	0.229	5.8	75	0.00
41	T	Toluene	0.894	0.797	10.9	73	0.00
42	T	trans-1,3-Dichloropropene	0.452	0.405	10.4	73	0.00
43	T	1,1,2-Trichloroethane	0.306	0.268	12.4	74	0.00
44	T	Tetrachloroethene	0.491	0.447	9.0	75	0.00
45	T	2-Hexanone	0.515	0.517	-0.4	81	0.00
46	T	Chlorodibromomethane	0.491	0.421	14.3	72	0.00
47	T	1,2-Dibromoethane	0.451	0.395	12.4	73	-0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\092011\09201102.D Vial: 2
Acq On : 20 Sep 2011 5:07 pm Operator: RACHEL HILL
Sample : CCV VOA1 092011 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	Chlorobenzene	0.884	0.793	10.3	75	0.00
50	T	Ethylbenzene	1.488	1.360	8.6	76	0.00
51	T	m,p-Xylene	1.229	1.197	2.6	74	0.00
52	T	o-Xylene	1.114	1.006	9.7	77	0.00
53	T	Styrene	0.778	0.701	9.9	77	0.00
54	T	Bromoform	0.583	0.525	9.9	75	0.00
55	S	4-Bromofluorobenzene	0.609	0.611	-0.3	85	0.00
56	T	1,1,2,2-Tetrachloroethane	0.824	0.795	3.5	81	0.00
57	T	4-Ethyltoluene	1.305	1.163	10.9	77	0.00
58	T	1,3,5-Trimethylbenzene	1.106	0.977	11.7	77	0.00
59	T	1,2,4-Trimethylbenzene	1.050	0.945	10.0	79	0.00
60	T	1,3-Dichlorobenzene	0.678	0.639	5.8	80	0.00
61	T	1,4-Dichlorobenzene	0.638	0.606	5.0	80	0.00
62	T	Benzyl chloride	0.821	0.810	1.3	79	0.00
63	T	1,2-Dichlorobenzene	0.636	0.612	3.8	83	0.00
64	T	1,2,4-Trichlorobenzene	0.163	0.134	17.8	80	0.00
65	T	Hexachlorobutadiene	0.410	0.316	22.9	77	0.00
66		Naphthalene	0.269	0.228	15.2	80	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092011\09201102.D Vial: 2
Acq On : 20 Sep 2011 5:07 pm Operator: RACHEL HILL
Sample : CCV VOA1 092011 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 21 9:39 2011 Quant Results File: 091911V1.RES

Quant Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration
DataAcq Meth : 091911V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.59	130	423665	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	1347215	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.54	117	856032	12.50 ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.18	95	523338	12.55 ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 100.40%

Target Compounds					Qvalue
2) Propylene	5.51	41	475355	11.45 ppbv	97
3) Dichlorodifluoromethane	5.58	85	1031750	9.85 ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	687715	10.02 ppbv #	67
5) Chloromethane	6.01	50	533997m	12.10 ppbv	
6) Vinyl chloride	6.21	62	661991	10.79 ppbv #	100
7) 1,3-Butadiene	6.27	39	534684	11.16 ppbv	95
8) Bromomethane	6.84	94	375811	8.22 ppbv #	97
9) Chloroethane	7.00	64	244773	10.18 ppbv #	95
10) Trichlorofluoromethane	7.33	101	1000780	10.07 ppbv #	97
11) Ethanol	7.57	45	104008	10.91 ppbv	99
12) Freon113	7.99	101	839178	10.64 ppbv	86
13) 1,1-Dichloroethene	8.09	61	737111	11.03 ppbv #	85
14) Acetone	8.18	43	620088	9.76 ppbv #	90
15) Carbon disulfide	8.46	76	1121874	10.75 ppbv #	99
16) 2-Propanol	8.24	45	626208	11.35 ppbv #	1
17) Methylene chloride	8.75	49	545456	10.78 ppbv #	74
18) tert-Butyl Methyl Ether	8.95	73	743955	8.57 ppbv #	85
19) trans-1,2-Dichloroethene	9.03	61	634628	10.15 ppbv #	80
20) n-Hexane	9.22	57	731487	10.57 ppbv #	85
21) 1,1-Dichloroethane	9.60	63	686145	9.66 ppbv #	97
22) Vinyl acetate	9.53	43	935184	9.54 ppbv #	94
23) cis-1,2-Dichloroethene	10.28	96	349556	9.47 ppbv #	78
24) 2-Butanone	10.24	43	633531	10.07 ppbv #	86
25) Ethyl acetate	10.20	43	818526	10.09 ppbv #	99
26) Tetrahydrofuran	10.58	42	442035	10.31 ppbv #	85
27) Chloroform	10.60	83	824360	10.29 ppbv	100
28) 1,1,1-Trichloroethane	10.85	97	764698	9.92 ppbv #	92
29) Cyclohexane	10.86	56	771577	10.94 ppbv #	82
30) Carbon tetrachloride	11.01	117	620013m	8.94 ppbv	
31) Benzene	11.30	78	819174	8.82 ppbv	93
32) 1,2-Dichloroethane	11.37	62	431109	9.30 ppbv #	96
34) Heptane	11.34	43	956097	10.02 ppbv #	85
35) Trichloroethene	12.03	130	412577	8.57 ppbv	92
36) 1,2-Dichloropropane	12.38	63	322691	8.64 ppbv	96
37) 1,4-Dioxane	12.46	88	114957	9.50 ppbv #	78
38) Bromodichloromethane	12.67	83	588185	8.49 ppbv	98
39) cis-1,3-Dichloropropene	13.22	75	461311	8.36 ppbv	95
40) 4-Methyl-2-pentanone	13.33	58	247015	9.45 ppbv #	91
41) Toluene	13.62	91	841967	8.73 ppbv	96
42) trans-1,3-Dichloropropene	13.93	75	397296	8.15 ppbv	94
43) 1,1,2-Trichloroethane	14.20	97	282840	8.57 ppbv	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092011\09201102.D Vial: 2
Acq On : 20 Sep 2011 5:07 pm Operator: RACHEL HILL
Sample : CCV VOA1 092011 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 21 9:39 2011 Quant Results File: 091911V1.RES

Quant Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration
DataAcq Meth : 091911V1

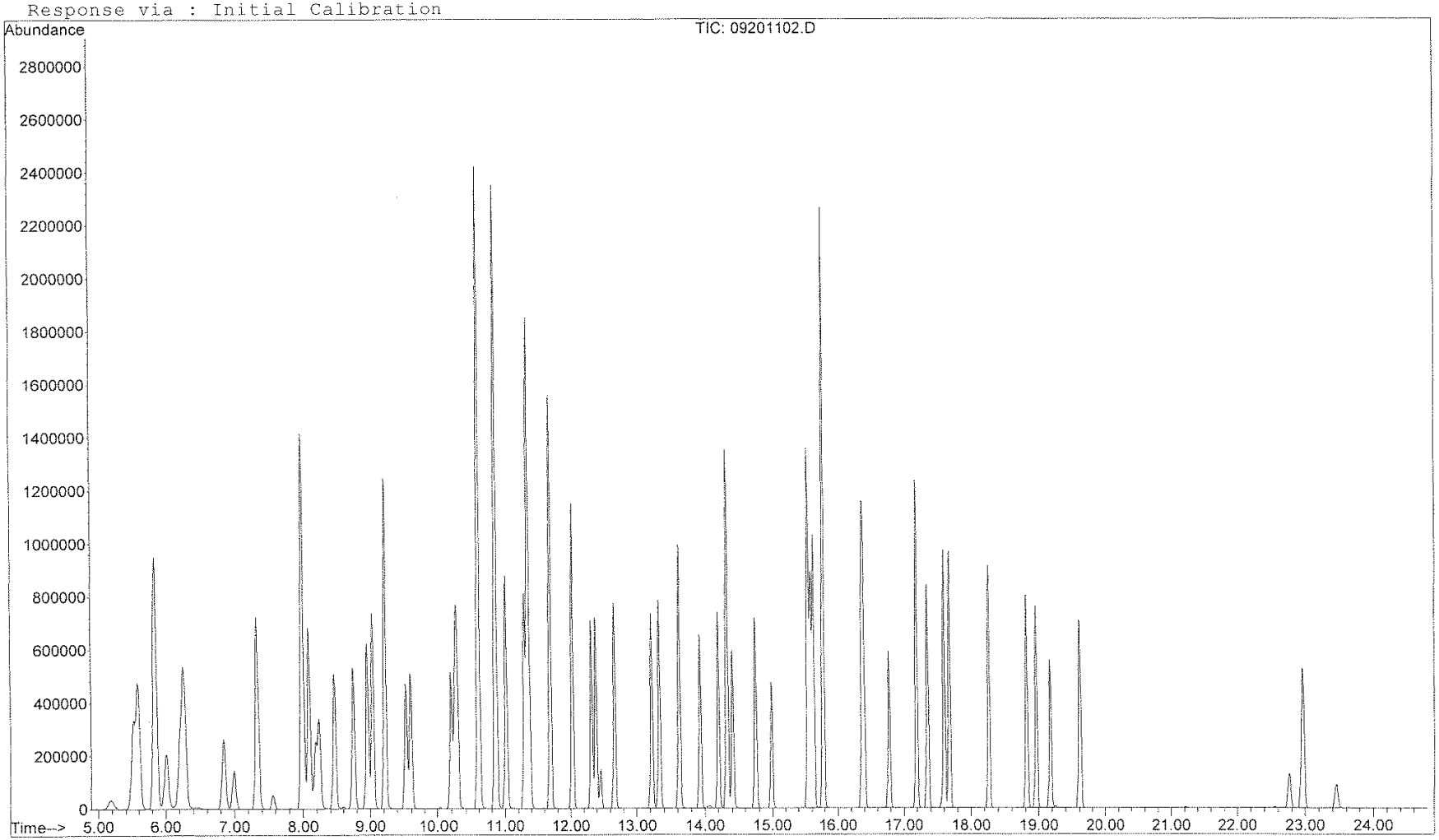
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44) Tetrachloroethene	14.33	166	462571	8.74 ppbv	98
45) 2-Hexanone	14.41	43	545674	9.82 ppbv	90
46) Chlorodibromomethane	14.75	129	444149	8.40 ppbv	99
47) 1,2-Dibromoethane	14.98	107	408246	8.39 ppbv	100
49) Chlorobenzene	15.58	112	537329	8.88 ppbv #	83
50) Ethylbenzene	15.62	91	912779	8.96 ppbv	90
51) m,p-Xylene	15.78	91	1573709	18.70 ppbv	89
52) o-Xylene	16.37	91	688791	9.03 ppbv #	86
53) Styrene	16.39	104	470585	8.83 ppbv	96
54) Bromoform	16.78	173	345361	8.65 ppbv #	97
56) 1,1,2,2-Tetrachloroethane	17.36	83	544674	9.66 ppbv #	99
57) 4-Ethyltoluene	17.60	105	780371	8.73 ppbv	95
58) 1,3,5-Trimethylbenzene	17.68	105	648953	8.56 ppbv	96
59) 1,2,4-Trimethylbenzene	18.27	105	634029	8.82 ppbv	97
60) 1,3-Dichlorobenzene	18.82	146	424147	9.13 ppbv #	97
61) 1,4-Dichlorobenzene	18.96	146	398140	9.12 ppbv #	97
62) Benzyl chloride	19.17	91	537887	9.57 ppbv	96
63) 1,2-Dichlorobenzene	19.61	146	406616	9.34 ppbv	97
64) 1,2,4-Trichlorobenzene	22.77	180	83794	7.50 ppbv	98
65) Hexachlorobutadiene	22.96	225	203372	7.24 ppbv	99
66) Naphthalene	23.45	128	143867	7.80 ppbv	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\092011\09201102.D Vial: 2
Acq On : 20 Sep 2011 5:07 pm Operator: RACHEL HILL
Sample : CCV VOA1 092011 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 21 9:39 2011 Quant Results File: 091911V1.RES

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_110923A **Run No.:** 43035

Analytical Run Date: 9/23/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: **Column ID:** 0.25mm, 1.4umFT

Column Length: 30m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 VOA1 092311	BFB_TUNE	TUNE	R43035	9/23/2011 3:53:00 PM	Robert Lynch		
CCV VOA1 092311	EPA_TO15	CCV	R43035	9/23/2011 4:39:00 PM	Robert Lynch		
RLVS1 VOA1 09231	EPA_TO15	RLVS	R43035	9/23/2011 5:25:00 PM	Robert Lynch		
BLK VOA1 092311	EPA_TO15	MBLK	R43035	9/23/2011 6:14:00 PM	Robert Lynch		
1108899-010A	EPA_TO15	SAMP	R43035	9/23/2011 6:57:00 PM	Robert Lynch	H	
1108899-013A	EPA_TO15	SAMP	R43035	9/23/2011 7:40:00 PM	Robert Lynch	H	
1108899-014A	EPA_TO15	SAMP	R43035	9/23/2011 8:23:00 PM	Robert Lynch	H	
1108899-014ADUP	EPA_TO15	DUP	R43035	9/23/2011 9:08:00 PM	Robert Lynch	H	
1108899-015A	EPA_TO15	SAMP	R43035	9/23/2011 9:52:00 PM	Robert Lynch	H	
1109105-023A	EPA_TO15	SAMP	R43035	9/24/2011 12:18:00 AM	Robert Lynch	H	
1109105-003A	EPA_TO15	SAMP	R43035	9/24/2011 3:33:00 AM	Robert Lynch	H	
1109105-033A	EPA_TO15	SAMP	R43035	9/24/2011 5:07:00 AM	Robert Lynch	H	
1109105-020A	EPA_TO15	SAMP	R43035	9/24/2011 9:26:00 AM	Robert Lynch	H	
1109105-021A	EPA_TO15	SAMP	R43035	9/24/2011 10:12:00 AM	Robert Lynch	H	
1109105-030A	EPA_TO15	SAMP	R43035	9/24/2011 10:59:00 AM	Robert Lynch	H	
1109105-031A	EPA_TO15	SAMP	R43035	9/24/2011 11:46:00 AM	Robert Lynch	H	
1109105-032A	EPA_TO15	SAMP	R43035	9/24/2011 12:34:00 PM	Robert Lynch	H	
RLVS2 VOA1 09231	EPA_TO15	RLVS	R43035	9/24/2011 1:23:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 43035

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
837684	BFB1 VOA1 092311	BFB_TUNE	TUNE	\1\DATA\092311	9/23/2011 3:53:0	1	R43035		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0.6	0.6		0	0	0	0	0	0	0%	0	2	0%	
174	M		81.9	81.9		0	0	0	0	0	0	0%	50	120	0%	
175	M		7.4	7.4		0	0	0	0	0	0	0%	4	9	0%	
176	M		100.4	100.4		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.6	6.6		0	0	0	0	0	0	0%	5	9	0%	
50	M		24.2	24.2		0	0	0	0	0	0	0%	8	40	0%	
75	M		50.2	50.2		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.7	6.7		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
837685	CCV VOA1 092311	EPA_TO15	CCV	\1\DATA\092311	9/23/2011 4:39:0	1	R43035		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	10.45	10.45		9.6	0	0	0.107	1	0	109%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.47	10.47		10	0	0	0.211	1	0	105%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.89	10.89		9.8	0	0	0.108	1	0	111%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.33	9.33		9.8	0	0	0.2	1	0	95%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.34	10.34		9.7	0	0	0.111	1	0	107%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.88	10.88		9.9	0	0	0.097	1	0	110%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	6.91	6.91		9.1	0	0	0.271	1	0	76%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.42	9.42		9.8	0	0	0.245	1	0	96%	70	130	0%	
1,2-Dibromoethane	A	ppbv	8.97	8.97		9.6	0	0	0.186	1	0	93%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.6	9.6		9.7	0	0	0.208	1	0	99%	70	130	0%	
1,2-Dichloroethane	A	ppbv	9.87	9.87		9.7	0	0	0.196	1	0	102%	70	130	0%	
1,2-Dichloropropane	A	ppbv	9.96	9.96		9.8	0	0	0.224	1	0	102%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.3	9.3		9.7	0	0	0.24	1	0	96%	70	130	0%	
1,3-Butadiene	A	ppbv	11.16	11.16		9.8	0	0	0.152	1	0	114%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.7	9.7		9.7	0	0	0.202	1	0	100%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
837685	CCV VOA1 092311	EPA_TO15	CCV	\1\DATA\092311	9/23/2011 4:39:0	1	R43035		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	9.49	9.49		9.6	0	0	0.194	1	0	99%	70	130	0%	
1,4-Dioxane	A	ppbv	10.04	10.04		9.6	0	0	0.128	1	0	105%	70	130	0%	
2-Butanone	A	ppbv	10.2	10.2		9.9	0	0	0.287	1	0	103%	70	130	0%	
2-Hexanone	A	ppbv	9.81	9.81		9.8	0	0	0.135	1	0	100%	70	130	0%	
2-Propanol	A	ppbv	10.75	10.75		10.1	0	0	0.329	1	0	106%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	9.75	9.75		10	0	0	0.157	1	0	98%	70	130	0%	
Acetone	A	ppbv	10.57	10.57		10	0	0	0.43	1	0	106%	70	130	0%	
Benzene	A	ppbv	9.44	9.44		9.6	0	0	0.126	1	0	98%	70	130	0%	
Benzyl chloride	A	ppbv	9.87	9.87		9.7	0	0	0.155	1	0	102%	70	130	0%	
Bromodichloromethane	A	ppbv	9.33	9.33		9.6	0	0	0.156	1	0	97%	70	130	0%	
Bromoform	A	ppbv	9.62	9.62		9.6	0	0	0.197	1	0	100%	70	130	0%	
Bromomethane	A	ppbv	8.15	8.15		9.3	0	0	0.075	1	0	88%	70	130	0%	
Carbon disulfide	A	ppbv	10.31	10.31		9.7	0	0	0.093	1	0	106%	70	130	0%	
Carbon tetrachloride	A	ppbv	9.27	9.27		9.5	0	0	0.114	1	0	98%	70	130	0%	M
Chlorobenzene	A	ppbv	10.28	10.28		9.9	0	0	0.275	1	0	104%	70	130	0%	
Chlorodibromomethane	A	ppbv	8.9	8.9		9.2	0	0	0.165	1	0	97%	70	130	0%	
Chloroethane	A	ppbv	9.94	9.94		9.8	0	0	0.063	1	0	101%	70	130	0%	
Chloroform	A	ppbv	10.7	10.7		9.4	0	0	0.126	1	0	114%	70	130	0%	
Chloromethane	A	ppbv	11.37	11.37		9.8	0	0	0.104	1	0	116%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.04	10.04		9.8	0	0	0.107	1	0	102%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.23	9.23		9.5	0	0	0.166	1	0	97%	70	130	0%	
Cyclohexane	A	ppbv	11.57	11.57		9.8	0	0	0.684	2	0	118%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.48	9.48		9.2	0	0	0.086	1	0	103%	70	130	0%	
Ethanol	A	ppbv	10.88	10.88		9.2	0	0	1.962	5	0	118%	70	130	0%	
Ethyl acetate	A	ppbv	10.08	10.08		9.8	0	0	0.157	1	0	103%	70	130	0%	
Ethylbenzene	A	ppbv	10.35	10.35		9.8	0	0	0.737	2	0	106%	70	130	0%	
Heptane	A	ppbv	11.09	11.09		9.9	0	0	0.249	1	0	112%	70	130	0%	
Hexachlorobutadiene	A	ppbv	6.9	6.9		9.4	0	0	0.374	2	0	73%	70	130	0%	
m,p-Xylene	A	ppbv	21.48	21.48		19.2	0	0	0.524	2	0	112%	70	130	0%	
Methylene chloride	A	ppbv	11.29	11.29		10	0	0	2.077	5	0	113%	70	130	0%	
n-Hexane	A	ppbv	11.07	11.07		10.1	0	0	0.692	2	0	110%	70	130	0%	
Naphthalene	A	ppbv	7.15	7.15		9.2	0	0	0.247	1	0	78%	70	130	0%	
o-Xylene	A	ppbv	10.21	10.21		10	0	0	0.258	1	0	102%	70	130	0%	
Propylene	A	ppbv	10.81	10.81		10.2	0	0	0.075	1	0	106%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
837685	CCV VOA1 092311	EPA_TO15	CCV	\1\DATA\092311	9/23/2011 4:39:0	1	R43035		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	9.9	9.9		9.8	0	0	0.263	1	0	101%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	9.27	9.27		9.9	0	0	0.228	1	0	94%	70	130	0%	
Tetrachloroethene	A	ppbv	9.41	9.41		9.6	0	0	0.148	1	0	98%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.4	10.4		10	0	0	0.201	1	0	104%	70	130	0%	
Toluene	A	ppbv	9.69	9.69		9.8	0	0	0.158	1	0	99%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.69	10.69		9.8	0	0	0.117	1	0	109%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	8.74	8.74		9.1	0	0	0.171	1	0	96%	70	130	0%	
Trichloroethene	A	ppbv	9.49	9.49		9.6	0	0	0.119	1	0	99%	70	130	0%	
Trichlorofluoromethane	A	ppbv	9.89	9.89		9.6	0	0	0.148	1	0	103%	70	130	0%	
Vinyl acetate	A	ppbv	10.36	10.36		9.9	0	0	0.266	1	0	105%	70	130	0%	
Vinyl chloride	A	ppbv	11.12	11.12		9.4	0	0	0.072	1	0	118%	70	130	0%	
Xylenes, Total	C	ppbv	31.69	31.69		29.2	0	0	0.782	3	0	109%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		1.25	0	0	0	0	0	1000%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	11.94	11.94		12.5	0	0	0	0	0	96%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
837686	RLVS1 VOA1 09231	EPA_TO15	RLVS	\1\DATA\092311	9/23/2011 5:25:0	1	R43035		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	0.82	0.82		0.996	0	0	0.107	1	0	82%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.28	1.28		1	0	0	0.211	1	0	128%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	0.85	0.85		0.98	0	0	0.108	1	0	87%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.91	0.91		0.98	0	0	0.2	1	0	93%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.01	1.01		0.97	0	0	0.111	1	0	104%	70	130	0%	
1,1-Dichloroethene	A	ppbv	0.97	0.97		0.99	0	0	0.097	1	0	98%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.56	1.56		0.91	0	0	0.271	1	0	171%	70	130	0%	S
1,2,4-Trimethylbenzene	A	ppbv	1.48	1.48		0.98	0	0	0.245	1	0	151%	70	130	0%	S
1,2-Dibromoethane	A	ppbv	0.88	0.88		0.96	0	0	0.186	1	0	92%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.59	1.59		0.97	0	0	0.208	1	0	164%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	1.04	1.04		0.97	0	0	0.196	1	0	107%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.94	0.94		0.98	0	0	0.224	1	0	96%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\092311\09231102.D Vial: 2
Acq On : 23 Sep 2011 4:39 pm Operator: RACHEL HILL
Sample : CCV VOA1 092311 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	84	0.00
2	T	Propylene	1.225	1.299	-6.0	83	0.00
3	T	Dichlorodifluoromethane	3.092	3.187	-3.1	82	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.025	2.073	-2.4	82	0.00
5	T	Chloromethane	1.302	1.558	-19.7	90	0.00
6	T	Vinyl chloride	1.810	2.140	-18.2	85	0.00
7	T	1,3-Butadiene	1.413	1.609	-13.9	82	0.00
8	T	Bromomethane	1.349	1.183	12.3	78	0.00
9	T	Chloroethane	0.710	0.767	-8.0	85	0.00
10	T	Trichlorofluoromethane	2.933	3.021	-3.0	81	0.00
11	T	Ethanol	0.281	0.333	-18.5	107	0.00
12	T	Freon113	2.328	2.586	-11.1	81	0.00
13	T	1,1-Dichloroethene	1.971	2.167	-9.9	84	0.00
14	T	Acetone	1.875	1.983	-5.8	73	0.00
15	T	Carbon disulfide	3.079	3.272	-6.3	83	0.00
16	T	2-Propanol	1.628	1.733	-6.4	78	-0.01
17	T	Methylene chloride	1.493	1.686	-12.9	84	0.00
18	T	tert-Butyl Methyl Ether	2.561	2.397	6.4	65	0.00
19	T	trans-1,2-Dichloroethene	1.844	2.012	-9.1	80	0.00
20	T	n-Hexane	2.043	2.238	-9.5	80	0.00
21	T	1,1-Dichloroethane	2.096	2.234	-6.6	77	0.00
22	T	Vinyl acetate	2.893	3.028	-4.7	69	0.00
23	T	cis-1,2-Dichloroethene	1.089	1.115	-2.4	77	0.00
24	T	2-Butanone	1.856	1.913	-3.1	74	0.00
25	T	Ethyl acetate	2.392	2.461	-2.9	74	0.00
26	T	Tetrahydrofuran	1.265	1.316	-4.0	71	0.00
27	T	Chloroform	2.363	2.581	-9.2	75	-0.01
28	T	1,1,1-Trichloroethane	2.274	2.475	-8.8	73	0.00
29	T	Cyclohexane	2.080	2.457	-18.1	78	0.00
30	T	Carbon tetrachloride	2.045	1.996	2.4	71	0.00
31	T	Benzene	2.739	2.695	1.6	71	0.00
32	T	1,2-Dichloroethane	1.367	1.391	-1.8	69	-0.01
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	83	0.00
34	T	Heptane	0.885	0.992	-12.1	73	0.00
35	T	Trichloroethene	0.447	0.442	1.1	73	0.00
36	T	1,2-Dichloropropane	0.346	0.352	-1.7	74	0.00
37	T	1,4-Dioxane	0.112	0.117	-4.5	89	0.00
38	T	Bromodichloromethane	0.643	0.625	2.8	72	0.00
39	T	cis-1,3-Dichloropropene	0.512	0.498	2.7	72	0.00
40	T	4-Methyl-2-pentanone	0.243	0.237	2.5	72	0.00
41	T	Toluene	0.894	0.884	1.1	75	0.00
42	T	trans-1,3-Dichloropropene	0.452	0.434	4.0	72	0.00
43	T	1,1,2-Trichloroethane	0.306	0.291	4.9	74	0.00
44	T	Tetrachloroethene	0.491	0.482	1.8	75	0.00
45	T	2-Hexanone	0.515	0.516	-0.2	75	0.00
46	T	Chlorodibromomethane	0.491	0.445	9.4	71	0.00
47	T	1,2-Dibromoethane	0.451	0.422	6.4	72	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\092311\09231102.D Vial: 2
Acq On : 23 Sep 2011 4:39 pm Operator: RACHEL HILL
Sample : CCV VOA1 092311 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	Chlorobenzene	0.884	0.918	-3.8	73	0.00
50	T	Ethylbenzene	1.488	1.571	-5.6	75	0.00
51	T	m,p-Xylene	1.229	1.375	-11.9	72	0.00
52	T	o-Xylene	1.114	1.138	-2.2	74	0.00
53	T	Styrene	0.778	0.786	-1.0	73	0.00
54	T	Bromoform	0.583	0.584	-0.2	70	0.00
55	S	4-Bromofluorobenzene	0.609	0.582	4.4	69	0.00
56	T	1,1,2,2-Tetrachloroethane	0.824	0.862	-4.6	74	0.00
57	T	4-Ethyltoluene	1.305	1.285	1.5	72	0.00
58	T	1,3,5-Trimethylbenzene	1.106	1.061	4.1	70	0.00
59	T	1,2,4-Trimethylbenzene	1.050	1.009	3.9	71	0.00
60	T	1,3-Dichlorobenzene	0.678	0.678	0.0	72	0.00
61	T	1,4-Dichlorobenzene	0.638	0.630	1.3	71	0.00
62	T	Benzyl chloride	0.821	0.835	-1.7	69	0.00
63	T	1,2-Dichlorobenzene	0.636	0.629	1.1	72	0.00
64	T	1,2,4-Trichlorobenzene	0.163	0.124	23.9	63	0.00
65	T	Hexachlorobutadiene	0.410	0.301	26.6	62	0.00
66		Naphthalene	0.269	0.209	22.3	62	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092311\09231102.D Vial: 2
Acq On : 23 Sep 2011 4:39 pm Operator: RACHEL HILL
Sample : CCV VOA1 092311 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 24 4:31 2011 Quant Results File: 091911V1.RES

Quant Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration
DataAcq Meth : 091911V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.59	130	434926	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	1247734	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.53	117	725259	12.50 ppbv	0.00
System Monitoring Compounds					
55) 4-Bromofluorobenzene	17.19	95	421800	11.94 ppbv	0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 95.52%		
Target Compounds					Qvalue
2) Propylene	5.51	41	460907	10.81 ppbv	98
3) Dichlorodifluoromethane	5.59	85	1020223	9.48 ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	685234	9.72 ppbv #	67
5) Chloromethane	6.01	50	515077	11.37 ppbv	99
6) Vinyl chloride	6.21	62	700076	11.12 ppbv	99
7) 1,3-Butadiene	6.27	39	548763	11.16 ppbv	97
8) Bromomethane	6.85	94	382641	8.15 ppbv #	98
9) Chloroethane	6.99	64	245422	9.94 ppbv #	95
10) Trichlorofluoromethane	7.33	101	1009225	9.89 ppbv #	97
11) Ethanol	7.57	45	106472	10.88 ppbv	99
12) Freon113	7.99	101	881624	10.89 ppbv	87
13) 1,1-Dichloroethene	8.09	61	746357	10.88 ppbv #	85
14) Acetone	8.18	43	690013	10.57 ppbv #	89
15) Carbon disulfide	8.46	76	1104336	10.31 ppbv #	99
16) 2-Propanol	8.23	45	609157	10.75 ppbv #	1
17) Methylene chloride	8.75	49	586711	11.29 ppbv #	74
18) tert-Butyl Methyl Ether	8.95	73	825523	9.27 ppbv #	86
19) trans-1,2-Dichloroethene	9.03	61	686052	10.69 ppbv #	81
20) n-Hexane	9.22	57	786460	11.07 ppbv #	86
21) 1,1-Dichloroethane	9.59	63	753886	10.34 ppbv #	97
22) Vinyl acetate	9.53	43	1043075	10.36 ppbv #	94
23) cis-1,2-Dichloroethene	10.28	96	380226	10.04 ppbv #	79
24) 2-Butanone	10.25	43	658903	10.20 ppbv #	88
25) Ethyl acetate	10.19	43	839045	10.08 ppbv #	98
26) Tetrahydrofuran	10.59	42	457833	10.40 ppbv #	86
27) Chloroform	10.60	83	880099	10.70 ppbv	100
28) 1,1,1-Trichloroethane	10.85	97	826750	10.45 ppbv #	93
29) Cyclohexane	10.86	56	837698	11.57 ppbv	84
30) Carbon tetrachloride	11.02	117	659761m	9.27 ppbv	
31) Benzene	11.30	78	900026	9.44 ppbv	93
32) 1,2-Dichloroethane	11.37	62	469490	9.87 ppbv #	96
34) Heptane	11.35	43	980315	11.09 ppbv #	85
35) Trichloroethene	12.03	130	423243	9.49 ppbv	92
36) 1,2-Dichloropropane	12.38	63	344502	9.96 ppbv	97
37) 1,4-Dioxane	12.46	88	112481	10.04 ppbv #	79
38) Bromodichloromethane	12.67	83	598569	9.33 ppbv #	98
39) cis-1,3-Dichloropropene	13.22	75	471878	9.23 ppbv	95
40) 4-Methyl-2-pentanone	13.33	58	236137	9.75 ppbv #	91
41) Toluene	13.63	91	864836	9.69 ppbv	96
42) trans-1,3-Dichloropropene	13.93	75	394318	8.74 ppbv	95
43) 1,1,2-Trichloroethane	14.20	97	285095	9.33 ppbv	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092311\09231102.D Vial: 2
Acq On : 23 Sep 2011 4:39 pm Operator: RACHEL HILL
Sample : CCV VOA1 092311 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 24 4:31 2011 Quant Results File: 091911V1.RES

