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: 1109555

CASE NARRATIVE

SAMPLE RECEIPT:
Samples were received at the RTI Laboratory, Livonia, MI via commercial delivery on 9/15/2011. Samples were received in good condition, except for the sample noted below. The sample set consisted of 34 air samples.

Note: Sample ID 1109555-029 (VA0587): 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.

Sample ID 1109555-014: Toluene above quantitation range.

Analytical Sequence ID 43152:

- Sample ID 1108899-043ADUP elevated RPD for some compounds due to results near or below LOQ.

Analytical Sequence ID 43192:

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

RTI Laboratories, Inc.

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Task Order: 02
Lab Order: 1109555

CASE NARRATIVE

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.

Surrogate recoveries were within established control limits.

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

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1109555
ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV021

Project Number: 140705
Project Name: Kirtland AFB
Sample Coordinator: Mark Lyon
Turnaround Time:

Samples Shipment Date: 08 SEP 2011
Lab Destination: RTI Laboratories
Lab Contact: Mike Truchan
Project Contact: Pamela Moss
Carrier/Waybill No.: UPS/2323121135

Bill To: Shaw Environmental, Inc. - Accounts P
PO Box 98519
Baton Rouge LA 70884

Report To: Pamela Moss
7604 Technology Way, Suite 300
Denver CO 80237

Special Instructions:

Possible Hazard Indentification:
Non-hazard | Flammable ✓ | Skin Irritant | Poison B | Unknown | Radiological

1. Relinquished By (Signature/Affiliation) [signature] Date: 9/8/11 Time: 1600
2. Relinquished By (Signature/Affiliation) Date: Time:
3. Relinquished By (Signature/Affiliation) Date: Time:

Sample Disposal:
Return to Client | Disposal by Lab ✓ | Archive (mos.)

1. Received By (Signature/Affiliation) Christin Conrad RTI Laboratories Date: 9/15/2011 Time: 0925
2. Received By (Signature/Affiliation) Date: Time:
3. Received By (Signature/Affiliation) Date: Time:

Comments:

	Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
1	VA0421	SVMW-13-150-GS-VA0421-REG	07 SEP 2011	12:27	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		750
	VA0421	SVMW-13-150-GS-VA0421-REG	07 SEP 2011	12:27	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
2	VA0422	SVMW-13-250-GS-VA0422-REG	07 SEP 2011	13:01	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		728
	VA0422	SVMW-13-250-GS-VA0422-REG	07 SEP 2011	13:01	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
3	VA0423	SVMW-13-350-GS-VA0423-REG	07 SEP 2011	13:39	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		803
	VA0423	SVMW-13-350-GS-VA0423-REG	07 SEP 2011	13:39	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
4	VA0424	SVMW-13-350-GS-VA0424-FD	07 SEP 2011	13:39	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by			N		775

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1109555

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV021

	Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
	VA0424	SVMW-13-350-GS-VA0424-FD	07 SEP 2011	13:39	1 L Tedlar Bag	1	None Required	MA DEP, VOCs / TPH by TO-15 Fixed Gases by ASTM D2504			N N		783
	VA0425	SVMW-13-450-GS-VA0425-REG	07 SEP 2011	14:24	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
5	VA0425	SVMW-13-450-GS-VA0425-REG	07 SEP 2011	14:24	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		824
	VA0452	SVEW-11-410-GS-VA0452-REG	07 SEP 2011	14:54	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
6	VA0452	SVEW-11-410-GS-VA0452-REG	07 SEP 2011	14:54	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		725
	VA0469	KAFB-106110-025-GS-VA0469-REG	29 AUG 2011	8:37	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
7	VA0469	KAFB-106110-025-GS-VA0469-REG	29 AUG 2011	8:37	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		732
	VA0470	KAFB-106110-050-GS-VA0470-REG	29 AUG 2011	9:09	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
8	VA0470	KAFB-106110-050-GS-VA0470-REG	29 AUG 2011	9:09	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		671
	VA0471	KAFB-106110-100-GS-VA0471-REG	29 AUG 2011	9:44	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
9	VA0471	KAFB-106110-100-GS-VA0471-REG	29 AUG 2011	9:44	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		762
	VA0472	KAFB-106110-250-GS-VA0472-REG	29 AUG 2011	10:22	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
10	VA0472	KAFB-106110-250-GS-VA0472-REG	29 AUG 2011	10:22	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		754
	VA0473	KAFB-106110-250-GS-VA0473-FD	29 AUG 2011	10:22	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
11	VA0473	KAFB-106110-250-GS-VA0473-FD	29 AUG 2011	10:22	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		704
	VA0474	KAFB-106110-350-GS-VA0474-REG	29 AUG 2011	11:18	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
12	VA0474	KAFB-106110-350-GS-VA0474-REG	29 AUG 2011	11:18	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		665
	VA0475	KAFB-106110-450-GS-VA0475-REG	29 AUG 2011	12:03	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
13	VA0475	KAFB-106110-450-GS-VA0475-REG	29 AUG 2011	12:03	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		730
	VA0476	KAFB-106111-025-GS-VA0476-REG	06 SEP 2011	13:41	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
14	VA0476	KAFB-106111-025-GS-VA0476-REG	06 SEP 2011	13:41	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		727
	VA0477	KAFB-106111-050-GS-VA0477-REG	06 SEP 2011	14:18	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
15	VA0477	KAFB-106111-050-GS-VA0477-REG	06 SEP 2011	14:18	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		734
	VA0478	KAFB-106111-100-GS-VA0478-REG	06 SEP 2011	14:53	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
16	VA0478	KAFB-106111-100-GS-VA0478-REG	06 SEP 2011	14:53	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		733
	VA0479	KAFB-106111-250-GS-VA0479-REG	06 SEP 2011	15:34	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
17	VA0479	KAFB-106111-250-GS-VA0479-REG	06 SEP 2011	15:34	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504					

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1109555

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV021

	Sample No	Sample Name	Sample Date	Sample Time	Container	Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
	VA0480	KAFB 106111 350 GS VA0480 REG	06 SEP 2011	16 09	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		729
18	VA0480	KAFB 106111 350 GS VA0480 REG	06 SEP 2011	16 09	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
	VA0481	KAFB 106111 450 GS VA0481 REG	07 SEP 2011	8 27	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		743
19	VA0481	KAFB 106111 450 GS VA0481 REG	07 SEP 2011	8 27	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
	VA0482	KAFB 106112 025 GS VA0482 REG	08 SEP 2011	8 25	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		700
20	VA0482	KAFB 106112 025 GS VA0482 REG	08 SEP 2011	8 25	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
	VA0483	KAFB 106112 050 GS VA0483 REG	08 SEP 2011	9 12	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		786
21	VA0483	KAFB 106112 050 GS VA0483 REG	08 SEP 2011	9 12	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		816
	VA0484	KAFB 106112 050 GS VA0484 FD	08 SEP 2011	9 12	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
22	VA0484	KAFB 106112 050 GS VA0484 FD	08 SEP 2011	9 12	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		791
	VA0485	KAFB 106112 150 GS VA0485 REG	08 SEP 2011	10 08	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
23	VA0485	KAFB 106112 150 GS VA0485 REG	08 SEP 2011	10 08	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		710
	VA0486	KAFB 106112 250 GS VA0486 REG	08 SEP 2011	10 54	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
24	VA0486	KAFB 106112 250 GS VA0486 REG	08 SEP 2011	10 54	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		739
	VA0487	KAFB 106112 350 GS VA0487 REG	08 SEP 2011	11 42	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
25	VA0487	KAFB 106112 350 GS VA0487 REG	08 SEP 2011	11 42	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		752
	VA0488	KAFB 106112 450 GS VA0488 REG	08 SEP 2011	12 25	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
26	VA0488	KAFB 106112 450 GS VA0488 REG	08 SEP 2011	12 25	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		760
	VA0585	KAFB 106128 025 GS VA0585 REG	29 AUG 2011	15 12	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
27	VA0585	KAFB 106128 025 GS VA0585 REG	29 AUG 2011	15 12	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		761
	VA0586	KAFB 106128 025 GS VA0586 FD	29 AUG 2011	15 12	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
28	VA0586	KAFB 106128 025 GS VA0586 FD	29 AUG 2011	15 12	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		733
	VA0587	KAFB 106128 050 GS VA0587 REG	06 SEP 2011	8 27	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
29	VA0587	KAFB 106128 050 GS VA0587 REG	06 SEP 2011	8 27	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		805
	VA0588	KAFB 106128 150 GS VA0588 REG	06 SEP 2011	9 29	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
30	VA0588	KAFB 106128 150 GS VA0588 REG	06 SEP 2011	9 29	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		740
	VA0589	KAFB 106128 250 GS VA0589 REG	06 SEP 2011	10 08	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
31	VA0589	KAFB 106128 250 GS VA0589 REG	06 SEP 2011	10 08	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15					

DBPix Evaluation

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Shaw E & I, Inc.

1109555

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV021

	Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
32	VA0590	KAFB 106128-258-GS-VA0590-REG	06 SEP 2011	10 48	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		731
	VA0590	KAFB 106128-258-GS-VA0590-REG	06 SEP 2011	10 48	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
33	VA0591	KAFB 106128-459-GS-VA0591-REG	06 SEP 2011	11:33	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		29
	VA0591	KAFB 106128-459-GS-VA0591-REG	06 SEP 2011	11 33	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
34	VA0598-TB	TB-LDOC AS-VA0598-TB-1B	29 AUG 2011	14 00	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15			N		721

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

50 LBS 1 OF 2
DWT: 22,22,13

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4195 3349

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

REF 1: 140705
REF 2: BA010030

BILLING: P/P
HAZARDOUS MATERIALS - GROUND ONLY
HAZ#: 176

WS 14 F21 HP LaserJet 4 16SA 07/2011

Fold here and place in label pouch

www.ammara.com

DBPix Evaluation

31628 GLENDALE ST

LIVONIA MI 48150

P: RED2 S: MNITE L 3

19F – FL2

17\0335E034225 3353

CUSTODY SEAL

DATE 9/8/11

SIGNATURE

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: **9/15/2011 9:25:00 AM**

Work Order Number **1109555** RcptNo: **1** Received by: **Christine Conradis**

Completed by: Reviewed by:

Completed Date: 9/16/2011 5:03:48 PM Reviewed Date:

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:	1Z10335E0341953349			
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
1109555-001A	Container-01 of 01	Bottle				
1109555-001B	Container-01 of 01	Bottle				
1109555-002A	Container-01 of 01	Bottle				
1109555-002B	Container-01 of 01	Bottle				
1109555-003A	Container-01 of 01	Bottle				
1109555-003B	Container-01 of 01	Bottle				
1109555-004A	Container-01 of 01	Bottle				
1109555-004B	Container-01 of 01	Bottle				
1109555-005A	Container-01 of 01	Bottle				
1109555-005B	Container-01 of 01	Bottle				
1109555-006A	Container-01 of 01	Bottle				
1109555-006B	Container-01 of 01	Bottle				
1109555-007A	Container-01 of 01	Bottle				
1109555-007B	Container-01 of 01	Bottle				
1109555-008A	Container-01 of 01	Bottle				
1109555-008B	Container-01 of 01	Bottle				
1109555-009A	Container-01 of 01	Bottle				
1109555-009B	Container-01 of 01	Bottle				
1109555-010A	Container-01 of 01	Bottle				
1109555-010B	Container-01 of 01	Bottle				
1109555-011A	Container-01 of 01	Bottle				
1109555-011B	Container-01 of 01	Bottle				
1109555-012A	Container-01 of 01	Bottle				
1109555-012B	Container-01 of 01	Bottle				
1109555-013A	Container-01 of 01	Bottle				
1109555-013B	Container-01 of 01	Bottle				
1109555-014A	Container-01 of 01	Bottle				
1109555-014B	Container-01 of 01	Bottle				
1109555-015A	Container-01 of 01	Bottle				
1109555-015B	Container-01 of 01	Bottle				
1109555-016A	Container-01 of 01	Bottle				
1109555-016B	Container-01 of 01	Bottle				
1109555-017A	Container-01 of 01	Bottle				
1109555-017B	Container-01 of 01	Bottle				

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1109555-018A	Container-01 of 01	Bottle				
1109555-018B	Container-01 of 01	Bottle				
1109555-019A	Container-01 of 01	Bottle				
1109555-019B	Container-01 of 01	Bottle				
1109555-020A	Container-01 of 01	Bottle				
1109555-020B	Container-01 of 01	Bottle				
1109555-021A	Container-01 of 01	Bottle				
1109555-021B	Container-01 of 01	Bottle				
1109555-022A	Container-01 of 01	Bottle				
1109555-022B	Container-01 of 01	Bottle				
1109555-023A	Container-01 of 01	Bottle				
1109555-023B	Container-01 of 01	Bottle				
1109555-024A	Container-01 of 01	Bottle				
1109555-024B	Container-01 of 01	Bottle				
1109555-025A	Container-01 of 01	Bottle				
1109555-025B	Container-01 of 01	Bottle				
1109555-026A	Container-01 of 01	Bottle				
1109555-026B	Container-01 of 01	Bottle				
1109555-027A	Container-01 of 01	Bottle				
1109555-027B	Container-01 of 01	Bottle				
1109555-028A	Container-01 of 01	Bottle				
1109555-028B	Container-01 of 01	Bottle				
1109555-029B	Container-01 of 01	Bottle				
1109555-030A	Container-01 of 01	Bottle				
1109555-030B	Container-01 of 01	Bottle				
1109555-031A	Container-01 of 01	Bottle				
1109555-031B	Container-01 of 01	Bottle				
1109555-032A	Container-01 of 01	Bottle				
1109555-032B	Container-01 of 01	Bottle				
1109555-033A	Container-01 of 01	Bottle				
1109555-033B	Container-01 of 01	Bottle				
1109555-034A	Container-01 of 01	Bottle				

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH

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: Comments:

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

Client Instructions:

Date Contacted: Contacted By:

Regarding:

CorrectiveAction:

RTI LABORATORIES, INC.

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

Workorder Sample Summary

WO#: **1109555**

20-Oct-11

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

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1109555-001	VA0421		9/7/2011 12:27:00 PM	9/15/2011 9:25:00 AM	Air
1109555-001	VA0421		9/7/2011 12:27:00 PM	9/15/2011 9:25:00 AM	Air
1109555-002	VA0422		9/7/2011 1:01:00 PM	9/15/2011 9:25:00 AM	Air
1109555-002	VA0422		9/7/2011 1:01:00 PM	9/15/2011 9:25:00 AM	Air
1109555-003	VA0423		9/7/2011 1:39:00 PM	9/15/2011 9:25:00 AM	Air
1109555-003	VA0423		9/7/2011 1:39:00 PM	9/15/2011 9:25:00 AM	Air
1109555-004	VA0424		9/7/2011 1:39:00 PM	9/15/2011 9:25:00 AM	Air
1109555-004	VA0424		9/7/2011 1:39:00 PM	9/15/2011 9:25:00 AM	Air
1109555-005	VA0425		9/7/2011 2:24:00 PM	9/15/2011 9:25:00 AM	Air
1109555-005	VA0425		9/7/2011 2:24:00 PM	9/15/2011 9:25:00 AM	Air
1109555-006	VA0452		9/7/2011 2:54:00 PM	9/15/2011 9:25:00 AM	Air
1109555-006	VA0452		9/7/2011 2:54:00 PM	9/15/2011 9:25:00 AM	Air
1109555-007	VA0469		8/29/2011 8:37:00 AM	9/15/2011 9:25:00 AM	Air
1109555-007	VA0469		8/29/2011 8:37:00 AM	9/15/2011 9:25:00 AM	Air
1109555-008	VA0470		8/29/2011 9:09:00 AM	9/15/2011 9:25:00 AM	Air
1109555-008	VA0470		8/29/2011 9:09:00 AM	9/15/2011 9:25:00 AM	Air
1109555-009	VA0471		8/29/2011 9:44:00 AM	9/15/2011 9:25:00 AM	Air
1109555-009	VA0471		8/29/2011 9:44:00 AM	9/15/2011 9:25:00 AM	Air
1109555-010	VA0472		8/29/2011 10:22:00 AM	9/15/2011 9:25:00 AM	Air
1109555-010	VA0472		8/29/2011 10:22:00 AM	9/15/2011 9:25:00 AM	Air
1109555-011	VA0473		8/29/2011 10:22:00 AM	9/15/2011 9:25:00 AM	Air
1109555-011	VA0473		8/29/2011 10:22:00 AM	9/15/2011 9:25:00 AM	Air
1109555-012	VA0474		8/29/2011 11:18:00 AM	9/15/2011 9:25:00 AM	Air
1109555-012	VA0474		8/29/2011 11:18:00 AM	9/15/2011 9:25:00 AM	Air
1109555-013	VA0475		8/29/2011 12:03:00 PM	9/15/2011 9:25:00 AM	Air
1109555-013	VA0475		8/29/2011 12:03:00 PM	9/15/2011 9:25:00 AM	Air
1109555-014	VA0476		9/6/2011 1:41:00 PM	9/15/2011 9:25:00 AM	Air
1109555-014	VA0476		9/6/2011 1:41:00 PM	9/15/2011 9:25:00 AM	Air
1109555-015	VA0477		9/6/2011 2:18:00 PM	9/15/2011 9:25:00 AM	Air
1109555-015	VA0477		9/6/2011 2:18:00 PM	9/15/2011 9:25:00 AM	Air
1109555-016	VA0478		9/6/2011 2:53:00 PM	9/15/2011 9:25:00 AM	Air
1109555-016	VA0478		9/6/2011 2:53:00 PM	9/15/2011 9:25:00 AM	Air
1109555-017	VA0479		9/6/2011 3:34:00 PM	9/15/2011 9:25:00 AM	Air
1109555-017	VA0479		9/6/2011 3:34:00 PM	9/15/2011 9:25:00 AM	Air

RTI LABORATORIES, INC.

RTI
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Website: www.rtilabs.com

Workorder Sample Summary

WO#: **1109555**

20-Oct-11

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

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1109555-018	VA0480		9/6/2011 4:09:00 PM	9/15/2011 9:25:00 AM	Air
1109555-018	VA0480		9/6/2011 4:09:00 PM	9/15/2011 9:25:00 AM	Air
1109555-019	VA0481		9/7/2011 8:27:00 AM	9/15/2011 9:25:00 AM	Air
1109555-019	VA0481		9/7/2011 8:27:00 AM	9/15/2011 9:25:00 AM	Air
1109555-020	VA0482		9/8/2011 8:25:00 AM	9/15/2011 9:25:00 AM	Air
1109555-020	VA0482		9/8/2011 8:25:00 AM	9/15/2011 9:25:00 AM	Air
1109555-021	VA0483		9/8/2011 9:12:00 AM	9/15/2011 9:25:00 AM	Air
1109555-021	VA0483		9/8/2011 9:12:00 AM	9/15/2011 9:25:00 AM	Air
1109555-022	VA0484		9/8/2011 9:12:00 AM	9/15/2011 9:25:00 AM	Air
1109555-022	VA0484		9/8/2011 9:12:00 AM	9/15/2011 9:25:00 AM	Air
1109555-023	VA0485		9/8/2011 10:08:00 AM	9/15/2011 9:25:00 AM	Air
1109555-023	VA0485		9/8/2011 10:08:00 AM	9/15/2011 9:25:00 AM	Air
1109555-024	VA0486		9/8/2011 10:54:00 AM	9/15/2011 9:25:00 AM	Air
1109555-024	VA0486		9/8/2011 10:54:00 AM	9/15/2011 9:25:00 AM	Air
1109555-025	VA0487		9/8/2011 11:42:00 AM	9/15/2011 9:25:00 AM	Air
1109555-025	VA0487		9/8/2011 11:42:00 AM	9/15/2011 9:25:00 AM	Air
1109555-026	VA0488		9/8/2011 12:25:00 PM	9/15/2011 9:25:00 AM	Air
1109555-026	VA0488		9/8/2011 12:25:00 PM	9/15/2011 9:25:00 AM	Air
1109555-027	VA0585		8/29/2011 3:12:00 PM	9/15/2011 9:25:00 AM	Air
1109555-027	VA0585		8/29/2011 3:12:00 PM	9/15/2011 9:25:00 AM	Air
1109555-028	VA0586		8/29/2011 3:12:00 PM	9/15/2011 9:25:00 AM	Air
1109555-028	VA0586		8/29/2011 3:12:00 PM	9/15/2011 9:25:00 AM	Air
1109555-029	VA0587		9/6/2011 8:27:00 AM	9/15/2011 9:25:00 AM	Air
1109555-029	VA0587		9/6/2011 8:27:00 AM	9/15/2011 9:25:00 AM	Air
1109555-030	VA0588		9/6/2011 9:29:00 AM	9/15/2011 9:25:00 AM	Air
1109555-030	VA0588		9/6/2011 9:29:00 AM	9/15/2011 9:25:00 AM	Air
1109555-031	VA0589		9/6/2011 10:08:00 AM	9/15/2011 9:25:00 AM	Air
1109555-031	VA0589		9/6/2011 10:08:00 AM	9/15/2011 9:25:00 AM	Air
1109555-032	VA0590		9/6/2011 10:48:00 AM	9/15/2011 9:25:00 AM	Air
1109555-032	VA0590		9/6/2011 10:48:00 AM	9/15/2011 9:25:00 AM	Air
1109555-033	VA0591		9/6/2011 11:33:00 AM	9/15/2011 9:25:00 AM	Air
1109555-033	VA0591		9/6/2011 11:33:00 AM	9/15/2011 9:25:00 AM	Air
1109555-034	VA8038-TB		8/29/2011 2:00:00 PM	9/15/2011 9:25:00 AM	Air

RTI LABORATORIES, INC.