Quant Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration
DataAcq Meth : 091911V1

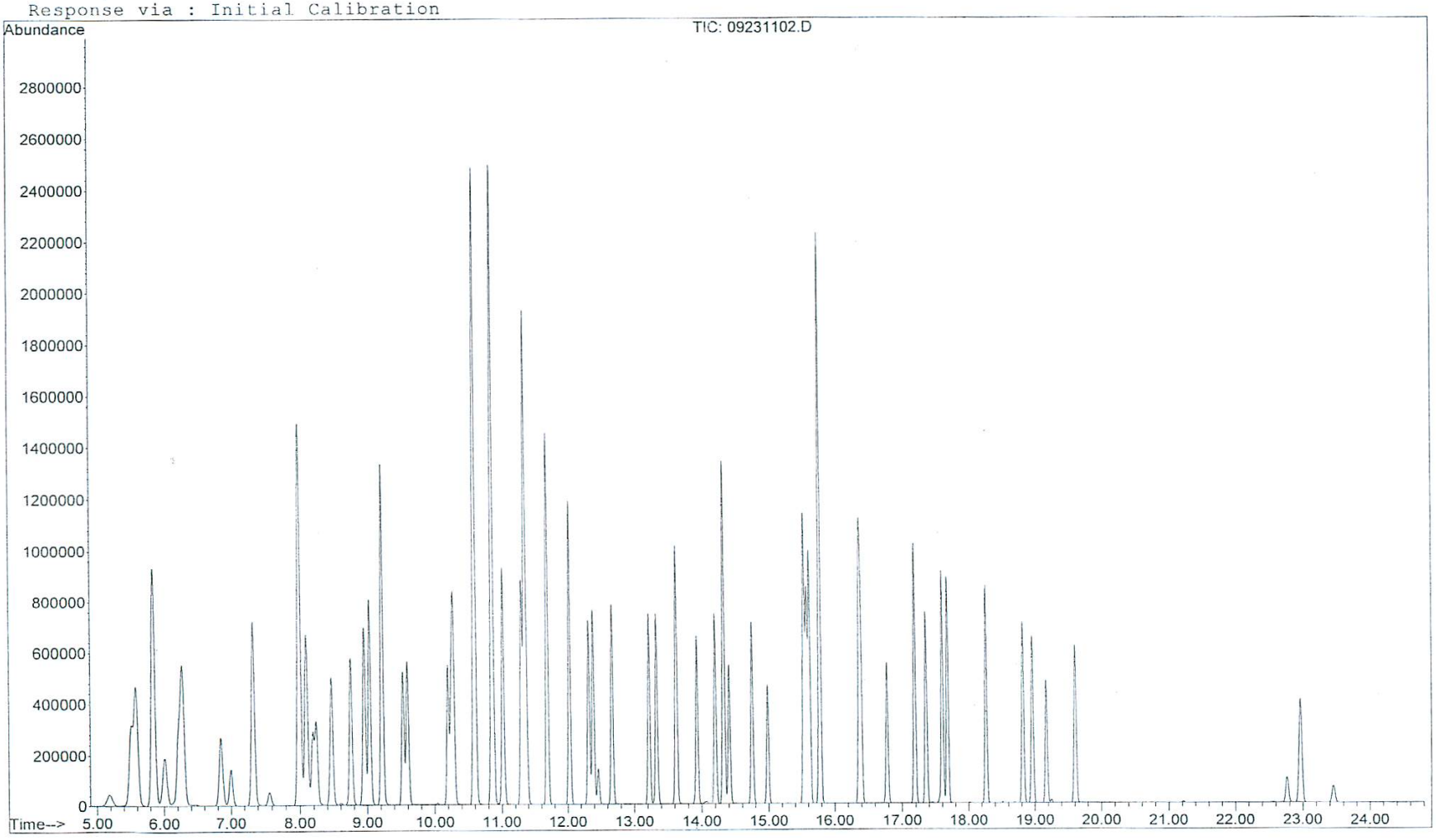
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44) Tetrachloroethene	14.33	166	461528	9.41 ppbv	98
45) 2-Hexanone	14.41	43	504672	9.81 ppbv	91
46) Chlorodibromomethane	14.75	129	435624	8.90 ppbv	99
47) 1,2-Dibromoethane	14.99	107	404086	8.97 ppbv	100
49) Chlorobenzene	15.58	112	527221	10.28 ppbv #	84
50) Ethylbenzene	15.62	91	893309	10.35 ppbv	92
51) m,p-Xylene	15.78	91	1531885	21.48 ppbv	89
52) o-Xylene	16.37	91	660092	10.21 ppbv #	86
53) Styrene	16.40	104	446781	9.90 ppbv	95
54) Bromoform	16.78	173	325438	9.62 ppbv #	97
56) 1,1,2,2-Tetrachloroethane	17.35	83	500245	10.47 ppbv #	98
57) 4-Ethyltoluene	17.60	105	730491	9.64 ppbv	96
58) 1,3,5-Trimethylbenzene	17.68	105	597214	9.30 ppbv	96
59) 1,2,4-Trimethylbenzene	18.26	105	573798	9.42 ppbv	96
60) 1,3-Dichlorobenzene	18.82	146	381572	9.70 ppbv	97
61) 1,4-Dichlorobenzene	18.97	146	351173	9.49 ppbv #	97
62) Benzyl chloride	19.17	91	470103	9.87 ppbv	95
63) 1,2-Dichlorobenzene	19.61	146	353821	9.60 ppbv	97
64) 1,2,4-Trichlorobenzene	22.76	180	65464	6.91 ppbv	96
65) Hexachlorobutadiene	22.96	225	164094	6.90 ppbv	98
66) Naphthalene	23.45	128	111686	7.15 ppbv	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\092311\09231102.D Vial: 2
Acq On : 23 Sep 2011 4:39 pm Operator: RACHEL HILL
Sample : CCV VOA1 092311 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 24 4:31 2011 Quant Results File: 091911V1.RES

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_110929A **Run No.:** 43152

Analytical Run Date: 9/29/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: **Column ID:** 0.25mm, 1.4umFT

Column Length: 30m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 VOA1 092911	BFB_TUNE	TUNE	R43152	9/29/2011 9:10:00 AM	Robert Lynch		
1ppbv ICAL	EPA_TO15	ICAL	R43152	9/29/2011 10:36:00 AM	Robert Lynch		
10ppbv ICAL	EPA_TO15	ICAL	R43152	9/29/2011 11:17:00 AM	Robert Lynch		
12ppbv ICAL	EPA_TO15	ICAL	R43152	9/29/2011 12:14:00 PM	Robert Lynch		
15ppbv ICAL	EPA_TO15	ICAL	R43152	9/29/2011 12:55:00 PM	Robert Lynch		
20ppbv ICAL	EPA_TO15	ICAL	R43152	9/29/2011 1:36:00 PM	Robert Lynch		
30ppbv ICAL	EPA_TO15	ICAL	R43152	9/29/2011 2:18:00 PM	Robert Lynch		
50ppbv ICAL	EPA_TO15	ICAL	R43152	9/29/2011 3:02:00 PM	Robert Lynch		
VOA1 BFB2 092911	BFB_TUNE	TUNE	R43152	9/29/2011 3:41:00 PM	Robert Lynch		
VOA1 ICV 092711	EPA_TO15	ICV	R43152	9/29/2011 4:22:00 PM	Robert Lynch		
VOA1 RLVS1 09271	EPA_TO15	RLVS	R43152	9/29/2011 5:03:00 PM	Robert Lynch		
1108899-043A	EPA_TO15	SAMP	R43152	9/29/2011 6:31:00 PM	Robert Lynch	H	
1108899-043ADUP	EPA_TO15	DUP	R43152	9/29/2011 7:12:00 PM	Robert Lynch	H	
1108899-041A	EPA_TO15	SAMP	R43152	9/29/2011 7:54:00 PM	Robert Lynch	H	
1108899-042A	EPA_TO15	SAMP	R43152	9/29/2011 8:38:00 PM	Robert Lynch	H	
1109105-004A	EPA_TO15	SAMP	R43152	9/29/2011 9:19:00 PM	Robert Lynch	H	
1109105-034A	EPA_TO15	SAMP	R43152	9/29/2011 10:00:00 PM	Robert Lynch	H	
1109105-016A	EPA_TO15	SAMP	R43152	9/29/2011 10:45:00 PM	Robert Lynch	H	
1109105-019A	EPA_TO15	SAMP	R43152	9/30/2011 12:15:00 AM	Robert Lynch	H	
1109105-008A	EPA_TO15	SAMP	R43152	9/30/2011 12:56:00 AM	Robert Lynch	H	
1109105-010A	EPA_TO15	SAMP	R43152	9/30/2011 2:18:00 AM	Robert Lynch	H	
1109105-011A	EPA_TO15	SAMP	R43152	9/30/2011 2:59:00 AM	Robert Lynch	H	
1109555-007A	EPA_TO15	SAMP	R43152	9/30/2011 4:28:00 AM	Robert Lynch	H	
1109105-012A	EPA_TO15	SAMP	R43152	9/30/2011 7:32:00 AM	Robert Lynch	H	
1109555-010A	EPA_TO15	SAMP	R43152	9/30/2011 9:22:00 AM	Robert Lynch	H	
VOA1 BLK 092711	EPA_TO15	MBLK	R43152	9/30/2011 10:14:00 AM	Robert Lynch		Accidentally ran Blank on wrong position on tree. Re-analyzed as soon as possible here.
1108899-043A	EPA_TO15	SAMP	R43152	9/30/2011 10:55:00 AM	Robert Lynch	H	
1109555-011A	EPA_TO15	SAMP	R43152	9/30/2011 11:39:00 AM	Robert Lynch	H	
1109555-012A	EPA_TO15	SAMP	R43152	9/30/2011 12:23:00 PM	Robert Lynch	H	
1109555-013A	EPA_TO15	SAMP	R43152	9/30/2011 1:04:00 PM	Robert Lynch	H	
VOA1 RLVS2 09271	EPA_TO15	RLVS	R43152	9/30/2011 1:47:00 PM	Robert Lynch		

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\092911\09291113.D Vial: 2
Acq On : 29 Sep 2011 4:22 pm Operator: RACHEL HILL
Sample : VOA1 ICV 092711 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\092911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Sep 30 07:20:59 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	119	0.00
2	T	Propylene	1.347	1.381	-2.5	104	0.00
3	T	Dichlorodifluoromethane	3.585	3.645	-1.7	107	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.317	2.382	-2.8	107	0.00
5	T	Chloromethane	1.453	1.565	-7.7	103	-0.01
6	T	Vinyl chloride	1.253	1.542	-23.1	113	-0.01
7	T	1,3-Butadiene	1.267	1.602	-26.4	107	-0.02
8	T	Bromomethane	1.224	1.276	-4.2	108	0.00
9	T	Chloroethane	0.763	0.802	-5.1	109	0.00
10	T	Trichlorofluoromethane	3.171	3.368	-6.2	113	0.00
11	T	Ethanol	0.354	0.410	-15.8	151#	-0.01
12	T	Freon113	2.437	2.712	-11.3	124	0.00
13	T	1,1-Dichloroethene	2.076	2.242	-8.0	117	0.00
14	T	Acetone	2.093	2.322	-10.9	143	0.00
15	T	Carbon disulfide	3.321	3.506	-5.6	110	0.00
16	T	2-Propanol	1.935	2.153	-11.3	122	-0.02
17	T	Methylene chloride	1.594	1.692	-6.1	125	0.00
18	T	tert-Butyl Methyl Ether	2.818	3.008	-6.7	147	0.00
19	T	trans-1,2-Dichloroethene	1.972	2.127	-7.9	128	0.00
20	T	n-Hexane	2.161	2.328	-7.7	127	0.00
21	T	1,1-Dichloroethane	2.152	2.305	-7.1	134	0.00
22	T	Vinyl acetate	3.263	3.665	-12.3	149	0.00
23	T	cis-1,2-Dichloroethene	1.175	1.223	-4.1	128	0.00
24	T	2-Butanone	2.252	2.486	-10.4	140	0.00
25	T	Ethyl acetate	2.851	3.207	-12.5	144	0.00
26	T	Tetrahydrofuran	1.385	1.566	-13.1	134	0.00
27	T	Chloroform	2.502	2.850	-13.9	126	-0.01
28	T	1,1,1-Trichloroethane	2.413	2.824	-17.0	128	0.00
29	T	Cyclohexane	2.160	2.529	-17.1	124	0.00
30	T	Carbon tetrachloride	2.213	2.448	-10.6	131	0.00
31	T	Benzene	2.950	3.115	-5.6	141	0.00
32	T	1,2-Dichloroethane	1.496	1.714	-14.6	143	-0.01
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	130	0.00
34	T	Heptane	0.944	1.054	-11.7	123	0.00
35	T	Trichloroethene	0.484	0.488	-0.8	125	0.00
36	T	1,2-Dichloropropane	0.395	0.401	-1.5	139	0.00
37	T	1,4-Dioxane	0.130	0.140	-7.7	145	-0.01
38	T	Bromodichloromethane	0.731	0.753	-3.0	134	0.00
39	T	cis-1,3-Dichloropropene	0.595	0.599	-0.7	135	0.00
40	T	4-Methyl-2-pentanone	0.278	0.282	-1.4	127	0.00
41	T	Toluene	1.026	1.024	0.2	133	0.00
42	T	trans-1,3-Dichloropropene	0.523	0.532	-1.7	134	0.00
43	T	1,1,2-Trichloroethane	0.353	0.345	2.3	131	0.00
44	T	Tetrachloroethene	0.540	0.548	-1.5	121	0.00
45	T	2-Hexanone	0.581	0.614	-5.7	130	0.00
46	T	Chlorodibromomethane	0.554	0.551	0.5	131	0.00
47	T	1,2-Dibromoethane	0.514	0.513	0.2	131	-0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\092911\09291113.D Vial: 2
Acq On : 29 Sep 2011 4:22 pm Operator: RACHEL HILL
Sample : VOA1 ICV 092711 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\092911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Sep 30 07:20:59 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	Chlorobenzene	1.040	1.028	1.2	125	0.00
50	T	Ethylbenzene	1.774	1.786	-0.7	126	0.00
51	T	m,p-Xylene	1.433	1.568	-9.4	126	0.00
52	T	o-Xylene	1.310	1.307	0.2	126	0.00
53	T	Styrene	0.902	0.885	1.9	124	0.00
54	T	Bromoform	0.673	0.688	-2.2	125	0.00
55	S	4-Bromofluorobenzene	0.571	0.581	-1.8	111	0.00
56	T	1,1,2,2-Tetrachloroethane	0.930	0.965	-3.8	123	0.00
57	T	4-Ethyltoluene	1.514	1.423	6.0	119	0.00
58	T	1,3,5-Trimethylbenzene	1.296	1.206	6.9	119	0.00
59	T	1,2,4-Trimethylbenzene	1.205	1.142	5.2	120	0.00
60	T	1,3-Dichlorobenzene	0.715	0.723	-1.1	121	0.00
61	T	1,4-Dichlorobenzene	0.669	0.674	-0.7	120	0.00
62	T	Benzyl chloride	0.870	0.959	-10.2	126	0.00
63	T	1,2-Dichlorobenzene	0.650	0.664	-2.2	122	0.00
64	T	1,2,4-Trichlorobenzene	0.094	0.099	-5.3	109	0.00
65	T	Hexachlorobutadiene	0.224	0.253	-12.9	107	0.00
66		Naphthalene	0.141	0.158	-12.1	109	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092911\09291113.D Vial: 2
Acq On : 29 Sep 2011 4:22 pm Operator: RACHEL HILL
Sample : VOA1 ICV 092711 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 30 7:21 2011 Quant Results File: 092911V1.RES

Quant Method : C:\HPCHEM\1\METHODS\092911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Sep 30 07:20:59 2011
Response via : Initial Calibration
DataAcq Meth : 092911V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.59	130	515502	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	1591940	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.54	117	959004	12.50 ppbv	0.00

System Monitoring Compounds					
55) 4-Bromofluorobenzene	17.18	95	557070	12.71 ppbv	0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 101.68%		

Target Compounds					Qvalue
2) Propylene	5.52	41	580831	10.45 ppbv	97
3) Dichlorodifluoromethane	5.59	85	1383116	9.36 ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	933307	9.77 ppbv #	70
5) Chloromethane	6.00	50	613305	10.24 ppbv	99
6) Vinyl chloride	6.21	62	597833	11.57 ppbv #	99
7) 1,3-Butadiene	6.26	39	647570	12.39 ppbv	92
8) Bromomethane	6.85	94	489387	9.70 ppbv #	98
9) Chloroethane	7.00	64	304252	9.67 ppbv #	95
10) Trichlorofluoromethane	7.34	101	1333567	10.20 ppbv #	98
11) Ethanol	7.56	45	155747	10.67 ppbv	99
12) Freon113	7.99	101	1096100	10.91 ppbv	88
13) 1,1-Dichloroethene	8.09	61	915480	10.69 ppbv #	85
14) Acetone	8.18	43	957623	11.09 ppbv #	87
15) Carbon disulfide	8.47	76	1402369	10.24 ppbv #	100
16) 2-Propanol	8.23	45	896865	11.24 ppbv	84
17) Methylene chloride	8.75	49	697829	10.62 ppbv #	77
18) tert-Butyl Methyl Ether	8.95	73	1228185	10.57 ppbv #	88
19) trans-1,2-Dichloroethene	9.04	61	859623	10.57 ppbv #	81
20) n-Hexane	9.22	57	969760	10.88 ppbv #	86
21) 1,1-Dichloroethane	9.60	63	921935	10.39 ppbv #	97
22) Vinyl acetate	9.53	43	1496219	11.12 ppbv #	94
23) cis-1,2-Dichloroethene	10.28	96	494305	10.20 ppbv #	78
24) 2-Butanone	10.24	43	1014997	10.93 ppbv #	87
25) Ethyl acetate	10.20	43	1295943	11.02 ppbv #	99
26) Tetrahydrofuran	10.58	42	645961	11.31 ppbv	88
27) Chloroform	10.60	83	1151746	11.16 ppbv	100
28) 1,1,1-Trichloroethane	10.85	97	1117978	11.23 ppbv	94
29) Cyclohexane	10.86	56	1021912	11.47 ppbv	86
30) Carbon tetrachloride	11.01	117	959147	10.51 ppbv	97
31) Benzene	11.29	78	1233279	10.14 ppbv	93
32) 1,2-Dichloroethane	11.37	62	685555	11.11 ppbv #	97
34) Heptane	11.35	43	1328622	11.06 ppbv #	87
35) Trichloroethene	12.03	130	597036	9.69 ppbv	92
36) 1,2-Dichloropropane	12.38	63	500988	9.96 ppbv	97
37) 1,4-Dioxane	12.46	88	170927	10.31 ppbv #	79
38) Bromodichloromethane	12.67	83	920313	9.88 ppbv	99
39) cis-1,3-Dichloropropene	13.22	75	724504	9.57 ppbv	95
40) 4-Methyl-2-pentanone	13.33	58	359397	10.16 ppbv #	91
41) Toluene	13.62	91	1278228	9.78 ppbv	97
42) trans-1,3-Dichloropropene	13.93	75	616244	9.26 ppbv #	94
43) 1,1,2-Trichloroethane	14.20	97	431206	9.60 ppbv	96

(#) = qualifier out of range (m) = manual integration
09291113.D 092911V1.M Thu Oct 20 12:15:24 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092911\09291113.D
Acq On : 29 Sep 2011 4:22 pm
Sample : VOA1 ICV 092711
Misc : ICV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Sep 30 7:21 2011

Vial: 2
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Quant Results File: 092911V1.RES

Quant Method : C:\HPCHEM\1\METHODS\092911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Sep 30 07:20:59 2011
Response via : Initial Calibration
DataAcq Meth : 092911V1

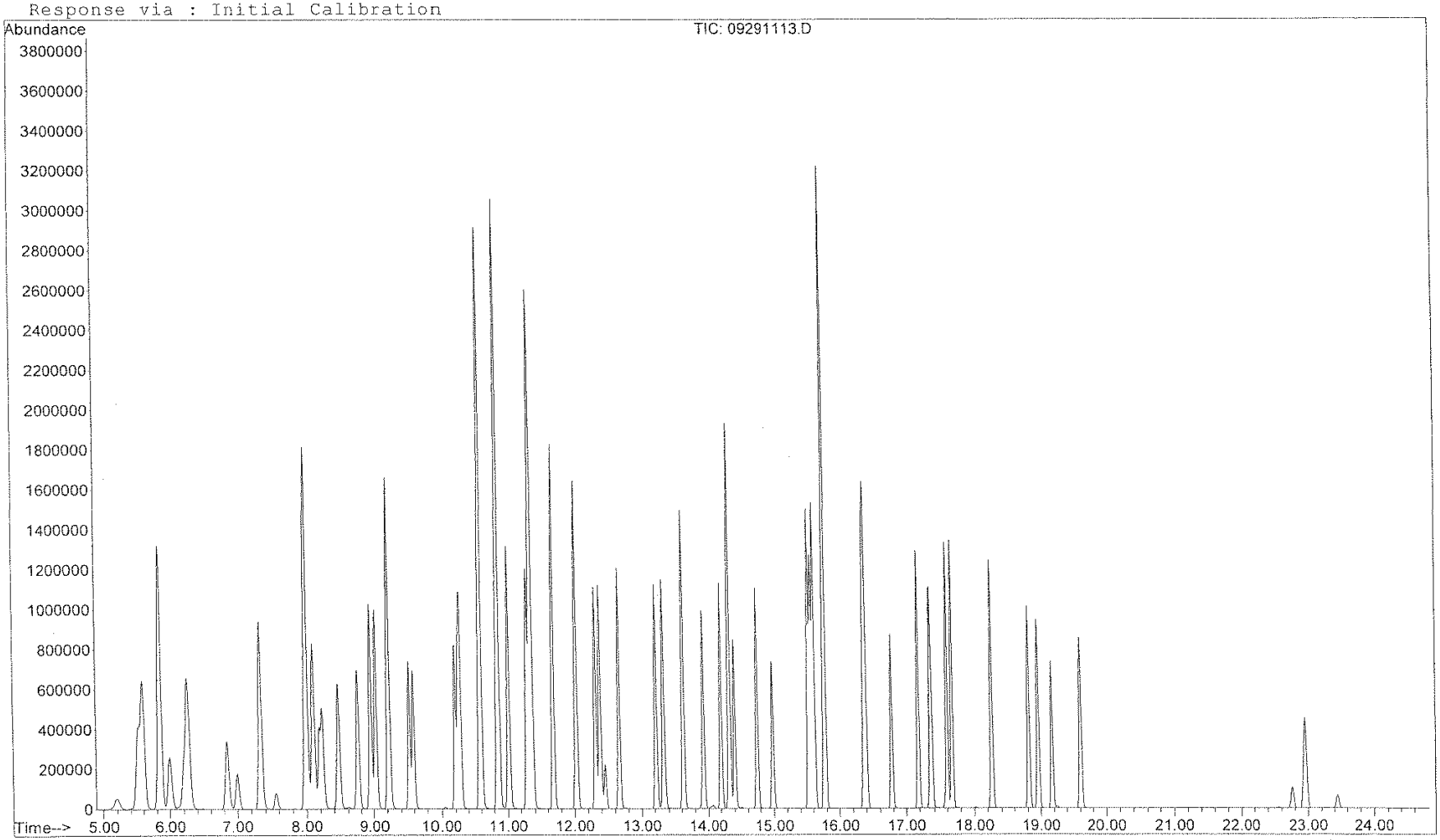
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	Tetrachloroethene	14.32	166	669432	9.73	ppbv		98
45)	2-Hexanone	14.41	43	766026	10.36	ppbv		91
46)	Chlorodibromomethane	14.75	129	687605	9.74	ppbv		99
47)	1,2-Dibromoethane	14.98	107	626805	9.57	ppbv		99
49)	Chlorobenzene	15.58	112	781049	9.79	ppbv	#	84
50)	Ethylbenzene	15.62	91	1342487	9.86	ppbv		92
51)	m,p-Xylene	15.78	91	2309182	21.01	ppbv		90
52)	o-Xylene	16.37	91	1002488	9.98	ppbv	#	87
53)	Styrene	16.39	104	665487	9.62	ppbv		95
54)	Bromoform	16.78	173	506389	9.81	ppbv	#	97
56)	1,1,2,2-Tetrachloroethane	17.36	83	740078	10.37	ppbv	#	98
57)	4-Ethyltoluene	17.60	105	1069798	9.21	ppbv		95
58)	1,3,5-Trimethylbenzene	17.68	105	897486	9.02	ppbv		95
59)	1,2,4-Trimethylbenzene	18.27	105	858758	9.29	ppbv		96
60)	1,3-Dichlorobenzene	18.82	146	538129	9.81	ppbv	#	96
61)	1,4-Dichlorobenzene	18.96	146	496095	9.67	ppbv	#	96
62)	Benzyl chloride	19.17	91	713968	10.69	ppbv		95
63)	1,2-Dichlorobenzene	19.61	146	494088	9.91	ppbv	#	97
64)	1,2,4-Trichlorobenzene	22.76	180	69019	9.62	ppbv		98
65)	Hexachlorobutadiene	22.97	225	182432	10.63	ppbv		98
66)	Naphthalene	23.45	128	111409	10.27	ppbv		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\092911\09291113.D Vial: 2
Acq On : 29 Sep 2011 4:22 pm Operator: RACHEL HILL
Sample : VOA1 ICV 092711 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 30 7:21 2011 Quant Results File: 092911V1.RES

Method : C:\HPCHEM\1\METHODS\092911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Sep 30 07:20:59 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_110930A **Run No.:** 43192

Analytical Run Date: 9/30/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 43152 **Column ID:** 0.25mm, 1.4umFT

Column Length: 30m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 VOA1 093011	BFB_TUNE	TUNE	R43192	9/30/2011 2:28:00 PM	Robert Lynch		
VOA1 CCV 093011	EPA_TO15	CCV	R43192	9/30/2011 3:50:00 PM	Robert Lynch		
VOA1 RLVS1 09301	EPA_TO15	RLVS	R43192	9/30/2011 4:33:00 PM	Robert Lynch		
VOA1 BLK 093011	EPA_TO15	MBLK	R43192	9/30/2011 5:20:00 PM	Robert Lynch		
1109105-017A	EPA_TO15	SAMP	R43192	9/30/2011 7:29:00 PM	Robert Lynch	H	
1109105-009A	EPA_TO15	SAMP	R43192	9/30/2011 8:10:00 PM	Robert Lynch	H	
1109555-008A	EPA_TO15	SAMP	R43192	9/30/2011 9:01:00 PM	Robert Lynch	H	
1109555-009A	EPA_TO15	SAMP	R43192	9/30/2011 9:45:00 PM	Robert Lynch	H	
1109555-034A	EPA_TO15	SAMP	R43192	9/30/2011 10:30:00 PM	Robert Lynch	H	
1109555-027A	EPA_TO15	SAMP	R43192	9/30/2011 11:15:00 PM	Robert Lynch	H	
1109555-028A	EPA_TO15	SAMP	R43192	10/1/2011	Robert Lynch	H	
1109555-030A	EPA_TO15	SAMP	R43192	10/1/2011 12:41:00 AM	Robert Lynch		
1109555-032A	EPA_TO15	SAMP	R43192	10/1/2011 2:11:00 AM	Robert Lynch		
1109555-033A	EPA_TO15	SAMP	R43192	10/1/2011 2:53:00 AM	Robert Lynch		
1109555-033ADUP	EPA_TO15	DUP	R43192	10/1/2011 3:34:00 AM	Robert Lynch		
1109555-014A	EPA_TO15	SAMP	R43192	10/1/2011 4:22:00 AM	Robert Lynch		
1109555-015A	EPA_TO15	SAMP	R43192	10/1/2011 5:10:00 AM	Robert Lynch		
1109555-016A	EPA_TO15	SAMP	R43192	10/1/2011 5:59:00 AM	Robert Lynch		
1109555-017A	EPA_TO15	SAMP	R43192	10/1/2011 6:47:00 AM	Robert Lynch		
1109555-002A	EPA_TO15	SAMP	R43192	10/1/2011 9:47:00 AM	Robert Lynch		
1109555-003A	EPA_TO15	SAMP	R43192	10/1/2011 10:35:00 AM	Robert Lynch		
1109555-004A	EPA_TO15	SAMP	R43192	10/1/2011 11:24:00 AM	Robert Lynch		
1109555-005A	EPA_TO15	SAMP	R43192	10/1/2011 12:09:00 PM	Robert Lynch		
VOA1 RLVS2 09301	EPA_TO15	RLVS	R43192	10/1/2011 12:52:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 43192