RTI
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Livonia, MI 48150
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Website: www.rtilabs.com

DATES REPORT

WO#: **1109555**

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
1109555-001A	VA0421	9/7/2011 12:27:00 PM	Air	Air-Phase Petroleum Hydrocarbons			9/29/2011 5:40:00 PM
				Volatile Organic Compounds			10/7/2011 1:03:00 PM
1109555-001B				Noncondensable Gases and Light Hydrocarbons			9/28/2011 12:41:00 PM
1109555-002A	VA0422	9/7/2011 1:01:00 PM		Air-Phase Petroleum Hydrocarbons			9/30/2011 3:46:00 AM
				Volatile Organic Compounds			10/1/2011 9:47:00 AM
1109555-002B				Noncondensable Gases and Light Hydrocarbons			9/28/2011 1:07:00 PM
1109555-003A	VA0423	9/7/2011 1:39:00 PM		Air-Phase Petroleum Hydrocarbons			9/30/2011 4:34:00 AM
				Air-Phase Petroleum Hydrocarbons			9/29/2011 7:04:00 PM
				Volatile Organic Compounds			10/1/2011 10:35:00 AM
1109555-003B				Noncondensable Gases and Light Hydrocarbons			9/28/2011 1:29:00 PM
1109555-004A	VA0424			Air-Phase Petroleum Hydrocarbons			9/30/2011 5:23:00 AM
				Volatile Organic Compounds			10/1/2011 11:24:00 AM
1109555-004B				Noncondensable Gases and Light Hydrocarbons			9/28/2011 1:51:00 PM
1109555-005A	VA0425	9/7/2011 2:24:00 PM		Air-Phase Petroleum Hydrocarbons			9/29/2011 9:10:00 PM
				Volatile Organic Compounds			10/1/2011 12:09:00 PM
1109555-005B				Noncondensable Gases and Light Hydrocarbons			9/28/2011 2:14:00 PM
1109555-006A	VA0452	9/7/2011 2:54:00 PM		Air-Phase Petroleum Hydrocarbons			9/30/2011 7:18:00 AM
				Volatile Organic Compounds			10/7/2011 2:33:00 PM
1109555-006B				Noncondensable Gases and Light Hydrocarbons			9/28/2011 2:47:00 PM
1109555-007A	VA0469	8/29/2011 8:37:00 AM		Air-Phase Petroleum Hydrocarbons			9/27/2011 12:09:00 AM
				Volatile Organic Compounds			9/30/2011 4:28:00 AM

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WO#: **1109555**

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
1109555-007B	VA0469	8/29/2011 8:37:00 AM	Air	Noncondensable Gases and Light Hydrocarbons			9/28/2011 3:08:00 PM
1109555-008A	VA0470	8/29/2011 9:09:00 AM		Air-Phase Petroleum Hydrocarbons			9/28/2011 9:16:00 PM
				Volatile Organic Compounds			9/30/2011 9:01:00 PM
1109555-008B				Noncondensable Gases and Light Hydrocarbons			9/28/2011 3:35:00 PM
1109555-009A	VA0471	8/29/2011 9:44:00 AM		Air-Phase Petroleum Hydrocarbons			9/27/2011 1:39:00 AM
				Volatile Organic Compounds			9/30/2011 9:45:00 PM
1109555-009B				Noncondensable Gases and Light Hydrocarbons			9/28/2011 3:58:00 PM
1109555-010A	VA0472	8/29/2011 10:22:00 AM		Air-Phase Petroleum Hydrocarbons			9/22/2011 1:50:00 AM
				Volatile Organic Compounds			9/30/2011 9:22:00 AM
1109555-010B				Noncondensable Gases and Light Hydrocarbons			9/28/2011 4:25:00 PM
1109555-011A	VA0473			Air-Phase Petroleum Hydrocarbons			9/22/2011 2:35:00 AM
				Volatile Organic Compounds			9/30/2011 11:39:00 AM
1109555-011B				Noncondensable Gases and Light Hydrocarbons			9/28/2011 5:45:00 PM
1109555-012A	VA0474	8/29/2011 11:18:00 AM		Air-Phase Petroleum Hydrocarbons			9/22/2011 3:20:00 AM
				Volatile Organic Compounds			9/30/2011 12:23:00 PM
1109555-012B				Noncondensable Gases and Light Hydrocarbons			9/28/2011 6:14:00 PM
1109555-013A	VA0475	8/29/2011 12:03:00 PM		Air-Phase Petroleum Hydrocarbons			9/27/2011 8:01:00 AM
				Volatile Organic Compounds			9/30/2011 1:04:00 PM
1109555-013B				Noncondensable Gases and Light Hydrocarbons			9/28/2011 6:35:00 PM
1109555-014A	VA0476	9/6/2011 1:41:00 PM		Air-Phase Petroleum Hydrocarbons			9/29/2011 8:10:00 AM
				Volatile Organic Compounds			10/1/2011 4:22:00 AM

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DATES REPORT

WO#: **1109555**

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
1109555-014A	VA0476	9/6/2011 1:41:00 PM	Air	Volatile Organic Compounds			10/7/2011 10:53:00 AM
1109555-014B				Noncondensable Gases and Light Hydrocarbons			9/28/2011 6:56:00 PM
1109555-015A	VA0477	9/6/2011 2:18:00 PM		Air-Phase Petroleum Hydrocarbons			9/29/2011 8:59:00 AM
				Volatile Organic Compounds			10/1/2011 5:10:00 AM
1109555-015B				Noncondensable Gases and Light Hydrocarbons			9/28/2011 7:20:00 PM
1109555-016A	VA0478	9/6/2011 2:53:00 PM		Air-Phase Petroleum Hydrocarbons			9/29/2011 9:47:00 AM
				Volatile Organic Compounds			10/1/2011 5:59:00 AM
1109555-016B				Noncondensable Gases and Light Hydrocarbons			9/29/2011 12:42:00 PM
1109555-017A	VA0479	9/6/2011 3:34:00 PM		Air-Phase Petroleum Hydrocarbons			9/29/2011 10:36:00 AM
				Volatile Organic Compounds			10/1/2011 6:47:00 AM
1109555-017B				Noncondensable Gases and Light Hydrocarbons			9/29/2011 1:12:00 PM
1109555-018A	VA0480	9/6/2011 4:09:00 PM		Air-Phase Petroleum Hydrocarbons			9/30/2011 3:06:00 PM
				Volatile Organic Compounds			10/7/2011 11:38:00 AM
1109555-018B				Noncondensable Gases and Light Hydrocarbons			9/29/2011 1:52:00 PM
1109555-019A	VA0481	9/7/2011 8:27:00 AM		Air-Phase Petroleum Hydrocarbons			9/29/2011 11:26:00 PM
				Volatile Organic Compounds			10/7/2011 12:20:00 PM
1109555-019B				Noncondensable Gases and Light Hydrocarbons			9/29/2011 2:23:00 PM
1109555-020A	VA0482	9/8/2011 8:25:00 AM		Air-Phase Petroleum Hydrocarbons			9/30/2011 8:06:00 AM
				Volatile Organic Compounds			10/7/2011 9:10:00 PM
1109555-020B				Noncondensable Gases and Light Hydrocarbons			9/29/2011 2:48:00 PM
1109555-021A	VA0483	9/8/2011 9:12:00 AM		Air-Phase Petroleum Hydrocarbons			9/30/2011 8:55:00 AM

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DATES REPORT

WO#: **1109555**

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
1109555-021A	VA0483	9/8/2011 9:12:00 AM	Air	Volatile Organic Compounds			10/7/2011 9:58:00 PM
1109555-021B				Noncondensable Gases and Light Hydrocarbons			9/29/2011 3:08:00 PM
1109555-022A	VA0484			Air-Phase Petroleum Hydrocarbons			9/30/2011 5:39:00 PM
				Volatile Organic Compounds			10/7/2011 10:47:00 PM
1109555-022B				Noncondensable Gases and Light Hydrocarbons			9/29/2011 3:48:00 PM
1109555-023A	VA0485	9/8/2011 10:08:00 AM		Air-Phase Petroleum Hydrocarbons			9/30/2011 6:30:00 PM
				Volatile Organic Compounds			10/11/2011 2:17:00 AM
1109555-023B				Noncondensable Gases and Light Hydrocarbons			9/29/2011 4:07:00 PM
1109555-024A	VA0486	9/8/2011 10:54:00 AM		Air-Phase Petroleum Hydrocarbons			9/30/2011 7:20:00 PM
				Volatile Organic Compounds			10/8/2011 12:25:00 AM
1109555-024B				Noncondensable Gases and Light Hydrocarbons			9/29/2011 5:26:00 PM
1109555-025A	VA0487	9/8/2011 11:42:00 AM		Air-Phase Petroleum Hydrocarbons			10/1/2011 3:48:00 AM
				Volatile Organic Compounds			10/11/2011 2:58:00 AM
1109555-025B				Noncondensable Gases and Light Hydrocarbons			9/29/2011 5:45:00 PM
1109555-026A	VA0488	9/8/2011 12:25:00 PM		Air-Phase Petroleum Hydrocarbons			10/1/2011 4:39:00 AM
				Volatile Organic Compounds			10/11/2011 3:39:00 AM
1109555-026B				Noncondensable Gases and Light Hydrocarbons			9/29/2011 6:55:00 PM
1109555-027A	VA0585	8/29/2011 3:12:00 PM		Air-Phase Petroleum Hydrocarbons			9/22/2011 4:53:00 AM
				Volatile Organic Compounds			9/30/2011 11:15:00 PM
1109555-027B				Noncondensable Gases and Light Hydrocarbons			9/29/2011 7:19:00 PM
1109555-028A	VA0586			Air-Phase Petroleum Hydrocarbons			9/22/2011 5:38:00 AM

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DATES REPORT

WO#: **1109555**

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
1109555-028A	VA0586	8/29/2011 3:12:00 PM	Air	Volatile Organic Compounds			10/1/2011
1109555-028B				Noncondensable Gases and Light Hydrocarbons			9/29/2011 7:38:00 PM
1109555-029B	VA0587	9/6/2011 8:27:00 AM		Noncondensable Gases and Light Hydrocarbons			9/29/2011 7:58:00 PM
1109555-030A	VA0588	9/6/2011 9:29:00 AM		Air-Phase Petroleum Hydrocarbons			9/28/2011 9:59:00 PM
				Volatile Organic Compounds			10/1/2011 12:41:00 AM
1109555-030B				Noncondensable Gases and Light Hydrocarbons			9/29/2011 8:18:00 PM
1109555-031A	VA0589	9/6/2011 10:08:00 AM		Air-Phase Petroleum Hydrocarbons			9/29/2011 7:22:00 AM
				Volatile Organic Compounds			10/11/2011 12:56:00 AM
1109555-031B				Noncondensable Gases and Light Hydrocarbons			9/29/2011 8:39:00 PM
1109555-032A	VA0590	9/6/2011 10:48:00 AM		Air-Phase Petroleum Hydrocarbons			9/28/2011 11:20:00 PM
				Volatile Organic Compounds			10/11/2011 1:37:00 AM
				Volatile Organic Compounds			10/1/2011 2:11:00 AM
1109555-032B				Noncondensable Gases and Light Hydrocarbons			9/29/2011 9:11:00 PM
1109555-033A	VA0591	9/6/2011 11:33:00 AM		Air-Phase Petroleum Hydrocarbons			9/29/2011 12:02:00 AM
				Air-Phase Petroleum Hydrocarbons			9/27/2011 3:51:00 AM
				Volatile Organic Compounds			10/1/2011 2:53:00 AM
1109555-033B				Noncondensable Gases and Light Hydrocarbons			9/29/2011 9:34:00 PM
1109555-034A	VA8038-TB	8/29/2011 2:00:00 PM		Volatile Organic Compounds			9/30/2011 10:30:00 PM

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/7/2011 12:27:00 PM

Project: Kirtland AFB

Lab ID: 1109555-001 **Matrix:** AIR

Client Sample ID VA0421

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.26	0.10		%	1	9/28/2011 12:41:00 PM
Carbon Monoxide	ND	0.10		%	1	9/28/2011 12:41:00 PM
Methane	ND	0.50		%	1	9/28/2011 12:41:00 PM
Nitrogen	79	0.10		%	1	9/28/2011 12:41:00 PM
Oxygen	21	0.10		%	1	9/28/2011 12:41:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
1,1,2,2-Tetrachloroethane	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
1,1,2-Trichloroethane	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
1,1-Dichloroethane	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
1,1-Dichloroethene	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
1,2,4-Trichlorobenzene	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
1,2,4-Trimethylbenzene	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
1,2-Dibromoethane	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
1,2-Dichlorobenzene	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
1,2-Dichloroethane	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
1,2-Dichloropropane	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
1,3,5-Trimethylbenzene	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
1,3-Butadiene	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
1,3-Dichlorobenzene	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
1,4-Dichlorobenzene	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
2-Butanone	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
2-Hexanone	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
4-Methyl-2-pentanone	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Acetone	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Benzene	19,000	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Benzyl chloride	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Bromodichloromethane	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Bromoform	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Bromomethane	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Carbon disulfide	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 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 v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/7/2011 12:27:00 PM

Project: Kirtland AFB

Lab ID: 1109555-001 **Matrix:** AIR

Client Sample ID VA0421

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Chlorobenzene	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Chlorodibromomethane	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Chloroethane	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Chloroform	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Chloromethane	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
cis-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
cis-1,3-dichloropropene	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Cyclohexane	10,000	16,000	JH	ppbv	8000	10/7/2011 1:03:00 PM
Dichlorodifluoromethane	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Ethyl acetate	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Ethylbenzene	ND	16,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Heptane	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Hexachlorobutadiene	ND	16,000	H	ppbv	8000	10/7/2011 1:03:00 PM
m,p-Xylene	ND	16,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Methylene chloride	ND	40,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Naphthalene	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
n-Hexane	11,000	16,000	JH	ppbv	8000	10/7/2011 1:03:00 PM
o-Xylene	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Propylene	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Styrene	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
tert-Butyl Methyl Ether	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Tetrachloroethene	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Tetrahydrofuran	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Toluene	36,000	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
trans-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
trans-1,3-dichloropropene	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Trichloroethene	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Trichlorofluoromethane	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Vinyl acetate	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Vinyl chloride	ND	8,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Xylenes, Total	ND	24,000	H	ppbv	8000	10/7/2011 1:03:00 PM
Surr: 4-Bromofluorobenzene	112	70-130	H	%REC	8000	10/7/2011 1:03:00 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.
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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/7/2011 12:27:00 PM

Project: Kirtland AFB

Lab ID: 1109555-001 **Matrix:** AIR

Client Sample ID VA0421

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	2,100,000	940,000		µg/m³	8000	9/29/2011 5:40:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	9/29/2011 5:40:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	9/29/2011 5:40:00 PM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	8000	9/29/2011 5:40:00 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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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/7/2011 1:01:00 PM

Project: Kirtland AFB

Lab ID: 1109555-002 **Matrix:** AIR

Client Sample ID VA0422

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.44	0.10		%	1	9/28/2011 1:07:00 PM
Carbon Monoxide	ND	0.10		%	1	9/28/2011 1:07:00 PM
Methane	ND	0.50		%	1	9/28/2011 1:07:00 PM
Nitrogen	81	0.10		%	1	9/28/2011 1:07:00 PM
Oxygen	18	0.10		%	1	9/28/2011 1:07:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800		ppbv	800	10/1/2011 9:47:00 AM
1,1,2,2-Tetrachloroethane	ND	800		ppbv	800	10/1/2011 9:47:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800		ppbv	800	10/1/2011 9:47:00 AM
1,1,2-Trichloroethane	ND	800		ppbv	800	10/1/2011 9:47:00 AM
1,1-Dichloroethane	ND	800		ppbv	800	10/1/2011 9:47:00 AM
1,1-Dichloroethene	ND	800		ppbv	800	10/1/2011 9:47:00 AM
1,2,4-Trichlorobenzene	ND	800		ppbv	800	10/1/2011 9:47:00 AM
1,2,4-Trimethylbenzene	ND	800		ppbv	800	10/1/2011 9:47:00 AM
1,2-Dibromoethane	ND	800		ppbv	800	10/1/2011 9:47:00 AM
1,2-Dichlorobenzene	ND	800		ppbv	800	10/1/2011 9:47:00 AM
1,2-Dichloroethane	ND	800		ppbv	800	10/1/2011 9:47:00 AM
1,2-Dichloropropane	ND	800		ppbv	800	10/1/2011 9:47:00 AM
1,3,5-Trimethylbenzene	ND	800		ppbv	800	10/1/2011 9:47:00 AM
1,3-Butadiene	ND	800		ppbv	800	10/1/2011 9:47:00 AM
1,3-Dichlorobenzene	ND	800		ppbv	800	10/1/2011 9:47:00 AM
1,4-Dichlorobenzene	ND	800		ppbv	800	10/1/2011 9:47:00 AM
2-Butanone	ND	800		ppbv	800	10/1/2011 9:47:00 AM
2-Hexanone	ND	800		ppbv	800	10/1/2011 9:47:00 AM
4-Methyl-2-pentanone	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Acetone	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Benzene	2,800	800		ppbv	800	10/1/2011 9:47:00 AM
Benzyl chloride	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Bromodichloromethane	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Bromoform	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Bromomethane	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Carbon disulfide	ND	800		ppbv	800	10/1/2011 9:47:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/7/2011 1:01:00 PM

Project: Kirtland AFB

Lab ID: 1109555-002 **Matrix:** AIR

Client Sample ID VA0422

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Chlorobenzene	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Chlorodibromomethane	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Chloroethane	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Chloroform	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Chloromethane	ND	800		ppbv	800	10/1/2011 9:47:00 AM
cis-1,2-Dichloroethene	ND	800		ppbv	800	10/1/2011 9:47:00 AM
cis-1,3-dichloropropene	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Cyclohexane	2,800	1,600		ppbv	800	10/1/2011 9:47:00 AM
Dichlorodifluoromethane	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Ethyl acetate	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Ethylbenzene	ND	1,600		ppbv	800	10/1/2011 9:47:00 AM
Heptane	1,900	800		ppbv	800	10/1/2011 9:47:00 AM
Hexachlorobutadiene	ND	1,600		ppbv	800	10/1/2011 9:47:00 AM
m,p-Xylene	1,200	1,600	J	ppbv	800	10/1/2011 9:47:00 AM
Methylene chloride	ND	4,000		ppbv	800	10/1/2011 9:47:00 AM
Naphthalene	ND	800		ppbv	800	10/1/2011 9:47:00 AM
n-Hexane	2,100	1,600		ppbv	800	10/1/2011 9:47:00 AM
o-Xylene	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Propylene	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Styrene	ND	800		ppbv	800	10/1/2011 9:47:00 AM
tert-Butyl Methyl Ether	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Tetrachloroethene	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Tetrahydrofuran	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Toluene	12,000	800		ppbv	800	10/1/2011 9:47:00 AM
trans-1,2-Dichloroethene	ND	800		ppbv	800	10/1/2011 9:47:00 AM
trans-1,3-dichloropropene	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Trichloroethene	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Trichlorofluoromethane	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Vinyl acetate	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Vinyl chloride	ND	800		ppbv	800	10/1/2011 9:47:00 AM
Xylenes, Total	1,200	2,400	J	ppbv	800	10/1/2011 9:47:00 AM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	800	10/1/2011 9:47:00 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 v1

RTI LABORATORIES, INC.

RTI
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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/7/2011 1:01:00 PM

Project: Kirtland AFB

Lab ID: 1109555-002 **Matrix:** AIR

Client Sample ID VA0422

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	190,000	47,000		µg/m³	400	9/30/2011 3:46:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	9/30/2011 3:46:00 AM
C9-C12 Aliphatic Hydrocarbons	34,000	76,000	J	µg/m³	400	9/30/2011 3:46:00 AM
Surr: 4-Bromofluorobenzene	116	70-130		%REC	400	9/30/2011 3:46:00 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

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/7/2011 1:39:00 PM

Project: Kirtland AFB

Lab ID: 1109555-003 **Matrix:** AIR

Client Sample ID VA0423

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.92	0.10		%	1	9/28/2011 1:29:00 PM
Carbon Monoxide	ND	0.10		%	1	9/28/2011 1:29:00 PM
Methane	ND	0.50		%	1	9/28/2011 1:29:00 PM
Nitrogen	80	0.10		%	1	9/28/2011 1:29:00 PM
Oxygen	19	0.10		%	1	9/28/2011 1:29:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/1/2011 10:35:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/1/2011 10:35:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/1/2011 10:35:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/1/2011 10:35:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	10/1/2011 10:35:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	10/1/2011 10:35:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/1/2011 10:35:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/1/2011 10:35:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	10/1/2011 10:35:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/1/2011 10:35:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	10/1/2011 10:35:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	10/1/2011 10:35:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/1/2011 10:35:00 AM
1,3-Butadiene	ND	400		ppbv	400	10/1/2011 10:35:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/1/2011 10:35:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/1/2011 10:35:00 AM
2-Butanone	ND	400		ppbv	400	10/1/2011 10:35:00 AM
2-Hexanone	ND	400		ppbv	400	10/1/2011 10:35:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Acetone	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Benzene	1,500	400		ppbv	400	10/1/2011 10:35:00 AM
Benzyl chloride	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Bromodichloromethane	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Bromoform	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Bromomethane	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Carbon disulfide	ND	400		ppbv	400	10/1/2011 10:35:00 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 v1

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/7/2011 1:39:00 PM

Project: Kirtland AFB

Lab ID: 1109555-003 **Matrix:** AIR

Client Sample ID VA0423

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Chlorobenzene	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Chlorodibromomethane	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Chloroethane	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Chloroform	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Chloromethane	ND	400		ppbv	400	10/1/2011 10:35:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/1/2011 10:35:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Cyclohexane	1,800	800		ppbv	400	10/1/2011 10:35:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Ethyl acetate	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Ethylbenzene	ND	800		ppbv	400	10/1/2011 10:35:00 AM
Heptane	1,200	400		ppbv	400	10/1/2011 10:35:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	10/1/2011 10:35:00 AM
m,p-Xylene	580	800	J	ppbv	400	10/1/2011 10:35:00 AM
Methylene chloride	ND	2,000		ppbv	400	10/1/2011 10:35:00 AM
Naphthalene	ND	400		ppbv	400	10/1/2011 10:35:00 AM
n-Hexane	1,200	800		ppbv	400	10/1/2011 10:35:00 AM
o-Xylene	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Propylene	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Styrene	ND	400		ppbv	400	10/1/2011 10:35:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Tetrachloroethene	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Tetrahydrofuran	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Toluene	5,300	400		ppbv	400	10/1/2011 10:35:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/1/2011 10:35:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Trichloroethene	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Vinyl acetate	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Vinyl chloride	ND	400		ppbv	400	10/1/2011 10:35:00 AM
Xylenes, Total	580	1,200	J	ppbv	400	10/1/2011 10:35:00 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	400	10/1/2011 10:35:00 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
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Date Reported: **10/20/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/7/2011 1:39:00 PM

Project: Kirtland AFB

Lab ID: 1109555-003 **Matrix:** AIR

Client Sample ID VA0423

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	180,000	47,000		µg/m³	400	9/30/2011 4:34:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	9/30/2011 4:34:00 AM
C9-C12 Aliphatic Hydrocarbons	36,000	76,000	J	µg/m³	400	9/30/2011 4:34:00 AM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	400	9/30/2011 4:34:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/7/2011 1:39:00 PM

Project: Kirtland AFB

Lab ID: 1109555-004 **Matrix:** AIR

Client Sample ID VA0424

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.97	0.10		%	1	9/28/2011 1:51:00 PM
Carbon Monoxide	ND	0.10		%	1	9/28/2011 1:51:00 PM
Methane	ND	0.50		%	1	9/28/2011 1:51:00 PM
Nitrogen	80	0.10		%	1	9/28/2011 1:51:00 PM
Oxygen	19	0.10		%	1	9/28/2011 1:51:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/1/2011 11:24:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/1/2011 11:24:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/1/2011 11:24:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/1/2011 11:24:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	10/1/2011 11:24:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	10/1/2011 11:24:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/1/2011 11:24:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/1/2011 11:24:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	10/1/2011 11:24:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/1/2011 11:24:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	10/1/2011 11:24:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	10/1/2011 11:24:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/1/2011 11:24:00 AM
1,3-Butadiene	ND	400		ppbv	400	10/1/2011 11:24:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/1/2011 11:24:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/1/2011 11:24:00 AM
2-Butanone	ND	400		ppbv	400	10/1/2011 11:24:00 AM
2-Hexanone	ND	400		ppbv	400	10/1/2011 11:24:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Acetone	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Benzene	1,700	400		ppbv	400	10/1/2011 11:24:00 AM
Benzyl chloride	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Bromodichloromethane	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Bromoform	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Bromomethane	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Carbon disulfide	ND	400		ppbv	400	10/1/2011 11:24:00 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 v1

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/7/2011 1:39:00 PM

Project: Kirtland AFB

Lab ID: 1109555-004 **Matrix:** AIR

Client Sample ID VA0424

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Chlorobenzene	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Chlorodibromomethane	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Chloroethane	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Chloroform	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Chloromethane	ND	400		ppbv	400	10/1/2011 11:24:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/1/2011 11:24:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Cyclohexane	2,100	800		ppbv	400	10/1/2011 11:24:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Ethyl acetate	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Ethylbenzene	ND	800		ppbv	400	10/1/2011 11:24:00 AM
Heptane	1,300	400		ppbv	400	10/1/2011 11:24:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	10/1/2011 11:24:00 AM
m,p-Xylene	760	800	J	ppbv	400	10/1/2011 11:24:00 AM
Methylene chloride	ND	2,000		ppbv	400	10/1/2011 11:24:00 AM
Naphthalene	ND	400		ppbv	400	10/1/2011 11:24:00 AM
n-Hexane	1,400	800		ppbv	400	10/1/2011 11:24:00 AM
o-Xylene	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Propylene	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Styrene	ND	400		ppbv	400	10/1/2011 11:24:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Tetrachloroethene	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Tetrahydrofuran	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Toluene	6,300	400		ppbv	400	10/1/2011 11:24:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/1/2011 11:24:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Trichloroethene	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Vinyl acetate	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Vinyl chloride	ND	400		ppbv	400	10/1/2011 11:24:00 AM
Xylenes, Total	760	1,200	J	ppbv	400	10/1/2011 11:24:00 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	400	10/1/2011 11:24:00 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 v1

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Analytical Report

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WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/7/2011 1:39:00 PM

Project: Kirtland AFB

Lab ID: 1109555-004 **Matrix:** AIR

Client Sample ID VA0424

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	230,000	47,000		µg/m³	400	9/30/2011 5:23:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	9/30/2011 5:23:00 AM
C9-C12 Aliphatic Hydrocarbons	40,000	76,000	J	µg/m³	400	9/30/2011 5:23:00 AM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	400	9/30/2011 5:23:00 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
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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/7/2011 2:24:00 PM

Project: Kirtland AFB

Lab ID: 1109555-005 **Matrix:** AIR

Client Sample ID VA0425

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.37	0.10		%	1	9/28/2011 2:14:00 PM
Carbon Monoxide	ND	0.10		%	1	9/28/2011 2:14:00 PM
Methane	ND	0.50		%	1	9/28/2011 2:14:00 PM
Nitrogen	80	0.10		%	1	9/28/2011 2:14:00 PM
Oxygen	19	0.10		%	1	9/28/2011 2:14:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800		ppbv	800	10/1/2011 12:09:00 PM
1,1,2,2-Tetrachloroethane	ND	800		ppbv	800	10/1/2011 12:09:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800		ppbv	800	10/1/2011 12:09:00 PM
1,1,2-Trichloroethane	ND	800		ppbv	800	10/1/2011 12:09:00 PM
1,1-Dichloroethane	ND	800		ppbv	800	10/1/2011 12:09:00 PM
1,1-Dichloroethene	ND	800		ppbv	800	10/1/2011 12:09:00 PM
1,2,4-Trichlorobenzene	ND	800		ppbv	800	10/1/2011 12:09:00 PM
1,2,4-Trimethylbenzene	ND	800		ppbv	800	10/1/2011 12:09:00 PM
1,2-Dibromoethane	ND	800		ppbv	800	10/1/2011 12:09:00 PM
1,2-Dichlorobenzene	ND	800		ppbv	800	10/1/2011 12:09:00 PM
1,2-Dichloroethane	ND	800		ppbv	800	10/1/2011 12:09:00 PM
1,2-Dichloropropane	ND	800		ppbv	800	10/1/2011 12:09:00 PM
1,3,5-Trimethylbenzene	ND	800		ppbv	800	10/1/2011 12:09:00 PM
1,3-Butadiene	ND	800		ppbv	800	10/1/2011 12:09:00 PM
1,3-Dichlorobenzene	ND	800		ppbv	800	10/1/2011 12:09:00 PM
1,4-Dichlorobenzene	ND	800		ppbv	800	10/1/2011 12:09:00 PM
2-Butanone	ND	800		ppbv	800	10/1/2011 12:09:00 PM
2-Hexanone	ND	800		ppbv	800	10/1/2011 12:09:00 PM
4-Methyl-2-pentanone	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Acetone	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Benzene	36,000	800		ppbv	800	10/1/2011 12:09:00 PM
Benzyl chloride	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Bromodichloromethane	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Bromoform	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Bromomethane	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Carbon disulfide	ND	800		ppbv	800	10/1/2011 12:09:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/7/2011 2:24:00 PM