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
841734	BFB1 VOA1 093011	BFB_TUNE	TUNE	\1\DATA\093011	9/30/2011 2:28:0	1	R43192		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		65.7	65.7		0	0	0	0	0	0	0%	50	120	0%	
175	M		7.7	7.7		0	0	0	0	0	0	0%	4	9	0%	
176	M		99.9	99.9		0	0	0	0	0	0	0%	93	101	0%	
177	M		7.7	7.7		0	0	0	0	0	0	0%	5	9	0%	
50	M		30.6	30.6		0	0	0	0	0	0	0%	8	40	0%	
75	M		53.9	53.9		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.8	6.8		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
841735	VOA1 CCV 093011	EPA_TO15	CCV	\1\DATA\093011	9/30/2011 3:50:0	1	R43192		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	9.24	9.24		9.6	0	0	0.107	1	0	96%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	8.2	8.2		10	0	0	0.211	1	0	82%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	8.95	8.95		9.8	0	0	0.108	1	0	91%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	7.33	7.33		9.8	0	0	0.2	1	0	75%	70	130	0%	
1,1-Dichloroethane	A	ppbv	8.19	8.19		9.7	0	0	0.111	1	0	84%	70	130	0%	
1,1-Dichloroethene	A	ppbv	9.33	9.33		9.9	0	0	0.097	1	0	94%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	6.72	6.72		9.1	0	0	0.271	1	0	74%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	7.38	7.38		9.8	0	0	0.245	1	0	75%	70	130	0%	
1,2-Dibromoethane	A	ppbv	7.04	7.04		9.6	0	0	0.186	1	0	73%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	7.8	7.8		9.7	0	0	0.208	1	0	80%	70	130	0%	
1,2-Dichloroethane	A	ppbv	8.42	8.42		9.7	0	0	0.196	1	0	87%	70	130	0%	
1,2-Dichloropropane	A	ppbv	7.51	7.51		9.8	0	0	0.224	1	0	77%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	7.24	7.24		9.7	0	0	0.24	1	0	75%	70	130	0%	
1,3-Butadiene	A	ppbv	12.58	12.58		9.8	0	0	0.152	1	0	128%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	7.71	7.71		9.7	0	0	0.202	1	0	79%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
841735	VOA1 CCV 093011	EPA_TO15	CCV	\1\DATA\093011	9/30/2011 3:50:0	1	R43192		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	7.44	7.44		9.6	0	0	0.194	1	0	78%	70	130	0%	
1,4-Dioxane	A	ppbv	7.71	7.71		9.6	0	0	0.128	1	0	80%	70	130	0%	
2-Butanone	A	ppbv	8.03	8.03		9.9	0	0	0.287	1	0	81%	70	130	0%	
2-Hexanone	A	ppbv	7.81	7.81		9.8	0	0	0.135	1	0	80%	70	130	0%	
2-Propanol	A	ppbv	9.76	9.76		10.1	0	0	0.329	1	0	97%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	7.87	7.87		10	0	0	0.157	1	0	79%	70	130	0%	
Acetone	A	ppbv	8.46	8.46		10	0	0	0.43	1	0	85%	70	130	0%	
Benzene	A	ppbv	7.85	7.85		9.6	0	0	0.126	1	0	82%	70	130	0%	
Benzyl chloride	A	ppbv	7.77	7.77		9.7	0	0	0.155	1	0	80%	70	130	0%	
Bromodichloromethane	A	ppbv	7.32	7.32		9.6	0	0	0.156	1	0	76%	70	130	0%	
Bromoform	A	ppbv	7.17	7.17		9.6	0	0	0.197	1	0	75%	70	130	0%	
Bromomethane	A	ppbv	9.16	9.16		9.3	0	0	0.075	1	0	98%	70	130	0%	
Carbon disulfide	A	ppbv	9.13	9.13		9.7	0	0	0.093	1	0	94%	70	130	0%	
Carbon tetrachloride	A	ppbv	8.37	8.37		9.5	0	0	0.114	1	0	88%	70	130	0%	M
Chlorobenzene	A	ppbv	7.56	7.56		9.9	0	0	0.275	1	0	76%	70	130	0%	
Chlorodibromomethane	A	ppbv	7.07	7.07		9.2	0	0	0.165	1	0	77%	70	130	0%	
Chloroethane	A	ppbv	9	9		9.8	0	0	0.063	1	0	92%	70	130	0%	
Chloroform	A	ppbv	9.37	9.37		9.4	0	0	0.126	1	0	100%	70	130	0%	
Chloromethane	A	ppbv	11.54	11.54		9.8	0	0	0.104	1	0	118%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	8.45	8.45		9.8	0	0	0.107	1	0	86%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	7.18	7.18		9.5	0	0	0.166	1	0	76%	70	130	0%	
Cyclohexane	A	ppbv	10.08	10.08		9.8	0	0	0.684	2	0	103%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.32	9.32		9.2	0	0	0.086	1	0	101%	70	130	0%	
Ethanol	A	ppbv	8.21	8.21		9.2	0	0	1.962	5	0	89%	70	130	0%	
Ethyl acetate	A	ppbv	8.36	8.36		9.8	0	0	0.157	1	0	85%	70	130	0%	
Ethylbenzene	A	ppbv	7.63	7.63		9.8	0	0	0.737	2	0	78%	70	130	0%	
Heptane	A	ppbv	9.42	9.42		9.9	0	0	0.249	1	0	95%	70	130	0%	
Hexachlorobutadiene	A	ppbv	7.21	7.21		9.4	0	0	0.374	2	0	77%	70	130	0%	
m,p-Xylene	A	ppbv	15.99	15.99		19.2	0	0	0.524	2	0	83%	70	130	0%	
Methylene chloride	A	ppbv	9.51	9.51		10	0	0	2.077	5	0	95%	70	130	0%	
n-Hexane	A	ppbv	9.42	9.42		10.1	0	0	0.692	2	0	93%	70	130	0%	
Naphthalene	A	ppbv	7.01	7.01		9.2	0	0	0.247	1	0	76%	70	130	0%	
o-Xylene	A	ppbv	7.63	7.63		10	0	0	0.258	1	0	76%	70	130	0%	
Propylene	A	ppbv	11.13	11.13		10.2	0	0	0.075	1	0	109%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
841735	VOA1 CCV 093011	EPA_TO15	CCV	\I\DATA\093011	9/30/2011 3:50:0	1	R43192		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	7.36	7.36		9.8	0	0	0.263	1	0	75%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	7.68	7.68		9.9	0	0	0.228	1	0	78%	70	130	0%	
Tetrachloroethene	A	ppbv	7.8	7.8		9.6	0	0	0.148	1	0	81%	70	130	0%	
Tetrahydrofuran	A	ppbv	9.31	9.31		10	0	0	0.201	1	0	93%	70	130	0%	
Toluene	A	ppbv	7.42	7.42		9.8	0	0	0.158	1	0	76%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	9.03	9.03		9.8	0	0	0.117	1	0	92%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	6.91	6.91		9.1	0	0	0.171	1	0	76%	70	130	0%	
Trichloroethene	A	ppbv	7.86	7.86		9.6	0	0	0.119	1	0	82%	70	130	0%	
Trichlorofluoromethane	A	ppbv	8.72	8.72		9.6	0	0	0.148	1	0	91%	70	130	0%	
Vinyl acetate	A	ppbv	8.4	8.4		9.9	0	0	0.266	1	0	85%	70	130	0%	
Vinyl chloride	A	ppbv	11.89	11.89		9.4	0	0	0.072	1	0	126%	70	130	0%	
Xylenes, Total	C	ppbv	23.62	23.62		29.2	0	0	0.782	3	0	81%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		1.25	0	0	0	0	0	1000%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.18	12.18		12.5	0	0	0	0	0	97%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
841736	VOA1 RLVS1 09301	EPA_TO15	RLVS	\I\DATA\093011	9/30/2011 4:33:0	1	R43192		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	0.84	0.84		0.996	0	0	0.107	1	0	84%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.13	1.13		1	0	0	0.211	1	0	113%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	0.89	0.89		0.98	0	0	0.108	1	0	91%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.77	0.77		0.98	0	0	0.2	1	0	79%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.04	1.04		0.97	0	0	0.111	1	0	107%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.04	1.04		0.99	0	0	0.097	1	0	105%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.63	1.63		0.91	0	0	0.271	1	0	179%	70	130	0%	S
1,2,4-Trimethylbenzene	A	ppbv	1.27	1.27		0.98	0	0	0.245	1	0	130%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.76	0.76		0.96	0	0	0.186	1	0	79%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.34	1.34		0.97	0	0	0.208	1	0	138%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	1.06	1.06		0.97	0	0	0.196	1	0	109%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.81	0.81		0.98	0	0	0.224	1	0	83%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\093011\09301103.D
Acq On : 30 Sep 2011 3:50 pm
Sample : VOA1 CCV 093011
Misc : CCV EPA_TO15
MS Integration Params: CLME.P

Vial: 3
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\092911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Sep 30 07:20:59 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	88	0.00
2	T	Propylene	1.347	1.470	-9.1	82	0.00
3	T	Dichlorodifluoromethane	3.585	3.631	-1.3	79	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.317	2.331	-0.6	78	0.00
5	T	Chloromethane	1.453	1.765	-21.5	86	-0.01
6	T	Vinyl chloride	1.253	1.585	-26.5	86	-0.01
7	T	1,3-Butadiene	1.267	1.626	-28.3	81	-0.01
8	T	Bromomethane	1.224	1.205	1.6	76	0.00
9	T	Chloroethane	0.763	0.747	2.1	75	0.00
10	T	Trichlorofluoromethane	3.171	2.882	9.1	72	0.00
11	T	Ethanol	0.354	0.316	10.7	86	0.00
12	T	Freon113	2.437	2.226	8.7	76	0.00
13	T	1,1-Dichloroethene	2.076	1.957	5.7	76	0.00
14	T	Acetone	2.093	1.771	15.4	81	0.00
15	T	Carbon disulfide	3.321	3.126	5.9	73	0.00
16	T	2-Propanol	1.935	1.870	3.4	79	-0.01
17	T	Methylene chloride	1.594	1.516	4.9	83	0.00
18	T	tert-Butyl Methyl Ether	2.818	2.186	22.4	80	0.00
19	T	trans-1,2-Dichloroethene	1.972	1.817	7.9	82	0.00
20	T	n-Hexane	2.161	2.016	6.7	82	0.00
21	T	1,1-Dichloroethane	2.152	1.816	15.6	78	0.00
22	T	Vinyl acetate	3.263	2.770	15.1	84	0.00
23	T	cis-1,2-Dichloroethene	1.175	1.013	13.8	79	0.00
24	T	2-Butanone	2.252	1.826	18.9	76	0.00
25	T	Ethyl acetate	2.851	2.433	14.7	81	0.00
26	T	Tetrahydrofuran	1.385	1.290	6.9	82	0.00
27	T	Chloroform	2.502	2.391	4.4	78	-0.01
28	T	1,1,1-Trichloroethane	2.413	2.324	3.7	78	0.00
29	T	Cyclohexane	2.160	2.221	-2.8	81	0.00
30	T	Carbon tetrachloride	2.213	1.950	11.9	78	0.00
31	T	Benzene	2.950	2.412	18.2	81	0.00
32	T	1,2-Dichloroethane	1.496	1.299	13.2	81	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
34	T	Heptane	0.944	0.898	4.9	82	0.00
35	T	Trichloroethene	0.484	0.397	18.0	79	0.00
36	T	1,2-Dichloropropane	0.395	0.302	23.5	81	0.00
37	T	1,4-Dioxane	0.130	0.105	19.2	84	-0.01
38	T	Bromodichloromethane	0.731	0.558	23.7	77	0.00
39	T	cis-1,3-Dichloropropene	0.595	0.449	24.5	79	0.00
40	T	4-Methyl-2-pentanone	0.278	0.219	21.2	76	0.00
41	T	Toluene	1.026	0.777	24.3	78	0.00
42	T	trans-1,3-Dichloropropene	0.523	0.397	24.1	77	0.00
43	T	1,1,2-Trichloroethane	0.353	0.264	25.2	78	0.00
44	T	Tetrachloroethene	0.540	0.439	18.7	75	0.00
45	T	2-Hexanone	0.581	0.463	20.3	76	0.00
46	T	Chlorodibromomethane	0.554	0.400	27.8	73	0.00
47	T	1,2-Dibromoethane	0.514	0.377	26.7	74	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\093011\09301103.D
Acq On : 30 Sep 2011 3:50 pm
Sample : VOA1 CCV 093011
Misc : CCV EPA_TO15
MS Integration Params: CLME.P

Vial: 3
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\092911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Sep 30 07:20:59 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	Chlorobenzene	1.040	0.794	23.7	76	0.00
50	T	Ethylbenzene	1.774	1.382	22.1	76	0.00
51	T	m,p-Xylene	1.433	1.193	16.7	75	0.00
52	T	o-Xylene	1.310	1.000	23.7	75	0.00
53	T	Styrene	0.902	0.677	24.9	74	0.00
54	T	Bromoform	0.673	0.503	25.3	71	0.00
55	S	4-Bromofluorobenzene	0.571	0.557	2.5	83	0.00
56	T	1,1,2,2-Tetrachloroethane	0.930	0.762	18.1	76	0.00
57	T	4-Ethyltoluene	1.514	1.145	24.4	75	0.00
58	T	1,3,5-Trimethylbenzene	1.296	0.968	25.3	75	0.00
59	T	1,2,4-Trimethylbenzene	1.205	0.908	24.6	75	0.00
60	T	1,3-Dichlorobenzene	0.715	0.569	20.4	74	0.00
61	T	1,4-Dichlorobenzene	0.669	0.519	22.4	72	0.00
62	T	Benzyl chloride	0.870	0.697	19.9	72	0.00
63	T	1,2-Dichlorobenzene	0.650	0.522	19.7	75	0.00
64	T	1,2,4-Trichlorobenzene	0.094	0.069	26.6	59	0.00
65	T	Hexachlorobutadiene	0.224	0.172	23.2	57	0.00
66		Naphthalene	0.141	0.108	23.4	58	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\093011\09301103.D
Acq On : 30 Sep 2011 3:50 pm
Sample : VOA1 CCV 093011
Misc : CCV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Oct 2 12:03 2011

Vial: 3
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Quant Results File: 092911V1.RES

Quant Method : C:\HPCHEM\1\METHODS\092911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Sep 30 07:20:59 2011
Response via : Initial Calibration
DataAcq Meth : 092911V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.59	130	383315	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.68	114	1233709	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.54	117	748505	12.50 ppbv	0.00

System Monitoring Compounds					
55) 4-Bromofluorobenzene	17.19	95	416744	12.18 ppbv	0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 97.44%		

Target Compounds					Qvalue
2) Propylene	5.52	41	459681	11.13 ppbv	97
3) Dichlorodifluoromethane	5.59	85	1024416	9.32 ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	679053	9.56 ppbv #	67
5) Chloromethane	6.00	50	514164	11.54 ppbv	99
6) Vinyl chloride	6.21	62	456789	11.89 ppbv #	97
7) 1,3-Butadiene	6.27	39	488790	12.58 ppbv	92
8) Bromomethane	6.85	94	343761	9.16 ppbv #	97
9) Chloroethane	6.99	64	210699	9.00 ppbv #	94
10) Trichlorofluoromethane	7.33	101	848421	8.72 ppbv #	97
11) Ethanol	7.56	45	89091	8.21 ppbv	99
12) Freon113	7.99	101	668945	8.95 ppbv	86
13) 1,1-Dichloroethene	8.09	61	594053	9.33 ppbv #	85
14) Acetone	8.19	43	542942	8.46 ppbv #	86
15) Carbon disulfide	8.46	76	929897	9.13 ppbv #	100
16) 2-Propanol	8.23	45	579204	9.76 ppbv #	73
17) Methylene chloride	8.75	49	464766	9.51 ppbv #	75
18) tert-Butyl Methyl Ether	8.95	73	663608	7.68 ppbv #	86
19) trans-1,2-Dichloroethene	9.03	61	546163	9.03 ppbv #	80
20) n-Hexane	9.22	57	624363	9.42 ppbv #	85
21) 1,1-Dichloroethane	9.59	63	540199	8.19 ppbv #	97
22) Vinyl acetate	9.52	43	840933	8.40 ppbv #	94
23) cis-1,2-Dichloroethene	10.28	96	304451	8.45 ppbv #	78
24) 2-Butanone	10.25	43	554244	8.03 ppbv #	88
25) Ethyl acetate	10.19	43	731120	8.36 ppbv #	99
26) Tetrahydrofuran	10.59	42	395493	9.31 ppbv #	85
27) Chloroform	10.60	83	718671	9.37 ppbv	99
28) 1,1,1-Trichloroethane	10.85	97	684131	9.24 ppbv #	92
29) Cyclohexane	10.86	56	667495	10.08 ppbv #	83
30) Carbon tetrachloride	11.01	117	568049m	8.37 ppbv	
31) Benzene	11.29	78	710119	7.85 ppbv	93
32) 1,2-Dichloroethane	11.37	62	386243	8.42 ppbv #	96
34) Heptane	11.34	43	877341	9.42 ppbv #	85
35) Trichloroethene	12.02	130	375729	7.86 ppbv	91
36) 1,2-Dichloropropane	12.38	63	292570	7.51 ppbv	97
37) 1,4-Dioxane	12.45	88	99081	7.71 ppbv #	80
38) Bromodichloromethane	12.67	83	528549	7.32 ppbv	98
39) cis-1,3-Dichloropropene	13.22	75	421076	7.18 ppbv	95
40) 4-Methyl-2-pentanone	13.33	58	215823	7.87 ppbv #	91
41) Toluene	13.62	91	751704	7.42 ppbv	96
42) trans-1,3-Dichloropropene	13.93	75	356227	6.91 ppbv	95
43) 1,1,2-Trichloroethane	14.20	97	255381	7.33 ppbv	96

(#) = qualifier out of range (m) = manual integration
09301103.D 092911V1.M Thu Oct 20 12:15:53 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\093011\09301103.D
Acq On : 30 Sep 2011 3:50 pm
Sample : VOA1 CCV 093011
Misc : CCV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Oct 2 12:03 2011

Vial: 3
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Quant Results File: 092911V1.RES

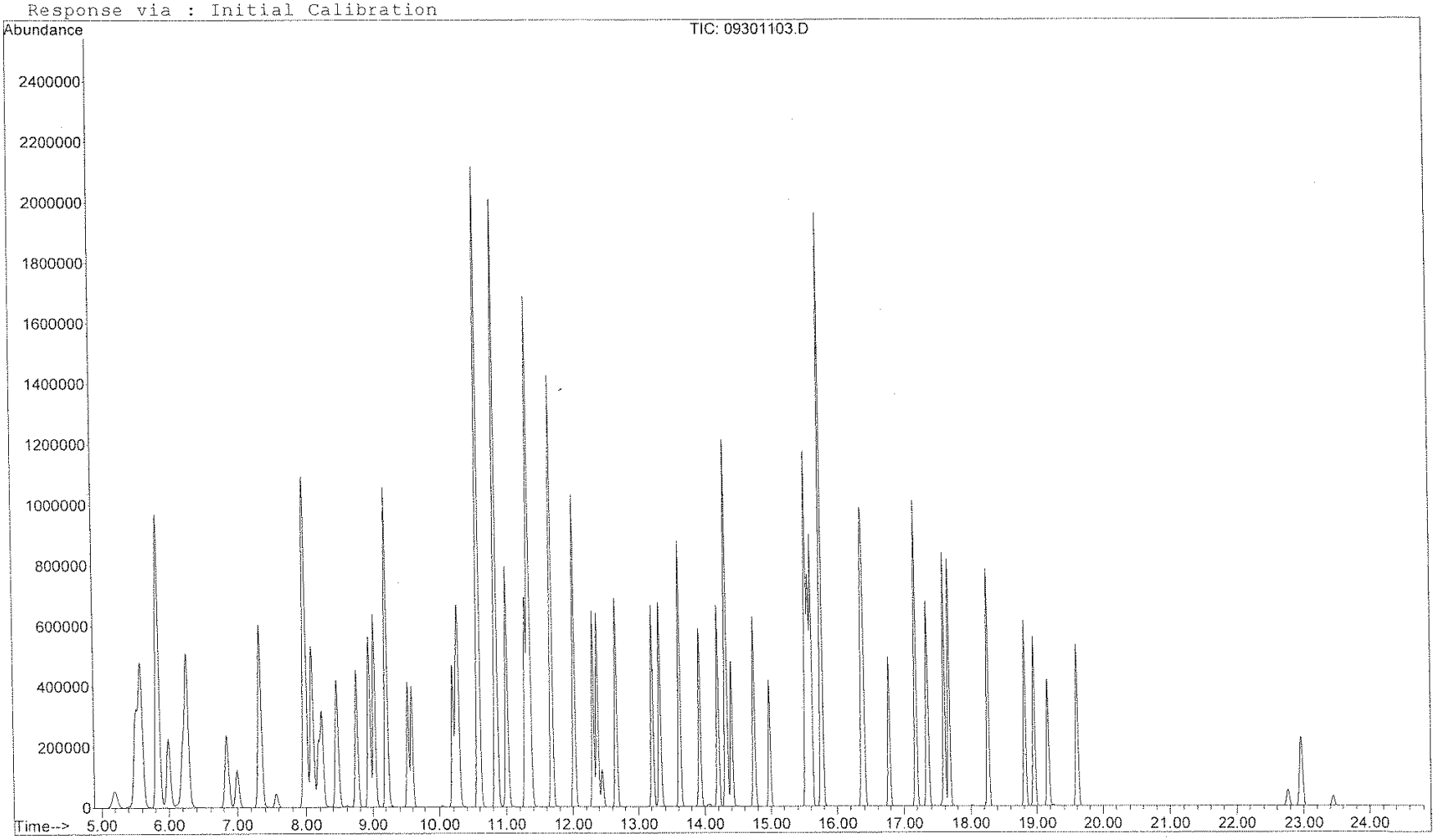
Quant Method : C:\HPCHEM\1\METHODS\092911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Sep 30 07:20:59 2011
Response via : Initial Calibration
DataAcq Meth : 092911V1

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44) Tetrachloroethene	14.33	166	415880	7.80 ppbv	98
45) 2-Hexanone	14.40	43	447995	7.81 ppbv	90
46) Chlorodibromomethane	14.75	129	386891	7.07 ppbv	99
47) 1,2-Dibromoethane	14.98	107	357284	7.04 ppbv	99
49) Chlorobenzene	15.58	112	470777	7.56 ppbv #	83
50) Ethylbenzene	15.62	91	810796	7.63 ppbv	91
51) m,p-Xylene	15.77	91	1372076	15.99 ppbv	88
52) o-Xylene	16.37	91	598588	7.63 ppbv #	86
53) Styrene	16.40	104	397478	7.36 ppbv	96
54) Bromoform	16.78	173	288963	7.17 ppbv #	97
56) 1,1,2,2-Tetrachloroethane	17.35	83	456497	8.20 ppbv #	99
57) 4-Ethyltoluene	17.60	105	671749	7.41 ppbv	95
58) 1,3,5-Trimethylbenzene	17.68	105	562181	7.24 ppbv	95
59) 1,2,4-Trimethylbenzene	18.26	105	532674	7.38 ppbv	96
60) 1,3-Dichlorobenzene	18.82	146	330250	7.71 ppbv	97
61) 1,4-Dichlorobenzene	18.96	146	298089	7.44 ppbv	97
62) Benzyl chloride	19.17	91	405058	7.77 ppbv	96
63) 1,2-Dichlorobenzene	19.61	146	303328	7.80 ppbv	97
64) 1,2,4-Trichlorobenzene	22.77	180	37664	6.72 ppbv	97
65) Hexachlorobutadiene	22.97	225	96601	7.21 ppbv	98
66) Naphthalene	23.46	128	59381	7.01 ppbv	96

(#) = qualifier out of range (m) = manual integration
09301103.D 092911V1.M Thu Oct 20 12:15:53 2011

Data File : C:\HPCHEM\1\DATA\093011\09301103.D Vial: 3
Acq On : 30 Sep 2011 3:50 pm Operator: RACHEL HILL
Sample : VOA1 CCV 093011 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 2 12:03 2011 Quant Results File: 092911V1.RES

Method : C:\HPCHEM\1\METHODS\092911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Sep 30 07:20:59 2011
Response via : Initial Calibration



Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration

Calibration Files
2 =09191103.D 4 =09191104.D 5 =09191105.D
6 =09191106.D 7 =09191107.D 8 =09191108.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.512	1.314	1.207	1.149	1.093	1.087	1.225	12.16
3)	T	Dichlorodifluoromet	3.326	3.271	3.103	2.852	2.830	2.914	3.092	7.35
4)	T	1,2-Dichloro-1,2,2,	1.847	2.141	2.089	1.980	1.905	2.028	2.025	6.13
5)	T	Chloromethane	1.519	1.460	1.383	1.233	1.174	1.135	1.302	11.55
6)	T	Vinyl chloride	2.075	2.115	1.978	1.791	1.632	1.540	1.810	13.76
7)	T	1,3-Butadiene	1.716	1.658	1.538	1.395	1.250	1.178	1.413	16.24
8)	T	Bromomethane	1.794	1.272	1.232	1.280	1.371	1.269	1.349	14.93
9)	T	Chloroethane	0.711	0.761	0.733	0.684	0.651	0.722	0.710	4.97
10)	T	Trichlorofluorometh	2.763	3.149	3.058	2.905	2.810	2.895	2.933	4.59
11)	T	Ethanol		0.263	0.311	0.290	0.249	0.277	0.281	8.14
12)	T	Freon113	2.106	2.680	2.602	2.464	2.257	2.202	2.328	11.20
13)	T	1,1-Dichloroethene	2.019	2.179	2.096	1.941	1.810	1.837	1.971	6.83
14)	T	Acetone	2.181	2.278	2.153	1.871	1.456	1.561	1.875	17.79
15)	T	Carbon disulfide	3.179	3.309	3.155	2.923	2.803	2.902	3.079	6.53
16)	T	2-Propanol	1.494	1.878	1.820	1.636	1.441	1.537	1.628	10.10
17)	T	Methylene chloride	1.851	1.699	1.600	1.447	1.239	1.271	1.493	15.46
18)	T	tert-Butyl Methyl E	2.811	3.112	2.895	2.524	1.937	2.242	2.561	15.90
19)	T	trans-1,2-Dichloroe	1.913	2.127	2.015	1.848	1.598	1.683	1.844	10.26
20)	T	n-Hexane	2.125	2.362	2.266	2.065	1.807	1.858	2.043	10.96
21)	T	1,1-Dichloroethane	2.205	2.458	2.320	2.065	1.743	1.862	2.096	12.01
22)	T	Vinyl acetate	2.857	3.681	3.400	2.970	2.257	2.512	2.893	17.49
23)	T	cis-1,2-Dichloroeth	1.070	1.220	1.166	1.065	0.928	1.044	1.089	8.68
24)	T	2-Butanone	2.124	2.170	2.061	1.849	1.503	1.700	1.856	14.48
25)	T	Ethyl acetate	2.480	2.821	2.683	2.391	1.983	2.212	2.392	12.34
26)	T	Tetrahydrofuran	1.503	1.568	1.471	1.287	1.035	1.043	1.265	20.28
27)	T	Chloroform	2.518	2.898	2.725	2.462	2.072	2.026	2.363	16.56
28)	T	1,1,1-Trichloroetha	2.039	2.859	2.736	2.487	2.100	1.961	2.274	18.59
29)	T	Cyclohexane	2.128	2.667	2.494	2.225	1.858	1.697	2.080	20.40
30)	T	Carbon tetrachlorid	1.854	2.379	2.285	2.111	1.846	1.974	2.045	10.68
31)	T	Benzene	2.995	3.213	3.012	2.686	2.150	2.452	2.739	13.35
32)	T	1,2-Dichloroethane	1.504	1.700	1.598	1.411	1.127	1.158	1.367	18.23
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.797	1.120	1.067	0.976	0.833	0.790	0.885	20.08
35)	T	Trichloroethene	0.367	0.500	0.493	0.468	0.426	0.469	0.447	11.03
36)	T	1,2-Dichloropropane	0.320	0.396	0.381	0.350	0.297	0.349	0.346	9.94
37)	T	1,4-Dioxane	0.096	0.110	0.126	0.119	0.105	0.115	0.112	8.84
38)	T	Bromodichloromethan	0.527	0.719	0.709	0.662	0.594	0.678	0.643	10.71
39)	T	cis-1,3-Dichloropro	0.440	0.572	0.549	0.513	0.454	0.530	0.512	9.45
40)	T	4-Methyl-2-pentanon	0.175	0.272	0.267	0.250	0.226	0.259	0.243	13.80
41)	T	Toluene	0.829	0.979	0.950	0.889	0.794	0.933	0.894	7.40
42)	T	trans-1,3-Dichlorop	0.367	0.499	0.487	0.452	0.412	0.473	0.452	10.39
43)	T	1,1,2-Trichloroetha	0.267	0.324	0.317	0.301	0.278	0.329	0.306	8.12
44)	T	Tetrachloroethene	0.440	0.533	0.537	0.506	0.490	0.511	0.491	9.02
45)	T	2-Hexanone	0.360	0.568	0.578	0.546	0.503	0.544	0.515	14.35
46)	T	Chlorodibromomethan	0.385	0.522	0.516	0.501	0.476	0.549	0.491	10.66
47)	T	1,2-Dibromoethane	0.406	0.485	0.469	0.446	0.417	0.476	0.451	6.70
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.876	0.935	0.908	0.866	0.805	0.921	0.884	4.92

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration

Calibration Files
2 =09191103.D 4 =09191104.D 5 =09191105.D
6 =09191106.D 7 =09191107.D 8 =09191108.D

		Compound	2	4	5	6	7	8	Avg	%RSD
50)	T	Ethylbenzene	1.503	1.570	1.551	1.488	1.391	1.560	1.488	5.78
51)	T	m,p-Xylene	1.215	1.413	1.410	1.346	1.229	1.148	1.229	16.21
52)	T	o-Xylene	1.137	1.149	1.158	1.122	1.062	1.186	1.114	6.09
53)	T	Styrene	0.836	0.805	0.789	0.761	0.723	0.812	0.778	5.68
54)	T	Bromoform	0.526	0.620	0.615	0.597	0.574	0.619	0.583	7.05
55)	S	4-Bromofluorobenzen	0.714	0.631	0.613	0.608	0.597	0.558	0.609	9.19
56)	T	1,1,2,2-Tetrachloro	1.006	0.867	0.852	0.798	0.758	0.775	0.824	11.79
57)	T	4-Ethyltoluene	1.854	1.333	1.253	1.192	1.131	1.232	1.305	19.28
58)	T	1,3,5-Trimethylbenz	1.592	1.122	1.064	0.989	0.962	1.053	1.106	20.05
59)	T	1,2,4-Trimethylbenz	1.619	1.057	0.996	0.928	0.903	0.940	1.050	24.50
60)	T	1,3-Dichlorobenzene	0.996	0.704	0.685	0.626	0.597	0.574	0.678	22.10
61)	T	1,4-Dichlorobenzene	0.903	0.662	0.649	0.597	0.568	0.546	0.638	19.84
62)	T	Benzyl chloride	0.769	0.907	0.917	0.843	0.805	0.764	0.821	8.53
63)	T	1,2-Dichlorobenzene	0.997	0.646	0.647	0.575	0.560	0.513	0.636	26.59
64)	T	1,2,4-Trichlorobenz	0.270	0.147	0.156	0.143	0.138	0.141	0.163	29.03
65)	T	Hexachlorobutadiene	0.774	0.362	0.369	0.340	0.336	0.341	0.410	39.32
66)		Naphthalene	0.432	0.251	0.265	0.241	0.234	0.230	0.269	26.98