Project: Kirtland AFB

Lab ID: 1109555-005 **Matrix:** AIR

Client Sample ID VA0425

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Chlorobenzene	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Chlorodibromomethane	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Chloroethane	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Chloroform	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Chloromethane	ND	800		ppbv	800	10/1/2011 12:09:00 PM
cis-1,2-Dichloroethene	ND	800		ppbv	800	10/1/2011 12:09:00 PM
cis-1,3-dichloropropene	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Cyclohexane	23,000	1,600		ppbv	800	10/1/2011 12:09:00 PM
Dichlorodifluoromethane	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Ethyl acetate	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Ethylbenzene	ND	1,600		ppbv	800	10/1/2011 12:09:00 PM
Heptane	2,900	800		ppbv	800	10/1/2011 12:09:00 PM
Hexachlorobutadiene	ND	1,600		ppbv	800	10/1/2011 12:09:00 PM
m,p-Xylene	ND	1,600		ppbv	800	10/1/2011 12:09:00 PM
Methylene chloride	ND	4,000		ppbv	800	10/1/2011 12:09:00 PM
Naphthalene	ND	800		ppbv	800	10/1/2011 12:09:00 PM
n-Hexane	18,000	1,600		ppbv	800	10/1/2011 12:09:00 PM
o-Xylene	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Propylene	1,700	800		ppbv	800	10/1/2011 12:09:00 PM
Styrene	ND	800		ppbv	800	10/1/2011 12:09:00 PM
tert-Butyl Methyl Ether	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Tetrachloroethene	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Tetrahydrofuran	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Toluene	8,000	800		ppbv	800	10/1/2011 12:09:00 PM
trans-1,2-Dichloroethene	ND	800		ppbv	800	10/1/2011 12:09:00 PM
trans-1,3-dichloropropene	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Trichloroethene	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Trichlorofluoromethane	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Vinyl acetate	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Vinyl chloride	ND	800		ppbv	800	10/1/2011 12:09:00 PM
Xylenes, Total	ND	2,400		ppbv	800	10/1/2011 12:09:00 PM
Surr: 4-Bromofluorobenzene	116	70-130		%REC	800	10/1/2011 12:09:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/7/2011 2:24:00 PM

Project: Kirtland AFB

Lab ID: 1109555-005 **Matrix:** AIR

Client Sample ID VA0425

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	3,100,000	940,000		µg/m³	8000	9/29/2011 9:10:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	9/29/2011 9:10:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	9/29/2011 9:10:00 PM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	8000	9/29/2011 9:10:00 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

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/7/2011 2:54:00 PM

Project: Kirtland AFB

Lab ID: 1109555-006 **Matrix:** AIR

Client Sample ID VA0452

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.29	0.10		%	1	9/28/2011 2:47:00 PM
Carbon Monoxide	ND	0.10		%	1	9/28/2011 2:47:00 PM
Methane	ND	0.50		%	1	9/28/2011 2:47:00 PM
Nitrogen	79	0.10		%	1	9/28/2011 2:47:00 PM
Oxygen	20	0.10		%	1	9/28/2011 2:47:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/7/2011 2:33:00 PM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/7/2011 2:33:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/7/2011 2:33:00 PM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/7/2011 2:33:00 PM
1,1-Dichloroethane	ND	400		ppbv	400	10/7/2011 2:33:00 PM
1,1-Dichloroethene	ND	400		ppbv	400	10/7/2011 2:33:00 PM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/7/2011 2:33:00 PM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/7/2011 2:33:00 PM
1,2-Dibromoethane	ND	400		ppbv	400	10/7/2011 2:33:00 PM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/7/2011 2:33:00 PM
1,2-Dichloroethane	ND	400		ppbv	400	10/7/2011 2:33:00 PM
1,2-Dichloropropane	ND	400		ppbv	400	10/7/2011 2:33:00 PM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/7/2011 2:33:00 PM
1,3-Butadiene	ND	400		ppbv	400	10/7/2011 2:33:00 PM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/7/2011 2:33:00 PM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/7/2011 2:33:00 PM
2-Butanone	ND	400		ppbv	400	10/7/2011 2:33:00 PM
2-Hexanone	ND	400		ppbv	400	10/7/2011 2:33:00 PM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Acetone	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Benzene	10,000	400		ppbv	400	10/7/2011 2:33:00 PM
Benzyl chloride	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Bromodichloromethane	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Bromoform	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Bromomethane	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Carbon disulfide	ND	400		ppbv	400	10/7/2011 2:33:00 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 v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/7/2011 2:54:00 PM

Project: Kirtland AFB

Lab ID: 1109555-006 **Matrix:** AIR

Client Sample ID VA0452

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Chlorobenzene	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Chlorodibromomethane	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Chloroethane	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Chloroform	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Chloromethane	ND	400		ppbv	400	10/7/2011 2:33:00 PM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/7/2011 2:33:00 PM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Cyclohexane	5,900	800		ppbv	400	10/7/2011 2:33:00 PM
Dichlorodifluoromethane	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Ethyl acetate	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Ethylbenzene	ND	800		ppbv	400	10/7/2011 2:33:00 PM
Heptane	1,500	400		ppbv	400	10/7/2011 2:33:00 PM
Hexachlorobutadiene	ND	800		ppbv	400	10/7/2011 2:33:00 PM
m,p-Xylene	700	800	J	ppbv	400	10/7/2011 2:33:00 PM
Methylene chloride	ND	2,000		ppbv	400	10/7/2011 2:33:00 PM
Naphthalene	ND	400		ppbv	400	10/7/2011 2:33:00 PM
n-Hexane	6,300	800		ppbv	400	10/7/2011 2:33:00 PM
o-Xylene	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Propylene	500	400		ppbv	400	10/7/2011 2:33:00 PM
Styrene	ND	400		ppbv	400	10/7/2011 2:33:00 PM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Tetrachloroethene	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Tetrahydrofuran	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Toluene	27,000	400		ppbv	400	10/7/2011 2:33:00 PM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/7/2011 2:33:00 PM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Trichloroethene	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Trichlorofluoromethane	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Vinyl acetate	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Vinyl chloride	ND	400		ppbv	400	10/7/2011 2:33:00 PM
Xylenes, Total	700	1,200	J	ppbv	400	10/7/2011 2:33:00 PM
Surr: 4-Bromofluorobenzene	118	70-130		%REC	400	10/7/2011 2:33:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/7/2011 2:54:00 PM

Project: Kirtland AFB

Lab ID: 1109555-006 **Matrix:** AIR

Client Sample ID VA0452

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	250,000	94,000		µg/m³	800	9/30/2011 7:18:00 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	9/30/2011 7:18:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	9/30/2011 7:18:00 AM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	800	9/30/2011 7:18:00 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

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 8:37:00 AM

Project: Kirtland AFB

Lab ID: 1109555-007 **Matrix:** AIR

Client Sample ID VA0469

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.44	0.10		%	1	9/28/2011 3:08:00 PM
Carbon Monoxide	ND	0.10		%	1	9/28/2011 3:08:00 PM
Methane	ND	0.50		%	1	9/28/2011 3:08:00 PM
Nitrogen	79	0.10		%	1	9/28/2011 3:08:00 PM
Oxygen	20	0.10		%	1	9/28/2011 3:08:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
1,3-Butadiene	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
2-Butanone	920	800	H	ppbv	800	9/30/2011 4:28:00 AM
2-Hexanone	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Acetone	2,600	800	H	ppbv	800	9/30/2011 4:28:00 AM
Benzene	1,200	800	H	ppbv	800	9/30/2011 4:28:00 AM
Benzyl chloride	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Bromodichloromethane	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Bromoform	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Bromomethane	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Carbon disulfide	ND	800	H	ppbv	800	9/30/2011 4:28:00 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

Revision v1

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 8:37:00 AM

Project: Kirtland AFB

Lab ID: 1109555-007 **Matrix:** AIR

Client Sample ID VA0469

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Chlorobenzene	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Chlorodibromomethane	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Chloroethane	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Chloroform	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Chloromethane	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Cyclohexane	2,300	1,600	H	ppbv	800	9/30/2011 4:28:00 AM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Ethyl acetate	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Ethylbenzene	ND	1,600	H	ppbv	800	9/30/2011 4:28:00 AM
Heptane	2,900	800	H	ppbv	800	9/30/2011 4:28:00 AM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/30/2011 4:28:00 AM
m,p-Xylene	1,800	1,600	H	ppbv	800	9/30/2011 4:28:00 AM
Methylene chloride	ND	4,000	H	ppbv	800	9/30/2011 4:28:00 AM
Naphthalene	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
n-Hexane	970	1,600	JH	ppbv	800	9/30/2011 4:28:00 AM
o-Xylene	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Propylene	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Styrene	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Tetrachloroethene	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Tetrahydrofuran	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Toluene	5,400	800	H	ppbv	800	9/30/2011 4:28:00 AM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Trichloroethene	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Vinyl acetate	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Vinyl chloride	ND	800	H	ppbv	800	9/30/2011 4:28:00 AM
Xylenes, Total	1,800	2,400	JH	ppbv	800	9/30/2011 4:28:00 AM
Surr: 4-Bromofluorobenzene	109	70-130	H	%REC	800	9/30/2011 4:28:00 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

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 8:37:00 AM

Project: Kirtland AFB

Lab ID: 1109555-007 **Matrix:** AIR

Client Sample ID VA0469

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	470,000	94,000		µg/m³	800	9/27/2011 12:09:00 AM
C9-C10 Aromatic Hydrocarbons	30,000	110,000	J	µg/m³	800	9/27/2011 12:09:00 AM
C9-C12 Aliphatic Hydrocarbons	130,000	150,000	J	µg/m³	800	9/27/2011 12:09:00 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	800	9/27/2011 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

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 9:09:00 AM

Project: Kirtland AFB

Lab ID: 1109555-008 **Matrix:** AIR

Client Sample ID VA0470

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.66	0.10		%	1	9/28/2011 3:35:00 PM
Carbon Monoxide	ND	0.10		%	1	9/28/2011 3:35:00 PM
Methane	ND	0.50		%	1	9/28/2011 3:35:00 PM
Nitrogen	80	0.10		%	1	9/28/2011 3:35:00 PM
Oxygen	19	0.10		%	1	9/28/2011 3:35:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
1,1,2,2-Tetrachloroethane	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
1,1,2-Trichloroethane	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
1,1-Dichloroethane	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
1,1-Dichloroethene	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
1,2,4-Trichlorobenzene	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
1,2,4-Trimethylbenzene	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
1,2-Dibromoethane	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
1,2-Dichlorobenzene	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
1,2-Dichloroethane	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
1,2-Dichloropropane	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
1,3,5-Trimethylbenzene	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
1,3-Butadiene	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
1,3-Dichlorobenzene	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
1,4-Dichlorobenzene	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
2-Butanone	1,500	400	H	ppbv	400	9/30/2011 9:01:00 PM
2-Hexanone	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
4-Methyl-2-pentanone	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Acetone	4,800	400	H	ppbv	400	9/30/2011 9:01:00 PM
Benzene	2,900	400	H	ppbv	400	9/30/2011 9:01:00 PM
Benzyl chloride	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Bromodichloromethane	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Bromoform	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Bromomethane	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Carbon disulfide	ND	400	H	ppbv	400	9/30/2011 9:01:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 9:09:00 AM

Project: Kirtland AFB

Lab ID: 1109555-008 **Matrix:** AIR

Client Sample ID VA0470

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Chlorobenzene	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Chlorodibromomethane	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Chloroethane	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Chloroform	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Chloromethane	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
cis-1,2-Dichloroethene	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
cis-1,3-dichloropropene	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Cyclohexane	4,800	800	H	ppbv	400	9/30/2011 9:01:00 PM
Dichlorodifluoromethane	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Ethyl acetate	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Ethylbenzene	740	800	JH	ppbv	400	9/30/2011 9:01:00 PM
Heptane	4,900	400	H	ppbv	400	9/30/2011 9:01:00 PM
Hexachlorobutadiene	ND	800	H	ppbv	400	9/30/2011 9:01:00 PM
m,p-Xylene	2,100	800	H	ppbv	400	9/30/2011 9:01:00 PM
Methylene chloride	ND	2,000	H	ppbv	400	9/30/2011 9:01:00 PM
Naphthalene	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
n-Hexane	4,000	800	H	ppbv	400	9/30/2011 9:01:00 PM
o-Xylene	650	400	H	ppbv	400	9/30/2011 9:01:00 PM
Propylene	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Styrene	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
tert-Butyl Methyl Ether	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Tetrachloroethene	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Tetrahydrofuran	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Toluene	14,000	400	H	ppbv	400	9/30/2011 9:01:00 PM
trans-1,2-Dichloroethene	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
trans-1,3-dichloropropene	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Trichloroethene	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Trichlorofluoromethane	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Vinyl acetate	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Vinyl chloride	ND	400	H	ppbv	400	9/30/2011 9:01:00 PM
Xylenes, Total	2,800	1,200	H	ppbv	400	9/30/2011 9:01:00 PM
Surr: 4-Bromofluorobenzene	107	70-130	H	%REC	400	9/30/2011 9:01:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 9:09:00 AM

Project: Kirtland AFB

Lab ID: 1109555-008 **Matrix:** AIR

Client Sample ID VA0470

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	210,000	47,000	H	µg/m³	400	9/28/2011 9:16:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	H	µg/m³	400	9/28/2011 9:16:00 PM
C9-C12 Aliphatic Hydrocarbons	45,000	76,000	JH	µg/m³	400	9/28/2011 9:16:00 PM
Surr: 4-Bromofluorobenzene	114	70-130	H	%REC	400	9/28/2011 9:16:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 9:44:00 AM

Project: Kirtland AFB

Lab ID: 1109555-009 **Matrix:** AIR

Client Sample ID VA0471

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.51	0.10		%	1	9/28/2011 3:58:00 PM
Carbon Monoxide	ND	0.10		%	1	9/28/2011 3:58:00 PM
Methane	ND	0.50		%	1	9/28/2011 3:58:00 PM
Nitrogen	79	0.10		%	1	9/28/2011 3:58:00 PM
Oxygen	19	0.10		%	1	9/28/2011 3:58:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
1,3-Butadiene	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
2-Butanone	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
2-Hexanone	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Acetone	1,400	800	H	ppbv	800	9/30/2011 9:45:00 PM
Benzene	3,000	800	H	ppbv	800	9/30/2011 9:45:00 PM
Benzyl chloride	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Bromodichloromethane	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Bromoform	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Bromomethane	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Carbon disulfide	ND	800	H	ppbv	800	9/30/2011 9:45:00 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

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 9:44:00 AM

Project: Kirtland AFB

Lab ID: 1109555-009 **Matrix:** AIR

Client Sample ID VA0471

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Chlorobenzene	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Chlorodibromomethane	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Chloroethane	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Chloroform	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Chloromethane	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Cyclohexane	12,000	1,600	H	ppbv	800	9/30/2011 9:45:00 PM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Ethyl acetate	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Ethylbenzene	ND	1,600	H	ppbv	800	9/30/2011 9:45:00 PM
Heptane	4,100	800	H	ppbv	800	9/30/2011 9:45:00 PM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/30/2011 9:45:00 PM
m,p-Xylene	1,400	1,600	JH	ppbv	800	9/30/2011 9:45:00 PM
Methylene chloride	ND	4,000	H	ppbv	800	9/30/2011 9:45:00 PM
Naphthalene	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
n-Hexane	10,000	1,600	H	ppbv	800	9/30/2011 9:45:00 PM
o-Xylene	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Propylene	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Styrene	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Tetrachloroethene	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Tetrahydrofuran	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Toluene	6,400	800	H	ppbv	800	9/30/2011 9:45:00 PM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Trichloroethene	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Vinyl acetate	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Vinyl chloride	ND	800	H	ppbv	800	9/30/2011 9:45:00 PM
Xylenes, Total	1,400	2,400	JH	ppbv	800	9/30/2011 9:45:00 PM
Surr: 4-Bromofluorobenzene	110	70-130	H	%REC	800	9/30/2011 9:45:00 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
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RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 9:44:00 AM

Project: Kirtland AFB

Lab ID: 1109555-009 **Matrix:** AIR

Client Sample ID VA0471

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	460,000	94,000		µg/m³	800	9/27/2011 1:39:00 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	9/27/2011 1:39:00 AM
C9-C12 Aliphatic Hydrocarbons	79,000	150,000	J	µg/m³	800	9/27/2011 1:39:00 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	800	9/27/2011 1:39:00 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
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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 10:22:00 AM

Project: Kirtland AFB

Lab ID: 1109555-010 **Matrix:** AIR

Client Sample ID VA0472

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.34	0.10		%	1	9/28/2011 4:25:00 PM
Carbon Monoxide	ND	0.10		%	1	9/28/2011 4:25:00 PM
Methane	ND	0.50		%	1	9/28/2011 4:25:00 PM
Nitrogen	79	0.10		%	1	9/28/2011 4:25:00 PM
Oxygen	20	0.10		%	1	9/28/2011 4:25:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
1,1,2,2-Tetrachloroethane	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
1,1,2-Trichloroethane	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
1,1-Dichloroethane	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
1,1-Dichloroethene	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
1,2,4-Trichlorobenzene	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
1,2,4-Trimethylbenzene	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
1,2-Dibromoethane	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
1,2-Dichlorobenzene	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
1,2-Dichloroethane	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
1,2-Dichloropropane	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
1,3,5-Trimethylbenzene	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
1,3-Butadiene	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
1,3-Dichlorobenzene	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
1,4-Dichlorobenzene	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
2-Butanone	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
2-Hexanone	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
4-Methyl-2-pentanone	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
Acetone	2,000	400	H	ppbv	400	9/30/2011 9:22:00 AM
Benzene	5,100	400	H	ppbv	400	9/30/2011 9:22:00 AM
Benzyl chloride	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
Bromodichloromethane	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
Bromoform	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
Bromomethane	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
Carbon disulfide	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
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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

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 10:22:00 AM

Project: Kirtland AFB

Lab ID: 1109555-010 **Matrix:** AIR

Client Sample ID VA0472

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
Chlorobenzene	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
Chlorodibromomethane	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
Chloroethane	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
Chloroform	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
Chloromethane	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
cis-1,2-Dichloroethene	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
cis-1,3-dichloropropene	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
Cyclohexane	1,900	800	H	ppbv	400	9/30/2011 9:22:00 AM
Dichlorodifluoromethane	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
Ethyl acetate	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
Ethylbenzene	ND	800	H	ppbv	400	9/30/2011 9:22:00 AM
Heptane	1,700	400	H	ppbv	400	9/30/2011 9:22:00 AM
Hexachlorobutadiene	ND	800	H	ppbv	400	9/30/2011 9:22:00 AM
m,p-Xylene	1,100	800	H	ppbv	400	9/30/2011 9:22:00 AM
Methylene chloride	15,000	2,000	H	ppbv	400	9/30/2011 9:22:00 AM
Naphthalene	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
n-Hexane	1,700	800	H	ppbv	400	9/30/2011 9:22:00 AM
o-Xylene	430	400	H	ppbv	400	9/30/2011 9:22:00 AM
Propylene	450	400	H	ppbv	400	9/30/2011 9:22:00 AM
Styrene	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
tert-Butyl Methyl Ether	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
Tetrachloroethene	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
Tetrahydrofuran	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
Toluene	9,300	400	H	ppbv	400	9/30/2011 9:22:00 AM
trans-1,2-Dichloroethene	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
trans-1,3-dichloropropene	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
Trichloroethene	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
Trichlorofluoromethane	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
Vinyl acetate	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
Vinyl chloride	ND	400	H	ppbv	400	9/30/2011 9:22:00 AM
Xylenes, Total	1,500	1,200	H	ppbv	400	9/30/2011 9:22:00 AM
Surr: 4-Bromofluorobenzene	109	70-130	H	%REC	400	9/30/2011 9:22:00 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 v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 10:22:00 AM

Project: Kirtland AFB

Lab ID: 1109555-010 **Matrix:** AIR

Client Sample ID VA0472

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	260,000	94,000		µg/m³	800	9/22/2011 1:50:00 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	9/22/2011 1:50:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	9/22/2011 1:50:00 AM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	800	9/22/2011 1:50:00 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
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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 10:22:00 AM

Project: Kirtland AFB

Lab ID: 1109555-011 **Matrix:** AIR

Client Sample ID VA0473

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.24	0.10		%	1	9/28/2011 5:45:00 PM
Carbon Monoxide	ND	0.10		%	1	9/28/2011 5:45:00 PM
Methane	ND	0.50		%	1	9/28/2011 5:45:00 PM
Nitrogen	78	0.10		%	1	9/28/2011 5:45:00 PM
Oxygen	21	0.10		%	1	9/28/2011 5:45:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
1,3-Butadiene	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
2-Butanone	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
2-Hexanone	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Acetone	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Benzene	3,300	800	H	ppbv	800	9/30/2011 11:39:00 AM
Benzyl chloride	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Bromodichloromethane	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Bromoform	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Bromomethane	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Carbon disulfide	ND	800	H	ppbv	800	9/30/2011 11:39:00 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
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Revision v1

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Analytical Report

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WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 10:22:00 AM

Project: Kirtland AFB

Lab ID: 1109555-011 **Matrix:** AIR

Client Sample ID VA0473

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Chlorobenzene	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Chlorodibromomethane	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Chloroethane	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Chloroform	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Chloromethane	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Cyclohexane	3,800	1,600	H	ppbv	800	9/30/2011 11:39:00 AM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Ethyl acetate	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Ethylbenzene	ND	1,600	H	ppbv	800	9/30/2011 11:39:00 AM
Heptane	3,800	800	H	ppbv	800	9/30/2011 11:39:00 AM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/30/2011 11:39:00 AM
m,p-Xylene	1,700	1,600	H	ppbv	800	9/30/2011 11:39:00 AM
Methylene chloride	ND	4,000	H	ppbv	800	9/30/2011 11:39:00 AM
Naphthalene	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
n-Hexane	890	1,600	JH	ppbv	800	9/30/2011 11:39:00 AM
o-Xylene	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Propylene	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Styrene	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Tetrachloroethene	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Tetrahydrofuran	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Toluene	9,600	800	H	ppbv	800	9/30/2011 11:39:00 AM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Trichloroethene	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Vinyl acetate	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Vinyl chloride	ND	800	H	ppbv	800	9/30/2011 11:39:00 AM
Xylenes, Total	1,700	2,400	JH	ppbv	800	9/30/2011 11:39:00 AM
Surr: 4-Bromofluorobenzene	109	70-130	H	%REC	800	9/30/2011 11:39:00 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.