(#) = Out of Range ### Number of calibration levels exceeded format ###

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration
Total Cpnds : 66

PK#			Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I		Bromochloromethane	130	10.58	1.000	A	2	A	B
2		T	Propylene	41	5.52	0.521	A	2	A	B
3		T	Dichlorodifluoromethane	85	5.59	0.528	A	3	A	B
4		T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.85	0.552	A	2	A	B
5		T	Chloromethane	50	6.01	0.568	A	3	A	B
6		T	Vinyl chloride	62	6.22	0.588	A	2	A	B
7		T	1,3-Butadiene	39	6.28	0.593	A	2	A	B
8		T	Bromomethane	94	6.85	0.647	A	3	A	B
9		T	Chloroethane	64	7.00	0.661	A	3	A	B
10		T	Trichlorofluoromethane	101	7.33	0.693	A	3	A	B
11		T	Ethanol	45	7.57	0.715	A	2	A	B
12		T	Freon113	101	7.99	0.755	A	2	A	B
13		T	1,1-Dichloroethene	61	8.10	0.765	A	2	A	B
14		T	Acetone	43	8.19	0.774	A	2	A	B
15		T	Carbon disulfide	76	8.46	0.799	A	3	A	B
16		T	2-Propanol	45	8.25	0.779	A	2	A	B
17		T	Methylene chloride	49	8.75	0.827	A	2	A	B
18		T	tert-Butyl Methyl Ether	73	8.96	0.846	A	2	A	B
19		T	trans-1,2-Dichloroethene	61	9.04	0.854	A	2	A	B
20		T	n-Hexane	57	9.22	0.872	A	3	A	B
21		T	1,1-Dichloroethane	63	9.60	0.907	A	3	A	B
22		T	Vinyl acetate	43	9.53	0.901	A	2	A	B
23		T	cis-1,2-Dichloroethene	96	10.28	0.971	A	3	A	B
24		T	2-Butanone	43	10.25	0.968	A	2	A	B
25		T	Ethyl acetate	43	10.20	0.964	A	3	A	B
26		T	Tetrahydrofuran	42	10.58	1.000	A	2	A	B
27		T	Chloroform	83	10.61	1.002	A	2	A	B
28		T	1,1,1-Trichloroethane	97	10.85	1.025	A	3	A	B
29		T	Cyclohexane	56	10.87	1.027	A	2	A	B
30		T	Carbon tetrachloride	117	11.02	1.041	A	3	A	B
31		T	Benzene	78	11.30	1.068	A	3	A	B
32		T	1,2-Dichloroethane	62	11.38	1.075	A	3	A	B
33	I		1,4-Difluorobenzene	114	11.69	1.000	A	2	A	B
34		T	Heptane	43	11.35	0.970	A	3	A	B
35		T	Trichloroethene	130	12.03	1.029	A	3	A	B
36		T	1,2-Dichloropropane	63	12.39	1.059	A	3	A	B
37		T	1,4-Dioxane	88	12.47	1.066	A	2	A	B
38		T	Bromodichloromethane	83	12.67	1.084	A	2	A	B
39		T	cis-1,3-Dichloropropene	75	13.23	1.131	A	2	A	B
40		T	4-Methyl-2-pentanone	58	13.34	1.140	A	3	A	B
41		T	Toluene	91	13.63	1.165	A	2	A	B
42		T	trans-1,3-Dichloropropene	75	13.93	1.191	A	3	A	B
43		T	1,1,2-Trichloroethane	97	14.21	1.215	A	3	A	B
44		T	Tetrachloroethene	166	14.33	1.225	A	3	A	B
45		T	2-Hexanone	43	14.41	1.233	A	2	A	B
46		T	Chlorodibromomethane	129	14.75	1.262	A	2	A	B
47		T	1,2-Dibromoethane	107	14.99	1.282	A	2	A	B
48	I		Chlorobenzene-d5	117	15.54	1.000	A	2	A	B
49		T	Chlorobenzene	112	15.58	1.003	A	3	A	B
50		T	Ethylbenzene	91	15.63	1.005	A	2	A	B
51		T	m,p-Xylene	91	15.78	1.015	A	2	A	B
52		T	o-Xylene	91	16.37	1.054	A	2	A	B
53		T	Styrene	104	16.40	1.055	A	3	A	B
54		T	Bromoform	173	16.78	1.080	A	3	A	B
55		S	4-Bromofluorobenzene	95	17.19	1.106	A	2	A	B
56		T	1,1,2,2-Tetrachloroethane	83	17.36	1.117	A	2	A	B
57		T	4-Ethyltoluene	105	17.60	1.133	A	1	A	B
58		T	1,3,5-Trimethylbenzene	105	17.69	1.138	A	2	A	B
59		T	1,2,4-Trimethylbenzene	105	18.27	1.175	A	2	A	B

60	T	1,3-Dichlorobenzene	146	18.82	1.211	A	3	A	B
61	T	1,4-Dichlorobenzene	146	18.97	1.220	A	3	A	B
62	T	Benzyl chloride	91	19.18	1.234	A	2	A	B
63	T	1,2-Dichlorobenzene	146	19.61	1.262	A	3	A	B
64	T	1,2,4-Trichlorobenzene	180	22.77	1.465	A	3	A	B
65	T	Hexachlorobutadiene	225	22.97	1.478	A	2	A	B
66		Naphthalene	128	23.46	1.509	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

091911V1.M Thu Oct 20 10:26:01 2011

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\092911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Sep 30 07:20:59 2011
Response via : Initial Calibration

Calibration Files
2 =09291103.D 4 =09291104.D 5 =09291105.D
6 =09291106.D 7 =09291107.D 8 =09291108.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.473	1.577	1.398	1.274	1.206	1.190	1.347	10.59
3)	T	Dichlorodifluoromet	3.848	4.058	3.674	3.394	3.204	3.281	3.585	8.65
4)	T	1,2-Dichloro-1,2,2,	2.082	2.641	2.432	2.282	2.207	2.263	2.317	7.67
5)	T	Chloromethane	1.709	1.810	1.582	1.419	1.268	1.182	1.453	17.38
6)	T	Vinyl chloride	1.426	1.627	1.420	1.269	1.083	0.974	1.253	20.17
7)	T	1,3-Butadiene	1.415	1.770	1.546	1.362	1.114	0.856	1.267	28.16
8)	T	Bromomethane	1.224	1.400	1.283	1.168	1.095	1.120	1.224	8.70
9)	T	Chloroethane	0.797	0.877	0.821	0.739	0.673	0.675	0.763	9.86
10)	T	Trichlorofluorometh	3.156	3.540	3.482	3.165	2.902	2.931	3.171	8.00
11)	T	Ethanol		0.323	0.414	0.369	0.332	0.334	0.354	9.51
12)	T	Freon113	2.291	2.593	2.922	2.615	2.355	2.249	2.437	12.02
13)	T	1,1-Dichloroethene	2.238	2.274	2.320	2.063	1.865	1.858	2.076	9.68
14)	T	Acetone	2.626	1.926	2.522	2.148	1.821	1.785	2.093	16.77
15)	T	Carbon disulfide	3.494	3.780	3.570	3.214	2.943	2.970	3.321	9.37
16)	T	2-Propanol	1.820	2.092	2.244	1.993	1.783	1.771	1.935	9.34
17)	T	Methylene chloride	2.020	1.613	1.770	1.566	1.392	1.372	1.594	14.76
18)	T	tert-Butyl Methyl E	3.240	2.425	3.429	2.927	2.501	2.545	2.818	13.88
19)	T	trans-1,2-Dichloroe	2.114	1.965	2.253	2.013	1.825	1.821	1.972	8.57
20)	T	n-Hexane	2.325	2.174	2.503	2.246	2.000	1.977	2.161	10.00
21)	T	1,1-Dichloroethane	2.296	2.050	2.532	2.206	1.953	1.970	2.152	9.69
22)	T	Vinyl acetate	3.565	2.916	4.118	3.480	2.973	2.886	3.263	14.52
23)	T	cis-1,2-Dichloroeth	1.154	1.136	1.310	1.193	1.094	1.139	1.175	5.91
24)	T	2-Butanone	2.604	2.115	2.628	2.386	2.070	2.009	2.252	12.60
25)	T	Ethyl acetate	3.174	2.644	3.414	3.025	2.627	2.541	2.851	12.35
26)	T	Tetrahydrofuran	1.743	1.384	1.702	1.460	1.225	1.137	1.385	19.47
27)	T	Chloroform	2.682	2.690	3.003	2.668	2.343	2.161	2.502	14.34
28)	T	1,1,1-Trichloroetha	2.268	2.620	3.014	2.694	2.356	2.094	2.413	16.30
29)	T	Cyclohexane	2.289	2.425	2.684	2.353	2.017	1.787	2.160	18.07
30)	T	Carbon tetrachlorid	2.056	2.217	2.602	2.361	2.162	2.115	2.213	9.49
31)	T	Benzene	3.198	2.615	3.535	3.040	2.691	2.716	2.950	11.20
32)	T	1,2-Dichloroethane	1.654	1.420	1.904	1.627	1.401	1.285	1.496	16.57
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.870	1.106	1.168	1.058	0.926	0.822	0.944	19.04
35)	T	Trichloroethene	0.398	0.505	0.548	0.517	0.494	0.495	0.484	10.68
36)	T	1,2-Dichloropropane	0.352	0.373	0.472	0.425	0.384	0.391	0.395	10.44
37)	T	1,4-Dioxane	0.114	0.125	0.153	0.140	0.127	0.126	0.130	9.56
38)	T	Bromodichloromethan	0.588	0.727	0.875	0.798	0.740	0.738	0.731	12.71
39)	T	cis-1,3-Dichloropro	0.509	0.573	0.693	0.629	0.587	0.593	0.595	9.46
40)	T	4-Methyl-2-pentanon	0.217	0.289	0.326	0.297	0.272	0.276	0.278	11.92
41)	T	Toluene	0.938	1.001	1.190	1.086	1.001	1.013	1.026	8.45
42)	T	trans-1,3-Dichlorop	0.440	0.514	0.599	0.544	0.517	0.523	0.523	8.99
43)	T	1,1,2-Trichloroetha	0.306	0.342	0.398	0.366	0.350	0.358	0.353	7.84
44)	T	Tetrachloroethene	0.478	0.584	0.615	0.576	0.558	0.525	0.540	11.30
45)	T	2-Hexanone	0.503	0.612	0.680	0.618	0.572	0.554	0.581	10.44
46)	T	Chlorodibromomethan	0.423	0.547	0.640	0.596	0.580	0.578	0.554	12.61
47)	T	1,2-Dibromoethane	0.458	0.509	0.580	0.531	0.518	0.515	0.514	7.30
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.998	0.955	1.173	1.077	1.015	1.050	1.040	6.78

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\092911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Sep 30 07:20:59 2011
Response via : Initial Calibration

Calibration Files
2 =09291103.D 4 =09291104.D 5 =09291105.D
6 =09291106.D 7 =09291107.D 8 =09291108.D

		Compound	2	4	5	6	7	8	Avg	%RSD
50)	T	Ethylbenzene	1.745	1.645	2.049	1.891	1.744	1.781	1.774	8.96
51)	T	m,p-Xylene	1.395	1.449	1.815	1.650	1.448	1.291	1.433	18.43
52)	T	o-Xylene	1.286	1.208	1.498	1.405	1.314	1.317	1.310	9.05
53)	T	Styrene	0.942	0.831	0.995	0.940	0.895	0.894	0.902	7.03
54)	T	Bromoform	0.610	0.641	0.763	0.718	0.696	0.681	0.673	8.73
55)	S	4-Bromofluorobenzen	0.668	0.609	0.570	0.561	0.567	0.526	0.571	9.58
56)	T	1,1,2,2-Tetrachloro	1.111	0.910	1.027	0.935	0.879	0.853	0.930	11.52
57)	T	4-Ethyltoluene	2.048	1.396	1.593	1.490	1.440	1.350	1.514	16.84
58)	T	1,3,5-Trimethylbenz	1.775	1.180	1.362	1.260	1.241	1.163	1.296	17.54
59)	T	1,2,4-Trimethylbenz	1.767	1.105	1.241	1.147	1.124	1.032	1.205	21.47
60)	T	1,3-Dichlorobenzene	1.071	0.695	0.752	0.664	0.641	0.592	0.715	23.35
61)	T	1,4-Dichlorobenzene	0.983	0.652	0.703	0.623	0.603	0.559	0.669	22.07
62)	T	Benzyl chloride	0.912	0.884	0.997	0.886	0.832	0.786	0.870	8.42
63)	T	1,2-Dichlorobenzene	1.039	0.636	0.678	0.597	0.559	0.511	0.650	27.92
64)	T	1,2,4-Trichlorobenz		0.106	0.100	0.091	0.090	0.082	0.094	8.87
65)	T	Hexachlorobutadiene		0.274	0.232	0.219	0.212	0.191	0.224	12.46
66)		Naphthalene		0.168	0.147	0.140	0.136	0.121	0.141	11.08

(#) = Out of Range ### Number of calibration levels exceeded format ###

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\092911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Sep 30 07:20:59 2011
Response via : Initial Calibration
Total Cpnds : 66

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Bromochloromethane	130	10.58	1.000	A	2	A	B
2	T	Propylene	41	5.52	0.521	A	2	A	B
3	T	Dichlorodifluoromethane	85	5.59	0.528	A	3	A	B
4	T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.85	0.552	A	2	A	B
5	T	Chloromethane	50	6.01	0.568	A	3	A	B
6	T	Vinyl chloride	62	6.22	0.588	A	2	A	B
7	T	1,3-Butadiene	39	6.28	0.593	A	2	A	B
8	T	Bromomethane	94	6.85	0.647	A	3	A	B
9	T	Chloroethane	64	7.00	0.661	A	3	A	B
10	T	Trichlorofluoromethane	101	7.33	0.693	A	3	A	B
11	T	Ethanol	45	7.57	0.715	A	2	A	B
12	T	Freon113	101	7.99	0.755	A	2	A	B
13	T	1,1-Dichloroethene	61	8.10	0.765	A	2	A	B
14	T	Acetone	43	8.19	0.774	A	2	A	B
15	T	Carbon disulfide	76	8.46	0.799	A	3	A	B
16	T	2-Propanol	45	8.25	0.779	A	2	A	B
17	T	Methylene chloride	49	8.75	0.827	A	2	A	B
18	T	tert-Butyl Methyl Ether	73	8.96	0.846	A	2	A	B
19	T	trans-1,2-Dichloroethene	61	9.04	0.854	A	2	A	B
20	T	n-Hexane	57	9.22	0.872	A	3	A	B
21	T	1,1-Dichloroethane	63	9.60	0.907	A	3	A	B
22	T	Vinyl acetate	43	9.53	0.901	A	2	A	B
23	T	cis-1,2-Dichloroethene	96	10.28	0.971	A	3	A	B
24	T	2-Butanone	43	10.25	0.968	A	2	A	B
25	T	Ethyl acetate	43	10.20	0.964	A	3	A	B
26	T	Tetrahydrofuran	42	10.58	1.000	A	2	A	B
27	T	Chloroform	83	10.61	1.002	A	2	A	B
28	T	1,1,1-Trichloroethane	97	10.85	1.025	A	3	A	B
29	T	Cyclohexane	56	10.87	1.027	A	2	A	B
30	T	Carbon tetrachloride	117	11.02	1.041	A	3	A	B
31	T	Benzene	78	11.30	1.068	A	3	A	B
32	T	1,2-Dichloroethane	62	11.38	1.075	A	3	A	B
33	I	1,4-Difluorobenzene	114	11.69	1.000	A	2	A	B
34	T	Heptane	43	11.35	0.970	A	3	A	B
35	T	Trichloroethene	130	12.03	1.029	A	3	A	B
36	T	1,2-Dichloropropane	63	12.39	1.059	A	3	A	B
37	T	1,4-Dioxane	88	12.47	1.066	A	2	A	B
38	T	Bromodichloromethane	83	12.67	1.084	A	2	A	B
39	T	cis-1,3-Dichloropropene	75	13.23	1.131	A	2	A	B
40	T	4-Methyl-2-pentanone	58	13.34	1.140	A	3	A	B
41	T	Toluene	91	13.63	1.165	A	2	A	B
42	T	trans-1,3-Dichloropropene	75	13.93	1.191	A	3	A	B
43	T	1,1,2-Trichloroethane	97	14.21	1.215	A	3	A	B
44	T	Tetrachloroethene	166	14.33	1.225	A	3	A	B
45	T	2-Hexanone	43	14.41	1.233	A	2	A	B
46	T	Chlorodibromomethane	129	14.75	1.262	A	2	A	B
47	T	1,2-Dibromoethane	107	14.99	1.282	A	2	A	B
48	I	Chlorobenzene-d5	117	15.54	1.000	A	2	A	B
49	T	Chlorobenzene	112	15.58	1.003	A	3	A	B
50	T	Ethylbenzene	91	15.63	1.005	A	2	A	B
51	T	m,p-Xylene	91	15.78	1.015	A	2	A	B
52	T	o-Xylene	91	16.37	1.054	A	2	A	B
53	T	Styrene	104	16.40	1.055	A	3	A	B
54	T	Bromoform	173	16.78	1.080	A	3	A	B
55	S	4-Bromofluorobenzene	95	17.19	1.106	A	2	A	B
56	T	1,1,2,2-Tetrachloroethane	83	17.36	1.117	A	2	A	B
57	T	4-Ethyltoluene	105	17.60	1.133	A	1	A	B
58	T	1,3,5-Trimethylbenzene	105	17.69	1.138	A	2	A	B
59	T	1,2,4-Trimethylbenzene	105	18.27	1.175	A	2	A	B

60	T	1,3-Dichlorobenzene	146	18.82	1.211	A	3	A	B
61	T	1,4-Dichlorobenzene	146	18.97	1.220	A	3	A	B
62	T	Benzyl chloride	91	19.18	1.234	A	2	A	B
63	T	1,2-Dichlorobenzene	146	19.61	1.262	A	3	A	B
64	T	1,2,4-Trichlorobenzene	180	22.77	1.465	A	3	A	B
65	T	Hexachlorobutadiene	225	22.97	1.478	A	2	A	B
66		Naphthalene	128	23.46	1.509	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

091911V1.M Thu Oct 20 10:26:01 2011

RTI Laboratories

Run ID: VOA1_110916A **Run No.:** 42915

Analytical Run Date: 9/16/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: **Column ID:** 0.25mm, 1.4umFT

Column Length: 30m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 VOA1 091611	BFB_TUNE	TUNE	R42915	9/16/2011 12:35:00 PM	Charles O'Bryan		
MASS APH ICAL L1	MA_APH	ICAL	R42915	9/16/2011 2:03:00 PM	Charles O'Bryan		
MASS APH ICAL L2	MA_APH	ICAL	R42915	9/16/2011 2:46:00 PM	Charles O'Bryan		
MASS APH ICAL L3	MA_APH	ICAL	R42915	9/16/2011 3:29:00 PM	Charles O'Bryan		
MASS APH ICAL L4	MA_APH	ICAL	R42915	9/16/2011 4:12:00 PM	Charles O'Bryan		
MASS APH ICAL L5	MA_APH	ICAL	R42915	9/16/2011 4:56:00 PM	Charles O'Bryan		
MASS APH ICAL L6	MA_APH	ICAL	R42915	9/16/2011 5:41:00 PM	Charles O'Bryan		
MASS APH ICAL L7	MA_APH	ICAL	R42915	9/16/2011 6:27:00 PM	Charles O'Bryan		
BFB3 VOA1 091611	BFB_TUNE	TUNE	R42915	9/17/2011 10:53:00 PM	Charles O'Bryan		
CCV2 VOA1 091611	MA_APH	CCV	R42915	9/17/2011 11:38:00 PM	Charles O'Bryan		
RLVS3 VOA1 09161	MA_APH	RLVS	R42915	9/18/2011 12:24:00 AM	Charles O'Bryan		
BLANK2 VOA1 0916	MA_APH	MBLK	R42915	9/18/2011 1:16:00 AM	Charles O'Bryan		
1109105-007A	MA_APH	SAMP	R42915	9/18/2011 3:42:00 AM	Charles O'Bryan		
1109105-032A	MA_APH	SAMP	R42915	9/18/2011 7:11:00 AM	Charles O'Bryan		
1109105-002A	MA_APH	SAMP	R42915	9/18/2011 7:59:00 AM	Charles O'Bryan		
1109105-002ADUP	MA_APH	DUP	R42915	9/18/2011 9:35:00 AM	Charles O'Bryan		
1109105-003A	MA_APH	SAMP	R42915	9/18/2011 10:18:00 AM	Charles O'Bryan		
1109105-033A	MA_APH	SAMP	R42915	9/18/2011 11:01:00 AM	Charles O'Bryan		
1109105-036A	MA_APH	SAMP	R42915	9/18/2011 1:12:00 PM	Charles O'Bryan		
1109105-001A	MA_APH	SAMP	R42915	9/18/2011 2:05:00 PM	Charles O'Bryan		
1109105-004A	MA_APH	SAMP	R42915	9/18/2011 2:56:00 PM	Charles O'Bryan		
RLVS5 VOA1 09161	MA_APH	RLVS	R42915	9/18/2011 4:25:00 PM	Charles O'Bryan		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
834240	BFB3 VOA1 091611	BFB_TUNE	TUNE	\I\DATA\091611	9/17/2011 10:53:	1	R42915		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0.6	0.6		0	0	0	0	0	0	0%	0	2	0%	
174	M		66.6	66.6		0	0	0	0	0	0	0%	50	120	0%	
175	M		7.5	7.5		0	0	0	0	0	0	0%	4	9	0%	
176	M		99.7	99.7		0	0	0	0	0	0	0%	93	101	0%	
177	M		7.2	7.2		0	0	0	0	0	0	0%	5	9	0%	
50	M		26.5	26.5		0	0	0	0	0	0	0%	8	40	0%	
75	M		52.1	52.1		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		7	7		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
834248	CCV2 VOA1 091611	MA_APH	CCV	\I\DATA\091611	9/17/2011 11:38:	1	R42915		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	257.11	257.11		234	0	0	0	0	0	110%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	369.29	369.29		324	0	0	0	0	0	114%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	502.03	502.03		438	0	0	0	0	0	115%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	95.62	95.62		89.5	0	0	0	0	0	107%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
834249	RLVS3 VOA1 09161	MA_APH	RLVS	\I\DATA\091611	9/18/2011 12:24:	1	R42915		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\091611\09161126.D Vial: 4
Acq On : 17 Sep 2011 11:38 pm Operator: MICHAEL TRUCHAN
Sample : CCV2 VOA1 091611 Inst : VOA 1
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 19 19:56 2011 Quant Results File: 091611V1.RES

Quant Method : C:\HPCHEM\1\METHODS\091611V1.M (RTE Integrator)
Title : Mass. APH ug/m3
Last Update : Sun Sep 18 08:43:01 2011
Response via : Initial Calibration
DataAcq Meth : 091611V1

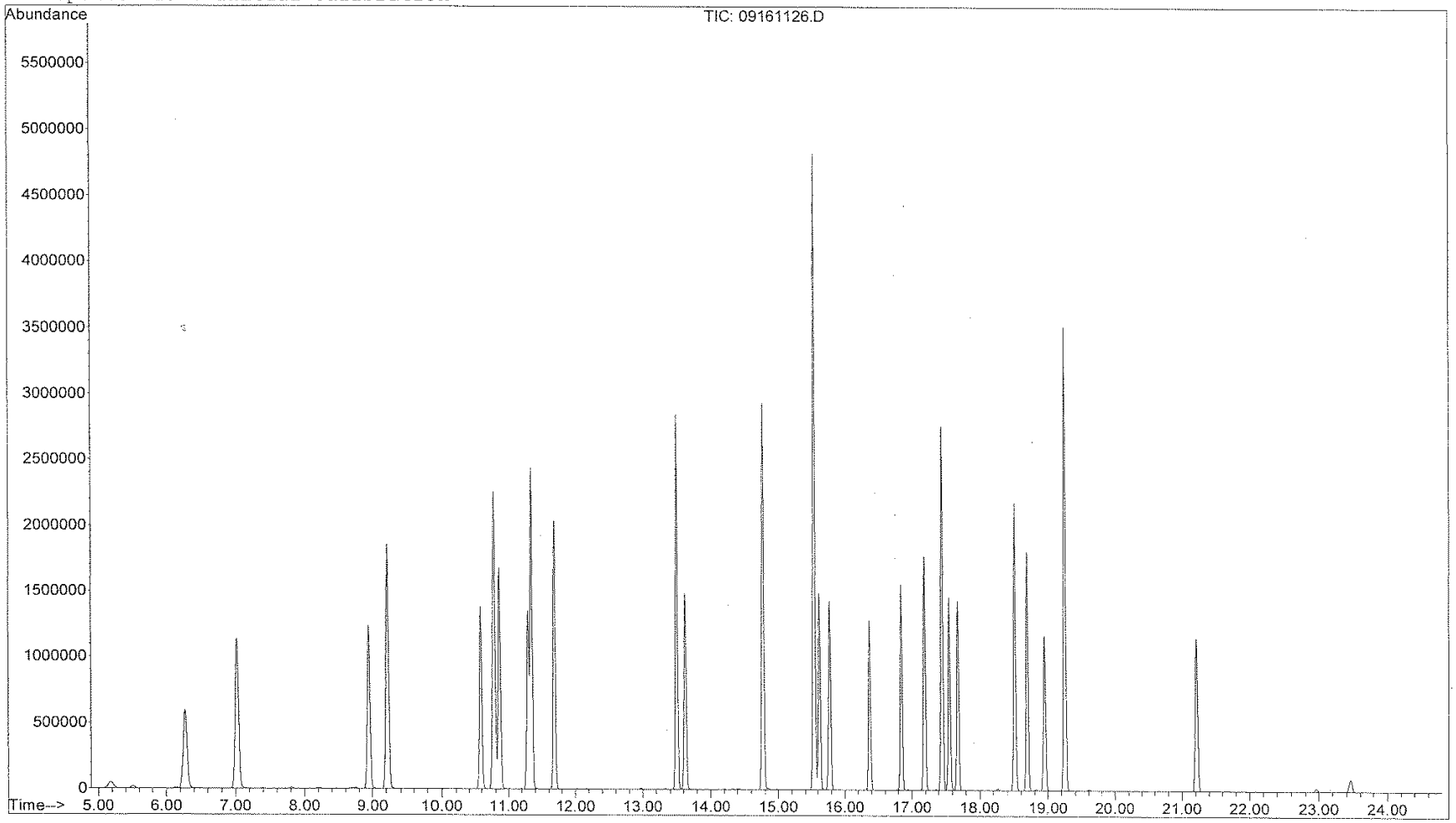
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	15.54	117	1356910	12.50	ug/m3	0.00
System Monitoring Compounds						
41) 4-Bromofluorobenzene	17.19	95	747032	95.62	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 106.84%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.02	TIC	3873921	30.56	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.22	TIC	4589536	41.13	ug/m3	100
3) C5-C8 Aliphatic HC {3}	10.78	TIC	5644475	46.86	ug/m3	100
4) C5-C8 Aliphatic HC {4}	10.86	TIC	4224899	39.41	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.34	TIC	5241249	45.82	ug/m3	100
6) C5-C8 Aliphatic HC {6}	13.50	TIC	5692107	53.50	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.02	TIC	29266187m	257.11	ug/m3	
8) C9-C12 Aliphatic HC	14.77	TIC	6232075	60.59	ug/m3	100
9) C9-C12 Aliphatic HC {2}	15.54	TIC	10034550	124.77	ug/m3	100
10) C9-C12 Aliphatic HC {3}	17.45	TIC	5276603	70.89	ug/m3	100
11) C9-C12 Aliphatic HC {4}	18.51	TIC	4417289	68.04	ug/m3	100
12) C9-C12 Aliphatic HC {5}	19.25	TIC	6984405	85.37	ug/m3	100
13) C9-C12 Aliphatic HC {6}	21.22	TIC	2822119	90.86	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	21.22	TIC	35767041m	502.03	ug/m3	
15) C9-C10 Aromatic HC	16.84	120	330273	54.92	ug/m3	100
16) C9-C10 Aromatic HC {2}	17.56	120	348698	56.87	ug/m3	100
17) C9-C10 Aromatic HC {3}	17.68	120	465043	58.71	ug/m3	100
18) C9-C10 Aromatic HC {4}	18.69	120	130491	70.55	ug/m3	100
19) C9-C10 Aromatic HC {5}	18.95	120	367186	61.71	ug/m3	100
20) C9-C10 Aromatic HC {6}	18.70	134	345931	70.37	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	18.70	134	1987622m	369.29	ug/m3	

(#) = qualifier out of range (m) = manual integration
09161126.D 091611V1.M Thu Sep 29 10:14:33 2011

Quantitation Report

Data File : C:\HPCHEM\1\DATA\091611\09161126.D Vial: 4
Acq On : 17 Sep 2011 11:38 pm Operator: MICHAEL TRUCHAN
Sample : CCV2 VOA1 091611 Inst : VOA 1
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 19 19:56 2011 Quant Results File: 091611V1.RES

Method : C:\HPCHEM\1\METHODS\091611V1.M (RTE Integrator)
Title : Mass. APH ug/m3
Last Update : Sun Sep 18 08:43:01 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_110922A **Run No.:** 42999

Analytical Run Date: 9/22/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 42997 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB3 092211 VOA9	BFB_TUNE	TUNE	R42999	9/22/2011 8:11:00 PM	Charles O'Bryan		
CCV2 092111 VOA9	MA_APH	CCV	R42999	9/22/2011 8:54:00 PM	Charles O'Bryan		
RLVS3 092111 VOA	MA_APH	RLVS	R42999	9/22/2011 9:36:00 PM	Charles O'Bryan		
BLK2 092111 VOA9	MA_APH	MBLK	R42999	9/22/2011 10:25:00 PM	Charles O'Bryan		
1108899-009A	MA_APH	SAMP	R42999	9/23/2011 12:31:00 AM	Charles O'Bryan	H	
1108899-009ADUP	MA_APH	DUP	R42999	9/23/2011 1:13:00 AM	Charles O'Bryan	H	
1108899-010A	MA_APH	SAMP	R42999	9/23/2011 1:55:00 AM	Charles O'Bryan	H	
1108899-013A	MA_APH	SAMP	R42999	9/23/2011 2:37:00 AM	Charles O'Bryan	H	
1108899-014A	MA_APH	SAMP	R42999	9/23/2011 3:19:00 AM	Charles O'Bryan	H	
1108899-015A	MA_APH	SAMP	R42999	9/23/2011 4:02:00 AM	Charles O'Bryan	H	
1109105-020A	MA_APH	SAMP	R42999	9/23/2011 4:50:00 AM	Charles O'Bryan	H	
1109105-021A	MA_APH	SAMP	R42999	9/23/2011 5:39:00 AM	Charles O'Bryan	H	
1109105-022A	MA_APH	SAMP	R42999	9/23/2011 6:28:00 AM	Charles O'Bryan	H	
1109105-023A	MA_APH	SAMP	R42999	9/23/2011 9:56:00 AM	Charles O'Bryan	H	
1109105-026A	MA_APH	SAMP	R42999	9/23/2011 10:38:00 AM	Charles O'Bryan	H	
1109105-027A	MA_APH	SAMP	R42999	9/23/2011 11:20:00 AM	Charles O'Bryan	H	
1109105-025A	MA_APH	SAMP	R42999	9/23/2011 12:02:00 PM	Charles O'Bryan	H	
1109105-028A	MA_APH	SAMP	R42999	9/23/2011 2:05:00 PM	Charles O'Bryan	H	
1109105-029A	MA_APH	SAMP	R42999	9/23/2011 2:53:00 PM	Charles O'Bryan	H	
1109105-030A	MA_APH	SAMP	R42999	9/23/2011 3:42:00 PM	Charles O'Bryan	H	
RLVS4 092111 VOA	MA_APH	RLVS	R42999	9/23/2011 4:27:00 PM	Charles O'Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 42999

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
836549	BFB3 092211 VOA9	BFB_TUNE	TUNE	\1\DATA\092111	9/22/2011 8:11:0	1	R42999		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		96.5	96.5		0	0	0	0	0	0	0%	50	120	0%	
175	M		7.9	7.9		0	0	0	0	0	0	0%	4	9	0%	
176	M		96.2	96.2		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.8	6.8		0	0	0	0	0	0	0%	5	9	0%	
50	M		20.3	20.3		0	0	0	0	0	0	0%	8	40	0%	
75	M		42	42		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.6	6.6		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
836550	CCV2 092111 VOA9	MA_APH	CCV	\1\DATA\092111	9/22/2011 8:54:0	1	R42999		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	261.14	261.14		234	0	0	0	0	0	112%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	267.3	267.3		266	0	0	0	0	0	100%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	399.71	399.71		378	0	0	0	0	0	106%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	92.67	92.67		89.5	0	0	0	0	0	104%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092111\09211135.D
Acq On : 22 Sep 2011 8:54 pm
Sample : CCV2 092111 VOA9
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Sep 23 10:19 2011

Vial: 11
Operator: MICHAEL TRUCHAN
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 092111V9.RES

Quant Method : C:\HPCHEM\1\METHODS\092111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Sep 22 10:01:26 2011
Response via : Initial Calibration
DataAcq Meth : 092111V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	563269	12.50	ug/m3	-0.01
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.34	95	373896	92.67	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 103.54%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.17	TIC	1149163	36.93	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	1233717	40.95	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	1541730	46.19	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	1217597	38.29	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	1456418	45.56	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	1745552	53.45	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.17	TIC	8344177m	261.14	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	2112161	59.75	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.57	TIC	1923679	56.69	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	1937448	64.90	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	1998409	64.19	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	1937214	73.79	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.46	TIC	1787491	79.86	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	11696402m	399.71	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	188714	51.51	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	201058	51.90	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	295338	52.35	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.02	120	67940	58.41	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	227366	52.59	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	187982	58.94	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1168398m	267.30	ug/m3	

(#) = qualifier out of range (m) = manual integration
09211135.D 092111V9.M Thu Oct 20 10:57:46 2011

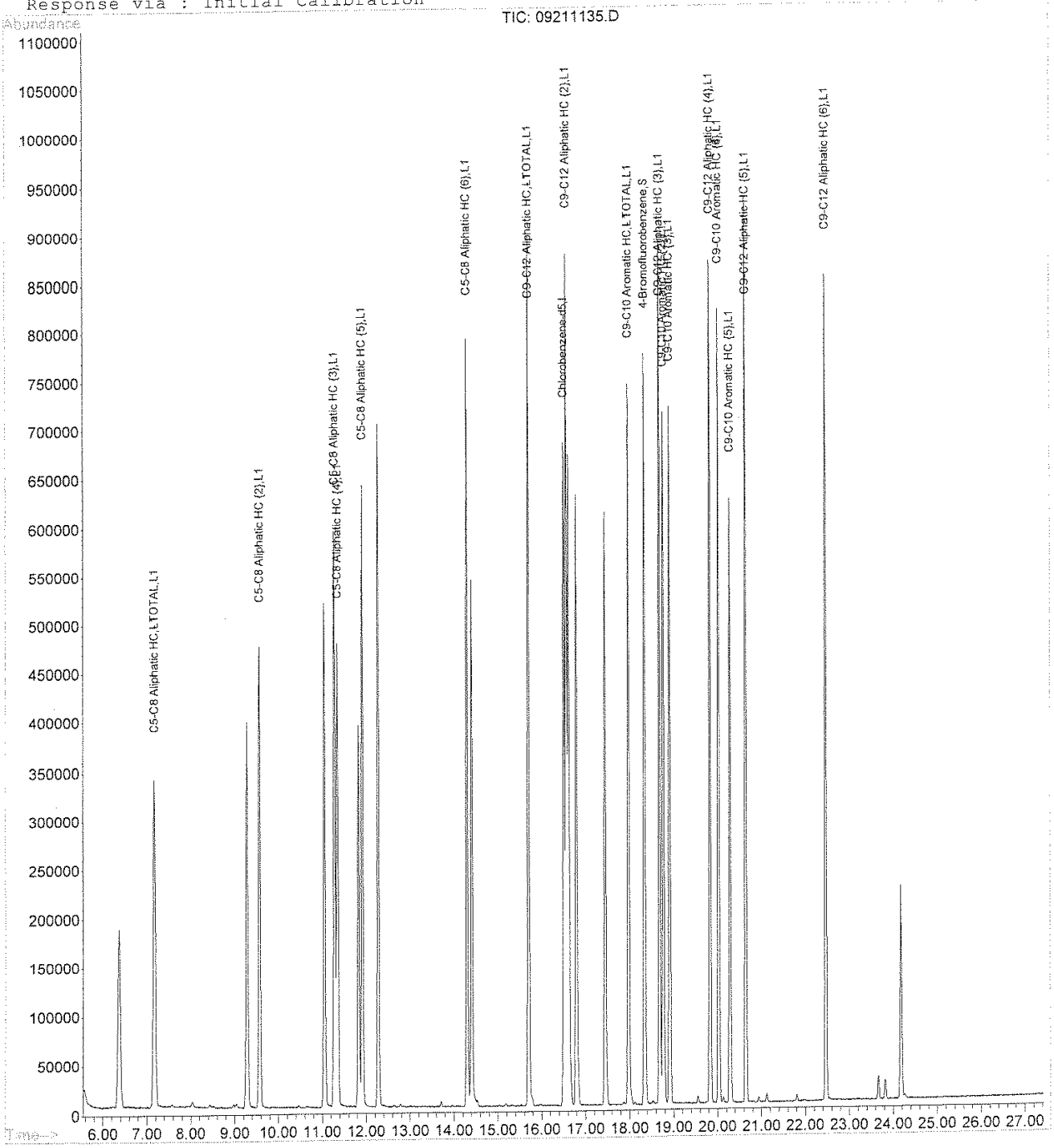
Quantitation Report

Data File : C:\HPCHEM\1\DATA\092111\09211135.D
Acq On : 22 Sep 2011 8:54 pm
Sample : CCV2 092111 VOA9
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Sep 23 10:19 2011

Vial: 11
Operator: MICHAEL TRUCHAN
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 092111V9.RES

Method : C:\HPCHEM\1\METHODS\092111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Sep 22 10:01:26 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_110923A **Run No.:** 43034

Analytical Run Date: 9/23/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 42997 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 092311 VOA9	BFB_TUNE	TUNE	R43034	9/23/2011 5:27:00 PM	Charles O`Bryan		
CCV1 092311 VOA9	MA_APH	CCV	R43034	9/23/2011 6:09:00 PM	Charles O`Bryan		
RLVS1 092311 VOA	MA_APH	RLVS	R43034	9/23/2011 7:14:00 PM	Charles O`Bryan		
BLK2 092311 VOA9	MA_APH	MBLK	R43034	9/23/2011 8:03:00 PM	Charles O`Bryan		
1108899-007A	MA_APH	SAMP	R43034	9/23/2011 9:33:00 PM	Charles O`Bryan	H	
1108899-008A	MA_APH	SAMP	R43034	9/23/2011 10:15:00 PM	Charles O`Bryan	H	
1108899-008ADUP	MA_APH	DUP	R43034	9/23/2011 10:57:00 PM	Charles O`Bryan	H	
1109105-006A	MA_APH	SAMP	R43034	9/24/2011 1:57:00 AM	Charles O`Bryan	H	
1109105-013A	MA_APH	SAMP	R43034	9/24/2011 2:42:00 AM	Charles O`Bryan	H	
1109105-014A	MA_APH	SAMP	R43034	9/24/2011 3:27:00 AM	Charles O`Bryan	H	
1109105-015A	MA_APH	SAMP	R43034	9/24/2011 4:12:00 AM	Charles O`Bryan	H	
1109105-016A	MA_APH	SAMP	R43034	9/24/2011 5:00:00 AM	Charles O`Bryan	H	
1109105-019A	MA_APH	SAMP	R43034	9/24/2011 6:30:00 AM	Charles O`Bryan		
1109105-017A	MA_APH	SAMP	R43034	9/24/2011 9:17:00 AM	Charles O`Bryan	H	
RLVS2 092311 VOA	MA_APH	RLVS	R43034	9/24/2011 12:14:00 PM	Charles O`Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

19-Oct-11

RunNo 43034

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
837646	BFB1 092311 VOA9	BFB_TUNE	TUNE	\1\DATA\092311	9/23/2011 5:27:0	1	R43034		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		95.4	95.4		0	0	0	0	0	0	0%	50	120	0%	
175	M		7.9	7.9		0	0	0	0	0	0	0%	4	9	0%	
176	M		97.5	97.5		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.4	6.4		0	0	0	0	0	0	0%	5	9	0%	
50	M		19.9	19.9		0	0	0	0	0	0	0%	8	40	0%	
75	M		41.9	41.9		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.5	6.5		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
837647	CCV1 092311 VOA9	MA_APH	CCV	\1\DATA\092311	9/23/2011 6:09:0	1	R43034		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	253.3	253.3		234	0	0	0	0	0	108%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	270.21	270.21		266	0	0	0	0	0	102%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	409.82	409.82		378	0	0	0	0	0	108%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	95.89	95.89		89.5	0	0	0	0	0	107%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092311\09231102.D Vial: 2
Acq On : 23 Sep 2011 6:09 pm Operator: MICHAEL TRUCHAN
Sample : CCV1 092311 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 26 10:19 2011 Quant Results File: 092111V9.RES

Quant Method : C:\HPCHEM\1\METHODS\092111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Sep 22 10:01:26 2011
Response via : Initial Calibration
DataAcq Meth : 092111V9

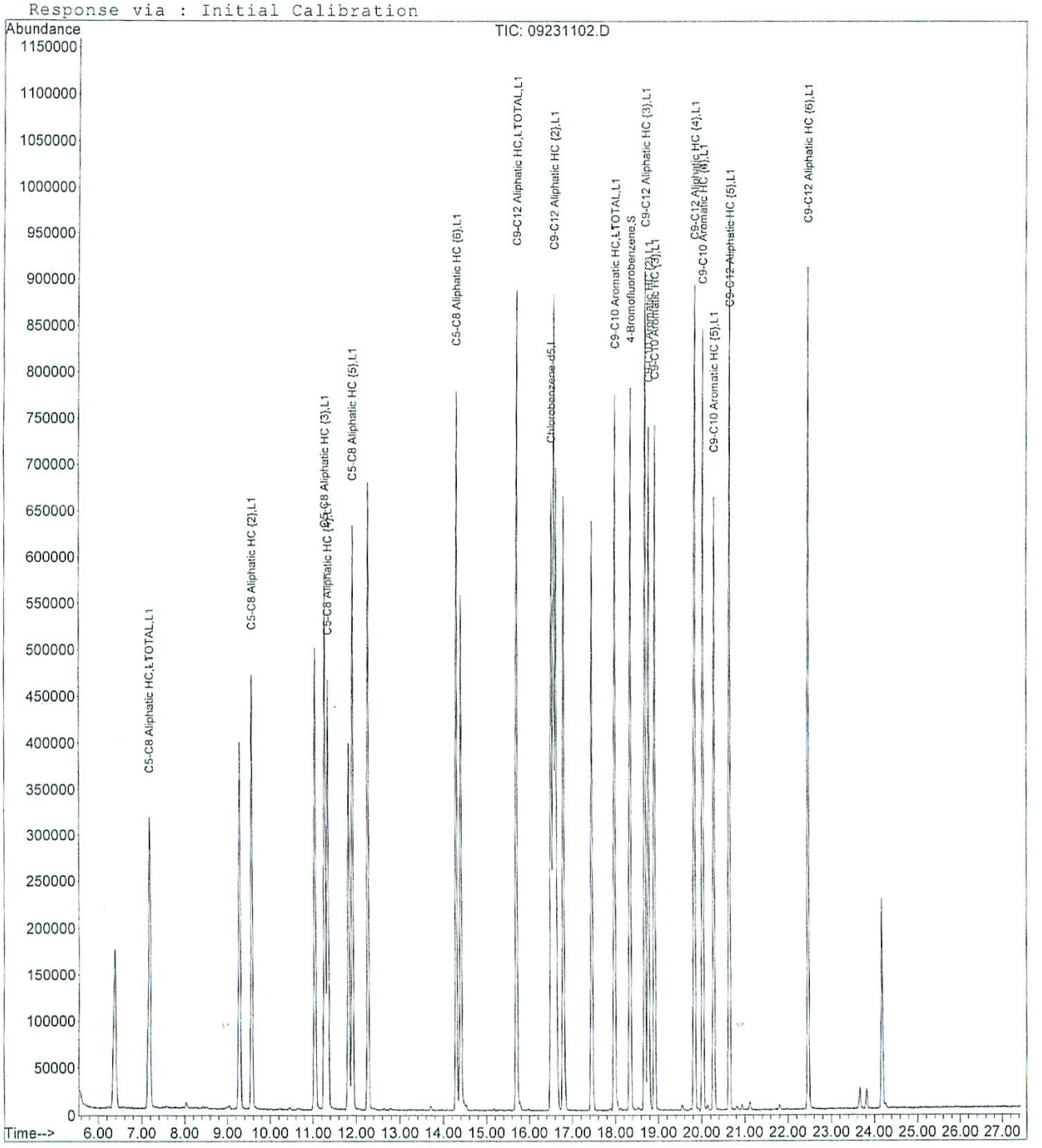
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	547081	12.50	ug/m3	-0.01
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.34	95	375743	95.89	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 107.14%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.18	TIC	1065348	34.23	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	1196124	39.70	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	1496472	44.83	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	1174324	36.93	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	1435450	44.90	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	1725850	52.85	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.18	TIC	8093568m	253.30	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	2100329	59.41	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.57	TIC	1960020	57.76	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	1975554	66.18	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	2064004	66.29	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	2013133	76.68	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.47	TIC	1879316	83.96	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	11992356m	409.82	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	190586	52.02	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	202630	52.30	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	294220	52.16	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	70741	60.81	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	229488	53.08	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	193458	60.66	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1181123m	270.21	ug/m3	

(#) = qualifier out of range (m) = manual integration
09231102.D 092111V9.M Fri Sep 30 12:28:41 2011

Quantitation Report

Data File : C:\HPCHEM\1\DATA\092311\09231102.D Vial: 2
Acq On : 23 Sep 2011 6:09 pm Operator: MICHAEL TRUCHAN
Sample : CCV1 092311 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 26 10:19 2011 Quant Results File: 092111V9.RES

Method : C:\HPCHEM\1\METHODS\092111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Sep 22 10:01:26 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_110926A **Run No.:** 43069

Analytical Run Date: 9/26/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 42997 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 092611 VOA9	BFB_TUNE	TUNE	R43069	9/26/2011 11:33:00 AM	Charles O`Bryan		
CCV1 092611 VOA9	MA_APH	CCV	R43069	9/26/2011 12:16:00 PM	Charles O`Bryan		
RLVS1 092611 VOA	MA_APH	RLVS	R43069	9/26/2011 1:27:00 PM	Charles O`Bryan		
BLK2 092611 VOA9	MA_APH	MBLK	R43069	9/26/2011 3:13:00 PM	Charles O`Bryan		
1109105-031A	MA_APH	SAMP	R43069	9/26/2011 3:55:00 PM	Charles O`Bryan	H	
1109105-024A	MA_APH	SAMP	R43069	9/26/2011 4:37:00 PM	Charles O`Bryan	H	
1109555-007A	MA_APH	SAMP	R43069	9/27/2011 12:09:00 AM	Charles O`Bryan		
1109555-009A	MA_APH	SAMP	R43069	9/27/2011 1:39:00 AM	Charles O`Bryan		
1109555-033A	MA_APH	SAMP	R43069	9/27/2011 3:51:00 AM	Charles O`Bryan		Sample needs further dilution, therefore all analytes are unchecked. Reporting here to show that sample and duplicate were analyzed.
1109555-033ADUP	MA_APH	DUP	R43069	9/27/2011 4:33:00 AM	Charles O`Bryan		
1109105-008A	MA_APH	SAMP	R43069	9/27/2011 5:15:00 AM	Charles O`Bryan	H	
1109105-011A	MA_APH	SAMP	R43069	9/27/2011 7:19:00 AM	Charles O`Bryan	H	
1109555-013A	MA_APH	SAMP	R43069	9/27/2011 8:01:00 AM	Charles O`Bryan		
1109105-012A	MA_APH	SAMP	R43069	9/27/2011 8:43:00 AM	Charles O`Bryan	H	
RLVS2 092611 VOA	MA_APH	RLVS	R43069	9/27/2011 9:25:00 AM	Charles O`Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 43069

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838349	BFB1 092611 VOA9	BFB_TUNE	TUNE	\1\DATA\092611	9/26/2011 11:33:	1	R43069		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		87.6	87.6		0	0	0	0	0	0	0%	50	120	0%	
175	M		7.9	7.9		0	0	0	0	0	0	0%	4	9	0%	
176	M		95	95		0	0	0	0	0	0	0%	93	101	0%	
177	M		7.1	7.1		0	0	0	0	0	0	0%	5	9	0%	
50	M		25.1	25.1		0	0	0	0	0	0	0%	8	40	0%	
75	M		46.8	46.8		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.9	6.9		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838350	CCV1 092611 VOA9	MA_APH	CCV	\1\DATA\092611	9/26/2011 12:16:	1	R43069		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	224.84	224.84		222	0	0	0	0	0	101%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	246.39	246.39		266	0	0	0	0	0	93%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	364.59	364.59		378	0	0	0	0	0	96%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	92.45	92.45		89.5	0	0	0	0	0	103%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092611\09261102.D
Acq On : 26 Sep 2011 12:16 pm
Sample : CCV1 092611 VOA9
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Sep 26 22:45 2011

Vial: 2
Operator: MICHAEL TRUCHAN
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 092111V9.RES

Quant Method : C:\HPCHEM\1\METHODS\092111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Sep 22 10:01:26 2011
Response via : Initial Calibration
DataAcq Meth : 092111V9

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	476063	12.50 ug/m3	-0.02
System Monitoring Compounds					
41) 4-Bromofluorobenzene	18.34	95	315265	92.45 ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery	= 103.30%	

Target Compounds					Qvalue
1) C5-C8 Aliphatic HC	7.17	TIC	977615	31.41 ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	1072283	35.59 ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	1305889	39.12 ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	1040701	32.73 ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	1270515	39.74 ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.30	TIC	1517070	46.45 ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.17	TIC	7184073m	224.84 ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	1843521	52.15 ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	1753190	51.67 ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	1754334	58.77 ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	1845610	59.28 ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	1794896	68.37 ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.47	TIC	1677148	74.93 ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	10668699m	364.59 ug/m3	
15) C9-C10 Aromatic HC	17.97	120	173463	47.35 ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	180733	46.65 ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	268056	47.52 ug/m3	100
18) C9-C10 Aromatic HC {4}	20.02	120	65931	56.68 ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	208653	48.26 ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	180161	56.49 ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1076997m	246.39 ug/m3	

(#) = qualifier out of range (m) = manual integration
09261102.D 092111V9.M Fri Sep 30 12:36:55 2011

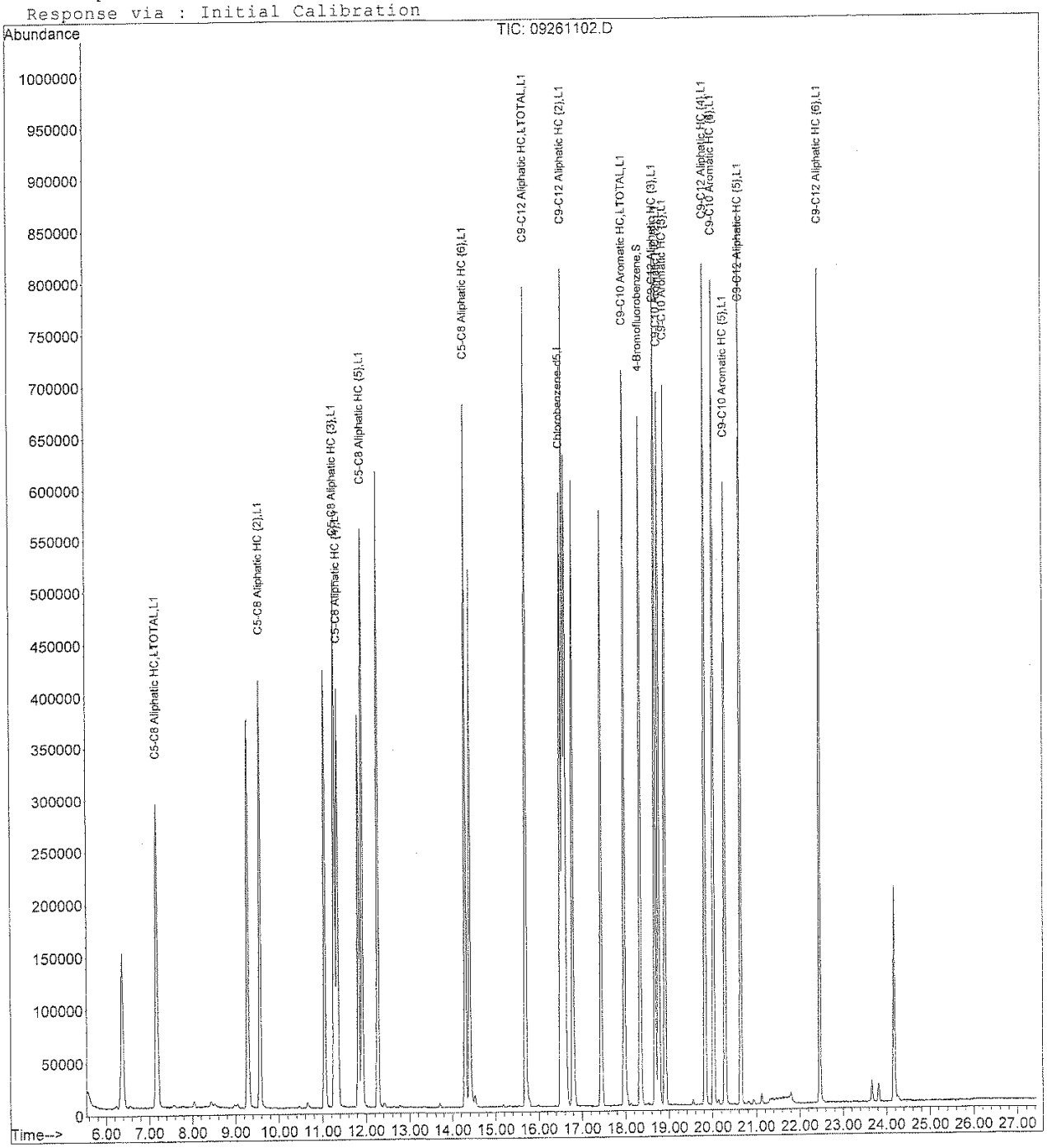
Quantitation Report

Data File : C:\HPCHEM\1\DATA\092611\09261102.D
Acq On : 26 Sep 2011 12:16 pm
Sample : CCV1 092611 VOA9
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Sep 26 22:45 2011

Vial: 2
Operator: MICHAEL TRUCHAN
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 092111V9.RES

Method : C:\HPCHEM\1\METHODS\092111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Sep 22 10:01:26 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_110928A **Run No.:** 43117

Analytical Run Date: 9/28/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 42997 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 092811 VOA9	BFB_TUNE	TUNE	R43117	9/28/2011 12:23:00 PM	Charles O'Bryan		
CCV1 092811 VOA9	MA_APH	CCV	R43117	9/28/2011 2:43:00 PM	Charles O'Bryan		
RLVS1 092811 VOA	MA_APH	RLVS	R43117	9/28/2011 3:25:00 PM	Charles O'Bryan		
BLK2 092811 VOA9	MA_APH	MBLK	R43117	9/28/2011 4:14:00 PM	Charles O'Bryan		
1109105-034A	MA_APH	SAMP	R43117	9/28/2011 4:55:00 PM	Charles O'Bryan	H	
1109105-035A	MA_APH	SAMP	R43117	9/28/2011 5:38:00 PM	Charles O'Bryan	H	
1109105-005A	MA_APH	SAMP	R43117	9/28/2011 6:20:00 PM	Charles O'Bryan	H	
1109105-010A	MA_APH	SAMP	R43117	9/28/2011 7:44:00 PM	Charles O'Bryan	H	
1109105-010ADUP	MA_APH	DUP	R43117	9/28/2011 8:28:00 PM	Charles O'Bryan	H	
1109555-008A	MA_APH	SAMP	R43117	9/28/2011 9:16:00 PM	Charles O'Bryan	H	
1109555-030A	MA_APH	SAMP	R43117	9/28/2011 9:59:00 PM	Charles O'Bryan		
1109555-032A	MA_APH	SAMP	R43117	9/28/2011 11:20:00 PM	Charles O'Bryan		
1109555-033A	MA_APH	SAMP	R43117	9/29/2011 12:02:00 AM	Charles O'Bryan		
1109555-031A	MA_APH	SAMP	R43117	9/29/2011 7:22:00 AM	Charles O'Bryan		
1109555-014A	MA_APH	SAMP	R43117	9/29/2011 8:10:00 AM	Charles O'Bryan		
1109555-015A	MA_APH	SAMP	R43117	9/29/2011 8:59:00 AM	Charles O'Bryan		
1109555-016A	MA_APH	SAMP	R43117	9/29/2011 9:47:00 AM	Charles O'Bryan		
1109555-017A	MA_APH	SAMP	R43117	9/29/2011 10:36:00 AM	Charles O'Bryan		
VOA9 RLVS2 09281	MA_APH	RLVS	R43117	9/29/2011 11:18:00 AM	Charles O'Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 43117

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
839625	BFB1 092811 VOA9	BFB_TUNE	TUNE	\1\DATA\092811	9/28/2011 12:23:	1	R43117		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		93.1	93.1		0	0	0	0	0	0	0%	50	120	0%	
175	M		8	8		0	0	0	0	0	0	0%	4	9	0%	
176	M		98.6	98.6		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.7	6.7		0	0	0	0	0	0	0%	5	9	0%	
50	M		21.6	21.6		0	0	0	0	0	0	0%	8	40	0%	
75	M		45	45		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.6	6.6		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
839626	CCV1 092811 VOA9	MA_APH	CCV	\1\DATA\092811	9/28/2011 2:43:0	1	R43117		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	204.54	204.54		234	0	0	0	0	0	87%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	209.97	209.97		266	0	0	0	0	0	79%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	330.17	330.17		378	0	0	0	0	0	87%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	98.67	98.67		89.5	0	0	0	0	0	110%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092811\09281103.D
Acq On : 28 Sep 2011 2:43 pm
Sample : CCV1 092811 VOA9
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Sep 28 22:03 2011

Vial: 2
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 092111V9.RES

Quant Method : C:\HPCHEM\1\METHODS\092111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Sep 22 10:01:26 2011
Response via : Initial Calibration
DataAcq Meth : 092111V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	434149	12.50	ug/m3	0.00
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.34	95	306844	98.67	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 110.25%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.17	TIC	898000	28.86	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.56	TIC	968605	32.15	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	1207721	36.18	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	918793	28.89	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	1151955	36.03	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.30	TIC	1390545	42.58	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.17	TIC	6535619m	204.54	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	1733999	49.05	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	1687529	49.73	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	1568569	52.54	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	1641639	52.73	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	1580658	60.21	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.47	TIC	1449173	64.74	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	9661567m	330.17	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	147521	40.27	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	155562	40.15	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	229251	40.64	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.02	120	55936	48.09	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.29	120	177794	41.12	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	151716	47.57	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	917780m	209.97	ug/m3	

(#) = qualifier out of range (m) = manual integration
09281103.D 092111V9.M Thu Oct 20 11:00:46 2011