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

Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 10:22:00 AM

Project: Kirtland AFB

Lab ID: 1109555-011 **Matrix:** AIR

Client Sample ID VA0473

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	520,000	94,000		µg/m³	800	9/22/2011 2:35:00 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	9/22/2011 2:35:00 AM
C9-C12 Aliphatic Hydrocarbons	82,000	150,000	J	µg/m³	800	9/22/2011 2:35:00 AM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	800	9/22/2011 2:35:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 11:18:00 AM

Project: Kirtland AFB

Lab ID: 1109555-012 **Matrix:** AIR

Client Sample ID VA0474

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.16	0.10		%	1	9/28/2011 6:14:00 PM
Carbon Monoxide	ND	0.10		%	1	9/28/2011 6:14:00 PM
Methane	ND	0.50		%	1	9/28/2011 6:14:00 PM
Nitrogen	79	0.10		%	1	9/28/2011 6:14:00 PM
Oxygen	20	0.10		%	1	9/28/2011 6:14:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
1,3-Butadiene	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
2-Butanone	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
2-Hexanone	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Acetone	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Benzene	2,800	800	H	ppbv	800	9/30/2011 12:23:00 PM
Benzyl chloride	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Bromodichloromethane	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Bromoform	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Bromomethane	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Carbon disulfide	ND	800	H	ppbv	800	9/30/2011 12:23:00 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

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 11:18:00 AM

Project: Kirtland AFB

Lab ID: 1109555-012 **Matrix:** AIR

Client Sample ID VA0474

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Chlorobenzene	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Chlorodibromomethane	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Chloroethane	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Chloroform	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Chloromethane	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Cyclohexane	5,400	1,600	H	ppbv	800	9/30/2011 12:23:00 PM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Ethyl acetate	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Ethylbenzene	ND	1,600	H	ppbv	800	9/30/2011 12:23:00 PM
Heptane	1,900	800	H	ppbv	800	9/30/2011 12:23:00 PM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/30/2011 12:23:00 PM
m,p-Xylene	1,300	1,600	JH	ppbv	800	9/30/2011 12:23:00 PM
Methylene chloride	ND	4,000	H	ppbv	800	9/30/2011 12:23:00 PM
Naphthalene	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
n-Hexane	5,600	1,600	H	ppbv	800	9/30/2011 12:23:00 PM
o-Xylene	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Propylene	1,100	800	H	ppbv	800	9/30/2011 12:23:00 PM
Styrene	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Tetrachloroethene	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Tetrahydrofuran	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Toluene	6,300	800	H	ppbv	800	9/30/2011 12:23:00 PM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Trichloroethene	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Vinyl acetate	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Vinyl chloride	ND	800	H	ppbv	800	9/30/2011 12:23:00 PM
Xylenes, Total	1,300	2,400	JH	ppbv	800	9/30/2011 12:23:00 PM
Surr: 4-Bromofluorobenzene	110	70-130	H	%REC	800	9/30/2011 12:23:00 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

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 11:18:00 AM

Project: Kirtland AFB

Lab ID: 1109555-012 **Matrix:** AIR

Client Sample ID VA0474

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	950,000	94,000		µg/m³	800	9/22/2011 3:20:00 AM
C9-C10 Aromatic Hydrocarbons	38,000	110,000	J	µg/m³	800	9/22/2011 3:20:00 AM
C9-C12 Aliphatic Hydrocarbons	190,000	150,000		µg/m³	800	9/22/2011 3:20:00 AM
Surr: 4-Bromofluorobenzene	99.0	70-130		%REC	800	9/22/2011 3:20:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 12:03:00 PM

Project: Kirtland AFB

Lab ID: 1109555-013 **Matrix:** AIR

Client Sample ID VA0475

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.19	0.10		%	1	9/28/2011 6:35:00 PM
Carbon Monoxide	ND	0.10		%	1	9/28/2011 6:35:00 PM
Methane	ND	0.50		%	1	9/28/2011 6:35:00 PM
Nitrogen	79	0.10		%	1	9/28/2011 6:35:00 PM
Oxygen	19	0.10		%	1	9/28/2011 6:35:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
1,1,2,2-Tetrachloroethane	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
1,1,2-Trichloroethane	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
1,1-Dichloroethane	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
1,1-Dichloroethene	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
1,2,4-Trichlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
1,2,4-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
1,2-Dibromoethane	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
1,2-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
1,2-Dichloroethane	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
1,2-Dichloropropane	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
1,3,5-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
1,3-Butadiene	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
1,3-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
1,4-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
2-Butanone	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
2-Hexanone	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
4-Methyl-2-pentanone	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Acetone	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Benzene	15,000	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Benzyl chloride	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Bromodichloromethane	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Bromoform	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Bromomethane	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Carbon disulfide	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 12:03:00 PM

Project: Kirtland AFB

Lab ID: 1109555-013 **Matrix:** AIR

Client Sample ID VA0475

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Chlorobenzene	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Chlorodibromomethane	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Chloroethane	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Chloroform	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Chloromethane	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
cis-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
cis-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Cyclohexane	190,000	16,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Dichlorodifluoromethane	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Ethyl acetate	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Ethylbenzene	ND	16,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Heptane	71,000	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Hexachlorobutadiene	ND	16,000	H	ppbv	8000	9/30/2011 1:04:00 PM
m,p-Xylene	ND	16,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Methylene chloride	ND	40,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Naphthalene	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
n-Hexane	260,000	16,000	H	ppbv	8000	9/30/2011 1:04:00 PM
o-Xylene	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Propylene	14,000	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Styrene	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
tert-Butyl Methyl Ether	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Tetrachloroethene	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Tetrahydrofuran	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Toluene	30,000	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
trans-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
trans-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Trichloroethene	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Trichlorofluoromethane	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Vinyl acetate	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Vinyl chloride	ND	8,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Xylenes, Total	ND	24,000	H	ppbv	8000	9/30/2011 1:04:00 PM
Surr: 4-Bromofluorobenzene	114	70-130	H	%REC	8000	9/30/2011 1:04:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 12:03:00 PM

Project: Kirtland AFB

Lab ID: 1109555-013 **Matrix:** AIR

Client Sample ID VA0475

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	13,000,000	940,000		µg/m³	8000	9/27/2011 8:01:00 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	9/27/2011 8:01:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	9/27/2011 8:01:00 AM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	8000	9/27/2011 8:01:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 1:41:00 PM

Project: Kirtland AFB

Lab ID: 1109555-014 **Matrix:** AIR

Client Sample ID VA0476

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.49	0.10		%	1	9/28/2011 6:56:00 PM
Carbon Monoxide	ND	0.10		%	1	9/28/2011 6:56:00 PM
Methane	ND	0.50		%	1	9/28/2011 6:56:00 PM
Nitrogen	78	0.10		%	1	9/28/2011 6:56:00 PM
Oxygen	20	0.10		%	1	9/28/2011 6:56:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/1/2011 4:22:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/1/2011 4:22:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/1/2011 4:22:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/1/2011 4:22:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	10/1/2011 4:22:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	10/1/2011 4:22:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/1/2011 4:22:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/1/2011 4:22:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	10/1/2011 4:22:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/1/2011 4:22:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	10/1/2011 4:22:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	10/1/2011 4:22:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/1/2011 4:22:00 AM
1,3-Butadiene	ND	400		ppbv	400	10/1/2011 4:22:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/1/2011 4:22:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/1/2011 4:22:00 AM
2-Butanone	550	400		ppbv	400	10/1/2011 4:22:00 AM
2-Hexanone	ND	400		ppbv	400	10/1/2011 4:22:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Acetone	2,100	400		ppbv	400	10/1/2011 4:22:00 AM
Benzene	11,000	400		ppbv	400	10/1/2011 4:22:00 AM
Benzyl chloride	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Bromodichloromethane	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Bromoform	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Bromomethane	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Carbon disulfide	ND	400		ppbv	400	10/1/2011 4:22:00 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 v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 1:41:00 PM

Project: Kirtland AFB

Lab ID: 1109555-014 **Matrix:** AIR

Client Sample ID VA0476

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Chlorobenzene	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Chlorodibromomethane	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Chloroethane	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Chloroform	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Chloromethane	ND	400		ppbv	400	10/1/2011 4:22:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/1/2011 4:22:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Cyclohexane	13,000	800		ppbv	400	10/1/2011 4:22:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Ethyl acetate	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Ethylbenzene	670	800	J	ppbv	400	10/1/2011 4:22:00 AM
Heptane	11,000	400		ppbv	400	10/1/2011 4:22:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	10/1/2011 4:22:00 AM
m,p-Xylene	2,700	800		ppbv	400	10/1/2011 4:22:00 AM
Methylene chloride	ND	2,000		ppbv	400	10/1/2011 4:22:00 AM
Naphthalene	ND	400		ppbv	400	10/1/2011 4:22:00 AM
n-Hexane	9,000	800		ppbv	400	10/1/2011 4:22:00 AM
o-Xylene	680	400		ppbv	400	10/1/2011 4:22:00 AM
Propylene	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Styrene	ND	400		ppbv	400	10/1/2011 4:22:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Tetrachloroethene	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Tetrahydrofuran	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Toluene	28,000	400	EH	ppbv	400	10/7/2011 10:53:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/1/2011 4:22:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Trichloroethene	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Vinyl acetate	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Vinyl chloride	ND	400		ppbv	400	10/1/2011 4:22:00 AM
Xylenes, Total	3,400	1,200		ppbv	400	10/1/2011 4:22:00 AM
Surr: 4-Bromofluorobenzene	99.9	70-130		%REC	400	10/1/2011 4:22:00 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 v1

RTI LABORATORIES, INC.

RTI
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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 1:41:00 PM

Project: Kirtland AFB

Lab ID: 1109555-014 **Matrix:** AIR

Client Sample ID VA0476

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	560,000	47,000		µg/m³	400	9/29/2011 8:10:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	9/29/2011 8:10:00 AM
C9-C12 Aliphatic Hydrocarbons	130,000	76,000		µg/m³	400	9/29/2011 8:10:00 AM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	400	9/29/2011 8:10:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 2:18:00 PM

Project: Kirtland AFB

Lab ID: 1109555-015 **Matrix:** AIR

Client Sample ID VA0477

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	1.9	0.10		%	1	9/28/2011 7:20:00 PM
Carbon Monoxide	ND	0.10		%	1	9/28/2011 7:20:00 PM
Methane	ND	0.50		%	1	9/28/2011 7:20:00 PM
Nitrogen	80	0.10		%	1	9/28/2011 7:20:00 PM
Oxygen	17	0.10		%	1	9/28/2011 7:20:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/1/2011 5:10:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/1/2011 5:10:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/1/2011 5:10:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/1/2011 5:10:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	10/1/2011 5:10:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	10/1/2011 5:10:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/1/2011 5:10:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/1/2011 5:10:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	10/1/2011 5:10:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/1/2011 5:10:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	10/1/2011 5:10:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	10/1/2011 5:10:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/1/2011 5:10:00 AM
1,3-Butadiene	ND	400		ppbv	400	10/1/2011 5:10:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/1/2011 5:10:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/1/2011 5:10:00 AM
2-Butanone	440	400		ppbv	400	10/1/2011 5:10:00 AM
2-Hexanone	ND	400		ppbv	400	10/1/2011 5:10:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Acetone	1,600	400		ppbv	400	10/1/2011 5:10:00 AM
Benzene	5,300	400		ppbv	400	10/1/2011 5:10:00 AM
Benzyl chloride	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Bromodichloromethane	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Bromoform	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Bromomethane	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Carbon disulfide	ND	400		ppbv	400	10/1/2011 5:10:00 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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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 2:18:00 PM

Project: Kirtland AFB

Lab ID: 1109555-015 **Matrix:** AIR

Client Sample ID VA0477

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Chlorobenzene	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Chlorodibromomethane	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Chloroethane	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Chloroform	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Chloromethane	ND	400		ppbv	400	10/1/2011 5:10:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/1/2011 5:10:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Cyclohexane	6,600	800		ppbv	400	10/1/2011 5:10:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Ethyl acetate	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Ethylbenzene	490	800	J	ppbv	400	10/1/2011 5:10:00 AM
Heptane	6,100	400		ppbv	400	10/1/2011 5:10:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	10/1/2011 5:10:00 AM
m,p-Xylene	1,900	800		ppbv	400	10/1/2011 5:10:00 AM
Methylene chloride	ND	2,000		ppbv	400	10/1/2011 5:10:00 AM
Naphthalene	ND	400		ppbv	400	10/1/2011 5:10:00 AM
n-Hexane	4,200	800		ppbv	400	10/1/2011 5:10:00 AM
o-Xylene	510	400		ppbv	400	10/1/2011 5:10:00 AM
Propylene	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Styrene	ND	400		ppbv	400	10/1/2011 5:10:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Tetrachloroethene	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Tetrahydrofuran	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Toluene	22,000	400		ppbv	400	10/1/2011 5:10:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/1/2011 5:10:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Trichloroethene	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Vinyl acetate	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Vinyl chloride	ND	400		ppbv	400	10/1/2011 5:10:00 AM
Xylenes, Total	2,400	1,200		ppbv	400	10/1/2011 5:10:00 AM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	400	10/1/2011 5:10:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 2:18:00 PM

Project: Kirtland AFB

Lab ID: 1109555-015 **Matrix:** AIR

Client Sample ID VA0477

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	310,000	47,000		µg/m³	400	9/29/2011 8:59:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	9/29/2011 8:59:00 AM
C9-C12 Aliphatic Hydrocarbons	92,000	76,000		µg/m³	400	9/29/2011 8:59:00 AM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	400	9/29/2011 8:59:00 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
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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 2:53:00 PM

Project: Kirtland AFB

Lab ID: 1109555-016 **Matrix:** AIR

Client Sample ID VA0478

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	1.1	0.10		%	1	9/29/2011 12:42:00 PM
Carbon Monoxide	ND	0.10		%	1	9/29/2011 12:42:00 PM
Methane	ND	0.50		%	1	9/29/2011 12:42:00 PM
Nitrogen	79	0.10		%	1	9/29/2011 12:42:00 PM
Oxygen	19	0.10		%	1	9/29/2011 12:42:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/1/2011 5:59:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/1/2011 5:59:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/1/2011 5:59:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/1/2011 5:59:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	10/1/2011 5:59:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	10/1/2011 5:59:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/1/2011 5:59:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/1/2011 5:59:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	10/1/2011 5:59:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/1/2011 5:59:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	10/1/2011 5:59:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	10/1/2011 5:59:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/1/2011 5:59:00 AM
1,3-Butadiene	ND	400		ppbv	400	10/1/2011 5:59:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/1/2011 5:59:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/1/2011 5:59:00 AM
2-Butanone	ND	400		ppbv	400	10/1/2011 5:59:00 AM
2-Hexanone	ND	400		ppbv	400	10/1/2011 5:59:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Acetone	720	400		ppbv	400	10/1/2011 5:59:00 AM
Benzene	7,500	400		ppbv	400	10/1/2011 5:59:00 AM
Benzyl chloride	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Bromodichloromethane	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Bromoform	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Bromomethane	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Carbon disulfide	ND	400		ppbv	400	10/1/2011 5:59:00 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 v1

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 2:53:00 PM

Project: Kirtland AFB

Lab ID: 1109555-016 **Matrix:** AIR

Client Sample ID VA0478

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Chlorobenzene	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Chlorodibromomethane	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Chloroethane	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Chloroform	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Chloromethane	ND	400		ppbv	400	10/1/2011 5:59:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/1/2011 5:59:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Cyclohexane	13,000	800		ppbv	400	10/1/2011 5:59:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Ethyl acetate	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Ethylbenzene	ND	800		ppbv	400	10/1/2011 5:59:00 AM
Heptane	4,500	400		ppbv	400	10/1/2011 5:59:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	10/1/2011 5:59:00 AM
m,p-Xylene	1,500	800		ppbv	400	10/1/2011 5:59:00 AM
Methylene chloride	2,700	2,000		ppbv	400	10/1/2011 5:59:00 AM
Naphthalene	ND	400		ppbv	400	10/1/2011 5:59:00 AM
n-Hexane	4,000	800		ppbv	400	10/1/2011 5:59:00 AM
o-Xylene	460	400		ppbv	400	10/1/2011 5:59:00 AM
Propylene	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Styrene	ND	400		ppbv	400	10/1/2011 5:59:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Tetrachloroethene	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Tetrahydrofuran	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Toluene	16,000	400		ppbv	400	10/1/2011 5:59:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/1/2011 5:59:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Trichloroethene	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Vinyl acetate	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Vinyl chloride	ND	400		ppbv	400	10/1/2011 5:59:00 AM
Xylenes, Total	1,900	1,200		ppbv	400	10/1/2011 5:59:00 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	400	10/1/2011 5:59:00 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
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Analytical Report

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WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 2:53:00 PM

Project: Kirtland AFB

Lab ID: 1109555-016 **Matrix:** AIR

Client Sample ID VA0478

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	760,000	47,000		µg/m³	400	9/29/2011 9:47:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	9/29/2011 9:47:00 AM
C9-C12 Aliphatic Hydrocarbons	98,000	76,000		µg/m³	400	9/29/2011 9:47:00 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	400	9/29/2011 9:47:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 3:34:00 PM

Project: Kirtland AFB

Lab ID: 1109555-017 **Matrix:** AIR

Client Sample ID VA0479

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.48	0.10		%	1	9/29/2011 1:12:00 PM
Carbon Monoxide	ND	0.10		%	1	9/29/2011 1:12:00 PM
Methane	ND	0.50		%	1	9/29/2011 1:12:00 PM
Nitrogen	78	0.10		%	1	9/29/2011 1:12:00 PM
Oxygen	20	0.10		%	1	9/29/2011 1:12:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/1/2011 6:47:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/1/2011 6:47:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/1/2011 6:47:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/1/2011 6:47:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	10/1/2011 6:47:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	10/1/2011 6:47:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/1/2011 6:47:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/1/2011 6:47:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	10/1/2011 6:47:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/1/2011 6:47:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	10/1/2011 6:47:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	10/1/2011 6:47:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/1/2011 6:47:00 AM
1,3-Butadiene	ND	400		ppbv	400	10/1/2011 6:47:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/1/2011 6:47:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/1/2011 6:47:00 AM
2-Butanone	ND	400		ppbv	400	10/1/2011 6:47:00 AM
2-Hexanone	ND	400		ppbv	400	10/1/2011 6:47:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Acetone	500	400		ppbv	400	10/1/2011 6:47:00 AM
Benzene	7,600	400		ppbv	400	10/1/2011 6:47:00 AM
Benzyl chloride	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Bromodichloromethane	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Bromoform	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Bromomethane	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Carbon disulfide	ND	400		ppbv	400	10/1/2011 6:47:00 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 v1

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 3:34:00 PM

Project: Kirtland AFB

Lab ID: 1109555-017 **Matrix:** AIR

Client Sample ID VA0479

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	400	400		ppbv	400	10/1/2011 6:47:00 AM
Chlorobenzene	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Chlorodibromomethane	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Chloroethane	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Chloroform	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Chloromethane	ND	400		ppbv	400	10/1/2011 6:47:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/1/2011 6:47:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Cyclohexane	2,100	800		ppbv	400	10/1/2011 6:47:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Ethyl acetate	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Ethylbenzene	ND	800		ppbv	400	10/1/2011 6:47:00 AM
Heptane	1,400	400		ppbv	400	10/1/2011 6:47:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	10/1/2011 6:47:00 AM
m,p-Xylene	760	800	J	ppbv	400	10/1/2011 6:47:00 AM
Methylene chloride	1,700	2,000	J	ppbv	400	10/1/2011 6:47:00 AM
Naphthalene	ND	400		ppbv	400	10/1/2011 6:47:00 AM
n-Hexane	1,200	800		ppbv	400	10/1/2011 6:47:00 AM
o-Xylene	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Propylene	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Styrene	ND	400		ppbv	400	10/1/2011 6:47:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Tetrachloroethene	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Tetrahydrofuran	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Toluene	20,000	400		ppbv	400	10/1/2011 6:47:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/1/2011 6:47:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Trichloroethene	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Vinyl acetate	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Vinyl chloride	ND	400		ppbv	400	10/1/2011 6:47:00 AM
Xylenes, Total	760	1,200	J	ppbv	400	10/1/2011 6:47:00 AM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	400	10/1/2011 6:47:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 3:34:00 PM

Project: Kirtland AFB

Lab ID: 1109555-017 **Matrix:** AIR

Client Sample ID VA0479

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	300,000	47,000		µg/m³	400	9/29/2011 10:36:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	9/29/2011 10:36:00 AM
C9-C12 Aliphatic Hydrocarbons	57,000	76,000	J	µg/m³	400	9/29/2011 10:36:00 AM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	400	9/29/2011 10:36:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
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J	Estimated concentration	M	Manual Integration used to determine area response
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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 4:09:00 PM

Project: Kirtland AFB

Lab ID: 1109555-018 **Matrix:** AIR

Client Sample ID VA0480

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.13	0.10		%	1	9/29/2011 1:52:00 PM
Carbon Monoxide	ND	0.10		%	1	9/29/2011 1:52:00 PM
Methane	ND	0.50		%	1	9/29/2011 1:52:00 PM
Nitrogen	78	0.10		%	1	9/29/2011 1:52:00 PM
Oxygen	21	0.10		%	1	9/29/2011 1:52:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
1,1-Dichloroethane	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
1,1-Dichloroethene	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
1,2-Dibromoethane	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
1,2-Dichloroethane	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
1,2-Dichloropropane	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
1,3-Butadiene	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
2-Butanone	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
2-Hexanone	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Acetone	1,900	800	H	ppbv	800	10/7/2011 11:38:00 AM
Benzene	5,900	800	H	ppbv	800	10/7/2011 11:38:00 AM
Benzyl chloride	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Bromodichloromethane	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Bromoform	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Bromomethane	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Carbon disulfide	ND	800	H	ppbv	800	10/7/2011 11:38:00 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
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RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 4:09:00 PM

Project: Kirtland AFB

Lab ID: 1109555-018 **Matrix:** AIR

Client Sample ID VA0480

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Chlorobenzene	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Chlorodibromomethane	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Chloroethane	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Chloroform	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Chloromethane	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Cyclohexane	9,800	1,600	H	ppbv	800	10/7/2011 11:38:00 AM
Dichlorodifluoromethane	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Ethyl acetate	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Ethylbenzene	ND	1,600	H	ppbv	800	10/7/2011 11:38:00 AM
Heptane	2,000	800	H	ppbv	800	10/7/2011 11:38:00 AM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	10/7/2011 11:38:00 AM
m,p-Xylene	ND	1,600	H	ppbv	800	10/7/2011 11:38:00 AM
Methylene chloride	17,000	4,000	H	ppbv	800	10/7/2011 11:38:00 AM
Naphthalene	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
n-Hexane	18,000	1,600	H	ppbv	800	10/7/2011 11:38:00 AM
o-Xylene	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Propylene	1,100	800	H	ppbv	800	10/7/2011 11:38:00 AM
Styrene	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Tetrachloroethene	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Tetrahydrofuran	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Toluene	9,700	800	H	ppbv	800	10/7/2011 11:38:00 AM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Trichloroethene	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Trichlorofluoromethane	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Vinyl acetate	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Vinyl chloride	ND	800	H	ppbv	800	10/7/2011 11:38:00 AM
Xylenes, Total	ND	2,400	H	ppbv	800	10/7/2011 11:38:00 AM
Surr: 4-Bromofluorobenzene	116	70-130	H	%REC	800	10/7/2011 11:38:00 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

Revision v1

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 4:09:00 PM

Project: Kirtland AFB

Lab ID: 1109555-018 **Matrix:** AIR

Client Sample ID VA0480

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	2,000,000	940,000		µg/m³	8000	9/30/2011 3:06:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	9/30/2011 3:06:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	9/30/2011 3:06:00 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	8000	9/30/2011 3:06:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/7/2011 8:27:00 AM

Project: Kirtland AFB

Lab ID: 1109555-019 **Matrix:** AIR

Client Sample ID VA0481

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.53	0.10		%	1	9/29/2011 2:23:00 PM
Carbon Monoxide	ND	0.10		%	1	9/29/2011 2:23:00 PM
Methane	ND	0.50		%	1	9/29/2011 2:23:00 PM
Nitrogen	80	0.10		%	1	9/29/2011 2:23:00 PM
Oxygen	18	0.10		%	1	9/29/2011 2:23:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
1,1,2,2-Tetrachloroethane	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
1,1,2-Trichloroethane	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
1,1-Dichloroethane	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
1,1-Dichloroethene	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
1,2,4-Trichlorobenzene	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
1,2,4-Trimethylbenzene	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
1,2-Dibromoethane	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
1,2-Dichlorobenzene	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
1,2-Dichloroethane	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
1,2-Dichloropropane	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
1,3,5-Trimethylbenzene	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
1,3-Butadiene	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
1,3-Dichlorobenzene	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
1,4-Dichlorobenzene	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
2-Butanone	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
2-Hexanone	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
4-Methyl-2-pentanone	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Acetone	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Benzene	94,000	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Benzyl chloride	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Bromodichloromethane	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Bromoform	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Bromomethane	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Carbon disulfide	ND	8,000	H	ppbv	8000	10/7/2011 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 v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/7/2011 8:27:00 AM

Project: Kirtland AFB

Lab ID: 1109555-019 **Matrix:** AIR

Client Sample ID VA0481

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Chlorobenzene	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Chlorodibromomethane	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Chloroethane	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Chloroform	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Chloromethane	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
cis-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
cis-1,3-dichloropropene	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Cyclohexane	210,000	16,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Dichlorodifluoromethane	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Ethyl acetate	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Ethylbenzene	ND	16,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Heptane	63,000	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Hexachlorobutadiene	ND	16,000	H	ppbv	8000	10/7/2011 12:20:00 PM
m,p-Xylene	ND	16,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Methylene chloride	ND	40,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Naphthalene	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
n-Hexane	230,000	16,000	H	ppbv	8000	10/7/2011 12:20:00 PM
o-Xylene	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Propylene	14,000	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Styrene	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
tert-Butyl Methyl Ether	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Tetrachloroethene	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Tetrahydrofuran	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Toluene	130,000	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
trans-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
trans-1,3-dichloropropene	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Trichloroethene	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Trichlorofluoromethane	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Vinyl acetate	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Vinyl chloride	ND	8,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Xylenes, Total	ND	24,000	H	ppbv	8000	10/7/2011 12:20:00 PM
Surr: 4-Bromofluorobenzene	117	70-130	H	%REC	8000	10/7/2011 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

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/7/2011 8:27:00 AM

Project: Kirtland AFB

Lab ID: 1109555-019 **Matrix:** AIR

Client Sample ID VA0481

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	12,000,000	940,000		µg/m³	8000	9/29/2011 11:26:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	9/29/2011 11:26:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	9/29/2011 11:26:00 PM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	8000	9/29/2011 11:26:00 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#: **1109555**

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

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

Project: Kirtland AFB

Lab ID: 1109555-020 **Matrix:** AIR

Client Sample ID VA0482

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.21	0.10		%	1	9/29/2011 2:48:00 PM
Carbon Monoxide	ND	0.10		%	1	9/29/2011 2:48:00 PM
Methane	ND	0.50		%	1	9/29/2011 2:48:00 PM
Nitrogen	78	0.10		%	1	9/29/2011 2:48:00 PM
Oxygen	21	0.10		%	1	9/29/2011 2:48:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/7/2011 9:10:00 PM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/7/2011 9:10:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/7/2011 9:10:00 PM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/7/2011 9:10:00 PM
1,1-Dichloroethane	ND	400		ppbv	400	10/7/2011 9:10:00 PM
1,1-Dichloroethene	ND	400		ppbv	400	10/7/2011 9:10:00 PM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/7/2011 9:10:00 PM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/7/2011 9:10:00 PM
1,2-Dibromoethane	ND	400		ppbv	400	10/7/2011 9:10:00 PM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/7/2011 9:10:00 PM
1,2-Dichloroethane	ND	400		ppbv	400	10/7/2011 9:10:00 PM
1,2-Dichloropropane	ND	400		ppbv	400	10/7/2011 9:10:00 PM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/7/2011 9:10:00 PM
1,3-Butadiene	ND	400		ppbv	400	10/7/2011 9:10:00 PM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/7/2011 9:10:00 PM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/7/2011 9:10:00 PM
2-Butanone	ND	400		ppbv	400	10/7/2011 9:10:00 PM
2-Hexanone	ND	400		ppbv	400	10/7/2011 9:10:00 PM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Acetone	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Benzene	610	400		ppbv	400	10/7/2011 9:10:00 PM
Benzyl chloride	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Bromodichloromethane	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Bromoform	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Bromomethane	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Carbon disulfide	ND	400		ppbv	400	10/7/2011 9:10:00 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 v1

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109555**

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

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

Project: Kirtland AFB

Lab ID: 1109555-020 **Matrix:** AIR

Client Sample ID VA0482

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Chlorobenzene	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Chlorodibromomethane	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Chloroethane	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Chloroform	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Chloromethane	ND	400		ppbv	400	10/7/2011 9:10:00 PM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/7/2011 9:10:00 PM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Cyclohexane	1,100	800		ppbv	400	10/7/2011 9:10:00 PM
Dichlorodifluoromethane	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Ethyl acetate	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Ethylbenzene	ND	800		ppbv	400	10/7/2011 9:10:00 PM
Heptane	430	400		ppbv	400	10/7/2011 9:10:00 PM
Hexachlorobutadiene	ND	800		ppbv	400	10/7/2011 9:10:00 PM
m,p-Xylene	ND	800		ppbv	400	10/7/2011 9:10:00 PM
Methylene chloride	ND	2,000		ppbv	400	10/7/2011 9:10:00 PM
Naphthalene	ND	400		ppbv	400	10/7/2011 9:10:00 PM
n-Hexane	670	800	J	ppbv	400	10/7/2011 9:10:00 PM
o-Xylene	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Propylene	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Styrene	ND	400		ppbv	400	10/7/2011 9:10:00 PM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Tetrachloroethene	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Tetrahydrofuran	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Toluene	1,900	400		ppbv	400	10/7/2011 9:10:00 PM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/7/2011 9:10:00 PM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Trichloroethene	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Trichlorofluoromethane	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Vinyl acetate	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Vinyl chloride	ND	400		ppbv	400	10/7/2011 9:10:00 PM
Xylenes, Total	ND	1,200		ppbv	400	10/7/2011 9:10:00 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	400	10/7/2011 9:10:00 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

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109555**

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

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

Project: Kirtland AFB

Lab ID: 1109555-020 **Matrix:** AIR

Client Sample ID VA0482

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	150,000	47,000		µg/m³	400	9/30/2011 8:06:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	9/30/2011 8:06:00 AM
C9-C12 Aliphatic Hydrocarbons	32,000	76,000	J	µg/m³	400	9/30/2011 8:06:00 AM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	400	9/30/2011 8:06:00 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#: **1109555**

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

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

Project: Kirtland AFB

Lab ID: 1109555-021 **Matrix:** AIR

Client Sample ID VA0483

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.42	0.10		%	1	9/29/2011 3:08:00 PM
Carbon Monoxide	ND	0.10		%	1	9/29/2011 3:08:00 PM
Methane	ND	0.50		%	1	9/29/2011 3:08:00 PM
Nitrogen	78	0.10		%	1	9/29/2011 3:08:00 PM
Oxygen	20	0.10		%	1	9/29/2011 3:08:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/7/2011 9:58:00 PM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/7/2011 9:58:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/7/2011 9:58:00 PM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/7/2011 9:58:00 PM
1,1-Dichloroethane	ND	400		ppbv	400	10/7/2011 9:58:00 PM
1,1-Dichloroethene	ND	400		ppbv	400	10/7/2011 9:58:00 PM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/7/2011 9:58:00 PM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/7/2011 9:58:00 PM
1,2-Dibromoethane	ND	400		ppbv	400	10/7/2011 9:58:00 PM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/7/2011 9:58:00 PM
1,2-Dichloroethane	ND	400		ppbv	400	10/7/2011 9:58:00 PM
1,2-Dichloropropane	ND	400		ppbv	400	10/7/2011 9:58:00 PM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/7/2011 9:58:00 PM
1,3-Butadiene	ND	400		ppbv	400	10/7/2011 9:58:00 PM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/7/2011 9:58:00 PM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/7/2011 9:58:00 PM
2-Butanone	ND	400		ppbv	400	10/7/2011 9:58:00 PM
2-Hexanone	ND	400		ppbv	400	10/7/2011 9:58:00 PM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Acetone	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Benzene	1,000	400		ppbv	400	10/7/2011 9:58:00 PM
Benzyl chloride	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Bromodichloromethane	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Bromoform	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Bromomethane	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Carbon disulfide	ND	400		ppbv	400	10/7/2011 9:58:00 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
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Revision v1

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Analytical Report

(consolidated)

WO#: **1109555**

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

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

Project: Kirtland AFB

Lab ID: 1109555-021 **Matrix:** AIR

Client Sample ID VA0483

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Chlorobenzene	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Chlorodibromomethane	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Chloroethane	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Chloroform	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Chloromethane	ND	400		ppbv	400	10/7/2011 9:58:00 PM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/7/2011 9:58:00 PM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Cyclohexane	2,500	800		ppbv	400	10/7/2011 9:58:00 PM
Dichlorodifluoromethane	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Ethyl acetate	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Ethylbenzene	ND	800		ppbv	400	10/7/2011 9:58:00 PM
Heptane	830	400		ppbv	400	10/7/2011 9:58:00 PM
Hexachlorobutadiene	ND	800		ppbv	400	10/7/2011 9:58:00 PM
m,p-Xylene	ND	800		ppbv	400	10/7/2011 9:58:00 PM
Methylene chloride	ND	2,000		ppbv	400	10/7/2011 9:58:00 PM
Naphthalene	ND	400		ppbv	400	10/7/2011 9:58:00 PM
n-Hexane	860	800		ppbv	400	10/7/2011 9:58:00 PM
o-Xylene	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Propylene	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Styrene	ND	400		ppbv	400	10/7/2011 9:58:00 PM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Tetrachloroethene	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Tetrahydrofuran	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Toluene	2,800	400		ppbv	400	10/7/2011 9:58:00 PM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/7/2011 9:58:00 PM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Trichloroethene	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Trichlorofluoromethane	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Vinyl acetate	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Vinyl chloride	ND	400		ppbv	400	10/7/2011 9:58:00 PM
Xylenes, Total	ND	1,200		ppbv	400	10/7/2011 9:58:00 PM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	400	10/7/2011 9:58:00 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#: **1109555**

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

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

Project: Kirtland AFB

Lab ID: 1109555-021 **Matrix:** AIR

Client Sample ID VA0483

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	270,000	47,000		µg/m³	400	9/30/2011 8:55:00 AM
C9-C10 Aromatic Hydrocarbons	20,000	53,000	J	µg/m³	400	9/30/2011 8:55:00 AM
C9-C12 Aliphatic Hydrocarbons	55,000	76,000	J	µg/m³	400	9/30/2011 8:55:00 AM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	400	9/30/2011 8:55:00 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#: **1109555**

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

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

Project: Kirtland AFB

Lab ID: 1109555-022 **Matrix:** AIR

Client Sample ID VA0484

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.36	0.10		%	1	9/29/2011 3:48:00 PM
Carbon Monoxide	ND	0.10		%	1	9/29/2011 3:48:00 PM
Methane	ND	0.50		%	1	9/29/2011 3:48:00 PM
Nitrogen	79	0.10		%	1	9/29/2011 3:48:00 PM
Oxygen	20	0.10		%	1	9/29/2011 3:48:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/7/2011 10:47:00 PM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/7/2011 10:47:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/7/2011 10:47:00 PM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/7/2011 10:47:00 PM
1,1-Dichloroethane	ND	400		ppbv	400	10/7/2011 10:47:00 PM
1,1-Dichloroethene	ND	400		ppbv	400	10/7/2011 10:47:00 PM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/7/2011 10:47:00 PM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/7/2011 10:47:00 PM
1,2-Dibromoethane	ND	400		ppbv	400	10/7/2011 10:47:00 PM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/7/2011 10:47:00 PM
1,2-Dichloroethane	ND	400		ppbv	400	10/7/2011 10:47:00 PM
1,2-Dichloropropane	ND	400		ppbv	400	10/7/2011 10:47:00 PM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/7/2011 10:47:00 PM
1,3-Butadiene	ND	400		ppbv	400	10/7/2011 10:47:00 PM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/7/2011 10:47:00 PM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/7/2011 10:47:00 PM
2-Butanone	ND	400		ppbv	400	10/7/2011 10:47:00 PM
2-Hexanone	ND	400		ppbv	400	10/7/2011 10:47:00 PM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Acetone	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Benzene	590	400		ppbv	400	10/7/2011 10:47:00 PM
Benzyl chloride	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Bromodichloromethane	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Bromoform	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Bromomethane	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Carbon disulfide	ND	400		ppbv	400	10/7/2011 10:47:00 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 v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1109555**

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

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

Project: Kirtland AFB

Lab ID: 1109555-022 **Matrix:** AIR

Client Sample ID VA0484

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Chlorobenzene	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Chlorodibromomethane	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Chloroethane	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Chloroform	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Chloromethane	ND	400		ppbv	400	10/7/2011 10:47:00 PM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/7/2011 10:47:00 PM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Cyclohexane	2,000	800		ppbv	400	10/7/2011 10:47:00 PM
Dichlorodifluoromethane	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Ethyl acetate	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Ethylbenzene	ND	800		ppbv	400	10/7/2011 10:47:00 PM
Heptane	500	400		ppbv	400	10/7/2011 10:47:00 PM
Hexachlorobutadiene	ND	800		ppbv	400	10/7/2011 10:47:00 PM
m,p-Xylene	ND	800		ppbv	400	10/7/2011 10:47:00 PM
Methylene chloride	960	2,000	J	ppbv	400	10/7/2011 10:47:00 PM
Naphthalene	ND	400		ppbv	400	10/7/2011 10:47:00 PM
n-Hexane	700	800	J	ppbv	400	10/7/2011 10:47:00 PM
o-Xylene	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Propylene	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Styrene	ND	400		ppbv	400	10/7/2011 10:47:00 PM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Tetrachloroethene	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Tetrahydrofuran	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Toluene	1,700	400		ppbv	400	10/7/2011 10:47:00 PM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/7/2011 10:47:00 PM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Trichloroethene	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Trichlorofluoromethane	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Vinyl acetate	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Vinyl chloride	ND	400		ppbv	400	10/7/2011 10:47:00 PM
Xylenes, Total	ND	1,200		ppbv	400	10/7/2011 10:47:00 PM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	400	10/7/2011 10:47:00 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 v1

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Analytical Report

(consolidated)

WO#: **1109555**

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

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

Project: Kirtland AFB

Lab ID: 1109555-022 **Matrix:** AIR

Client Sample ID VA0484

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	160,000	47,000		µg/m³	400	9/30/2011 5:39:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	9/30/2011 5:39:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000		µg/m³	400	9/30/2011 5:39:00 PM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	400	9/30/2011 5:39:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/8/2011 10:08:00 AM

Project: Kirtland AFB

Lab ID: 1109555-023 **Matrix:** AIR

Client Sample ID VA0485

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.42	0.10		%	1	9/29/2011 4:07:00 PM
Carbon Monoxide	ND	0.10		%	1	9/29/2011 4:07:00 PM
Methane	ND	0.50		%	1	9/29/2011 4:07:00 PM
Nitrogen	79	0.10		%	1	9/29/2011 4:07:00 PM
Oxygen	18	0.10		%	1	9/29/2011 4:07:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
1,1-Dichloroethane	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
1,1-Dichloroethene	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
1,2,4-Trimethylbenzene	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
1,2-Dibromoethane	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
1,2-Dichloroethane	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
1,2-Dichloropropane	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
1,3,5-Trimethylbenzene	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
1,3-Butadiene	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
2-Butanone	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
2-Hexanone	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Acetone	55	40	H	ppbv	40	10/11/2011 2:17:00 AM
Benzene	370	40	H	ppbv	40	10/11/2011 2:17:00 AM
Benzyl chloride	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Bromodichloromethane	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Bromoform	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Bromomethane	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Carbon disulfide	ND	40	H	ppbv	40	10/11/2011 2:17:00 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 v1

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/8/2011 10:08:00 AM

Project: Kirtland AFB

Lab ID: 1109555-023 **Matrix:** AIR

Client Sample ID VA0485

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Chlorobenzene	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Chlorodibromomethane	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Chloroethane	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Chloroform	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Chloromethane	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Cyclohexane	340	80	H	ppbv	40	10/11/2011 2:17:00 AM
Dichlorodifluoromethane	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Ethyl acetate	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Ethylbenzene	50	80	JH	ppbv	40	10/11/2011 2:17:00 AM
Heptane	190	40	H	ppbv	40	10/11/2011 2:17:00 AM
Hexachlorobutadiene	ND	80	H	ppbv	40	10/11/2011 2:17:00 AM
m,p-Xylene	180	80	H	ppbv	40	10/11/2011 2:17:00 AM
Methylene chloride	ND	200	H	ppbv	40	10/11/2011 2:17:00 AM
Naphthalene	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
n-Hexane	220	80	H	ppbv	40	10/11/2011 2:17:00 AM
o-Xylene	59	40	H	ppbv	40	10/11/2011 2:17:00 AM
Propylene	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Styrene	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Tetrachloroethene	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Tetrahydrofuran	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Toluene	1,700	40	H	ppbv	40	10/11/2011 2:17:00 AM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Trichloroethene	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Trichlorofluoromethane	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Vinyl acetate	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Vinyl chloride	ND	40	H	ppbv	40	10/11/2011 2:17:00 AM
Xylenes, Total	240	120	H	ppbv	40	10/11/2011 2:17:00 AM
Surr: 4-Bromofluorobenzene	109	70-130	H	%REC	40	10/11/2011 2:17:00 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 v1

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/8/2011 10:08:00 AM

Project: Kirtland AFB

Lab ID: 1109555-023 **Matrix:** AIR

Client Sample ID VA0485

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	130,000	47,000		µg/m³	400	9/30/2011 6:30:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	9/30/2011 6:30:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000		µg/m³	400	9/30/2011 6:30:00 PM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	400	9/30/2011 6:30:00 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

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/8/2011 10:54:00 AM

Project: Kirtland AFB

Lab ID: 1109555-024 **Matrix:** AIR

Client Sample ID VA0486

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.65	0.10		%	1	9/29/2011 5:26:00 PM
Carbon Monoxide	ND	0.10		%	1	9/29/2011 5:26:00 PM
Methane	ND	0.50		%	1	9/29/2011 5:26:00 PM
Nitrogen	80	0.10		%	1	9/29/2011 5:26:00 PM
Oxygen	19	0.10		%	1	9/29/2011 5:26:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/8/2011 12:25:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/8/2011 12:25:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/8/2011 12:25:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/8/2011 12:25:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	10/8/2011 12:25:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	10/8/2011 12:25:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/8/2011 12:25:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/8/2011 12:25:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	10/8/2011 12:25:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/8/2011 12:25:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	10/8/2011 12:25:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	10/8/2011 12:25:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/8/2011 12:25:00 AM
1,3-Butadiene	ND	400		ppbv	400	10/8/2011 12:25:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/8/2011 12:25:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/8/2011 12:25:00 AM
2-Butanone	ND	400		ppbv	400	10/8/2011 12:25:00 AM
2-Hexanone	ND	400		ppbv	400	10/8/2011 12:25:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Acetone	590	400		ppbv	400	10/8/2011 12:25:00 AM
Benzene	1,200	400		ppbv	400	10/8/2011 12:25:00 AM
Benzyl chloride	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Bromodichloromethane	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Bromoform	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Bromomethane	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Carbon disulfide	ND	400		ppbv	400	10/8/2011 12:25:00 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 v1

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/8/2011 10:54:00 AM

Project: Kirtland AFB

Lab ID: 1109555-024 **Matrix:** AIR

Client Sample ID VA0486

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Chlorobenzene	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Chlorodibromomethane	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Chloroethane	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Chloroform	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Chloromethane	ND	400		ppbv	400	10/8/2011 12:25:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/8/2011 12:25:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Cyclohexane	1,100	800		ppbv	400	10/8/2011 12:25:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Ethyl acetate	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Ethylbenzene	ND	800		ppbv	400	10/8/2011 12:25:00 AM
Heptane	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	10/8/2011 12:25:00 AM
m,p-Xylene	ND	800		ppbv	400	10/8/2011 12:25:00 AM
Methylene chloride	1,700	2,000	J	ppbv	400	10/8/2011 12:25:00 AM
Naphthalene	ND	400		ppbv	400	10/8/2011 12:25:00 AM
n-Hexane	1,400	800		ppbv	400	10/8/2011 12:25:00 AM
o-Xylene	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Propylene	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Styrene	ND	400		ppbv	400	10/8/2011 12:25:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Tetrachloroethene	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Tetrahydrofuran	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Toluene	2,800	400		ppbv	400	10/8/2011 12:25:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/8/2011 12:25:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Trichloroethene	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Vinyl acetate	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Vinyl chloride	ND	400		ppbv	400	10/8/2011 12:25:00 AM
Xylenes, Total	ND	1,200		ppbv	400	10/8/2011 12:25:00 AM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	400	10/8/2011 12:25:00 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

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/8/2011 10:54:00 AM

Project: Kirtland AFB

Lab ID: 1109555-024 **Matrix:** AIR

Client Sample ID VA0486

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	120,000	47,000		µg/m³	400	9/30/2011 7:20:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	9/30/2011 7:20:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000		µg/m³	400	9/30/2011 7:20:00 PM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	400	9/30/2011 7:20:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/8/2011 11:42:00 AM

Project: Kirtland AFB

Lab ID: 1109555-025 **Matrix:** AIR

Client Sample ID VA0487

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.63	0.10		%	1	9/29/2011 5:45:00 PM
Carbon Monoxide	ND	0.10		%	1	9/29/2011 5:45:00 PM
Methane	ND	0.50		%	1	9/29/2011 5:45:00 PM
Nitrogen	80	0.10		%	1	9/29/2011 5:45:00 PM
Oxygen	18	0.10		%	1	9/29/2011 5:45:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
1,1-Dichloroethane	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
1,1-Dichloroethene	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
1,2,4-Trimethylbenzene	56	40	H	ppbv	40	10/11/2011 2:58:00 AM
1,2-Dibromoethane	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
1,2-Dichloroethane	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
1,2-Dichloropropane	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
1,3,5-Trimethylbenzene	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
1,3-Butadiene	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
2-Butanone	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
2-Hexanone	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Acetone	68	40	H	ppbv	40	10/11/2011 2:58:00 AM
Benzene	83	40	H	ppbv	40	10/11/2011 2:58:00 AM
Benzyl chloride	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Bromodichloromethane	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Bromoform	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Bromomethane	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Carbon disulfide	ND	40	H	ppbv	40	10/11/2011 2:58:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/8/2011 11:42:00 AM

Project: Kirtland AFB

Lab ID: 1109555-025 **Matrix:** AIR

Client Sample ID VA0487

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Chlorobenzene	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Chlorodibromomethane	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Chloroethane	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Chloroform	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Chloromethane	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Cyclohexane	420	80	H	ppbv	40	10/11/2011 2:58:00 AM
Dichlorodifluoromethane	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Ethyl acetate	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Ethylbenzene	65	80	JH	ppbv	40	10/11/2011 2:58:00 AM
Heptane	370	40	H	ppbv	40	10/11/2011 2:58:00 AM
Hexachlorobutadiene	ND	80	H	ppbv	40	10/11/2011 2:58:00 AM
m,p-Xylene	200	80	H	ppbv	40	10/11/2011 2:58:00 AM
Methylene chloride	530	200	H	ppbv	40	10/11/2011 2:58:00 AM
Naphthalene	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
n-Hexane	81	80	H	ppbv	40	10/11/2011 2:58:00 AM
o-Xylene	86	40	H	ppbv	40	10/11/2011 2:58:00 AM
Propylene	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Styrene	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Tetrachloroethene	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Tetrahydrofuran	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Toluene	690	40	H	ppbv	40	10/11/2011 2:58:00 AM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Trichloroethene	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Trichlorofluoromethane	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Vinyl acetate	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Vinyl chloride	ND	40	H	ppbv	40	10/11/2011 2:58:00 AM
Xylenes, Total	280	120	H	ppbv	40	10/11/2011 2:58:00 AM
Surr: 4-Bromofluorobenzene	104	70-130	H	%REC	40	10/11/2011 2:58:00 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 v1

RTI LABORATORIES, INC.