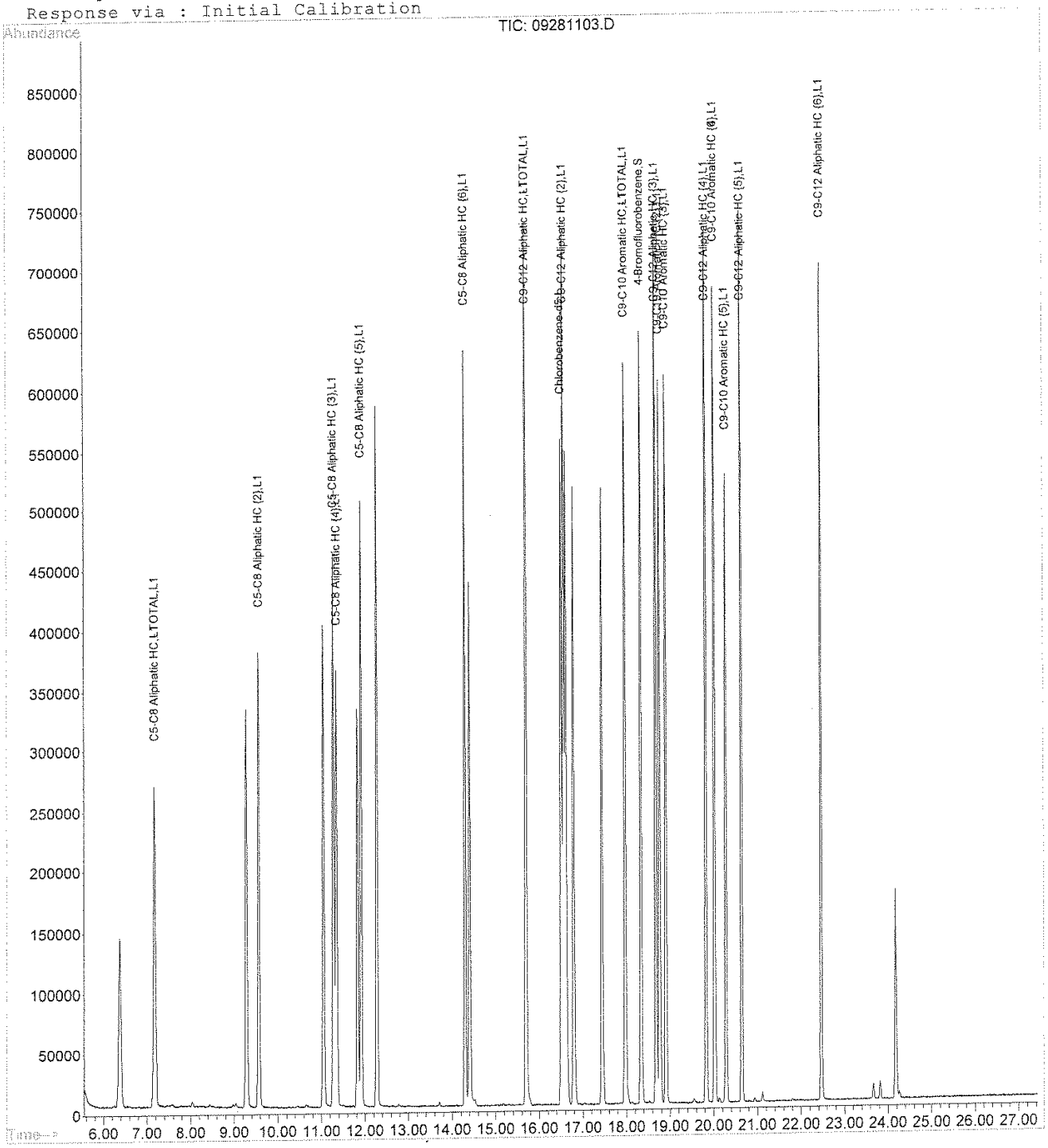
Quantitation Report

Data File : C:\HPCHEM\1\DATA\092811\09281103.D
Acq On : 28 Sep 2011 2:43 pm
Sample : CCV1 092811 VOA9
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Sep 28 22:03 2011

Vial: 2
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 092111V9.RES

Method : C:\HPCHEM\1\METHODS\092111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Sep 22 10:01:26 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_110929A

Run No.: 43154

Analytical Run Date: 9/29/2011

InstrumentID: VOA9

Analyst: Rachel Hill

Column:

Calibration ID: 42997

Column ID:

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 092911 VOA9	BFB_TUNE	TUNE	R43154	9/29/2011 12:03:00 PM	Charles O`Bryan		
CCV1 092911 VOA9	MA_APH	CCV	R43154	9/29/2011 12:46:00 PM	Charles O`Bryan		
RLVS1 092911 VOA	MA_APH	RLVS	R43154	9/29/2011 1:30:00 PM	Charles O`Bryan		
BLK2 092911 VOA9	MA_APH	MBLK	R43154	9/29/2011 3:06:00 PM	Charles O`Bryan		
1109105-009A	MA_APH	SAMP	R43154	9/29/2011 3:48:00 PM	Charles O`Bryan	H	
1109555-001A	MA_APH	SAMP	R43154	9/29/2011 5:40:00 PM	Charles O`Bryan		
1109555-003A	MA_APH	SAMP	R43154	9/29/2011 7:04:00 PM	Charles O`Bryan		Over diluted sample. Will re-run at a lower dilution. Shown here to show sample and duplicate were analyzed.
1109555-003ADUP	MA_APH	DUP	R43154	9/29/2011 7:46:00 PM	Charles O`Bryan		
1109555-005A	MA_APH	SAMP	R43154	9/29/2011 9:10:00 PM	Charles O`Bryan		
1109555-016A	MA_APH	SAMP	R43154	9/29/2011 10:44:00 PM	Charles O`Bryan		
1109555-019A	MA_APH	SAMP	R43154	9/29/2011 11:26:00 PM	Charles O`Bryan		
1109555-002A	MA_APH	SAMP	R43154	9/30/2011 3:46:00 AM	Charles O`Bryan		
1109555-003A	MA_APH	SAMP	R43154	9/30/2011 4:34:00 AM	Charles O`Bryan		
1109555-004A	MA_APH	SAMP	R43154	9/30/2011 5:23:00 AM	Charles O`Bryan		
1109555-006A	MA_APH	SAMP	R43154	9/30/2011 7:18:00 AM	Charles O`Bryan		
1109555-020A	MA_APH	SAMP	R43154	9/30/2011 8:06:00 AM	Charles O`Bryan		
1109555-021A	MA_APH	SAMP	R43154	9/30/2011 8:55:00 AM	Charles O`Bryan		
RLVS2 092911 VOA	MA_APH	RLVS	R43154	9/30/2011 11:14:00 AM	Charles O`Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

21-Oct-11

RunNo 43154

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
840619	BFB1 092911 VOA9	BFB_TUNE	TUNE	\1\DATA\092911	9/29/2011 12:03:	1	R43154		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		95.3	95.3		0	0	0	0	0	0	0%	50	120	0%	
175	M		7.9	7.9		0	0	0	0	0	0	0%	4	9	0%	
176	M		96.6	96.6		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.6	6.6		0	0	0	0	0	0	0%	5	9	0%	
50	M		21.4	21.4		0	0	0	0	0	0	0%	8	40	0%	
75	M		45	45		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.9	6.9		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
840620	CCV1 092911 VOA9	MA_APH	CCV	\1\DATA\092911	9/29/2011 12:46:	1	R43154		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	205.78	205.78		234	0	0	0	0	0	88%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	221.69	221.69		266	0	0	0	0	0	83%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	346.5	346.5		378	0	0	0	0	0	92%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	96.73	96.73		89.5	0	0	0	0	0	108%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092911\09291102.D
Acq On : 29 Sep 2011 12:46 pm
Sample : CCV1 092911 VOA9
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Sep 29 21:29 2011

Vial: 2
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 092111V9.RES

Quant Method : C:\HPCHEM\1\METHODS\092111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Sep 22 10:01:26 2011
Response via : Initial Calibration
DataAcq Meth : 092111V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	452890	12.50	ug/m3	-0.01
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.34	95	313776	96.73	ug/m3	-0.01
Spiked Amount 89.500	Range 70 - 130		Recovery = 108.08%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.17	TIC	951514	30.58	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.56	TIC	940524	31.22	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	1200315	35.96	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	919509	28.91	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	1154339	36.11	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.30	TIC	1408913	43.14	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.17	TIC	6575114m	205.78	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	1753744	49.61	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	1743326	51.38	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	1640583	54.96	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	1728882	55.53	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	1706172	64.99	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.47	TIC	1566764	70.00	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	10139471m	346.50	ug/m3	
15) C9-C10 Aromatic HC	17.98	120	153128	41.80	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	163427	42.18	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	242164	42.93	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	60566	52.07	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	188790	43.67	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	160972	50.47	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.98	TIC	969047m	221.69	ug/m3	

(#) = qualifier out of range (m) = manual integration
09291102.D 092111V9.M Thu Oct 20 11:01:11 2011

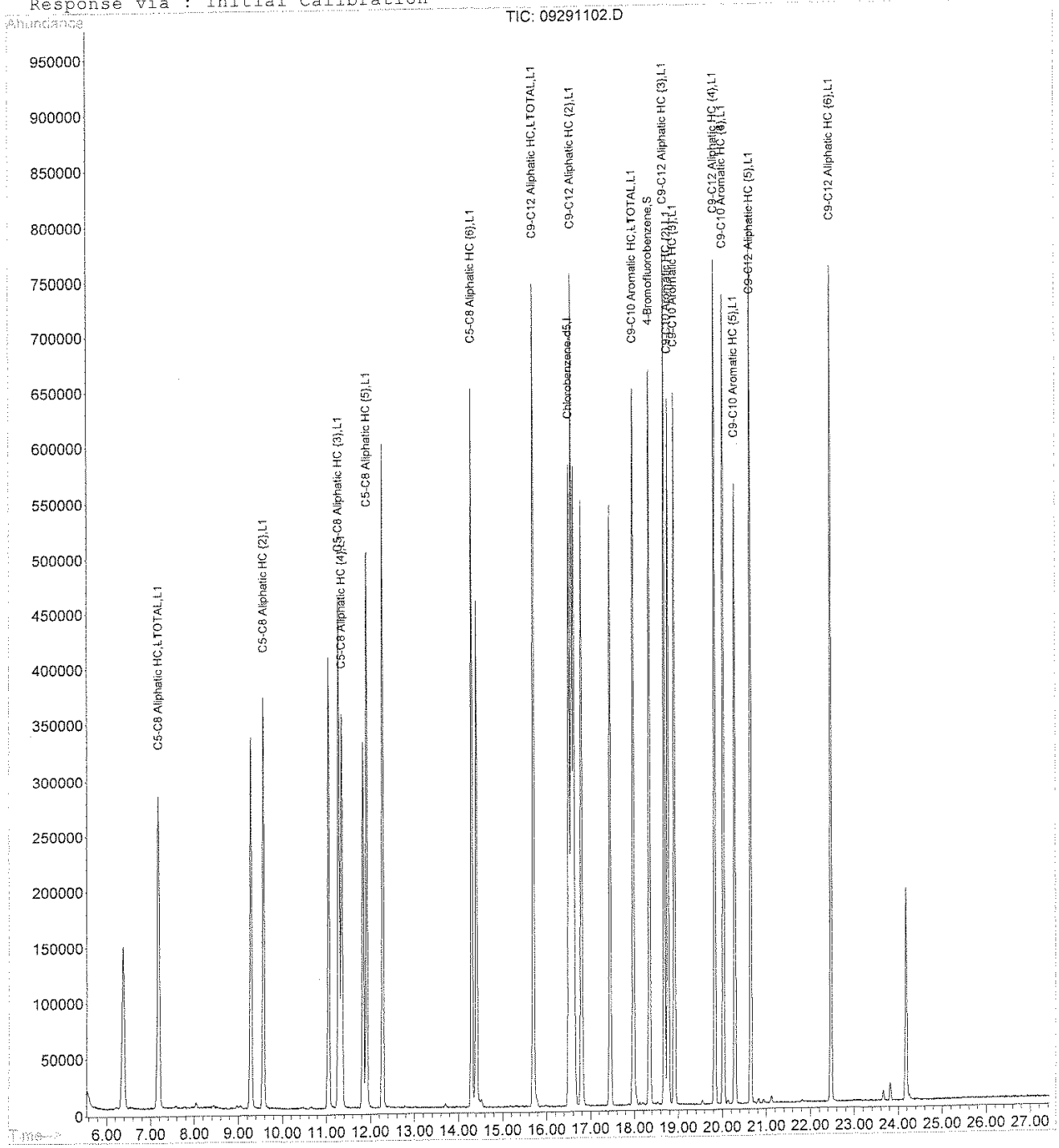
Quantitation Report

Data File : C:\HPCHEM\1\DATA\092911\09291102.D
Acq On : 29 Sep 2011 12:46 pm
Sample : CCV1 092911 VOA9
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Sep 29 21:29 2011

Vial: 2
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 092111V9.RES

Method : C:\HPCHEM\1\METHODS\092111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Sep 22 10:01:26 2011
Response via : Initial Calibration



Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\091611V1.M (RTE Integrator)
Title : Mass. APH ug/m3
Last Update : Sun Sep 18 08:43:01 2011
Response via : Initial Calibration

Calibration Files
1 =09161102.D 2 =09161103.D 3 =09161104.D
4 =09161105.D 5 =09161106.D 6 =09161107.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	L1	C5-C8 Aliphatic HC	1.513	1.243	1.234	1.231	1.225	1.234	1.268	E5	8.65
2)	L1	C5-C8 Aliphatic HC	1.444	1.141	1.037	1.046	1.051	1.096	1.116	E5	13.64
3)	L1	C5-C8 Aliphatic HC	1.609	1.224	1.123	1.143	1.130	1.170	1.204	E5	15.55
4)	L1	C5-C8 Aliphatic HC	1.384	1.092	0.980	0.986	0.998	1.070	1.072	E5	13.49
5)	L1	C5-C8 Aliphatic HC	1.515	1.177	1.096	1.133	1.099	1.071	1.144	E5	15.96
6)	L1	C5-C8 Aliphatic HC	1.391	1.066	1.022	1.058	1.038	1.010	1.064	E5	15.03
7)	L1	C5-C8 Aliphatic HC	1.475	1.152	1.075	1.097	1.086	1.099	1.138	E5	13.75
8)	L1	C9-C12 Aliphatic HC	1.366	1.017	0.961	1.010	1.012	0.987	1.029	E5	15.60
9)	L1	C9-C12 Aliphatic HC	8.684	8.029	8.146	8.487	8.260	7.875	8.042	E4	7.52
10)	L1	C9-C12 Aliphatic HC	1.009	0.736	0.717	0.725	0.729	0.696	0.744	E5	16.91
11)	L1	C9-C12 Aliphatic HC	8.441	6.102	5.955	6.128	6.261	6.536	6.492	E4	13.56
12)	L1	C9-C12 Aliphatic HC	1.064	0.832	0.818	0.846	0.822	0.723	0.818	E5	16.46
13)	L1	C9-C12 Aliphatic HC	4.152	2.782	2.726	2.938	2.928	3.034	3.106	E4	15.64
14)	L1	C9-C12 Aliphatic HC	8.955	7.065	6.920	7.152	7.050	6.755	7.124	E4	12.64
15)	L1	C9-C10 Aromatic HC	7.719	5.324	5.064	5.407	5.588	6.384	6.013	E3	15.67
16)	L1	C9-C10 Aromatic HC	8.294	5.745	5.450	5.501	5.606	5.997	6.132	E3	16.34
17)	L1	C9-C10 Aromatic HC	1.067	0.739	0.703	0.722	0.726	0.776	0.792	E4	16.02
18)	L1	C9-C10 Aromatic HC	2.458	1.830	1.757	1.717	1.709	1.710	1.850	E3	14.70
19)	L1	C9-C10 Aromatic HC	8.352	6.031	5.705	5.503	5.396	5.126	5.951	E3	18.40
20)	L1	C9-C10 Aromatic HC	6.624	4.931	4.674	4.564	4.533	4.480	4.916	E3	15.61
21)	L1	C9-C10 Aromatic HC	7.264	5.151	4.875	4.898	4.930	5.157	5.382	E3	15.80
22)		C5-C8 Aliphatic	1.475	1.152	1.075	1.097	1.086	1.099	1.138	E5	13.75
23)	L1	non C5-C8	1.186	0.913	0.892	0.867	0.818	0.766	0.878	E5	17.59
24)	L1	non C5-C8 {2}	1.001	0.663	0.572	0.581	0.617	0.679	0.682	E5	21.52
25)	L1	non C5-C8 {3}	4.300	4.443	4.604	4.706	4.684	4.801	4.634	E4	4.46
26)	L1	non C5-C8 {4}	1.278	0.870	0.708	0.717	0.731	0.886	0.865	E5	22.89
27)	L1	non C5-C8 {5}	6.558	6.804	7.208	7.373	7.201	7.268	7.116	E4	4.42
28)	L1	non C5-C8 {6}	1.098	0.740	0.652	0.676	0.673	0.768	0.767	E5	19.98
29)	L1	non C5-C8 - TOTAL	7.422	6.703	6.397	6.559	6.612	7.309	6.895	E4	6.11
30)		C9-C12 Aliphatic	8.955	7.065	6.920	7.152	7.050	6.755	7.124	E4	12.64
31)	L1	non C9-C12	8.684	8.029	8.146	8.487	8.260	7.875	8.042	E4	7.52
32)	L1	non C9-C12 {2}	8.479	5.889	5.424	5.718	5.748	6.404	6.287	E4	16.35
33)	L1	non C9-C12 {3}	8.220	5.692	5.309	5.602	5.581	6.272	6.130	E4	16.10
34)	L1	non C9-C12 {4}	7.294	5.006	4.731	4.950	4.958	5.542	5.459	E4	16.20
35)	L1	non C9-C12 {5}	3.751	3.677	3.895	3.939	3.787	3.729	3.785	E4	2.56
36)	L1	non C9-C12 - TOTAL	6.693	5.890	5.847	6.111	6.050	6.349	6.153	E4	4.72
37)	L1	C9-C10 Aromatic	7.264	5.151	4.875	4.898	4.930	5.157	5.382	E3	15.80
38)	L1	C9-C10 Aromatic {2}	7.264	5.151	4.875	4.898	4.930	5.157	5.382	E3	15.80
39)	L1	C9-C10 Aromatic - T	7.264	5.151	4.875	4.898	4.930	5.157	5.382	E3	15.80
40)	I	Chlorobenzene-d5	----------ISTD----------								
41)	S	4-Bromofluorobenzen	0.080	0.075	0.073	0.069	0.067	0.067	0.072		6.62

(#) = Out of Range ### Number of calibration levels exceeded format ###

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\091611V1.M (RTE Integrator)
Title : Mass. APH ug/m3
Last Update : Sun Sep 18 08:43:01 2011
Response via : Initial Calibration
Total Cpnds : 41

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	L1	C5-C8 Aliphatic HC	TIC	7.01	1.000	A	0	A	B
2	L1	C5-C8 Aliphatic HC {2}	TIC	9.21	1.000	A	0	A	B
3	L1	C5-C8 Aliphatic HC {3}	TIC	10.78	1.000	A	0	A	B
4	L1	C5-C8 Aliphatic HC {4}	TIC	10.86	1.000	A	0	A	B
5	L1	C5-C8 Aliphatic HC {5}	TIC	11.34	1.000	A	0	A	B
6	L1	C5-C8 Aliphatic HC {6}	TIC	13.50	1.000	A	0	A	B
7	L1	C5-C8 Aliphatic HC - TOTAL	TIC	7.01	1.000	A	0	A	B
8	L1	C9-C12 Aliphatic HC	TIC	14.77	1.000	A	0	A	B
9	L1	C9-C12 Aliphatic HC {2}	TIC	15.54	1.000	A	0	A	B
10	L1	C9-C12 Aliphatic HC {3}	TIC	17.45	1.000	A	0	A	B
11	L1	C9-C12 Aliphatic HC {4}	TIC	18.51	1.000	A	0	A	B
12	L1	C9-C12 Aliphatic HC {5}	TIC	19.26	1.000	A	0	A	B
13	L1	C9-C12 Aliphatic HC {6}	TIC	21.22	1.000	A	0	A	B
14	L1	C9-C12 Aliphatic HC - TOTAL	TIC	21.22	1.000	A	0	A	B
15	L1	C9-C10 Aromatic HC	120	16.84	1.000	A	0	A	B
16	L1	C9-C10 Aromatic HC {2}	120	17.56	1.000	A	0	A	B
17	L1	C9-C10 Aromatic HC {3}	120	17.68	1.000	A	0	A	B
18	L1	C9-C10 Aromatic HC {4}	120	18.70	1.000	A	0	A	B
19	L1	C9-C10 Aromatic HC {5}	120	18.95	1.000	A	0	A	B
20	L1	C9-C10 Aromatic HC {6}	134	18.70	1.000	A	0	A	B
21	L1	C9-C10 Aromatic HC - TOTAL	134	18.70	1.000	A	0	A	B
22		C5-C8 Aliphatic	TIC	6.94	1.000	A	0	A	B
23	L1	non C5-C8	TIC	6.26	1.000	A	0	A	B
24	L1	non C5-C8 {2}	TIC	8.95	1.000	A	0	A	B
25	L1	non C5-C8 {3}	TIC	10.58	1.000	A	0	A	B
26	L1	non C5-C8 {4}	TIC	11.30	1.000	A	0	A	B
27	L1	non C5-C8 {5}	TIC	11.68	1.000	A	0	A	B
28	L1	non C5-C8 {6}	TIC	13.62	1.000	A	0	A	B
29	L1	non C5-C8 - TOTAL	TIC	13.62	1.000	A	0	A	B
30		C9-C12 Aliphatic	TIC	15.45	1.000	A	0	A	B
31	L1	non C9-C12	TIC	15.54	1.000	A	0	A	B
32	L1	non C9-C12 {2}	TIC	15.62	1.000	A	0	A	B
33	L1	non C9-C12 {3}	TIC	15.78	1.000	A	0	A	B
34	L1	non C9-C12 {4}	TIC	16.37	1.000	A	0	A	B
35	L1	non C9-C12 {5}	TIC	17.19	1.000	A	0	A	B
36	L1	non C9-C12 - TOTAL	TIC	17.19	1.000	A	0	A	B
37	L1	C9-C10 Aromatic	120	16.41	1.000	A	0	A	B
38	L1	C9-C10 Aromatic {2}	134	16.41	1.000	A	0	A	B
39	L1	C9-C10 Aromatic - TOTAL	134	16.61	1.000	A	0	A	B
40	I	Chlorobenzene-d5	117	15.53	1.000	A	2	A	B
41	S	4-Bromofluorobenzene	95	17.19	1.107	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

091611V1.M Thu Sep 29 10:16:10 2011

Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\092111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Sep 22 10:01:26 2011
Response via : Initial Calibration

Calibration Files
1 =09211103.D 2 =09211104.D 3 =09211105.D
4 =09211106.D 5 =09211107.D 6 =09211108.D

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	L1	C5-C8 Aliphatic HC	3.342	3.501	3.431	3.048	2.961	2.792	3.112 E4	10.14
2)	L1	C5-C8 Aliphatic HC	3.085	3.144	3.314	3.157	3.035	2.776	3.013 E4	8.35
3)	L1	C5-C8 Aliphatic HC	3.482	3.500	3.661	3.492	3.355	3.043	3.338 E4	8.81
4)	L1	C5-C8 Aliphatic HC	3.266	3.329	3.432	3.293	3.244	2.975	3.180 E4	7.73
5)	L1	C5-C8 Aliphatic HC	3.409	3.292	3.437	3.366	3.216	2.933	3.197 E4	8.39
6)	L1	C5-C8 Aliphatic HC	3.531	3.389	3.563	3.402	3.284	2.973	3.266 E4	9.52
7)	L1	C5-C8 Aliphatic HC	3.367	3.358	3.481	3.317	3.202	2.924	3.195 E4	8.60
8)	L1	C9-C12 Aliphatic HC	3.835	3.715	3.856	3.686	3.548	3.204	3.535 E4	10.07
9)	L1	C9-C12 Aliphatic HC	3.862	3.468	3.551	3.532	3.337	3.128	3.393 E4	9.41
10)	L1	C9-C12 Aliphatic HC	3.397	3.098	3.226	3.063	2.977	2.651	2.985 E4	10.66
11)	L1	C9-C12 Aliphatic HC	3.530	3.258	3.337	3.218	3.094	2.779	3.113 E4	10.60
12)	L1	C9-C12 Aliphatic HC	3.001	2.731	2.825	2.691	2.573	2.324	2.625 E4	10.37
13)	L1	C9-C12 Aliphatic HC	2.572	2.269	2.387	2.288	2.231	2.003	2.238 E4	9.90
14)	L1	C9-C12 Aliphatic HC	3.308	3.031	3.139	3.020	2.904	2.628	2.926 E4	10.08
15)	L1	C9-C10 Aromatic HC	4.152	3.792	3.941	3.790	3.620	3.289	3.663 E3	10.30
16)	L1	C9-C10 Aromatic HC	4.471	4.015	4.104	3.947	3.798	3.490	3.874 E3	10.14
17)	L1	C9-C10 Aromatic HC	6.548	5.926	5.959	5.780	5.547	5.034	5.641 E3	10.97
18)	L1	C9-C10 Aromatic HC	1.324	1.207	1.250	1.181	1.141	1.042	1.163 E3	9.79
19)	L1	C9-C10 Aromatic HC	5.007	4.496	4.588	4.444	4.249	3.863	4.323 E3	10.77
20)	L1	C9-C10 Aromatic HC	3.712	3.332	3.387	3.235	3.158	2.825	3.189 E3	10.94
21)	L1	C9-C10 Aromatic HC	5.054	4.563	4.642	4.466	4.290	3.912	4.371 E3	10.62
22)		C5-C8 Aliphatic	3.367	3.358	3.481	3.317	3.202	2.924	3.195 E4	8.60
23)	L1	non C5-C8	2.485	2.302	2.785	2.563	2.422	2.260	2.422 E4	8.87
24)	L1	non C5-C8 {2}	2.950	2.744	2.795	2.687	2.592	2.369	2.629 E4	9.15
25)	L1	non C5-C8 {3}	1.800	2.105	2.247	2.164	2.090	2.028	2.049 E4	7.42
26)	L1	non C5-C8 {4}	2.957	2.860	2.965	2.850	2.769	2.509	2.757 E4	8.12
27)	L1	non C5-C8 {5}	2.635	3.065	3.334	3.156	3.074	2.978	2.984 E4	8.72
28)	L1	non C5-C8 {6}	3.653	3.195	3.353	3.122	3.047	2.900	3.147 E4	9.36
29)	L1	non C5-C8 - TOTAL	2.502	2.694	2.894	2.759	2.681	2.526	2.636 E4	6.48
30)		C9-C12 Aliphatic	3.308	3.031	3.139	3.020	2.904	2.628	2.926 E4	10.08
31)	L1	non C9-C12	2.660	2.963	3.258	3.026	2.928	2.829	2.900 E4	7.49
32)	L1	non C9-C12 {2}	3.509	3.217	3.358	3.219	3.177	2.702	3.102 E4	11.42
33)	L1	non C9-C12 {3}	3.768	3.330	3.474	3.327	3.232	2.980	3.280 E4	9.28
34)	L1	non C9-C12 {4}	3.594	3.238	3.370	3.251	3.157	2.910	3.182 E4	8.82
35)	L1	non C9-C12 {5}	2.094	2.244	2.445	2.372	2.319	2.288	2.267 E4	5.75
36)	L1	non C9-C12 - TOTAL	2.426	2.421	2.560	2.434	2.357	2.139	2.332 E4	8.48
37)	L1	C9-C10 Aromatic	5.054	4.563	4.642	4.466	4.290	3.912	4.371 E3	10.62
38)	L1	C9-C10 Aromatic {2}	5.054	4.563	4.642	4.466	4.290	3.912	4.371 E3	10.62
39)	L1	C9-C10 Aromatic - T	5.054	4.563	4.642	4.466	4.290	3.912	4.371 E3	10.62
40)	I	Chlorobenzene-d5	----------ISTD----------							
41)	S	4-Bromofluorobenzen	0.090	0.088	0.088	0.089	0.091	0.090	0.090	1.33

(#) = Out of Range ### Number of calibration levels exceeded format ###
092111V9.M Thu Oct 20 10:57:39 2011

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\092111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Sep 22 10:01:26 2011
Response via : Initial Calibration
Total Cpnds : 41

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	L1	C5-C8 Aliphatic HC	TIC	7.21	1.000	A	0	A	B
2	L1	C5-C8 Aliphatic HC {2}	TIC	9.59	1.000	A	0	A	B
3	L1	C5-C8 Aliphatic HC {3}	TIC	11.30	1.000	A	0	A	B
4	L1	C5-C8 Aliphatic HC {4}	TIC	11.37	1.000	A	0	A	B
5	L1	C5-C8 Aliphatic HC {5}	TIC	11.93	1.000	A	0	A	B
6	L1	C5-C8 Aliphatic HC {6}	TIC	14.31	1.000	A	0	A	B
7	L1	C5-C8 Aliphatic HC - TOTAL	TIC	7.00	1.000	A	0	A	B
8	L1	C9-C12 Aliphatic HC	TIC	15.71	1.000	A	0	A	B
9	L1	C9-C12 Aliphatic HC {2}	TIC	16.58	1.000	A	0	A	B
10	L1	C9-C12 Aliphatic HC {3}	TIC	18.69	1.000	A	0	A	B
11	L1	C9-C12 Aliphatic HC {4}	TIC	19.84	1.000	A	0	A	B
12	L1	C9-C12 Aliphatic HC {5}	TIC	20.66	1.000	A	0	A	B
13	L1	C9-C12 Aliphatic HC {6}	TIC	22.48	1.000	A	0	A	B
14	L1	C9-C12 Aliphatic HC - TOTAL	TIC	15.71	1.000	A	0	A	B
15	L1	C9-C10 Aromatic HC	120	17.99	1.000	A	0	A	B
16	L1	C9-C10 Aromatic HC {2}	120	18.78	1.000	A	0	A	B
17	L1	C9-C10 Aromatic HC {3}	120	18.92	1.000	A	0	A	B
18	L1	C9-C10 Aromatic HC {4}	120	20.04	1.000	A	0	A	B
19	L1	C9-C10 Aromatic HC {5}	120	20.30	1.000	A	0	A	B
20	L1	C9-C10 Aromatic HC {6}	134	20.04	1.000	A	0	A	B
21	L1	C9-C10 Aromatic HC - TOTAL	TIC	17.99	1.000	A	0	A	B
22		C5-C8 Aliphatic	TIC	7.00	1.000	A	0	A	B
23	L1	non C5-C8	TIC	6.41	1.000	A	0	A	B
24	L1	non C5-C8 {2}	TIC	9.30	1.000	A	0	A	B
25	L1	non C5-C8 {3}	TIC	11.07	1.000	A	0	A	B
26	L1	non C5-C8 {4}	TIC	11.84	1.000	A	0	A	B
27	L1	non C5-C8 {5}	TIC	12.29	1.000	A	0	A	B
28	L1	non C5-C8 {6}	TIC	14.42	1.000	A	0	A	B
29	L1	non C5-C8 - TOTAL	TIC	6.41	1.000	A	0	A	B
30		C9-C12 Aliphatic	TIC	16.54	1.000	A	0	A	B
31	L1	non C9-C12	TIC	16.52	1.000	A	0	A	B
32	L1	non C9-C12 {2}	TIC	16.63	1.000	A	0	A	B
33	L1	non C9-C12 {3}	TIC	16.80	1.000	A	0	A	B
34	L1	non C9-C12 {4}	TIC	17.45	1.000	A	0	A	B
35	L1	non C9-C12 {5}	TIC	18.35	1.000	A	0	A	B
36	L1	non C9-C12 - TOTAL	TIC	16.52	1.000	A	0	A	B
37	L1	C9-C10 Aromatic	120	17.62	1.000	A	0	A	B
38	L1	C9-C10 Aromatic {2}	134	17.62	1.000	A	0	A	B
39	L1	C9-C10 Aromatic - TOTAL	134	0.00	1.000	A	1	A	B
40	I	Chlorobenzene-d5	117	16.52	1.000	A	2	A	B
41	S	4-Bromofluorobenzene	95	18.35	1.111	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