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TEL: 7344228000 FAX: 7344225342
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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/8/2011 11:42:00 AM

Project: Kirtland AFB

Lab ID: 1109555-025 **Matrix:** AIR

Client Sample ID VA0487

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	140,000	47,000		µg/m³	400	10/1/2011 3:48:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/1/2011 3:48:00 AM
C9-C12 Aliphatic Hydrocarbons	23,000	76,000	J	µg/m³	400	10/1/2011 3:48:00 AM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	400	10/1/2011 3:48:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/8/2011 12:25:00 PM

Project: Kirtland AFB

Lab ID: 1109555-026 **Matrix:** AIR

Client Sample ID VA0488

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.81	0.10		%	1	9/29/2011 6:55:00 PM
Carbon Monoxide	ND	0.10		%	1	9/29/2011 6:55:00 PM
Methane	ND	0.50		%	1	9/29/2011 6:55:00 PM
Nitrogen	79	0.10		%	1	9/29/2011 6:55:00 PM
Oxygen	19	0.10		%	1	9/29/2011 6:55:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
1,1-Dichloroethane	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
1,1-Dichloroethene	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
1,2,4-Trimethylbenzene	66	40	H	ppbv	40	10/11/2011 3:39:00 AM
1,2-Dibromoethane	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
1,2-Dichloroethane	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
1,2-Dichloropropane	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
1,3,5-Trimethylbenzene	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
1,3-Butadiene	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
2-Butanone	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
2-Hexanone	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Acetone	45	40	H	ppbv	40	10/11/2011 3:39:00 AM
Benzene	74	40	H	ppbv	40	10/11/2011 3:39:00 AM
Benzyl chloride	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Bromodichloromethane	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Bromoform	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Bromomethane	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Carbon disulfide	ND	40	H	ppbv	40	10/11/2011 3:39:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/8/2011 12:25:00 PM

Project: Kirtland AFB

Lab ID: 1109555-026 **Matrix:** AIR

Client Sample ID VA0488

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Chlorobenzene	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Chlorodibromomethane	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Chloroethane	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Chloroform	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Chloromethane	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Cyclohexane	340	80	H	ppbv	40	10/11/2011 3:39:00 AM
Dichlorodifluoromethane	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Ethyl acetate	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Ethylbenzene	62	80	JH	ppbv	40	10/11/2011 3:39:00 AM
Heptane	310	40	H	ppbv	40	10/11/2011 3:39:00 AM
Hexachlorobutadiene	ND	80	H	ppbv	40	10/11/2011 3:39:00 AM
m,p-Xylene	200	80	H	ppbv	40	10/11/2011 3:39:00 AM
Methylene chloride	ND	200	H	ppbv	40	10/11/2011 3:39:00 AM
Naphthalene	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
n-Hexane	63	80	JH	ppbv	40	10/11/2011 3:39:00 AM
o-Xylene	86	40	H	ppbv	40	10/11/2011 3:39:00 AM
Propylene	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Styrene	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Tetrachloroethene	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Tetrahydrofuran	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Toluene	600	40	H	ppbv	40	10/11/2011 3:39:00 AM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Trichloroethene	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Trichlorofluoromethane	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Vinyl acetate	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Vinyl chloride	ND	40	H	ppbv	40	10/11/2011 3:39:00 AM
Xylenes, Total	290	120	H	ppbv	40	10/11/2011 3:39:00 AM
Surr: 4-Bromofluorobenzene	105	70-130	H	%REC	40	10/11/2011 3:39:00 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

Revision v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/8/2011 12:25:00 PM

Project: Kirtland AFB

Lab ID: 1109555-026 **Matrix:** AIR

Client Sample ID VA0488

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	110,000	47,000		µg/m³	400	10/1/2011 4:39:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/1/2011 4:39:00 AM
C9-C12 Aliphatic Hydrocarbons	33,000	76,000	J	µg/m³	400	10/1/2011 4:39:00 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	400	10/1/2011 4:39:00 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

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 3:12:00 PM

Project: Kirtland AFB

Lab ID: 1109555-027 **Matrix:** AIR

Client Sample ID VA0585

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.48	0.10		%	1	9/29/2011 7:19:00 PM
Carbon Monoxide	ND	0.10		%	1	9/29/2011 7:19:00 PM
Methane	ND	0.50		%	1	9/29/2011 7:19:00 PM
Nitrogen	78	0.10		%	1	9/29/2011 7:19:00 PM
Oxygen	20	0.10		%	1	9/29/2011 7:19:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
1,3-Butadiene	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
2-Butanone	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
2-Hexanone	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Acetone	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Benzene	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Benzyl chloride	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Bromodichloromethane	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Bromoform	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Bromomethane	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Carbon disulfide	ND	800	H	ppbv	800	9/30/2011 11:15:00 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

Revision v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 3:12:00 PM

Project: Kirtland AFB

Lab ID: 1109555-027 **Matrix:** AIR

Client Sample ID VA0585

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Chlorobenzene	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Chlorodibromomethane	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Chloroethane	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Chloroform	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Chloromethane	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Cyclohexane	2,900	1,600	H	ppbv	800	9/30/2011 11:15:00 PM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Ethyl acetate	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Ethylbenzene	ND	1,600	H	ppbv	800	9/30/2011 11:15:00 PM
Heptane	2,800	800	H	ppbv	800	9/30/2011 11:15:00 PM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/30/2011 11:15:00 PM
m,p-Xylene	1,300	1,600	JH	ppbv	800	9/30/2011 11:15:00 PM
Methylene chloride	3,700	4,000	JH	ppbv	800	9/30/2011 11:15:00 PM
Naphthalene	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
n-Hexane	1,900	1,600	H	ppbv	800	9/30/2011 11:15:00 PM
o-Xylene	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Propylene	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Styrene	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Tetrachloroethene	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Tetrahydrofuran	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Toluene	4,600	800	H	ppbv	800	9/30/2011 11:15:00 PM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Trichloroethene	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Vinyl acetate	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Vinyl chloride	ND	800	H	ppbv	800	9/30/2011 11:15:00 PM
Xylenes, Total	1,300	2,400	JH	ppbv	800	9/30/2011 11:15:00 PM
Surr: 4-Bromofluorobenzene	110	70-130	H	%REC	800	9/30/2011 11:15:00 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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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 3:12:00 PM

Project: Kirtland AFB

Lab ID: 1109555-027 **Matrix:** AIR

Client Sample ID VA0585

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	500,000	94,000		µg/m³	800	9/22/2011 4:53:00 AM
C9-C10 Aromatic Hydrocarbons	46,000	110,000	J	µg/m³	800	9/22/2011 4:53:00 AM
C9-C12 Aliphatic Hydrocarbons	180,000	150,000		µg/m³	800	9/22/2011 4:53:00 AM
Surr: 4-Bromofluorobenzene	97.7	70-130		%REC	800	9/22/2011 4:53:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 3:12:00 PM

Project: Kirtland AFB

Lab ID: 1109555-028 **Matrix:** AIR

Client Sample ID VA0586

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.60	0.10		%	1	9/29/2011 7:38:00 PM
Carbon Monoxide	ND	0.10		%	1	9/29/2011 7:38:00 PM
Methane	ND	0.50		%	1	9/29/2011 7:38:00 PM
Nitrogen	77	0.10		%	1	9/29/2011 7:38:00 PM
Oxygen	20	0.10		%	1	9/29/2011 7:38:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	10/1/2011
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	10/1/2011
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	10/1/2011
1,1,2-Trichloroethane	ND	800	H	ppbv	800	10/1/2011
1,1-Dichloroethane	ND	800	H	ppbv	800	10/1/2011
1,1-Dichloroethene	ND	800	H	ppbv	800	10/1/2011
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	10/1/2011
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	10/1/2011
1,2-Dibromoethane	ND	800	H	ppbv	800	10/1/2011
1,2-Dichlorobenzene	ND	800	H	ppbv	800	10/1/2011
1,2-Dichloroethane	ND	800	H	ppbv	800	10/1/2011
1,2-Dichloropropane	ND	800	H	ppbv	800	10/1/2011
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	10/1/2011
1,3-Butadiene	ND	800	H	ppbv	800	10/1/2011
1,3-Dichlorobenzene	ND	800	H	ppbv	800	10/1/2011
1,4-Dichlorobenzene	ND	800	H	ppbv	800	10/1/2011
2-Butanone	ND	800	H	ppbv	800	10/1/2011
2-Hexanone	ND	800	H	ppbv	800	10/1/2011
4-Methyl-2-pentanone	ND	800	H	ppbv	800	10/1/2011
Acetone	ND	800	H	ppbv	800	10/1/2011
Benzene	ND	800	H	ppbv	800	10/1/2011
Benzyl chloride	ND	800	H	ppbv	800	10/1/2011
Bromodichloromethane	ND	800	H	ppbv	800	10/1/2011
Bromoform	ND	800	H	ppbv	800	10/1/2011
Bromomethane	ND	800	H	ppbv	800	10/1/2011
Carbon disulfide	ND	800	H	ppbv	800	10/1/2011

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

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WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 3:12:00 PM

Project: Kirtland AFB

Lab ID: 1109555-028 **Matrix:** AIR

Client Sample ID VA0586

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	800	H	ppbv	800	10/1/2011
Chlorobenzene	ND	800	H	ppbv	800	10/1/2011
Chlorodibromomethane	ND	800	H	ppbv	800	10/1/2011
Chloroethane	ND	800	H	ppbv	800	10/1/2011
Chloroform	ND	800	H	ppbv	800	10/1/2011
Chloromethane	ND	800	H	ppbv	800	10/1/2011
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	10/1/2011
cis-1,3-dichloropropene	ND	800	H	ppbv	800	10/1/2011
Cyclohexane	2,800	1,600	H	ppbv	800	10/1/2011
Dichlorodifluoromethane	ND	800	H	ppbv	800	10/1/2011
Ethyl acetate	ND	800	H	ppbv	800	10/1/2011
Ethylbenzene	ND	1,600	H	ppbv	800	10/1/2011
Heptane	2,600	800	H	ppbv	800	10/1/2011
Hexachlorobutadiene	ND	1,600	H	ppbv	800	10/1/2011
m,p-Xylene	1,500	1,600	JH	ppbv	800	10/1/2011
Methylene chloride	ND	4,000	H	ppbv	800	10/1/2011
Naphthalene	ND	800	H	ppbv	800	10/1/2011
n-Hexane	1,600	1,600	H	ppbv	800	10/1/2011
o-Xylene	ND	800	H	ppbv	800	10/1/2011
Propylene	ND	800	H	ppbv	800	10/1/2011
Styrene	ND	800	H	ppbv	800	10/1/2011
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	10/1/2011
Tetrachloroethene	ND	800	H	ppbv	800	10/1/2011
Tetrahydrofuran	ND	800	H	ppbv	800	10/1/2011
Toluene	4,900	800	H	ppbv	800	10/1/2011
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	10/1/2011
trans-1,3-dichloropropene	ND	800	H	ppbv	800	10/1/2011
Trichloroethene	ND	800	H	ppbv	800	10/1/2011
Trichlorofluoromethane	ND	800	H	ppbv	800	10/1/2011
Vinyl acetate	ND	800	H	ppbv	800	10/1/2011
Vinyl chloride	ND	800	H	ppbv	800	10/1/2011
Xylenes, Total	1,500	2,400	JH	ppbv	800	10/1/2011
Surr: 4-Bromofluorobenzene	110	70-130	H	%REC	800	10/1/2011

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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 3:12:00 PM

Project: Kirtland AFB

Lab ID: 1109555-028 **Matrix:** AIR

Client Sample ID VA0586

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	430,000	94,000		µg/m³	800	9/22/2011 5:38:00 AM
C9-C10 Aromatic Hydrocarbons	44,000	110,000	J	µg/m³	800	9/22/2011 5:38:00 AM
C9-C12 Aliphatic Hydrocarbons	150,000	150,000	J	µg/m³	800	9/22/2011 5:38:00 AM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	800	9/22/2011 5:38:00 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

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 8:27:00 AM

Project: Kirtland AFB

Lab ID: 1109555-029 **Matrix:** AIR

Client Sample ID VA0587

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	1.4	0.10		%	1	9/29/2011 7:58:00 PM
Carbon Monoxide	ND	0.10		%	1	9/29/2011 7:58:00 PM
Methane	ND	0.50		%	1	9/29/2011 7:58:00 PM
Nitrogen	78	0.10		%	1	9/29/2011 7:58:00 PM
Oxygen	19	0.10		%	1	9/29/2011 7:58:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 9:29:00 AM

Project: Kirtland AFB

Lab ID: 1109555-030 **Matrix:** AIR

Client Sample ID VA0588

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	2.0	0.10		%	1	9/29/2011 8:18:00 PM
Carbon Monoxide	ND	0.10		%	1	9/29/2011 8:18:00 PM
Methane	ND	0.50		%	1	9/29/2011 8:18:00 PM
Nitrogen	79	0.10		%	1	9/29/2011 8:18:00 PM
Oxygen	17	0.10		%	1	9/29/2011 8:18:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
1,1-Dichloroethane	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
1,1-Dichloroethene	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
1,2-Dibromoethane	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
1,2-Dichloroethane	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
1,2-Dichloropropane	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
1,3-Butadiene	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
2-Butanone	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
2-Hexanone	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Acetone	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Benzene	170,000	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Benzyl chloride	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Bromodichloromethane	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Bromoform	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Bromomethane	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Carbon disulfide	ND	8,000		ppbv	8000	10/1/2011 12:41:00 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 v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 9:29:00 AM

Project: Kirtland AFB

Lab ID: 1109555-030 **Matrix:** AIR

Client Sample ID VA0588

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Chlorobenzene	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Chlorodibromomethane	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Chloroethane	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Chloroform	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Chloromethane	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Cyclohexane	210,000	16,000		ppbv	8000	10/1/2011 12:41:00 AM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Ethyl acetate	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Ethylbenzene	ND	16,000		ppbv	8000	10/1/2011 12:41:00 AM
Heptane	120,000	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Hexachlorobutadiene	ND	16,000		ppbv	8000	10/1/2011 12:41:00 AM
m,p-Xylene	11,000	16,000	J	ppbv	8000	10/1/2011 12:41:00 AM
Methylene chloride	ND	40,000		ppbv	8000	10/1/2011 12:41:00 AM
Naphthalene	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
n-Hexane	210,000	16,000		ppbv	8000	10/1/2011 12:41:00 AM
o-Xylene	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Propylene	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Styrene	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Tetrachloroethene	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Tetrahydrofuran	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Toluene	220,000	8,000		ppbv	8000	10/1/2011 12:41:00 AM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Trichloroethene	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Trichlorofluoromethane	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Vinyl acetate	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Vinyl chloride	ND	8,000		ppbv	8000	10/1/2011 12:41:00 AM
Xylenes, Total	11,000	24,000	J	ppbv	8000	10/1/2011 12:41:00 AM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	8000	10/1/2011 12:41:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 9:29:00 AM

Project: Kirtland AFB

Lab ID: 1109555-030 **Matrix:** AIR

Client Sample ID VA0588

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	8,900,000	940,000		µg/m³	8000	9/28/2011 9:59:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	9/28/2011 9:59:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	9/28/2011 9:59:00 PM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	8000	9/28/2011 9:59:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 10:08:00 AM

Project: Kirtland AFB

Lab ID: 1109555-031 **Matrix:** AIR

Client Sample ID VA0589

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	1.0	0.10		%	1	9/29/2011 8:39:00 PM
Carbon Monoxide	ND	0.10		%	1	9/29/2011 8:39:00 PM
Methane	ND	0.50		%	1	9/29/2011 8:39:00 PM
Nitrogen	78	0.10		%	1	9/29/2011 8:39:00 PM
Oxygen	19	0.10		%	1	9/29/2011 8:39:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
1,1-Dichloroethane	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
1,1-Dichloroethene	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
1,2,4-Trimethylbenzene	53	40	H	ppbv	40	10/11/2011 12:56:00 AM
1,2-Dibromoethane	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
1,2-Dichloroethane	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
1,2-Dichloropropane	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
1,3,5-Trimethylbenzene	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
1,3-Butadiene	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
2-Butanone	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
2-Hexanone	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Acetone	66	40	H	ppbv	40	10/11/2011 12:56:00 AM
Benzene	54	40	H	ppbv	40	10/11/2011 12:56:00 AM
Benzyl chloride	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Bromodichloromethane	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Bromoform	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Bromomethane	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Carbon disulfide	ND	40	H	ppbv	40	10/11/2011 12:56:00 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 v1

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 10:08:00 AM

Project: Kirtland AFB

Lab ID: 1109555-031 **Matrix:** AIR

Client Sample ID VA0589

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Chlorobenzene	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Chlorodibromomethane	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Chloroethane	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Chloroform	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Chloromethane	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Cyclohexane	260	80	H	ppbv	40	10/11/2011 12:56:00 AM
Dichlorodifluoromethane	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Ethyl acetate	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Ethylbenzene	48	80	JH	ppbv	40	10/11/2011 12:56:00 AM
Heptane	240	40	H	ppbv	40	10/11/2011 12:56:00 AM
Hexachlorobutadiene	ND	80	H	ppbv	40	10/11/2011 12:56:00 AM
m,p-Xylene	150	80	H	ppbv	40	10/11/2011 12:56:00 AM
Methylene chloride	360	200	H	ppbv	40	10/11/2011 12:56:00 AM
Naphthalene	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
n-Hexane	59	80	JH	ppbv	40	10/11/2011 12:56:00 AM
o-Xylene	66	40	H	ppbv	40	10/11/2011 12:56:00 AM
Propylene	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Styrene	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Tetrachloroethene	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Tetrahydrofuran	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Toluene	440	40	H	ppbv	40	10/11/2011 12:56:00 AM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Trichloroethene	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Trichlorofluoromethane	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Vinyl acetate	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Vinyl chloride	ND	40	H	ppbv	40	10/11/2011 12:56:00 AM
Xylenes, Total	220	120	H	ppbv	40	10/11/2011 12:56:00 AM
Surr: 4-Bromofluorobenzene	103	70-130	H	%REC	40	10/11/2011 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 v1

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 10:08:00 AM

Project: Kirtland AFB

Lab ID: 1109555-031 **Matrix:** AIR

Client Sample ID VA0589

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	4,200,000	940,000		µg/m³	8000	9/29/2011 7:22:00 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	9/29/2011 7:22:00 AM
C9-C12 Aliphatic Hydrocarbons	790,000	1,500,000	J	µg/m³	8000	9/29/2011 7:22:00 AM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	8000	9/29/2011 7:22:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 10:48:00 AM

Project: Kirtland AFB

Lab ID: 1109555-032 **Matrix:** AIR

Client Sample ID VA0590

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.32	0.10		%	1	9/29/2011 9:11:00 PM
Carbon Monoxide	ND	0.10		%	1	9/29/2011 9:11:00 PM
Methane	ND	0.50		%	1	9/29/2011 9:11:00 PM
Nitrogen	78	0.10		%	1	9/29/2011 9:11:00 PM
Oxygen	20	0.10		%	1	9/29/2011 9:11:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800		ppbv	800	10/1/2011 2:11:00 AM
1,1,2,2-Tetrachloroethane	ND	800		ppbv	800	10/1/2011 2:11:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800		ppbv	800	10/1/2011 2:11:00 AM
1,1,2-Trichloroethane	ND	800		ppbv	800	10/1/2011 2:11:00 AM
1,1-Dichloroethane	ND	800		ppbv	800	10/1/2011 2:11:00 AM
1,1-Dichloroethene	ND	800		ppbv	800	10/1/2011 2:11:00 AM
1,2,4-Trichlorobenzene	ND	800		ppbv	800	10/1/2011 2:11:00 AM
1,2,4-Trimethylbenzene	ND	800		ppbv	800	10/1/2011 2:11:00 AM
1,2-Dibromoethane	ND	800		ppbv	800	10/1/2011 2:11:00 AM
1,2-Dichlorobenzene	ND	800		ppbv	800	10/1/2011 2:11:00 AM
1,2-Dichloroethane	ND	800		ppbv	800	10/1/2011 2:11:00 AM
1,2-Dichloropropane	ND	800		ppbv	800	10/1/2011 2:11:00 AM
1,3,5-Trimethylbenzene	ND	800		ppbv	800	10/1/2011 2:11:00 AM
1,3-Butadiene	ND	800		ppbv	800	10/1/2011 2:11:00 AM
1,3-Dichlorobenzene	ND	800		ppbv	800	10/1/2011 2:11:00 AM
1,4-Dichlorobenzene	ND	800		ppbv	800	10/1/2011 2:11:00 AM
2-Butanone	ND	800		ppbv	800	10/1/2011 2:11:00 AM
2-Hexanone	ND	800		ppbv	800	10/1/2011 2:11:00 AM
4-Methyl-2-pentanone	ND	800		ppbv	800	10/1/2011 2:11:00 AM
Acetone	2,300	800		ppbv	800	10/1/2011 2:11:00 AM
Benzene	82,000	8,000	H	ppbv	8000	10/11/2011 1:37:00 AM
Benzyl chloride	ND	800		ppbv	800	10/1/2011 2:11:00 AM
Bromodichloromethane	ND	800		ppbv	800	10/1/2011 2:11:00 AM
Bromoform	ND	800		ppbv	800	10/1/2011 2:11:00 AM
Bromomethane	ND	800		ppbv	800	10/1/2011 2:11:00 AM
Carbon disulfide	ND	800		ppbv	800	10/1/2011 2:11:00 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
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 10:48:00 AM

Project: Kirtland AFB

Lab ID: 1109555-032 **Matrix:** AIR

Client Sample ID VA0590

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	800		ppbv	800	10/1/2011 2:11:00 AM
Chlorobenzene	ND	800		ppbv	800	10/1/2011 2:11:00 AM
Chlorodibromomethane	ND	800		ppbv	800	10/1/2011 2:11:00 AM
Chloroethane	ND	800		ppbv	800	10/1/2011 2:11:00 AM
Chloroform	ND	800		ppbv	800	10/1/2011 2:11:00 AM
Chloromethane	ND	800		ppbv	800	10/1/2011 2:11:00 AM
cis-1,2-Dichloroethene	ND	800		ppbv	800	10/1/2011 2:11:00 AM
cis-1,3-dichloropropene	ND	800		ppbv	800	10/1/2011 2:11:00 AM
Cyclohexane	87,000	16,000	H	ppbv	8000	10/11/2011 1:37:00 AM
Dichlorodifluoromethane	ND	800		ppbv	800	10/1/2011 2:11:00 AM
Ethyl acetate	ND	800		ppbv	800	10/1/2011 2:11:00 AM
Ethylbenzene	1,700	1,600		ppbv	800	10/1/2011 2:11:00 AM
Heptane	30,000	800		ppbv	800	10/1/2011 2:11:00 AM
Hexachlorobutadiene	ND	1,600		ppbv	800	10/1/2011 2:11:00 AM
m,p-Xylene	5,400	1,600		ppbv	800	10/1/2011 2:11:00 AM
Methylene chloride	ND	4,000		ppbv	800	10/1/2011 2:11:00 AM
Naphthalene	ND	800		ppbv	800	10/1/2011 2:11:00 AM
n-Hexane	99,000	16,000	H	ppbv	8000	10/11/2011 1:37:00 AM
o-Xylene	1,400	800		ppbv	800	10/1/2011 2:11:00 AM
Propylene	3,600	800		ppbv	800	10/1/2011 2:11:00 AM
Styrene	ND	800		ppbv	800	10/1/2011 2:11:00 AM
tert-Butyl Methyl Ether	ND	800		ppbv	800	10/1/2011 2:11:00 AM
Tetrachloroethene	ND	800		ppbv	800	10/1/2011 2:11:00 AM
Tetrahydrofuran	ND	800		ppbv	800	10/1/2011 2:11:00 AM
Toluene	110,000	8,000	H	ppbv	8000	10/11/2011 1:37:00 AM
trans-1,2-Dichloroethene	ND	800		ppbv	800	10/1/2011 2:11:00 AM
trans-1,3-dichloropropene	ND	800		ppbv	800	10/1/2011 2:11:00 AM
Trichloroethene	ND	800		ppbv	800	10/1/2011 2:11:00 AM
Trichlorofluoromethane	ND	800		ppbv	800	10/1/2011 2:11:00 AM
Vinyl acetate	ND	800		ppbv	800	10/1/2011 2:11:00 AM
Vinyl chloride	ND	800		ppbv	800	10/1/2011 2:11:00 AM
Xylenes, Total	6,800	2,400		ppbv	800	10/1/2011 2:11:00 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	800	10/1/2011 2:11:00 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
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Revision v1

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 10:48:00 AM

Project: Kirtland AFB

Lab ID: 1109555-032 **Matrix:** AIR

Client Sample ID VA0590

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	4,300,000	940,000		µg/m³	8000	9/28/2011 11:20:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	9/28/2011 11:20:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	9/28/2011 11:20:00 PM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	8000	9/28/2011 11:20:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 11:33:00 AM

Project: Kirtland AFB

Lab ID: 1109555-033 **Matrix:** AIR

Client Sample ID VA0591

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.55	0.10		%	1	9/29/2011 9:34:00 PM
Carbon Monoxide	ND	0.10		%	1	9/29/2011 9:34:00 PM
Methane	ND	0.50		%	1	9/29/2011 9:34:00 PM
Nitrogen	79	0.10		%	1	9/29/2011 9:34:00 PM
Oxygen	19	0.10		%	1	9/29/2011 9:34:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
1,1,2,2-Tetrachloroethane	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
1,1,2-Trichloroethane	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
1,1-Dichloroethane	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
1,1-Dichloroethene	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
1,2,4-Trichlorobenzene	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
1,2,4-Trimethylbenzene	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
1,2-Dibromoethane	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
1,2-Dichlorobenzene	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
1,2-Dichloroethane	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
1,2-Dichloropropane	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
1,3,5-Trimethylbenzene	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
1,3-Butadiene	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
1,3-Dichlorobenzene	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
1,4-Dichlorobenzene	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
2-Butanone	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
2-Hexanone	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
4-Methyl-2-pentanone	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Acetone	22,000	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Benzene	410,000	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Benzyl chloride	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Bromodichloromethane	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Bromoform	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Bromomethane	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Carbon disulfide	ND	20,000		ppbv	20000	10/1/2011 2:53:00 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 v1

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Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 11:33:00 AM

Project: Kirtland AFB

Lab ID: 1109555-033 **Matrix:** AIR

Client Sample ID VA0591

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Chlorobenzene	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Chlorodibromomethane	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Chloroethane	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Chloroform	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Chloromethane	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
cis-1,2-Dichloroethene	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
cis-1,3-dichloropropene	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Cyclohexane	970,000	40,000		ppbv	20000	10/1/2011 2:53:00 AM
Dichlorodifluoromethane	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Ethyl acetate	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Ethylbenzene	ND	40,000		ppbv	20000	10/1/2011 2:53:00 AM
Heptane	460,000	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Hexachlorobutadiene	ND	40,000		ppbv	20000	10/1/2011 2:53:00 AM
m,p-Xylene	ND	40,000		ppbv	20000	10/1/2011 2:53:00 AM
Methylene chloride	ND	100,000		ppbv	20000	10/1/2011 2:53:00 AM
Naphthalene	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
n-Hexane	1,100,000	40,000		ppbv	20000	10/1/2011 2:53:00 AM
o-Xylene	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Propylene	23,000	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Styrene	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
tert-Butyl Methyl Ether	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Tetrachloroethene	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Tetrahydrofuran	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Toluene	530,000	20,000		ppbv	20000	10/1/2011 2:53:00 AM
trans-1,2-Dichloroethene	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
trans-1,3-dichloropropene	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Trichloroethene	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Trichlorofluoromethane	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Vinyl acetate	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Vinyl chloride	ND	20,000		ppbv	20000	10/1/2011 2:53:00 AM
Xylenes, Total	ND	60,000		ppbv	20000	10/1/2011 2:53:00 AM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	20000	10/1/2011 2:53:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/6/2011 11:33:00 AM

Project: Kirtland AFB

Lab ID: 1109555-033 **Matrix:** AIR

Client Sample ID VA0591

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	25,000,000	2,300,000		µg/m³	20000	9/29/2011 12:02:00 AM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000		µg/m³	20000	9/29/2011 12:02:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000		µg/m³	20000	9/29/2011 12:02:00 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	20000	9/29/2011 12:02:00 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#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 2:00:00 PM

Project: Kirtland AFB

Lab ID: 1109555-034 **Matrix:** AIR

Client Sample ID VA8038-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	9/30/2011 10:30:00 PM
1,1,2,2-Tetrachloroethane	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
1,1,2-Trichloroethane	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
1,1-Dichloroethane	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
1,1-Dichloroethene	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
1,2,4-Trichlorobenzene	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
1,2,4-Trimethylbenzene	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
1,2-Dibromoethane	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
1,2-Dichlorobenzene	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
1,2-Dichloroethane	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
1,2-Dichloropropane	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
1,3,5-Trimethylbenzene	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
1,3-Butadiene	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
1,3-Dichlorobenzene	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
1,4-Dichlorobenzene	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
2-Butanone	4.5	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
2-Hexanone	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
4-Methyl-2-pentanone	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Acetone	17	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Benzene	8.3	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Benzyl chloride	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Bromodichloromethane	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Bromoform	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Bromomethane	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Carbon disulfide	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Carbon tetrachloride	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Chlorobenzene	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Chlorodibromomethane	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Chloroethane	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Chloroform	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Chloromethane	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
cis-1,2-Dichloroethene	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
cis-1,3-dichloropropene	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM

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

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1109555**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 8/29/2011 2:00:00 PM

Project: Kirtland AFB

Lab ID: 1109555-034 **Matrix:** AIR

Client Sample ID VA8038-TB

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Cyclohexane	16	8.0	H	ppbv	4	9/30/2011 10:30:00 PM
Dichlorodifluoromethane	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Ethyl acetate	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Ethylbenzene	ND	8.0	H	ppbv	4	9/30/2011 10:30:00 PM
Heptane	11	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Hexachlorobutadiene	ND	8.0	H	ppbv	4	9/30/2011 10:30:00 PM
m,p-Xylene	ND	8.0	H	ppbv	4	9/30/2011 10:30:00 PM
Methylene chloride	12	20	JH	ppbv	4	9/30/2011 10:30:00 PM
Naphthalene	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
n-Hexane	14	8.0	H	ppbv	4	9/30/2011 10:30:00 PM
o-Xylene	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Propylene	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Styrene	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
tert-Butyl Methyl Ether	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Tetrachloroethene	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Tetrahydrofuran	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Toluene	24	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
trans-1,2-Dichloroethene	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
trans-1,3-dichloropropene	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Trichloroethene	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Trichlorofluoromethane	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Vinyl acetate	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Vinyl chloride	ND	4.0	H	ppbv	4	9/30/2011 10:30:00 PM
Xylenes, Total	ND	12	H	ppbv	4	9/30/2011 10:30:00 PM
Surr: 4-Bromofluorobenzene	111	70-130	H	%REC	4	9/30/2011 10:30:00 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

Revision v1

RTI LABORATORIES, INC.

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QC SUMMARY REPORT

WO#: **1109555**

20-Oct-11

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

BatchID: **R42997**

Sample ID: **BLK1 092111 VOA9** SampType: **MBLK** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **42997**
Client ID: **PBW** Batch ID: **R42997** TestNo: **MA_APH** Analysis Date: **9/21/2011** SeqNo: **836505**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	100	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	91		89.50		102	70	130				

Sample ID: **1108899-036ADUP** SampType: **DUP** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **42997**
Client ID: **ZZZZZZ** Batch ID: **R42997** TestNo: **MA_APH** Analysis Date: **9/22/2011** SeqNo: **836519**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	6,700,000	940,000						6,886,000	2.63	30	H
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	H
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000						0	0	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 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#: **1109555**

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: **VA0591** 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:

*/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#: 1109555
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: **ZZZZZZ** 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:

*/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#: 1109555
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
2-Butanone	ND	40						42.00	200	25	RH
2-Hexanone	ND	40						0	0	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
Bromomethane	ND	40						0	0	25	H
Carbon disulfide	ND	40						0	0	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 exceeded
- 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#: 1109555
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
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
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
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

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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Website: www.rtilabs.com

QC SUMMARY REPORT

WO#: **1109555**

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
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									
1,2-Dichloropropane	ND	1.0									
1,3,5-Trimethylbenzene	ND	1.0									
1,3-Butadiene	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#: 1109555
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
1,3-Dichlorobenzene	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
2-Butanone	ND	1.0									
2-Hexanone	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									
Dichlorodifluoromethane	ND	1.0									
Ethyl acetate	ND	1.0									
Ethylbenzene	ND	2.0									
Heptane	ND	1.0									
Hexachlorobutadiene	ND	2.0									

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#: **1109555**

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
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 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#: 1109555
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				

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#: **1109555**
20-Oct-11

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

BatchID: **R43164**

Sample ID: **mblk** SampType: **MBLK** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43164**
Client ID: **PBW** Batch ID: **R43164** TestNo: **ASTM-D2504** Analysis Date: **9/29/2011** SeqNo: **841047**

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: **43164**
Client ID: **LCSW** Batch ID: **R43164** TestNo: **ASTM-D2504** Analysis Date: **9/29/2011** SeqNo: **841049**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	2.7	0.10	2.500	0	109	70	130	2.686	1.00	0	
Carbon Monoxide	2.5	0.10	2.500	0	101	70	130	2.515	0.357	0	
Methane	2.1	0.50	2.000	0	107	70	130	2.118	0.846	0	
Nitrogen	2.5	0.10	2.500	0	100	70	130	2.521	0.477	0	
Oxygen	2.3	0.10	2.500	0	93.7	70	130	2.342	0.0427	0	

Sample ID: **1109555-025bdup** SampType: **DUP** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43164**
Client ID: **VA0487** Batch ID: **R43164** TestNo: **ASTM-D2504** Analysis Date: **9/29/2011** SeqNo: **841061**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	0.64	0.10						0.6260	2.68	20	
Carbon Monoxide	ND	0.10						0	0	20	
Methane	ND	0.50						0	0	20	
Nitrogen	80	0.10						79.69	0.0828	20	
Oxygen	18	0.10						17.50	1.01	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#: 1109555
20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
BatchID: R43165

Sample ID: **mblk** SampType: **MBLK** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43165**
Client ID: **PBW** Batch ID: **R43165** TestNo: **ASTM-D2504** Analysis Date: **9/28/2011** SeqNo: **841024**

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: **43165**
Client ID: **LCSW** Batch ID: **R43165** TestNo: **ASTM-D2504** Analysis Date: **9/28/2011** SeqNo: **841026**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	2.7	0.10	2.500	0	109	70	130	2.646	3.09	0	
Carbon Monoxide	2.4	0.10	2.500	0	97.6	70	130	2.394	1.90	0	
Methane	2.1	0.50	2.000	0	104	70	130	2.040	1.46	0	
Nitrogen	2.5	0.10	2.500	0	98.1	70	130	2.496	1.78	0	
Oxygen	2.2	0.10	2.500	0	89.4	70	130	2.149	3.97	0	

Sample ID: **1109555-010bdup** SampType: **DUP** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43165**
Client ID: **VA0472** Batch ID: **R43165** TestNo: **ASTM-D2504** Analysis Date: **9/28/2011** SeqNo: **841038**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	0.35	0.10						0.3420	1.16	20	
Carbon Monoxide	ND	0.10						0	0	20	
Methane	ND	0.50						0	0	20	
Nitrogen	79	0.10						78.75	0.0775	20	
Oxygen	20	0.10						20.40	0.128	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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QC SUMMARY REPORT

WO#: **1109555**

20-Oct-11

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

BatchID: **R43191**

Sample ID: **BLK1093011 VOA9** SampType: **MBLK** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43191**
Client ID: **PBW** Batch ID: **R43191** TestNo: **MA_APH** Analysis Date: **9/30/2011** SeqNo: **841719**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	89	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	100		89.50		114	70	130				

Sample ID: **1109988-007BDUP** SampType: **DUP** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43191**
Client ID: **ZZZZZZ** Batch ID: **R43191** TestNo: **MA_APH** Analysis Date: **10/1/2011** SeqNo: **841733**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	60,000,000	940,000						56,960,000	4.82	30	
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	
C9-C12 Aliphatic Hydrocarbons	1,400,000	1,500,000						1,402,000	1.10	30	J
Surr: 4-Bromofluorobenzene	770,000		716,000		107	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#: 1109555
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									
2-Butanone	ND	1.0									
2-Hexanone	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									

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#: 1109555
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
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									
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									

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
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QC SUMMARY REPORT

WO#: 1109555
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
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: **VA0591** 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	
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	

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#: 1109555
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: **VA0591** 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
1,3-Dichlorobenzene	ND	20,000						0	0	25	
1,4-Dichlorobenzene	ND	20,000						0	0	25	
2-Butanone	ND	20,000						0	0	25	
2-Hexanone	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	
Dichlorodifluoromethane	ND	20,000						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	

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

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

QC SUMMARY REPORT

WO#: 1109555
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: **VA0591** 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
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 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#: 1109555
20-Oct-11

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

BatchID: R43330

Sample ID: **BLANK VOA1 10061** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43330**
Client ID: **PBW** Batch ID: **R43330** TestNo: **TO-15** Analysis Date: **10/6/2011** SeqNo: **845957**

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									
2-Butanone	ND	1.0									
2-Hexanone	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									

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#: **1109555**

20-Oct-11

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

BatchID: **R43330**

Sample ID: **BLANK VOA1 10061** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43330**
Client ID: **PBW** Batch ID: **R43330** TestNo: **TO-15** Analysis Date: **10/6/2011** SeqNo: **845957**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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									
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									

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#: 1109555
20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
BatchID: R43330

Sample ID: **BLANK VOA1 10061** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43330**
Client ID: **PBW** Batch ID: **R43330** TestNo: **TO-15** Analysis Date: **10/6/2011** SeqNo: **845957**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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				

Sample ID: **1109555-001ADUP** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43330**
Client ID: **VA0421** Batch ID: **R43330** TestNo: **TO-15** Analysis Date: **10/7/2011** SeqNo: **845969**

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
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

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

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QC SUMMARY REPORT

WO#: 1109555
20-Oct-11

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

BatchID: R43330

Sample ID: **1109555-001ADUP** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43330**
Client ID: **VA0421** Batch ID: **R43330** TestNo: **TO-15** Analysis Date: **10/7/2011** SeqNo: **845969**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	8,000						0	0	25	H
1,4-Dichlorobenzene	ND	8,000						0	0	25	H
2-Butanone	ND	8,000						0	0	25	H
2-Hexanone	ND	8,000						0	0	25	H
4-Methyl-2-pentanone	ND	8,000						0	0	25	H
Acetone	ND	8,000						0	0	25	H
Benzene	19,000	8,000						19,360	1.67	25	H
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	10,000	16,000						10,080	0.791	25	JH
Dichlorodifluoromethane	ND	8,000						0	0	25	H
Ethyl acetate	ND	8,000						0	0	25	H
Ethylbenzene	ND	16,000						0	0	25	H
Heptane	ND	8,000						0	0	25	H
Hexachlorobutadiene	ND	16,000						0	0	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 exceeded
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1109555**

20-Oct-11

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

BatchID: **R43330**

Sample ID: **1109555-001ADUP** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43330**
Client ID: **VA0421** Batch ID: **R43330** TestNo: **TO-15** Analysis Date: **10/7/2011** SeqNo: **845969**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
m,p-Xylene	ND	16,000						0	0	25	H
Methylene chloride	ND	40,000						0	0	25	H
Naphthalene	ND	8,000						0	0	25	H
n-Hexane	12,000	16,000						11,440	1.39	25	JH
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	36,000	8,000						36,320	0.442	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	ND	24,000						0	0	25	H
Surr: 4-Bromofluorobenzene	110,000		100,000		114	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#: 1109555
20-Oct-11

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

BatchID: R43338

Sample ID: **BLANK VOA1 10061** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43338**
Client ID: **PBW** Batch ID: **R43338** TestNo: **TO-15** Analysis Date: **10/7/2011** SeqNo: **845977**

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									
2-Butanone	ND	1.0									
2-Hexanone	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									

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#: **1109555**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R43338**

Sample ID: **BLANK VOA1 10061** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43338**

Client ID: **PBW** Batch ID: **R43338** TestNo: **TO-15** Analysis Date: **10/7/2011** SeqNo: **845977**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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									
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									

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#: 1109555
20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
BatchID: R43338

Sample ID: **BLANK VOA1 10061** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43338**
Client ID: **PBW** Batch ID: **R43338** TestNo: **TO-15** Analysis Date: **10/7/2011** SeqNo: **845977**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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				

Sample ID: **1109988-020A** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43338**
Client ID: **ZZZZZZ** Batch ID: **R43338** TestNo: **TO-15** Analysis Date: **10/8/2011** SeqNo: **845984**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	4.0									
1,1,2,2-Tetrachloroethane	ND	4.0									
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	4.0									
1,1,2-Trichloroethane	ND	4.0									
1,1-Dichloroethane	ND	4.0									
1,1-Dichloroethene	ND	4.0									
1,2,4-Trichlorobenzene	ND	4.0									
1,2,4-Trimethylbenzene	ND	4.0									
1,2-Dibromoethane	ND	4.0									
1,2-Dichlorobenzene	ND	4.0									
1,2-Dichloroethane	ND	4.0									
1,2-Dichloropropane	ND	4.0									
1,3,5-Trimethylbenzene	ND	4.0									
1,3-Butadiene	ND	4.0									

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

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QC SUMMARY REPORT

WO#: 1109555
20-Oct-11

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

BatchID: R43338

Sample ID: **1109988-020A** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43338**
Client ID: **ZZZZZZ** Batch ID: **R43338** TestNo: **TO-15** Analysis Date: **10/8/2011** SeqNo: **845984**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	4.0									
1,4-Dichlorobenzene	ND	4.0									
2-Butanone	49	4.0									
2-Hexanone	ND	4.0									
4-Methyl-2-pentanone	ND	4.0									
Acetone	73	4.0									
Benzene	ND	4.0									
Benzyl chloride	ND	4.0									
Bromodichloromethane	ND	4.0									
Bromoform	ND	4.0									
Bromomethane	ND	4.0									
Carbon disulfide	ND	4.0									
Carbon tetrachloride	ND	4.0									
Chlorobenzene	ND	4.0									
Chlorodibromomethane	ND	4.0									
Chloroethane	ND	4.0									
Chloroform	ND	4.0									
Chloromethane	ND	4.0									
cis-1,2-Dichloroethene	ND	4.0									
cis-1,3-dichloropropene	ND	4.0									
Cyclohexane	11	8.0									
Dichlorodifluoromethane	ND	4.0									
Ethyl acetate	ND	4.0									
Ethylbenzene	ND	8.0									
Heptane	7.4	4.0									
Hexachlorobutadiene	ND	8.0									

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

RTI LABORATORIES, INC.

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

QC SUMMARY REPORT

WO#: 1109555
20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
BatchID: R43338

Sample ID: **1109988-020A** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43338**
Client ID: **ZZZZZZ** Batch ID: **R43338** TestNo: **TO-15** Analysis Date: **10/8/2011** SeqNo: **845984**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
m,p-Xylene	ND	8.0									
Methylene chloride	65	20									
Naphthalene	ND	4.0									
n-Hexane	24	8.0									
o-Xylene	ND	4.0									
Propylene	6.2	4.0									
Styrene	ND	4.0									
tert-Butyl Methyl Ether	ND	4.0									
Tetrachloroethene	ND	4.0									
Tetrahydrofuran	ND	4.0									
Toluene	29	4.0									
trans-1,2-Dichloroethene	ND	4.0									
trans-1,3-dichloropropene	ND	4.0									
Trichloroethene	ND	4.0									
Trichlorofluoromethane	ND	4.0									
Vinyl acetate	ND	4.0									
Vinyl chloride	ND	4.0									
Xylenes, Total	ND	12									
Surr: 4-Bromofluorobenzene	54		50.00		109	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#: 1109555
20-Oct-11

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

BatchID: R43399

Sample ID: **BLANK VOA1 10101** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43399**
Client ID: **PBW** Batch ID: **R43399** TestNo: **TO-15** Analysis Date: **10/10/2011** SeqNo: **847558**

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									
2-Butanone	ND	1.0									
2-Hexanone	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									

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#: **1109555**

20-Oct-11

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

BatchID: **R43399**

Sample ID: **BLANK VOA1 10101** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43399**
Client ID: **PBW** Batch ID: **R43399** TestNo: **TO-15** Analysis Date: **10/10/2011** SeqNo: **847558**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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									
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									

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#: 1109555
20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
BatchID: R43399

Sample ID: **BLANK VOA1 10101** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43399**
Client ID: **PBW** Batch ID: **R43399** TestNo: **TO-15** Analysis Date: **10/10/2011** SeqNo: **847558**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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		116	70	130				

Sample ID: **1109988-013BDUP** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43399**
Client ID: **ZZZZZZ** Batch ID: **R43399** TestNo: **TO-15** Analysis Date: **10/11/2011** SeqNo: **847575**

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	
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	

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 exceeds
- 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#: 1109555
20-Oct-11

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

BatchID: R43399

Sample ID: **1109988-013BDUP** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43399**
Client ID: **ZZZZZZ** Batch ID: **R43399** TestNo: **TO-15** Analysis Date: **10/11/2011** SeqNo: **847575**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	8,000						0	0	25	
1,4-Dichlorobenzene	ND	8,000						0	0	25	
2-Butanone	ND	8,000						0	0	25	
2-Hexanone	ND	8,000						0	0	25	
4-Methyl-2-pentanone	ND	8,000						0	0	25	
Acetone	ND	8,000						0	0	25	
Benzene	130,000	8,000						127,400	0.501	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	340,000	16,000						338,200	1.29	25	
Dichlorodifluoromethane	ND	8,000						0	0	25	
Ethyl acetate	ND	8,000						0	0	25	
Ethylbenzene	ND	16,000						0	0	25	
Heptane	180,000	8,000						178,800	0.980	25	
Hexachlorobutadiene	ND	16,000						0	0	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#: 1109555
20-Oct-11

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

BatchID: R43399

Sample ID: **1109988-013BDUP** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43399**
Client ID: **ZZZZZZ** Batch ID: **R43399** TestNo: **TO-15** Analysis Date: **10/11/2011** SeqNo: **847575**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
m,p-Xylene	15,000	16,000						15,520	1.04	25	J
Methylene chloride	ND	40,000						0	0	25	
Naphthalene	ND	8,000						0	0	25	
n-Hexane	210,000	16,000						203,700	2.52	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	220,000	8,000						219,700	0.0728	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	15,000	24,000						15,520	1.04	25	J
Surr: 4-Bromofluorobenzene	120,000		100,000		116	70	130		0	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

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		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
840603	VOA1 ICV 092711	EPA_TO15	ICV	\I\DATA\092911	9/29/2011 4:22:0	1	R43152		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	11.23	11.23		9.6	0	0	0.107	1	0	117%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.37	10.37		10	0	0	0.211	1	0	104%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.91	10.91		9.8	0	0	0.108	1	0	111%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.6	9.6		9.8	0	0	0.2	1	0	98%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.39	10.39		9.7	0	0	0.111	1	0	107%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.69	10.69		9.9	0	0	0.097	1	0	108%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.62	9.62		9.1	0	0	0.271	1	0	106%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.29	9.29		9.8	0	0	0.245	1	0	95%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.57	9.57		9.6	0	0	0.186	1	0	100%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.91	9.91		9.7	0	0	0.208	1	0	102%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.11	11.11		9.7	0	0	0.196	1	0	115%	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	9.02	9.02		9.7	0	0	0.24	1	0	93%	70	130	0%	
1,3-Butadiene	A	ppbv	12.39	12.39		9.8	0	0	0.152	1	0	126%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.81	9.81		9.7	0	0	0.202	1	0	101%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	9.67	9.67		9.6	0	0	0.194	1	0	101%	70	130	0%	
1,4-Dioxane	A	ppbv	10.31	10.31		9.6	0	0	0.128	1	0	107%	70	130	0%	
2-Butanone	A	ppbv	10.93	10.93		9.9	0	0	0.287	1	0	110%	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	11.24	11.24		10.1	0	0	0.329	1	0	111%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.16	10.16		10	0	0	0.157	1	0	102%	70	130	0%	
Acetone	A	ppbv	11.09	11.09		10	0	0	0.43	1	0	111%	70	130	0%	
Benzene	A	ppbv	10.14	10.14		9.6	0	0	0.126	1	0	106%	70	130	0%	
Benzyl chloride	A	ppbv	10.69	10.69		9.7	0	0	0.155	1	0	110%	70	130	0%	
Bromodichloromethane	A	ppbv	9.88	9.88		9.6	0	0	0.156	1	0	103%	70	130	0%	
Bromoform	A	ppbv	9.81	9.81		9.6	0	0	0.197	1	0	102%	70	130	0%	
Bromomethane	A	ppbv	9.7	9.7		9.3	0	0	0.075	1	0	104%	70	130	0%	
Carbon disulfide	A	ppbv	10.24	10.24		9.7	0	0	0.093	1	0	106%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.51	10.51		9.5	0	0	0.114	1	0	111%	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	9.74	9.74		9.2	0	0	0.165	1	0	106%	70	130	0%	
Chloroethane	A	ppbv	9.67	9.67		9.8	0	0	0.063	1	0	99%	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	10.24	10.24		9.8	0	0	0.104	1	0	104%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
840603	VOA1 ICV 092711	EPA_TO15	ICV	\I\DATA\092911	9/29/2011 4:22:0	1	R43152		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	10.2	10.2		9.8	0	0	0.107	1	0	104%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.57	9.57		9.5	0	0	0.166	1	0	101%	70	130	0%	
Cyclohexane	A	ppbv	11.47	11.47		9.8	0	0	0.684	2	0	117%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.36	9.36		9.2	0	0	0.086	1	0	102%	70	130	0%	
Ethanol	A	ppbv	10.67	10.67		9.2	0	0	1.962	5	0	116%	70	130	0%	
Ethyl acetate	A	ppbv	11.02	11.02		9.8	0	0	0.157	1	0	112%	70	130	0%	
Ethylbenzene	A	ppbv	9.86	9.86		9.8	0	0	0.737	2	0	101%	70	130	0%	
Heptane	A	ppbv	11.06	11.06		9.9	0	0	0.249	1	0	112%	70	130	0%	
Hexachlorobutadiene	A	ppbv	10.63	10.63		9.4	0	0	0.374	2	0	113%	70	130	0%	
m,p-Xylene	A	ppbv	21.01	21.01		19.2	0	0	0.524	2	0	109%	70	130	0%	
Methylene chloride	A	ppbv	10.62	10.62		10	0	0	2.077	5	0	106%	70	130	0%	
n-Hexane	A	ppbv	10.88	10.88		10.1	0	0	0.692	2	0	108%	70	130	0%	
Naphthalene	A	ppbv	10.27	10.27		9.2	0	0	0.247	1	0	112%	70	130	0%	
o-Xylene	A	ppbv	9.98	9.98		10	0	0	0.258	1	0	100%	70	130	0%	
Propylene	A	ppbv	10.45	10.45		10.2	0	0	0.075	1	0	102%	70	130	0%	
Styrene	A	ppbv	9.62	9.62		9.8	0	0	0.263	1	0	98%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.57	10.57		9.9	0	0	0.228	1	0	107%	70	130	0%	
Tetrachloroethene	A	ppbv	9.73	9.73		9.6	0	0	0.148	1	0	101%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.31	11.31		10	0	0	0.201	1	0	113%	70	130	0%	
Toluene	A	ppbv	9.78	9.78		9.8	0	0	0.158	1	0	100%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.57	10.57		9.8	0	0	0.117	1	0	108%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.26	9.26		9.1	0	0	0.171	1	0	102%	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	10.2	10.2		9.6	0	0	0.148	1	0	106%	70	130	0%	
Vinyl acetate	A	ppbv	11.12	11.12		9.9	0	0	0.266	1	0	112%	70	130	0%	
Vinyl chloride	A	ppbv	11.57	11.57		9.4	0	0	0.072	1	0	123%	70	130	0%	
Xylenes, Total	C	ppbv	30.99	30.99		29.2	0	0	0.782	3	0	106%	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	12.71	12.71		12.5	0	0	0	0	0	102%	70	130	0%	

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
09291113.D 092911V1.M Thu Oct 20 11:10:36 2011

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 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