092111V9.M Thu Oct 20 10:57:40 2011

RTI Laboratories

Run ID: GC-TCD 1_110916A **Run No.:** 43054

Analytical Run Date: 9/16/2011 **InstrumentID:** GC-TCD 1

Analyst: Mike Budziak **Column:** GC-TCD 1

Calibration ID: **Column ID:** 100/120mesh x 1mm ID

Column Length: 2m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
mblk	ASTM-D2504	MBLK	R43054	9/16/2011 2:20:00 PM	Robert Lynch		
ccv std 1-2 a	ASTM-D2504	CCV	R43054	9/16/2011 3:04:00 PM	Robert Lynch		
lcs	ASTM-D2504	LCS	R43054	9/16/2011 4:47:00 PM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R43054	9/16/2011 5:43:00 PM	Robert Lynch		
1109105-020b	ASTM-D2504	SAMP	R43054	9/16/2011 6:03:00 PM	Robert Lynch		
1109105-021b	ASTM-D2504	SAMP	R43054	9/16/2011 6:46:00 PM	Robert Lynch		
1109105-022b	ASTM-D2504	SAMP	R43054	9/16/2011 7:09:00 PM	Robert Lynch		
1109105-023b	ASTM-D2504	SAMP	R43054	9/16/2011 7:29:00 PM	Robert Lynch		
1109105-024b	ASTM-D2504	SAMP	R43054	9/16/2011 8:00:00 PM	Robert Lynch		
1109105-025b	ASTM-D2504	SAMP	R43054	9/16/2011 8:46:00 PM	Robert Lynch		
1109105-025bdup	ASTM-D2504	DUP	R43054	9/16/2011 9:05:00 PM	Robert Lynch		
ccv std 1-2 b	ASTM-D2504	CCV	R43054	9/16/2011 9:27:00 PM	Robert Lynch		
crql std 2% b	ASTM-D2504	CRQL	R43054	9/16/2011 9:45:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 43054

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838050	mblk	ASTM-D2504	MBLK	ıTA\091611\0916	9/16/2011 2:20:0	1	R43054		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838051	ccv std 1-2 a	ASTM-D2504	CCV	ıTA\091611\0916	9/16/2011 3:04:0	1	R43054		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.661	2.661		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Carbon Monoxide	A	%	2.547	2.547		2.5	0	0	0.025	0.1	0	102%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	2.118	2.118		2	0	0	0.025	0.5	0	106%	85	115	0%	
Nitrogen	A	%	2.365	2.365		2.5	0	0	0.025	0.1	0	95%	85	115	0%	
Oxygen	A	%	2.269	2.269		2.5	0	0	0.025	0.1	0	91%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838052	lcs	ASTM-D2504	LCS	ıTA\091611\0916	9/16/2011 4:47:0	1	R43054		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.563	2.563		2.5	0	0	0.025	0.1	0	103%	70	130	0%	
Carbon Monoxide	A	%	2.427	2.427		2.5	0	0	0.025	0.1	0	97%	70	130	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Methane	A	%	2.053	2.053		2	0	0	0.025	0.5	0	103%	70	130	0%	
Nitrogen	A	%	2.381	2.381		2.5	0	0	0.025	0.1	0	95%	70	130	0%	
Oxygen	A	%	2.186	2.186		2.5	0	0	0.025	0.1	0	87%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838061	ccv std 1-2 b	ASTM-D2504	CCV	,TA\091611\0916	9/16/2011 9:27:0	1	R43054		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.63	2.63		2.5	0	0	0.025	0.1	0	105%	85	115	0%	
Carbon Monoxide	A	%	2.526	2.526		2.5	0	0	0.025	0.1	0	101%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	2.111	2.111		2	0	0	0.025	0.5	0	106%	85	115	0%	
Nitrogen	A	%	2.382	2.382		2.5	0	0	0.025	0.1	0	95%	85	115	0%	
Oxygen	A	%	2.259	2.259		2.5	0	0	0.025	0.1	0	90%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838062	crql std 2% b	ASTM-D2504	CRQL	,TA\091611\0916	9/16/2011 9:45:0	1	R43054		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.337	0.337		0.3	0	0	0.025	0.1	0	112%	80	120	0%	
Carbon Monoxide	A	%	0.139	0.139		0.14	0	0	0.025	0.1	0	99%	80	120	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	80	120	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	80	120	0%	
Methane	A	%	0.105	0.105		0.09	0	0	0.025	0.5	0	117%	80	120	0%	
Nitrogen	A	%	1.465	1.465		1.39	0	0	0.025	0.1	0	105%	80	120	0%	
Oxygen	A	%	0.093	0.093		0.08	0	0	0.025	0.1	0	116%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\091611\09161102.D
Acq On : 16 Sep 2011 3:04 pm
Sample : ccv std 1-2 a
Misc : CCV ASTM-D2504
IntFile : EVENTS.E

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.269	9.2	0	0.04
2	Nitrogen	2.500	2.365	5.4	0	0.02
3	Carbon Monoxide	2.500	2.547	-1.9	0	-0.01
4	Methane	2.000	2.118	-5.9	0	-0.02
5	Carbon dioxide	2.500	2.661	-6.4	0	-0.05

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\091611\09161102.D
Acq On : 16 Sep 2011 3:04 pm
Sample : ccv std 1-2 a
Misc : CCV ASTM-D2504
IntFile : EVENTS.E

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Oct 20 14:38:33 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\091611\09161102.D
Acq On : 16 Sep 2011 3:04 pm
Sample : ccv std 1-2 a
Misc : CCV ASTM-D2504
IntFile : events.e
Quant Time: Sep 23 16:22 2011 Quant Results File: 030511.RES

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	324971	2.269 %
2)	Nitrogen	2.32	407461	2.365 %
3)	Carbon Monoxide	3.01	401181	2.547 %
4)	Methane	6.23	274222	2.118 %
5)	Carbon dioxide	11.13	483153	2.661 %

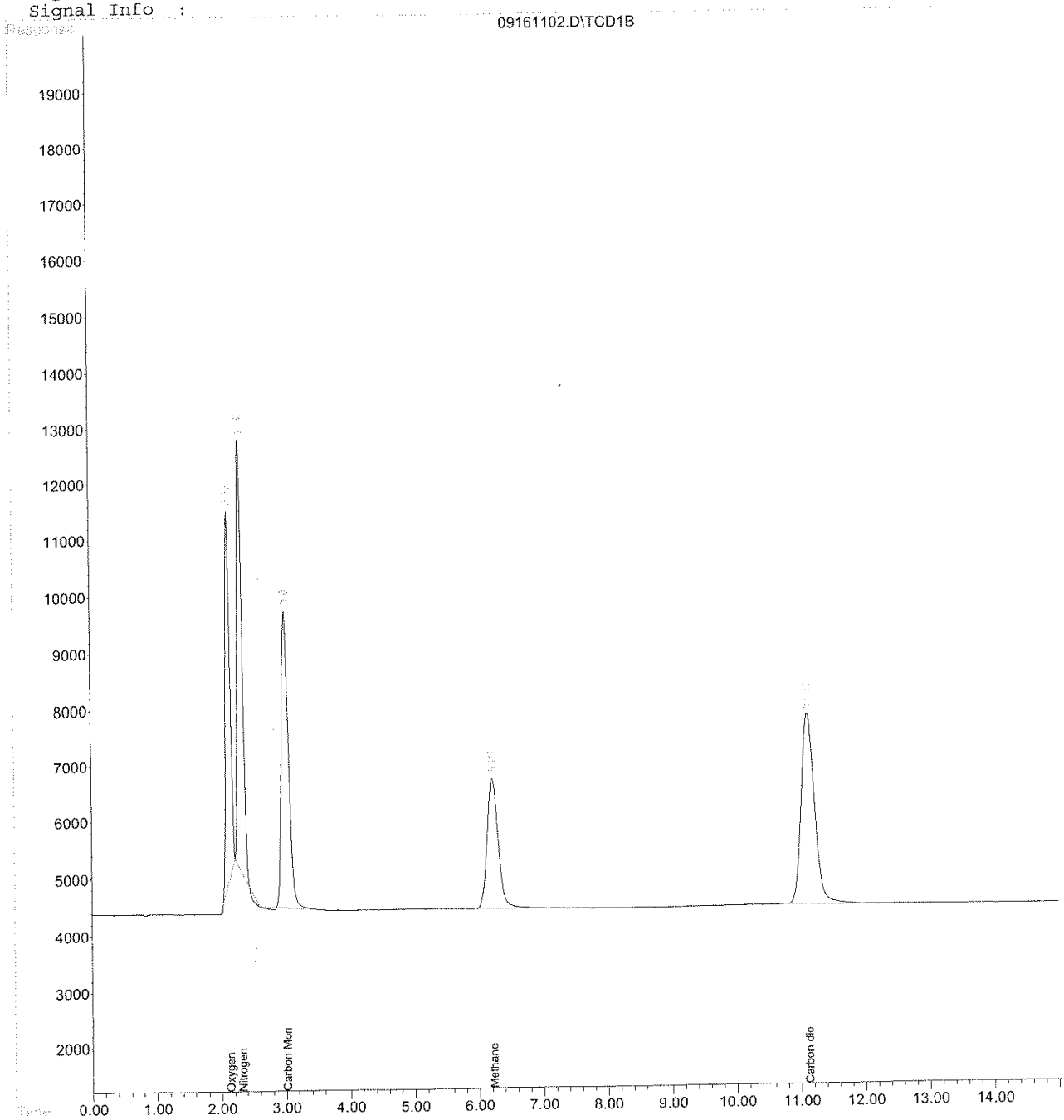
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\091611\09161102.D
Acq On : 16 Sep 2011 3:04 pm
Sample : ccv std 1-2 a
Misc : CCV ASTM-D2504
IntFile : EVENTS.E
Quant Time: Sep 23 16:22 2011 Quant Results File: 030511.RES

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\091611\09161112.D
Acq On : 16 Sep 2011 9:27 pm
Sample : ccv std 1-2 b
Misc : CCV ASTM-D2504
IntFile : EVENTS.E

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.259	9.6	0	0.04
2	Nitrogen	2.500	2.382	4.7	0	0.03
3	Carbon Monoxide	2.500	2.526	-1.0	0	0.00
4	Methane	2.000	2.111	-5.6	0	-0.02
5	Carbon dioxide	2.500	2.630	-5.2	0	-0.04

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\091611\09161112.D
Acq On : 16 Sep 2011 9:27 pm
Sample : ccv std 1-2 b
Misc : CCV ASTM-D2504
IntFile : EVENTS.E

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Oct 20 14:39:19 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\091611\09161112.D Vial: 1
Acq On : 16 Sep 2011 9:27 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 23 16:22 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	323592	2.259 %
2)	Nitrogen	2.33	410353	2.382 %
3)	Carbon Monoxide	3.02	397867	2.526 %
4)	Methane	6.23	273264	2.111 %
5)	Carbon dioxide	11.13	477300	2.630 %

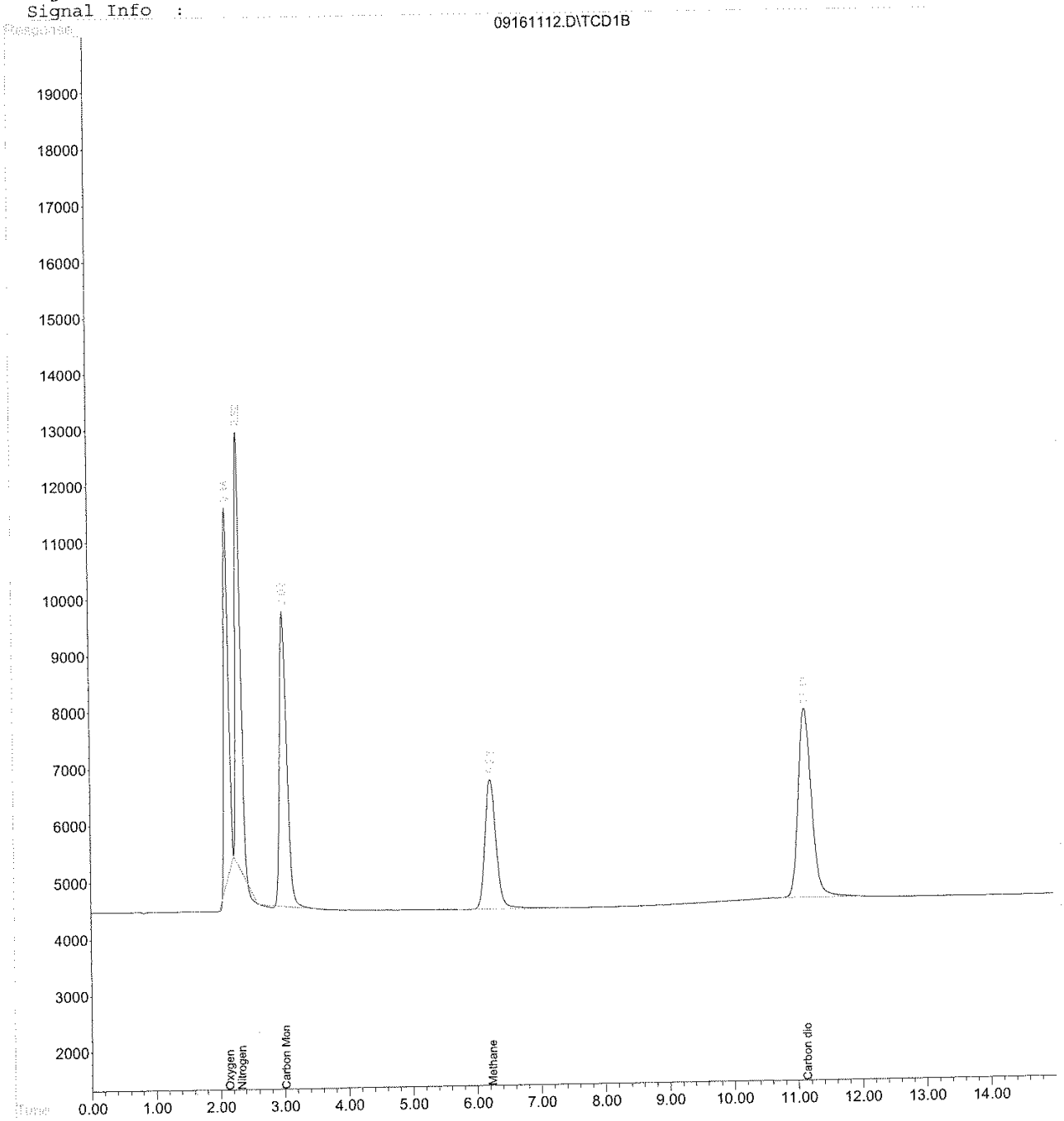
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\091611\09161112.D
Acq On : 16 Sep 2011 9:27 pm
Sample : ccv std 1-2 b
Misc : CCV ASTM-D2504
IntFile : EVENTS.E
Quant Time: Sep 23 16:22 2011 Quant Results File: 030511.RES

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-TCD 1_110920A **Run No.:** 43055

Analytical Run Date: 9/20/2011 **InstrumentID:** GC-TCD 1

Analyst: Mike Budziak **Column:** GC-TCD 1

Calibration ID: **Column ID:** 100/120mesh x 1mm ID

Column Length: 2m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
mblk	ASTM-D2504	MBLK	R43055	9/20/2011 11:33:00 AM	Robert Lynch		
ccv std 1-2 a	ASTM-D2504	CCV	R43055	9/20/2011 12:34:00 PM	Robert Lynch		
lcs	ASTM-D2504	LCS	R43055	9/20/2011 12:59:00 PM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R43055	9/20/2011 1:22:00 PM	Robert Lynch		
1109105-026b	ASTM-D2504	SAMP	R43055	9/20/2011 1:44:00 PM	Robert Lynch		
1109105-027b	ASTM-D2504	SAMP	R43055	9/20/2011 2:13:00 PM	Robert Lynch		
1109105-028b	ASTM-D2504	SAMP	R43055	9/20/2011 2:33:00 PM	Robert Lynch		
1109105-029b	ASTM-D2504	SAMP	R43055	9/20/2011 3:20:00 PM	Robert Lynch		
1109105-030b	ASTM-D2504	SAMP	R43055	9/20/2011 3:42:00 PM	Robert Lynch		
1109105-031b	ASTM-D2504	SAMP	R43055	9/20/2011 4:04:00 PM	Robert Lynch		
1109105-032b	ASTM-D2504	SAMP	R43055	9/20/2011 4:47:00 PM	Robert Lynch		
1109105-033b	ASTM-D2504	SAMP	R43055	9/20/2011 5:18:00 PM	Robert Lynch		
1109105-034b	ASTM-D2504	SAMP	R43055	9/20/2011 5:37:00 PM	Robert Lynch		
1109105-035b	ASTM-D2504	SAMP	R43055	9/20/2011 6:54:00 PM	Robert Lynch		
1109105-035bdup	ASTM-D2504	DUP	R43055	9/20/2011 7:14:00 PM	Robert Lynch		
ccv std 1-2 b	ASTM-D2504	CCV	R43055	9/20/2011 7:37:00 PM	Robert Lynch		
1109105-036b	ASTM-D2504	SAMP	R43055	9/20/2011 8:13:00 PM	Robert Lynch		
1109105-001b	ASTM-D2504	SAMP	R43055	9/20/2011 8:37:00 PM	Robert Lynch		
1109105-002b	ASTM-D2504	SAMP	R43055	9/20/2011 8:56:00 PM	Robert Lynch		
1109105-003b	ASTM-D2504	SAMP	R43055	9/20/2011 9:22:00 PM	Robert Lynch		
1109105-004b	ASTM-D2504	SAMP	R43055	9/20/2011 9:52:00 PM	Robert Lynch		
ccv std 1-2 b	ASTM-D2504	CCV	R43055	9/20/2011 10:19:00 PM	Robert Lynch		
crql std 2% b	ASTM-D2504	CRQL	R43055	9/20/2011 10:56:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 43055

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838063	mblk	ASTM-D2504	MBLK	ATA\092011\0920	9/20/2011 11:33:	1	R43055		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838064	ccv std 1-2 a	ASTM-D2504	CCV	ATA\092011\0920	9/20/2011 12:34:	1	R43055		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.379	2.379		2.5	0	0	0.025	0.1	0	95%	85	115	0%	
Carbon Monoxide	A	%	2.488	2.488		2.5	0	0	0.025	0.1	0	100%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	2.035	2.035		2	0	0	0.025	0.5	0	102%	85	115	0%	
Nitrogen	A	%	2.489	2.489		2.5	0	0	0.025	0.1	0	100%	85	115	0%	
Oxygen	A	%	2.344	2.344		2.5	0	0	0.025	0.1	0	94%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838065	lcs	ASTM-D2504	LCS	ATA\092011\0920	9/20/2011 12:59:	1	R43055		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.319	2.319		2.5	0	0	0.025	0.1	0	93%	70	130	0%	
Carbon Monoxide	A	%	2.441	2.441		2.5	0	0	0.025	0.1	0	98%	70	130	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Methane	A	%	2.018	2.018		2	0	0	0.025	0.5	0	101%	70	130	0%	
Nitrogen	A	%	2.442	2.442		2.5	0	0	0.025	0.1	0	98%	70	130	0%	
Oxygen	A	%	2.325	2.325		2.5	0	0	0.025	0.1	0	93%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838076	1109105-035b (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\092011\0920	9/20/2011 6:54:0	1	R43055		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	%	11.368	11.368		0	0	0	0.025	0.1	0	0%	0	0	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838077	1109105-035bdup	ASTM-D2504	DUP	ıTA\092011\0920	9/20/2011 7:14:0	1	R43055		0	838076	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	4.312	4.312		0	0	4.334	0.025	0.1	0	0%	0	0	1%	
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	83.183	83.183		0	0	83.901	0.025	0.1	0	0%	0	0	1%	
Oxygen	A	%	11.272	11.272		0	0	11.368	0.025	0.1	0	0%	0	0	1%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838078	ccv std 1-2 b	ASTM-D2504	CCV	ıTA\092011\0920	9/20/2011 7:37:0	1	R43055		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.325	2.325		2.5	0	0	0.025	0.1	0	93%	85	115	0%	
Carbon Monoxide	A	%	2.625	2.625		2.5	0	0	0.025	0.1	0	105%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	2.157	2.157		2	0	0	0.025	0.5	0	108%	85	115	0%	
Nitrogen	A	%	2.657	2.657		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Oxygen	A	%	2.509	2.509		2.5	0	0	0.025	0.1	0	100%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838079	1109105-036b (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\092011\0920	9/20/2011 8:13:0	1	R43055		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838084	ccv std 1-2 b	ASTM-D2504	CCV	.TA\092011\0920	9/20/2011 10:19:	1	R43055		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.284	2.284		2.5	0	0	0.025	0.1	0	91%	85	115	0%	
Carbon Monoxide	A	%	2.59	2.59		2.5	0	0	0.025	0.1	0	104%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	2.118	2.118		2	0	0	0.025	0.5	0	106%	85	115	0%	
Nitrogen	A	%	2.59	2.59		2.5	0	0	0.025	0.1	0	104%	85	115	0%	
Oxygen	A	%	2.46	2.46		2.5	0	0	0.025	0.1	0	98%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838085	crql std 2% b	ASTM-D2504	CRQL	.TA\092011\0920	9/20/2011 10:56:	1	R43055		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.345	0.345		0.3	0	0	0.025	0.1	0	115%	80	120	0%	
Carbon Monoxide	A	%	0.141	0.141		0.14	0	0	0.025	0.1	0	101%	80	120	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	80	120	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	80	120	0%	
Methane	A	%	0.107	0.107		0.09	0	0	0.025	0.5	0	119%	80	120	0%	
Nitrogen	A	%	1.399	1.399		1.39	0	0	0.025	0.1	0	101%	80	120	0%	
Oxygen	A	%	0.077	0.077		0.08	0	0	0.025	0.1	0	96%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\092011\09201102.D
Acq On : 20 Sep 2011 12:34 pm
Sample : ccv std 1-2 a
Misc : CCV ASTM-D2504
IntFile : EVENTS.E

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.344	6.2	0	0.03
2	Nitrogen	2.500	2.489	0.4	0	0.01
3	Carbon Monoxide	2.500	2.488	0.5	0	-0.02
4	Methane	2.000	2.035	-1.8	0	-0.04
5	Carbon dioxide	2.500	2.379	4.8	0	-0.07

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\092011\09201102.D
Acq On : 20 Sep 2011 12:34 pm
Sample : ccv std 1-2 a
Misc : CCV ASTM-D2504
IntFile : EVENTS.E

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Oct 20 14:40:43 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092011\09201102.D Vial: 1
Acq On : 20 Sep 2011 12:34 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 23 16:16 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	335765	2.344 %
2)	Nitrogen	2.31	428795	2.489 %
3)	Carbon Monoxide	3.00	391850	2.488 %
4)	Methane	6.21	262595	2.035 %
5)	Carbon dioxide	11.11	430393	2.379 %

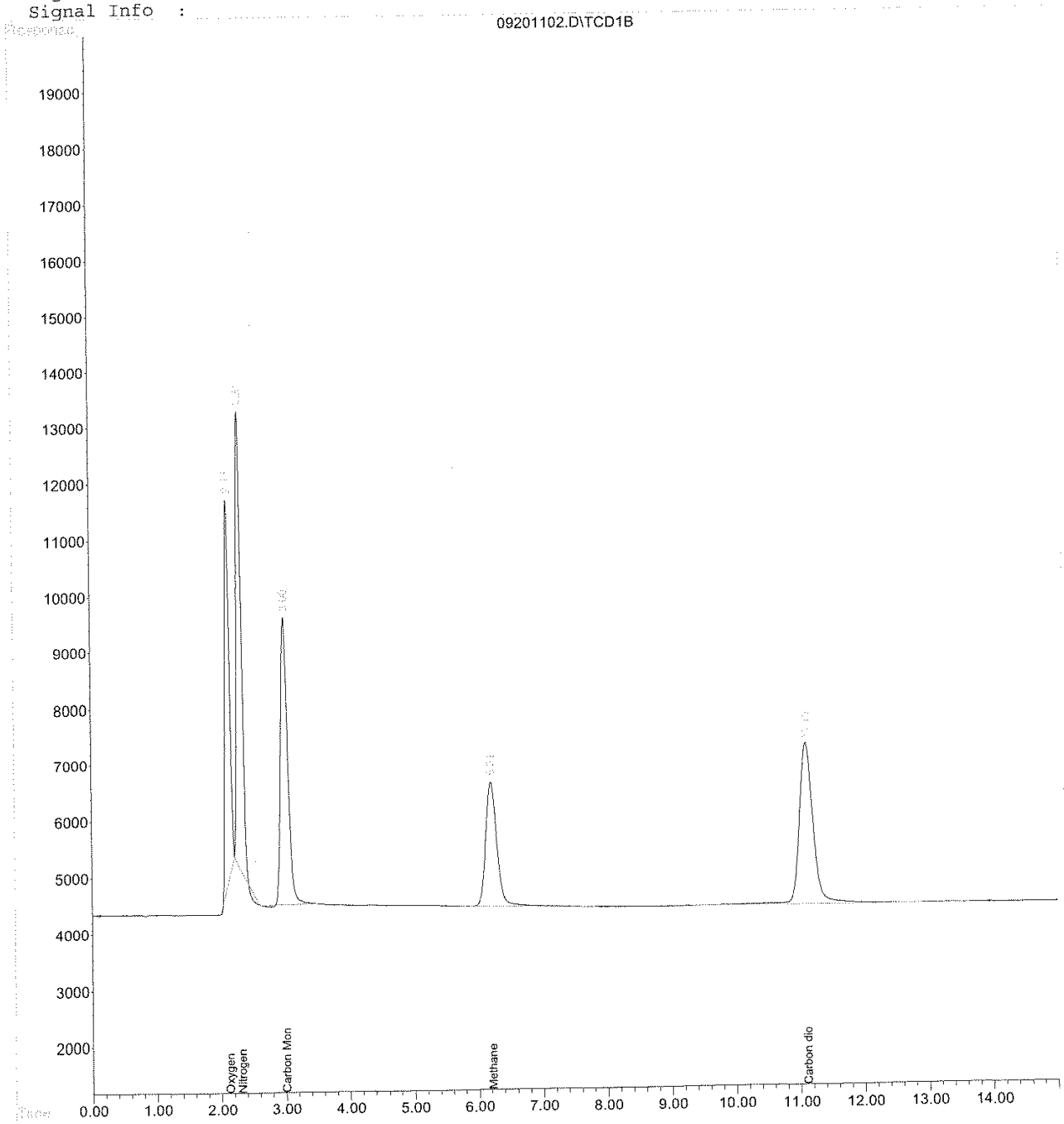
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092011\09201102.D
Acq On : 20 Sep 2011 12:34 pm
Sample : ccv std 1-2 a
Misc : CCV ASTM-D2504
IntFile : EVENTS.E
Quant Time: Sep 23 16:16 2011 Quant Results File: 030511.RES

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\092011\09201116.D
Acq On : 20 Sep 2011 7:37 pm
Sample : ccv std 1-2 b
Misc : CCV ASTM-D2504
IntFile : EVENTS.E

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.509	-0.4	0	0.03
2	Nitrogen	2.500	2.657	-6.3	0	0.02
3	Carbon Monoxide	2.500	2.625	-5.0	0	-0.02
4	Methane	2.000	2.157	-7.9	0	-0.03
5	Carbon dioxide	2.500	2.325	7.0	0	-0.07

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\092011\09201116.D
Acq On : 20 Sep 2011 7:37 pm
Sample : ccv std 1-2 b
Misc : CCV ASTM-D2504
IntFile : EVENTS.E

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Oct 20 14:41:37 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092011\09201116.D
Acq On : 20 Sep 2011 7:37 pm
Sample : ccv std 1-2 b
Misc : CCV ASTM-D2504
IntFile : events.e
Quant Time: Sep 23 16:18 2011 Quant Results File: 030511.RES

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	359624	2.509 %
2)	Nitrogen	2.32	457729	2.657 %
3)	Carbon Monoxide	3.01	413448	2.625 %
4)	Methane	6.21	279800	2.157 %
5)	Carbon dioxide	11.11	420248	2.325 %

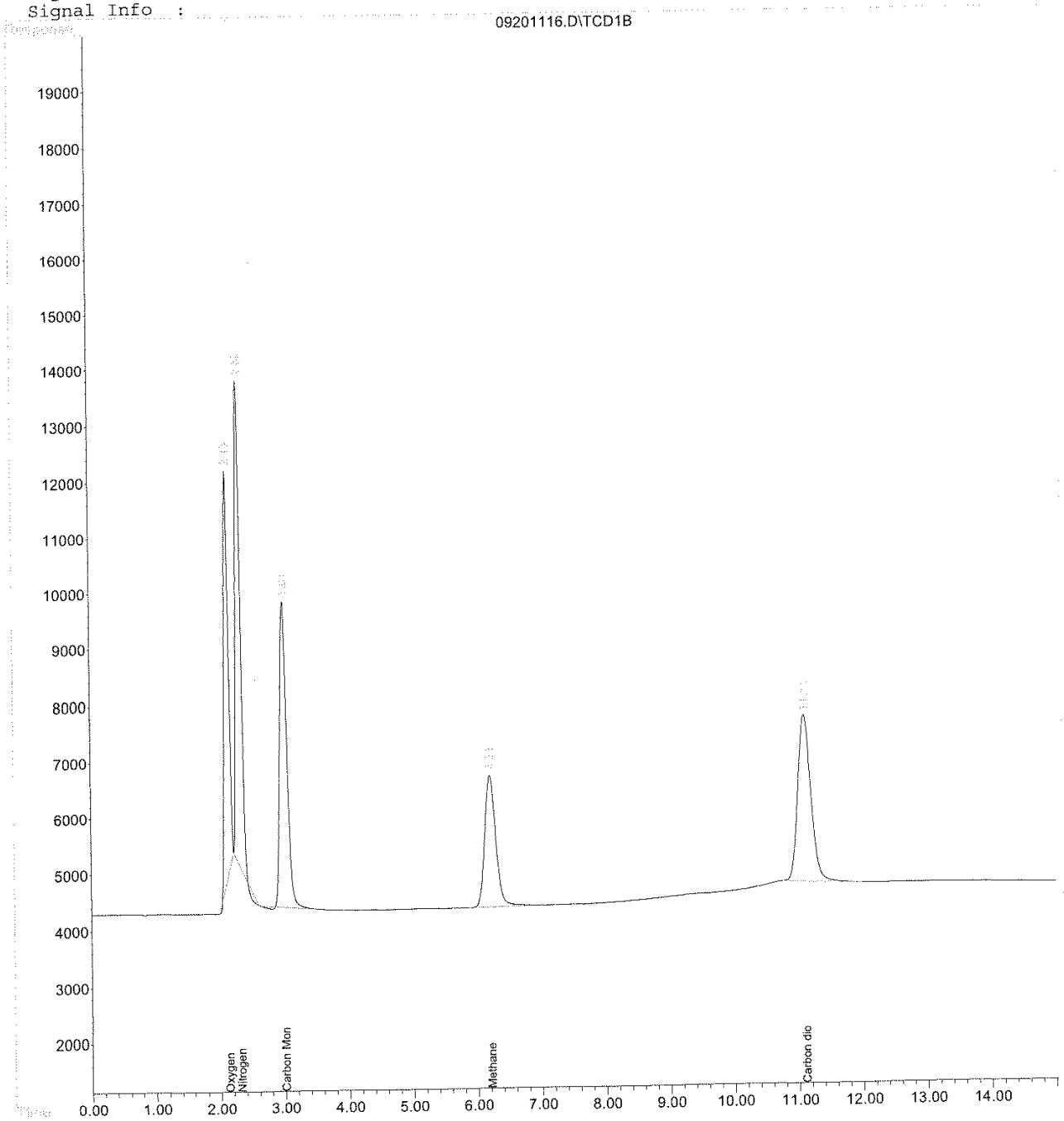
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092011\09201116.D
Acq On : 20 Sep 2011 7:37 pm
Sample : ccv std 1-2 b
Misc : CCV ASTM-D2504
IntFile : EVENTS.E
Quant Time: Sep 23 16:18 2011 Quant Results File: 030511.RES

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\092011\09201122.D
Acq On : 20 Sep 2011 10:19 pm
Sample : ccv std 1-2 b
Misc : CCV ASTM-D2504
IntFile : EVENTS.E

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.460	1.6	0	0.03
2	Nitrogen	2.500	2.590	-3.6	0	0.02
3	Carbon Monoxide	2.500	2.590	-3.6	0	-0.02
4	Methane	2.000	2.118	-5.9	0	-0.03
5	Carbon dioxide	2.500	2.284	8.6	0	-0.07

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\092011\09201122.D
Acq On : 20 Sep 2011 10:19 pm
Sample : ccv std 1-2 b
Misc : CCV ASTM-D2504
IntFile : EVENTS.E

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Oct 20 14:42:23 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092011\09201122.D
Acq On : 20 Sep 2011 10:19 pm
Sample : ccv std 1-2 b
Misc : CCV ASTM-D2504
IntFile : events.e
Quant Time: Sep 23 16:18 2011 Quant Results File: 030511.RES

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	352482	2.460 %
2)	Nitrogen	2.32	446171	2.590 %
3)	Carbon Monoxide	3.01	407900	2.590 %
4)	Methane	6.22	274165	2.118 %
5)	Carbon dioxide	11.11	412775	2.284 %

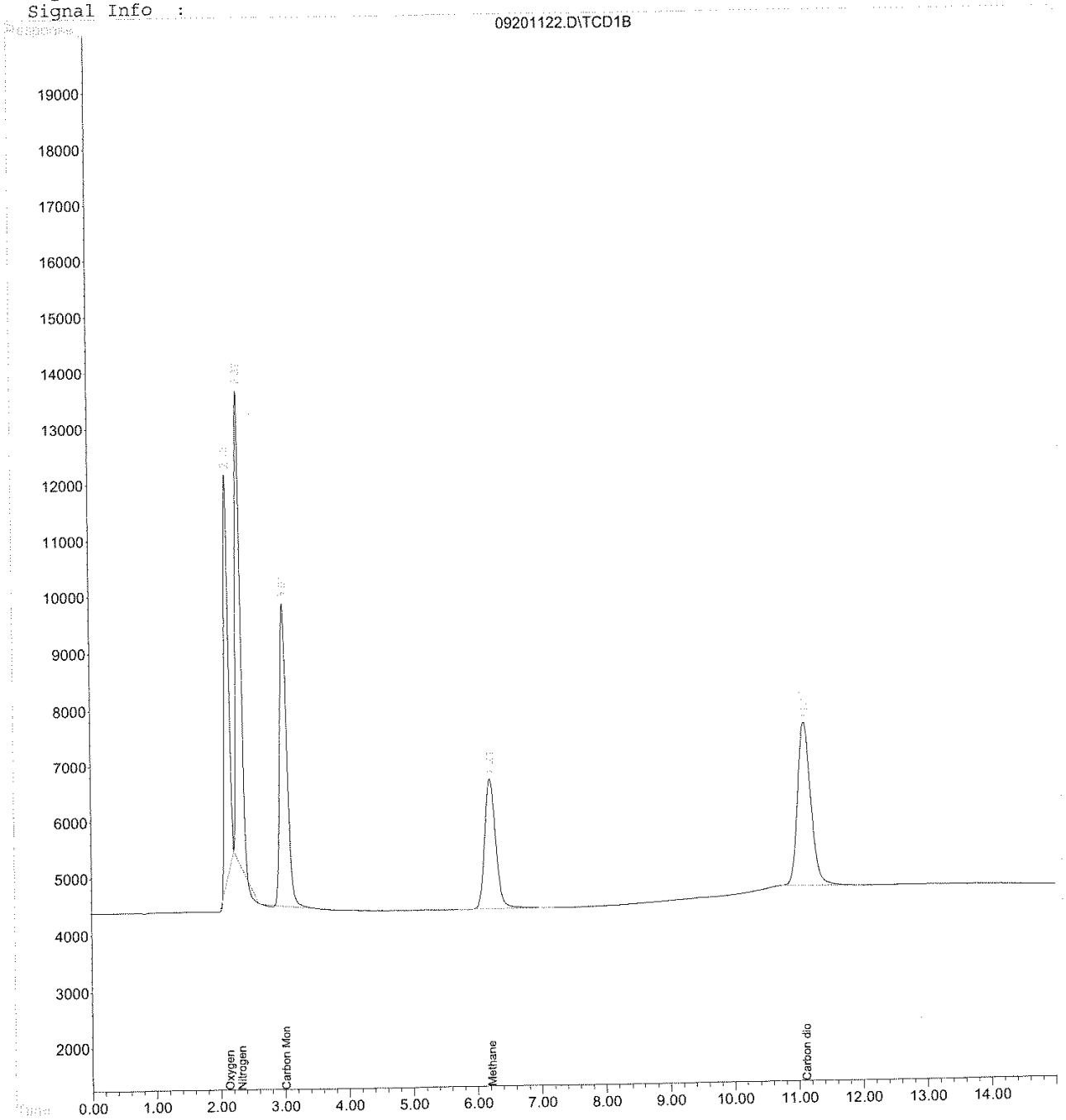
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092011\09201122.D
Acq On : 20 Sep 2011 10:19 pm
Sample : ccv std 1-2 b
Misc : CCV ASTM-D2504
IntFile : EVENTS.E
Quant Time: Sep 23 16:18 2011 Quant Results File: 030511.RES

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-TCD 1_110922A **Run No.:** 43056

Analytical Run Date: 9/22/2011 **InstrumentID:** GC-TCD 1

Analyst: Mike Budziak **Column:** GC-TCD 1

Calibration ID: **Column ID:** 100/120mesh x 1mm ID

Column Length: 2m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
mblk	ASTM-D2504	MBLK	R43056	9/22/2011 12:23:00 PM	Robert Lynch		
ccv std 1-2 a	ASTM-D2504	CCV	R43056	9/22/2011 12:45:00 PM	Robert Lynch		
lcs	ASTM-D2504	LCS	R43056	9/22/2011 1:08:00 PM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R43056	9/22/2011 1:32:00 PM	Robert Lynch		
1109105-005b	ASTM-D2504	SAMP	R43056	9/22/2011 1:54:00 PM	Robert Lynch		
1109105-006b	ASTM-D2504	SAMP	R43056	9/22/2011 2:14:00 PM	Robert Lynch		
1109105-007b	ASTM-D2504	SAMP	R43056	9/22/2011 2:33:00 PM	Robert Lynch		
1109105-008b	ASTM-D2504	SAMP	R43056	9/22/2011 3:18:00 PM	Robert Lynch		
1109105-009b	ASTM-D2504	SAMP	R43056	9/22/2011 3:45:00 PM	Robert Lynch		
1109105-010b	ASTM-D2504	SAMP	R43056	9/22/2011 4:06:00 PM	Robert Lynch		
1109105-011b	ASTM-D2504	SAMP	R43056	9/22/2011 4:26:00 PM	Robert Lynch		
1109105-012b	ASTM-D2504	SAMP	R43056	9/22/2011 5:00:00 PM	Robert Lynch		
1109105-013b	ASTM-D2504	SAMP	R43056	9/22/2011 5:20:00 PM	Robert Lynch		
1109105-014b	ASTM-D2504	SAMP	R43056	9/22/2011 5:40:00 PM	Robert Lynch		
1109105-014bdup	ASTM-D2504	DUP	R43056	9/22/2011 6:01:00 PM	Robert Lynch		
ccv std 1-2 b	ASTM-D2504	CCV	R43056	9/22/2011 6:29:00 PM	Robert Lynch		
1109105-015b	ASTM-D2504	SAMP	R43056	9/22/2011 7:12:00 PM	Robert Lynch		
1109105-016b	ASTM-D2504	SAMP	R43056	9/22/2011 7:36:00 PM	Robert Lynch		
1109105-017b	ASTM-D2504	SAMP	R43056	9/22/2011 7:56:00 PM	Robert Lynch		
1109105-018b	ASTM-D2504	SAMP	R43056	9/22/2011 8:15:00 PM	Robert Lynch		
1109105-019b	ASTM-D2504	SAMP	R43056	9/22/2011 8:44:00 PM	Robert Lynch		
ccv std 1-2 b	ASTM-D2504	CCV	R43056	9/22/2011 9:15:00 PM	Robert Lynch		
crql std 2% b	ASTM-D2504	CRQL	R43056	9/22/2011 9:40:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 43056

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838086	mblk	ASTM-D2504	MBLK	ATA\092211\0922	9/22/2011 12:23:	1	R43056		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838087	ccv std 1-2 a	ASTM-D2504	CCV	ATA\092211\0922	9/22/2011 12:45:	1	R43056		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.247	2.247		2.5	0	0	0.025	0.1	0	90%	85	115	0%	
Carbon Monoxide	A	%	2.588	2.588		2.5	0	0	0.025	0.1	0	104%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	2.167	2.167		2	0	0	0.025	0.5	0	108%	85	115	0%	
Nitrogen	A	%	2.815	2.815		2.5	0	0	0.025	0.1	0	113%	85	115	0%	
Oxygen	A	%	2.666	2.666		2.5	0	0	0.025	0.1	0	107%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838088	lcs	ASTM-D2504	LCS	ATA\092211\0922	9/22/2011 1:08:0	1	R43056		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.138	2.138		2.5	0	0	0.025	0.1	0	86%	70	130	0%	
Carbon Monoxide	A	%	2.454	2.454		2.5	0	0	0.025	0.1	0	98%	70	130	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Methane	A	%	2.076	2.076		2	0	0	0.025	0.5	0	104%	70	130	0%	
Nitrogen	A	%	2.658	2.658		2.5	0	0	0.025	0.1	0	106%	70	130	0%	
Oxygen	A	%	2.52	2.52		2.5	0	0	0.025	0.1	0	101%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838099	1109105-014b (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\092211\0922	9/22/2011 5:40:0	1	R43056		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	%	19.062	19.062		0	0	0	0.025	0.1	0	0%	0	0	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838100	1109105-014bdup	ASTM-D2504	DUP	ıTA\092211\0922	9/22/2011 6:01:0	1	R43056		0	838099	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.918	0.918		0	0	0.914	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	79.124	79.124		0	0	78.723	0.025	0.1	0	0%	0	0	1%	
Oxygen	A	%	19.169	19.169		0	0	19.062	0.025	0.1	0	0%	0	0	1%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838101	ccv std 1-2 b	ASTM-D2504	CCV	ıTA\092211\0922	9/22/2011 6:29:0	1	R43056		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.314	2.314		2.5	0	0	0.025	0.1	0	93%	85	115	0%	
Carbon Monoxide	A	%	2.63	2.63		2.5	0	0	0.025	0.1	0	105%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	2.22	2.22		2	0	0	0.025	0.5	0	111%	85	115	0%	
Nitrogen	A	%	2.84	2.84		2.5	0	0	0.025	0.1	0	114%	85	115	0%	
Oxygen	A	%	2.69	2.69		2.5	0	0	0.025	0.1	0	108%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838102	1109105-015b (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\092211\0922	9/22/2011 7:12:0	1	R43056		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838107	ccv std 1-2 b	ASTM-D2504	CCV	.TA\092211\0922	9/22/2011 9:15:0	1	R43056		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.536	2.536		2.5	0	0	0.025	0.1	0	101%	85	115	0%	
Carbon Monoxide	A	%	2.43	2.43		2.5	0	0	0.025	0.1	0	97%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	2.081	2.081		2	0	0	0.025	0.5	0	104%	85	115	0%	
Nitrogen	A	%	2.628	2.628		2.5	0	0	0.025	0.1	0	105%	85	115	0%	
Oxygen	A	%	2.49	2.49		2.5	0	0	0.025	0.1	0	100%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838108	crql std 2% b	ASTM-D2504	CRQL	.TA\092211\0922	9/22/2011 9:40:0	1	R43056		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.345	0.345		0.3	0	0	0.025	0.1	0	115%	80	120	0%	
Carbon Monoxide	A	%	0.138	0.138		0.14	0	0	0.025	0.1	0	99%	80	120	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	80	120	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	80	120	0%	
Methane	A	%	0.106	0.106		0.09	0	0	0.025	0.5	0	118%	80	120	0%	
Nitrogen	A	%	1.38	1.38		1.39	0	0	0.025	0.1	0	99%	80	120	0%	
Oxygen	A	%	0.073	0.073		0.08	0	0	0.025	0.1	0	91%	80	120	0%	

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\2\DATA\092211\09221102.D          Vial: 1
Acq On    : 22 Sep 2011  12:45 pm                    Operator:
Sample    : ccv std 1-2 a                            Inst     : GC/TCD
Misc      : CCV  ASTM-D2504                          Multiplr: 1.00
IntFile   : EVENTS.E

Method       : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title        : Method d2504 air analysis
Last Update  : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.666	-6.6	0	0.00
2	Nitrogen	2.500	2.815	-12.6	0	-0.01
3	Carbon Monoxide	2.500	2.588	-3.5	0	-0.06
4	Methane	2.000	2.167	-8.3	0	-0.08
5	Carbon dioxide	2.500	2.247	10.1	0	-0.11

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\092211\09221102.D          Vial: 1
Acq On    : 22 Sep 2011  12:45 pm                    Operator:
Sample    : ccv std 1-2 a                            Inst     : GC/TCD
Misc      : CCV  ASTM-D2504                          Multiplr: 1.00
IntFile   : EVENTS.E

Method       : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title        : Method d2504 air analysis
Last Update  : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Oct 20 14:43:38 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092211\09221102.D Vial: 1
Acq On : 22 Sep 2011 12:45 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 22 18:10 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

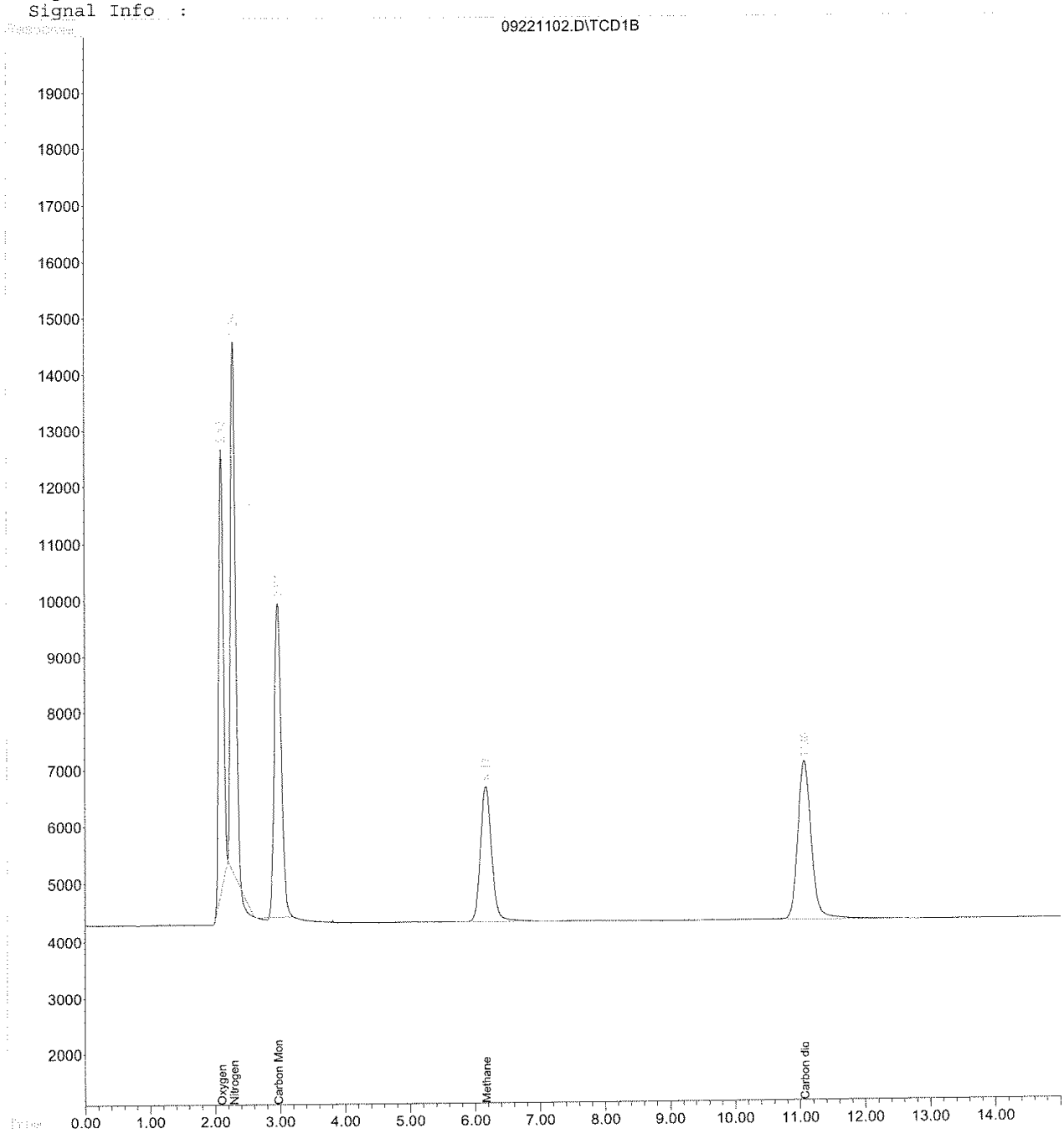
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.10	382255	2.666 %
2)	Nitrogen	2.29	484870	2.815 %
3)	Carbon Monoxide	2.97f	407616	2.588 %
4)	Methane	6.17f	281206	2.167 %
5)	Carbon dioxide	11.07f	405877	2.247 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092211\09221102.D Vial: 1
Acq On : 22 Sep 2011 12:45 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 22 18:10 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\2\DATA\092211\09221116.D          Vial: 1
Acq On    : 22 Sep 2011   6:29 pm                    Operator:
Sample    : ccv std 1-2 b                            Inst    : GC/TCD
Misc      : CCV  ASTM-D2504                          Multiplr: 1.00
IntFile   : EVENTS.E

Method       : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title        : Method d2504 air analysis
Last Update  : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.690	-7.6	0	0.03
2	Nitrogen	2.500	2.840	-13.6	0	0.01
3	Carbon Monoxide	2.500	2.630	-5.2	0	-0.03
4	Methane	2.000	2.220	-11.0	0	-0.05
5	Carbon dioxide	2.500	2.314	7.4	0	-0.08

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\092211\09221116.D          Vial: 1
Acq On    : 22 Sep 2011   6:29 pm                    Operator:
Sample    : ccv std 1-2 b                            Inst    : GC/TCD
Misc      : CCV  ASTM-D2504                          Multiplr: 1.00
IntFile   : EVENTS.E

Method       : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title        : Method d2504 air analysis
Last Update  : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Oct 20 14:44:29 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092211\09221116.D Vial: 1
Acq On : 22 Sep 2011 6:29 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 22 18:09 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

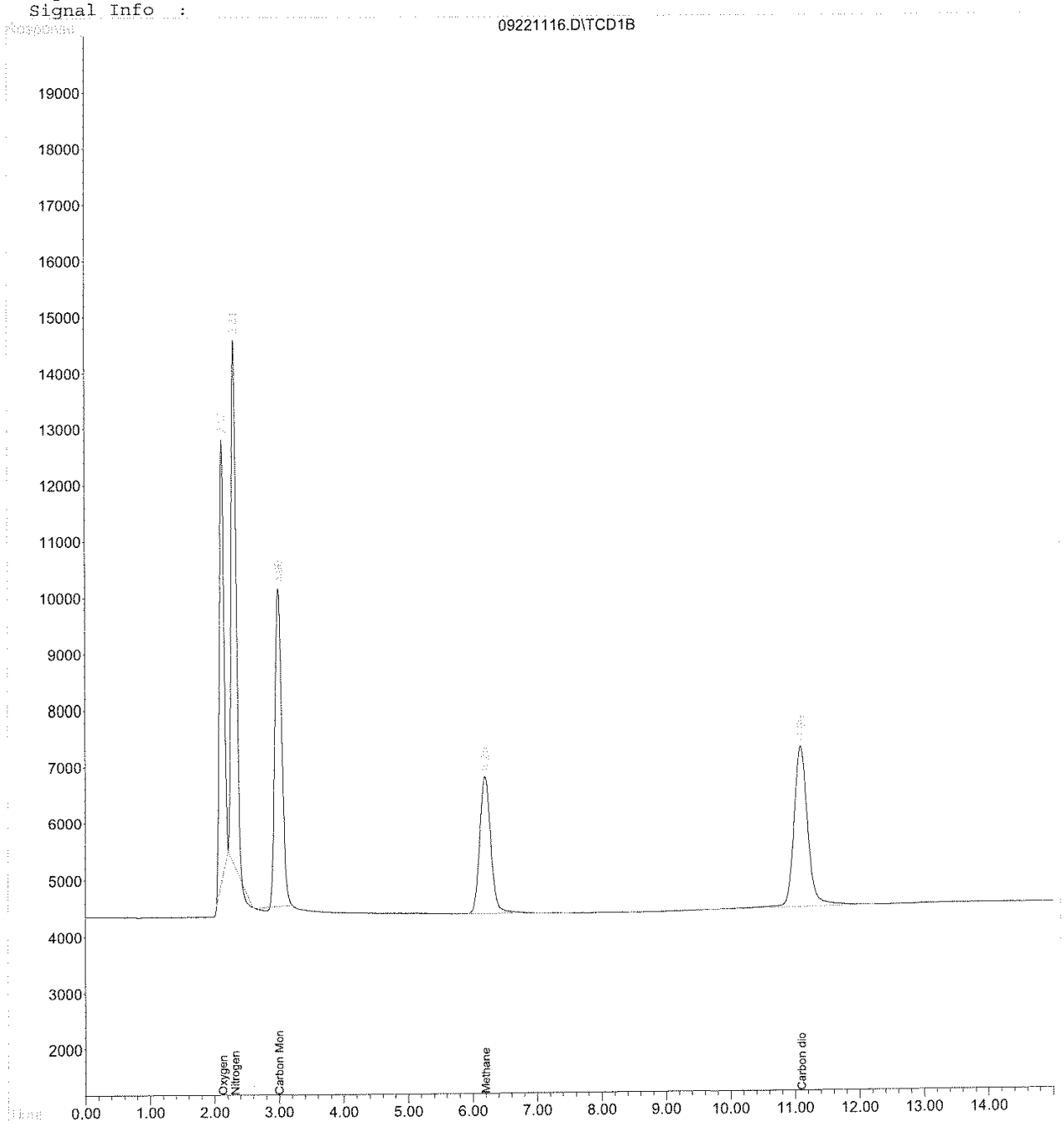
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	385821	2.690 %
2)	Nitrogen	2.31	489303	2.840 %
3)	Carbon Monoxide	3.00	414158	2.630 %
4)	Methane	6.20	288651	2.220 %
5)	Carbon dioxide	11.10f	418299	2.314 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092211\09221116.D Vial: 1
Acq On : 22 Sep 2011 6:29 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 22 18:09 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\2\DATA\092211\09221122.D          Vial: 1
Acq On    : 22 Sep 2011   9:15 pm                    Operator:
Sample    : ccv std 1-2 b                            Inst    : GC/TCD
Misc      : CCV  ASTM-D2504                          Multiplr: 1.00
IntFile   : EVENTS.E

Method       : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title        : Method d2504 air analysis
Last Update  : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.490	0.4	0	0.03
2	Nitrogen	2.500	2.628	-5.1	0	0.01
3	Carbon Monoxide	2.500	2.430	2.8	0	-0.03
4	Methane	2.000	2.081	-4.0	0	-0.04
5	Carbon dioxide	2.500	2.536	-1.4	0	-0.08

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\092211\09221122.D          Vial: 1
Acq On    : 22 Sep 2011   9:15 pm                    Operator:
Sample    : ccv std 1-2 b                            Inst    : GC/TCD
Misc      : CCV  ASTM-D2504                          Multiplr: 1.00
IntFile   : EVENTS.E

Method       : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title        : Method d2504 air analysis
Last Update  : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

```
(#) = Out of Range                SPCC's out = 0  CCC's out = 0
 03051113.D 030511.M         Thu Oct 20 14:45:07 2011   TESTCAL
```

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092211\09221122.D Vial: 1
Acq On : 22 Sep 2011 9:15 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 22 20:39 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

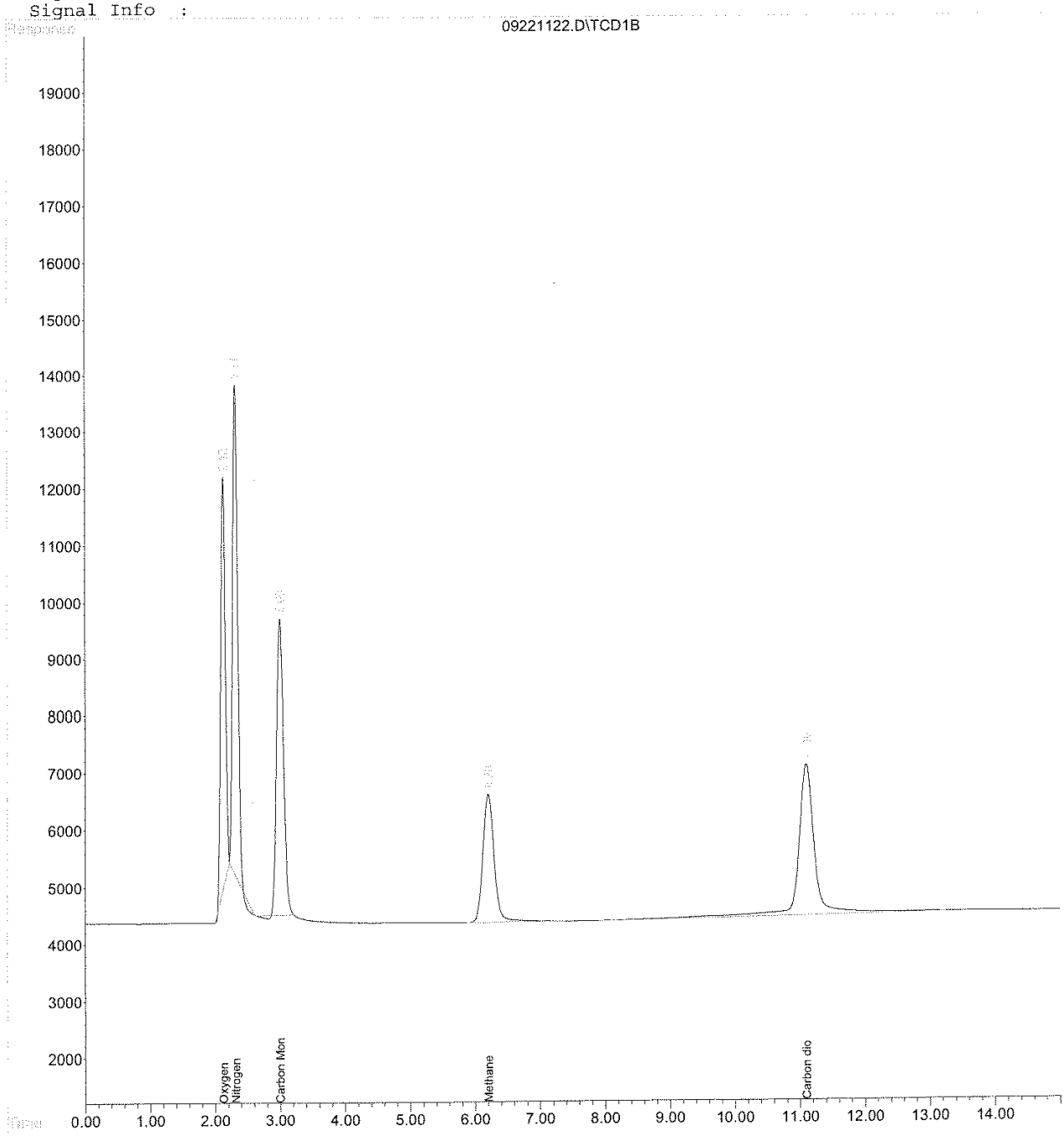
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	356843	2.490 %
2)	Nitrogen	2.31	452779	2.628 %
3)	Carbon Monoxide	3.00	382746	2.430 %
4)	Methane	6.20	268971	2.081 %
5)	Carbon dioxide	11.10	459790	2.536 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092211\09221122.D Vial: 1
Acq On : 22 Sep 2011 9:15 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 22 20:39 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Response Factor Report GC/TCD

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011

Calibration Files
1 =03051102.D 2 =03051103.D 3 =03051104.D
4 =03051105.D 5 =03051106.D 6 =03051107.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1)	Oxygen	1.450	1.444	1.427	1.365	1.324	2.791	1.624 E5	32.03
2)	Nitrogen	1.748	1.695	1.678	1.586	1.522	2.053	1.723 E5	9.90
3)	Carbon Monoxide	1.690	1.628	1.621	1.517	1.472	1.522	1.575 E5	5.32
4)	Methane	1.422	1.364	1.344	1.267	1.212	1.210	1.303 E5	6.66
5)	Carbon dioxide	2.121	2.009	2.012	1.874	1.813	1.842	1.945 E5	6.21

(#) = Out of Range ### Number of calibration levels exceeded format ###

030511.M Thu Oct 20 10:42:38 2011 TESTCAL

Compound List Report GC/TCD

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Initial Calibration
Total Cpnds : 5

PK#	Type	Compound Name	Exp RT	Rel RT	Cal	A/H	ID
1		Oxygen	2.10	1.000	Q	A	R
2		Nitrogen	2.30	1.000	A	A	R
3		Carbon Monoxide	3.03	1.000	A	A	R
4		Methane	6.25	1.000	Q	A	R
5		Carbon dioxide	11.18	1.000	Q	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

030511.M Thu Oct 20 10:42:24 2011 TESTCAL