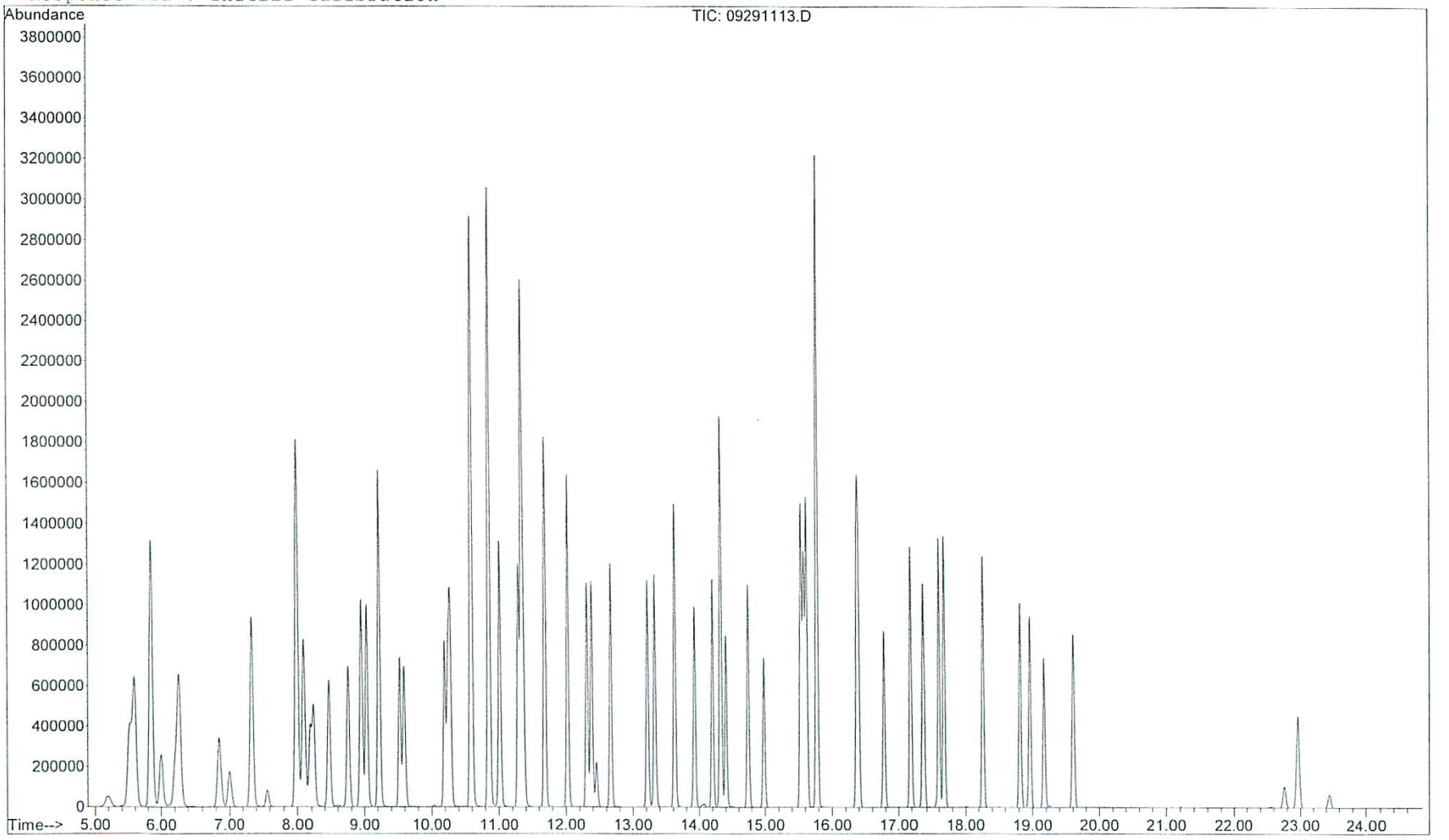
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44) Tetrachloroethene	14.32	166	669432	9.73	ppbv		98
45) 2-Hexanone	14.41	43	766026	10.36	ppbv		91
46) Chlorodibromomethane	14.75	129	687605	9.74	ppbv		99
47) 1,2-Dibromoethane	14.98	107	626805	9.57	ppbv		99
49) Chlorobenzene	15.58	112	781049	9.79	ppbv	#	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	\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
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	\1\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 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

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

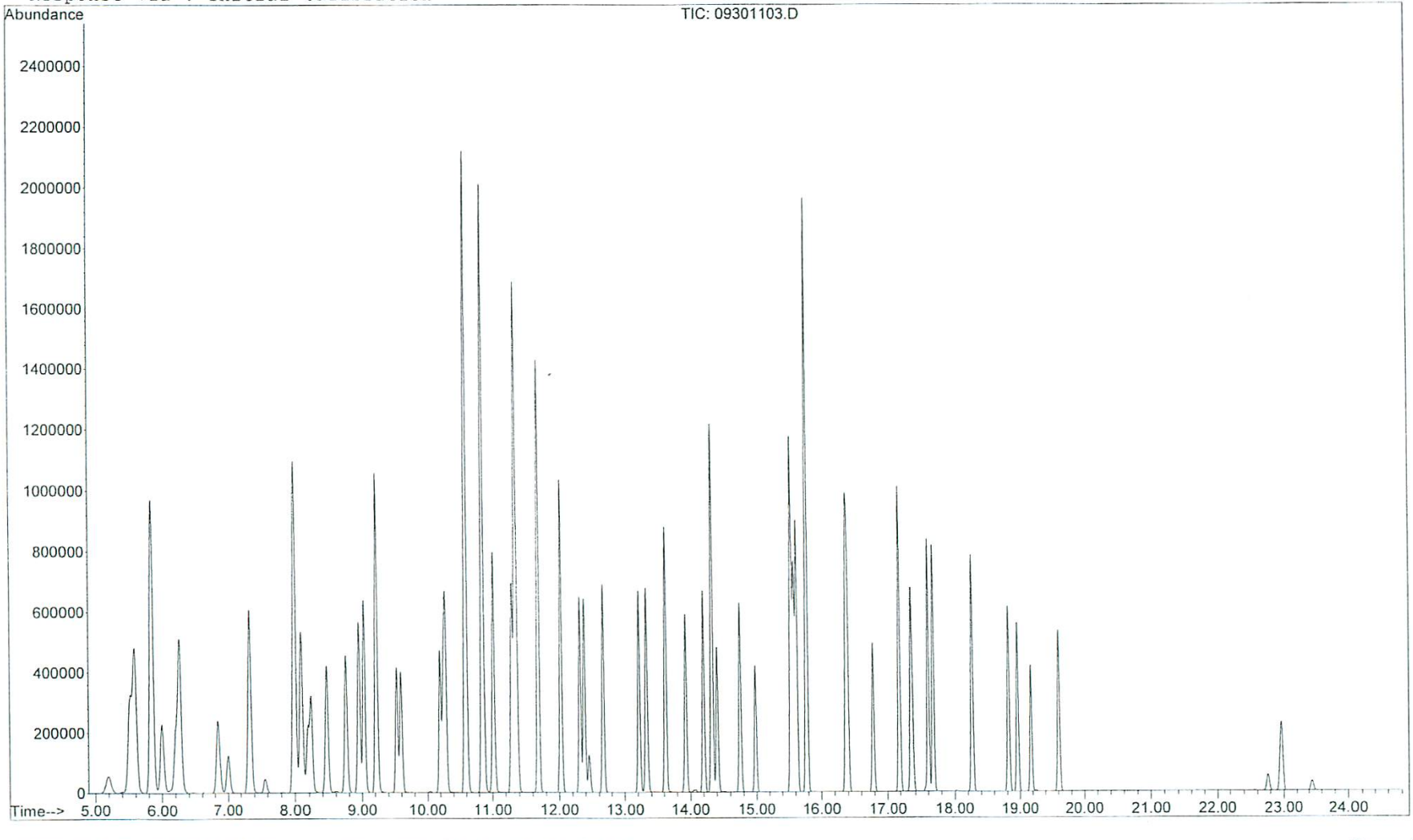
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44) Tetrachloroethene	14.33	166	415880	7.80 ppbv	98
45) 2-Hexanone	14.40	43	447995	7.81 ppbv	90
46) Chlorodibromomethane	14.75	129	386891	7.07 ppbv	99
47) 1,2-Dibromoethane	14.98	107	357284	7.04 ppbv	99
49) Chlorobenzene	15.58	112	470777	7.56 ppbv #	83
50) 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

Quantitation Report

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



RTI Laboratories

Run ID: VOA1_111006A

Run No.: 43330

Analytical Run Date: 10/6/2011

InstrumentID: VOA1

Analyst: Rachel Hill

Column:

Calibration ID: 43330

Column ID: 0.25mm, 1.4umFT

Column Length: 30m

Run Comments: ch rev 10/10/11

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 VOA1 100611	BFB_TUNE	TUNE	R43330	10/6/2011 9:58:00 AM	Celeste Hoitash		
1ppbv ICAL	EPA_TO15	ICAL	R43330	10/6/2011 1:01:00 PM	Celeste Hoitash		
10ppbv ICAL	EPA_TO15	ICAL	R43330	10/6/2011 1:42:00 PM	Celeste Hoitash		
12ppbv ICAL	EPA_TO15	ICAL	R43330	10/6/2011 2:24:00 PM	Celeste Hoitash		
15ppbv ICAL	EPA_TO15	ICAL	R43330	10/6/2011 3:05:00 PM	Celeste Hoitash		
20ppbv ICAL	EPA_TO15	ICAL	R43330	10/6/2011 3:48:00 PM	Celeste Hoitash		
30ppbv ICAL	EPA_TO15	ICAL	R43330	10/6/2011 4:31:00 PM	Celeste Hoitash		
50ppbv ICAL	EPA_TO15	ICAL	R43330	10/6/2011 5:15:00 PM	Celeste Hoitash		
BFB2 VOA1 100611	BFB_TUNE	TUNE	R43330	10/6/2011 5:56:00 PM	Celeste Hoitash		
CCV1 VOA1 100611	EPA_TO15	ICV	R43330	10/6/2011 6:37:00 PM	Celeste Hoitash		
RLVS1 VOA1 10061	EPA_TO15	RLVS	R43330	10/6/2011 7:40:00 PM	Celeste Hoitash		
BLANK VOA1 10061	EPA_TO15	MBLK	R43330	10/6/2011 8:28:00 PM	Celeste Hoitash		
1108899-017A	EPA_TO15	SAMP	R43330	10/6/2011 9:11:00 PM	Celeste Hoitash	H	
1108899-018A	EPA_TO15	SAMP	R43330	10/6/2011 9:56:00 PM	Celeste Hoitash	H	
1108688-001A	EPA_TO15	SAMP	R43330	10/6/2011 10:40:00 PM	Celeste Hoitash	H	
1108688-002A	EPA_TO15	SAMP	R43330	10/6/2011 11:25:00 PM	Celeste Hoitash	H	
1108688-003A	EPA_TO15	SAMP	R43330	10/7/2011 7:52:00 AM	Celeste Hoitash	H	
1108688-004A	EPA_TO15	SAMP	R43330	10/7/2011 8:34:00 AM	Celeste Hoitash	H	
1109555-032A	EPA_TO15	SAMP	R43330	10/7/2011 10:04:00 AM	Celeste Hoitash	H	
1109555-014A	EPA_TO15	SAMP	R43330	10/7/2011 10:53:00 AM	Celeste Hoitash	H	
1109555-018A	EPA_TO15	SAMP	R43330	10/7/2011 11:38:00 AM	Celeste Hoitash	H	
1109555-019A	EPA_TO15	SAMP	R43330	10/7/2011 12:20:00 PM	Celeste Hoitash	H	
1109555-001A	EPA_TO15	SAMP	R43330	10/7/2011 1:03:00 PM	Charles O'Bryan	H	Over-diluted sample. Reported here to show that sample and duplicate were analyzed. Will re-run at a lower dilution.
1109555-001ADUP	EPA_TO15	DUP	R43330	10/7/2011 1:45:00 PM	Celeste Hoitash	H	
1109555-006A	EPA_TO15	SAMP	R43330	10/7/2011 2:33:00 PM	Celeste Hoitash		
1108688-011A	EPA_TO15	SAMP	R43330	10/7/2011 3:15:00 PM	Celeste Hoitash	H	
1108899-016A	EPA_TO15	SAMP	R43330	10/7/2011 4:00:00 PM	Celeste Hoitash	H	
RLVS2 VOA1 10061	EPA_TO15	RLVS	R43330	10/7/2011 5:26:00 PM	Celeste Hoitash		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
845955	CCV1 VOA1 100611	EPA_TO15	ICV	.\1\DATA\100611	10/6/2011 6:37:0	1	R43330		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	11.46	11.46		9.6	0	0	0.107	1	0	119%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.2	10.2		10	0	0	0.211	1	0	102%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.09	11.09		9.8	0	0	0.108	1	0	113%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.13	10.13		9.8	0	0	0.2	1	0	103%	70	130	0%	
1,1-Dichloroethane	A	ppbv	11.06	11.06		9.7	0	0	0.111	1	0	114%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.98	10.98		9.9	0	0	0.097	1	0	111%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	7.37	7.37		9.1	0	0	0.271	1	0	81%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.28	9.28		9.8	0	0	0.245	1	0	95%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.89	9.89		9.6	0	0	0.186	1	0	103%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	8.86	8.86		9.7	0	0	0.208	1	0	91%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.46	11.46		9.7	0	0	0.196	1	0	118%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.59	10.59		9.8	0	0	0.224	1	0	108%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.41	9.41		9.7	0	0	0.24	1	0	97%	70	130	0%	
1,3-Butadiene	A	ppbv	12.32	12.32		9.8	0	0	0.152	1	0	126%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.15	9.15		9.7	0	0	0.202	1	0	94%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	8.92	8.92		9.6	0	0	0.194	1	0	93%	70	130	0%	
1,4-Dioxane	A	ppbv	10.22	10.22		9.6	0	0	0.128	1	0	106%	70	130	0%	
2-Butanone	A	ppbv	11.26	11.26		9.9	0	0	0.287	1	0	114%	70	130	0%	
2-Hexanone	A	ppbv	10.71	10.71		9.8	0	0	0.135	1	0	109%	70	130	0%	
2-Propanol	A	ppbv	11.76	11.76		10.1	0	0	0.329	1	0	116%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.7	10.7		10	0	0	0.157	1	0	107%	70	130	0%	
Acetone	A	ppbv	11.59	11.59		10	0	0	0.43	1	0	116%	70	130	0%	
Benzene	A	ppbv	10.84	10.84		9.6	0	0	0.126	1	0	113%	70	130	0%	
Benzyl chloride	A	ppbv	10.38	10.38		9.7	0	0	0.155	1	0	107%	70	130	0%	
Bromodichloromethane	A	ppbv	10.35	10.35		9.6	0	0	0.156	1	0	108%	70	130	0%	
Bromoform	A	ppbv	9.87	9.87		9.6	0	0	0.197	1	0	103%	70	130	0%	
Bromomethane	A	ppbv	9.96	9.96		9.3	0	0	0.075	1	0	107%	70	130	0%	
Carbon disulfide	A	ppbv	10.57	10.57		9.7	0	0	0.093	1	0	109%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.79	10.79		9.5	0	0	0.114	1	0	114%	70	130	0%	M
Chlorobenzene	A	ppbv	10.29	10.29		9.9	0	0	0.275	1	0	104%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.11	10.11		9.2	0	0	0.165	1	0	110%	70	130	0%	
Chloroethane	A	ppbv	9.9	9.9		9.8	0	0	0.063	1	0	101%	70	130	0%	
Chloroform	A	ppbv	11.49	11.49		9.4	0	0	0.126	1	0	122%	70	130	0%	
Chloromethane	A	ppbv	10.37	10.37		9.8	0	0	0.104	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
845955	CCV1 VOA1 100611	EPA_TO15	ICV	:\1\DATA\100611	10/6/2011 6:37:0	1	R43330		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	10.6	10.6		9.8	0	0	0.107	1	0	108%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.21	10.21		9.5	0	0	0.166	1	0	107%	70	130	0%	
Cyclohexane	A	ppbv	11.66	11.66		9.8	0	0	0.684	2	0	119%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.53	9.53		9.2	0	0	0.086	1	0	104%	70	130	0%	
Ethanol	A	ppbv	10.82	10.82		9.2	0	0	1.962	5	0	118%	70	130	0%	
Ethyl acetate	A	ppbv	11	11		9.8	0	0	0.157	1	0	112%	70	130	0%	
Ethylbenzene	A	ppbv	10.42	10.42		9.8	0	0	0.737	2	0	106%	70	130	0%	
Heptane	A	ppbv	11.23	11.23		9.9	0	0	0.249	1	0	113%	70	130	0%	
Hexachlorobutadiene	A	ppbv	8.48	8.48		9.4	0	0	0.374	2	0	90%	70	130	0%	
m,p-Xylene	A	ppbv	21.73	21.73		19.2	0	0	0.524	2	0	113%	70	130	0%	
Methylene chloride	A	ppbv	11	11		10	0	0	2.077	5	0	110%	70	130	0%	
n-Hexane	A	ppbv	11.3	11.3		10.1	0	0	0.692	2	0	112%	70	130	0%	
Naphthalene	A	ppbv	7.26	7.26		9.2	0	0	0.247	1	0	79%	70	130	0%	
o-Xylene	A	ppbv	10.5	10.5		10	0	0	0.258	1	0	105%	70	130	0%	
Propylene	A	ppbv	10.64	10.64		10.2	0	0	0.075	1	0	104%	70	130	0%	
Styrene	A	ppbv	10	10		9.8	0	0	0.263	1	0	102%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	11.52	11.52		9.9	0	0	0.228	1	0	116%	70	130	0%	
Tetrachloroethene	A	ppbv	9.82	9.82		9.6	0	0	0.148	1	0	102%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.61	11.61		10	0	0	0.201	1	0	116%	70	130	0%	
Toluene	A	ppbv	10.35	10.35		9.8	0	0	0.158	1	0	106%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.97	10.97		9.8	0	0	0.117	1	0	112%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.73	9.73		9.1	0	0	0.171	1	0	107%	70	130	0%	
Trichloroethene	A	ppbv	9.95	9.95		9.6	0	0	0.119	1	0	104%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.46	10.46		9.6	0	0	0.148	1	0	109%	70	130	0%	
Vinyl acetate	A	ppbv	12.28	12.28		9.9	0	0	0.266	1	0	124%	70	130	0%	
Vinyl chloride	A	ppbv	11.58	11.58		9.4	0	0	0.072	1	0	123%	70	130	0%	
Xylenes, Total	C	ppbv	32.23	32.23		29.2	0	0	0.782	3	0	110%	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	12.42	12.42		12.5	0	0	0	0	0	99%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\100611\10061112.D
Acq On : 6 Oct 2011 6:37 pm
Sample : CCV1 VOA1 100611
Misc : ICV EPA_TO15
MS Integration Params: CLME.P

Vial: 12
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\100611V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 06 20:53:18 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	116	0.00
2	T	Propylene	1.304	1.361	-4.4	107	0.00
3	T	Dichlorodifluoromethane	3.309	3.426	-3.5	111	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.171	2.237	-3.0	111	0.00
5	T	Chloromethane	1.531	1.672	-9.2	105	0.01
6	T	Vinyl chloride	1.379	1.699	-23.2	118	0.02
7	T	1,3-Butadiene	1.286	1.618	-25.8	115	0.00
8	T	Bromomethane	1.173	1.256	-7.1	112	0.00
9	T	Chloroethane	0.744	0.801	-7.7	109	0.00
10	T	Trichlorofluoromethane	3.006	3.276	-9.0	116	0.00
11	T	Ethanol	0.374	0.440	-17.6	107	0.00
12	T	Freon113	2.482	2.808	-13.1	115	0.00
13	T	1,1-Dichloroethene	2.049	2.272	-10.9	111	0.00
14	T	Acetone	2.170	2.514	-15.9	107	0.00
15	T	Carbon disulfide	3.246	3.536	-8.9	111	0.00
16	T	2-Propanol	1.896	2.208	-16.5	106	0.00
17	T	Methylene chloride	1.636	1.799	-10.0	109	0.00
18	T	tert-Butyl Methyl Ether	2.877	3.348	-16.4	109	0.00
19	T	trans-1,2-Dichloroethene	1.981	2.216	-11.9	111	0.00
20	T	n-Hexane	2.203	2.465	-11.9	109	0.00
21	T	1,1-Dichloroethane	2.213	2.525	-14.1	109	0.00
22	T	Vinyl acetate	3.355	4.162	-24.1	105	0.00
23	T	cis-1,2-Dichloroethene	1.183	1.280	-8.2	110	0.00
24	T	2-Butanone	2.302	2.620	-13.8	103	0.00
25	T	Ethyl acetate	2.992	3.358	-12.2	99	0.00
26	T	Tetrahydrofuran	1.500	1.741	-16.1	104	0.00
27	T	Chloroform	2.595	3.042	-17.2	111	0.00
28	T	1,1,1-Trichloroethane	2.490	2.974	-19.4	113	0.00
29	T	Cyclohexane	2.294	2.730	-19.0	109	0.00
30	T	Carbon tetrachloride	2.155	2.446	-13.5	115	0.00
31	T	Benzene	3.091	3.489	-12.9	108	0.00
32	T	1,2-Dichloroethane	1.585	1.873	-18.2	109	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	116	0.00
34	T	Heptane	1.015	1.151	-13.4	108	0.00
35	T	Trichloroethene	0.493	0.511	-3.7	112	0.00
36	T	1,2-Dichloropropane	0.425	0.459	-8.0	106	0.00
37	T	1,4-Dioxane	0.138	0.147	-6.5	107	0.00
38	T	Bromodichloromethane	0.756	0.814	-7.7	109	0.00
39	T	cis-1,3-Dichloropropene	0.612	0.658	-7.5	108	0.00
40	T	4-Methyl-2-pentanone	0.281	0.301	-7.1	105	0.00
41	T	Toluene	1.089	1.150	-5.6	107	0.00
42	T	trans-1,3-Dichloropropene	0.526	0.562	-6.8	108	0.00
43	T	1,1,2-Trichloroethane	0.364	0.376	-3.3	108	0.00
44	T	Tetrachloroethene	0.546	0.559	-2.4	111	0.00
45	T	2-Hexanone	0.592	0.647	-9.3	103	0.00
46	T	Chlorodibromomethane	0.560	0.578	-3.2	109	0.00
47	T	1,2-Dibromoethane	0.518	0.534	-3.1	108	0.00

(#) = Out of Range
10061112.D 100611V1.M Thu Oct 20 11:13:29 2011

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\100611\10061112.D
Acq On : 6 Oct 2011 6:37 pm
Sample : CCV1 VOA1 100611
Misc : ICV EPA_TO15
MS Integration Params: CLME.P

Vial: 12
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\100611V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 06 20:53:18 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	1.075	1.117	-3.9	107	0.00
50	T	Ethylbenzene	1.853	1.970	-6.3	108	0.00
51	T	m,p-Xylene	1.541	1.744	-13.2	109	0.00
52	T	o-Xylene	1.353	1.421	-5.0	110	0.00
53	T	Styrene	0.921	0.940	-2.1	107	0.00
54	T	Bromoform	0.664	0.683	-2.9	110	0.00
55	S	4-Bromofluorobenzene	0.546	0.543	0.5	115	0.00
56	T	1,1,2,2-Tetrachloroethane	0.927	0.946	-2.0	108	0.00
57	T	4-Ethyltoluene	1.496	1.479	1.1	111	0.00
58	T	1,3,5-Trimethylbenzene	1.265	1.227	3.0	110	0.00
59	T	1,2,4-Trimethylbenzene	1.155	1.093	5.4	109	0.00
60	T	1,3-Dichlorobenzene	0.691	0.652	5.6	103	0.00
61	T	1,4-Dichlorobenzene	0.645	0.599	7.1	100	0.00
62	T	Benzyl chloride	0.798	0.853	-6.9	104	0.00
63	T	1,2-Dichlorobenzene	0.629	0.575	8.6	100	0.00
64	T	1,2,4-Trichlorobenzene	0.096	0.078	18.8	78	0.00
65	T	Hexachlorobutadiene	0.227	0.205	9.7	83	0.00
66		Naphthalene	0.145	0.115	20.7	77	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\100611\10061112.D
Acq On : 6 Oct 2011 6:37 pm
Sample : CCV1 VOA1 100611
Misc : ICV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Oct 6 20:54 2011

Vial: 12
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Quant Results File: 100611V1.RES

Quant Method : C:\HPCHEM\1\METHODS\100611V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 06 20:53:18 2011
Response via : Initial Calibration
DataAcq Meth : 100611V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.59	130	462715	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	1385177	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.54	117	825483	12.50 ppbv	0.00
System Monitoring Compounds					
55) 4-Bromofluorobenzene	17.19	95	448309	12.42 ppbv	0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 99.36%		
Target Compounds					Qvalue
2) Propylene	5.52	41	513916	10.64 ppbv	97
3) Dichlorodifluoromethane	5.59	85	1166768	9.53 ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	786674	9.79 ppbv #	68
5) Chloromethane	6.00	50	587921	10.37 ppbv	99
6) Vinyl chloride	6.21	62	591247	11.58 ppbv #	99
7) 1,3-Butadiene	6.26	39	586815	12.32 ppbv	92
8) Bromomethane	6.85	94	432319	9.96 ppbv #	98
9) Chloroethane	7.00	64	272807	9.90 ppbv #	95
10) Trichlorofluoromethane	7.33	101	1164304	10.46 ppbv #	97
11) Ethanol	7.56	45	149885	10.82 ppbv	98
12) Freon113	7.99	101	1018828	11.09 ppbv	87
13) 1,1-Dichloroethene	8.09	61	832572	10.98 ppbv #	86
14) Acetone	8.19	43	930612	11.59 ppbv	92
15) Carbon disulfide	8.46	76	1269681	10.57 ppbv #	100
16) 2-Propanol	8.23	45	825660	11.76 ppbv	89
17) Methylene chloride	8.76	49	665904	11.00 ppbv #	76
18) tert-Butyl Methyl Ether	8.95	73	1226974	11.52 ppbv #	88
19) trans-1,2-Dichloroethene	9.03	61	804069	10.97 ppbv #	81
20) n-Hexane	9.22	57	921576	11.30 ppbv #	86
21) 1,1-Dichloroethane	9.59	63	906533	11.06 ppbv #	97
22) Vinyl acetate	9.53	43	1525244	12.28 ppbv #	95
23) cis-1,2-Dichloroethene	10.28	96	464341	10.60 ppbv #	79
24) 2-Butanone	10.25	43	960095	11.26 ppbv #	88
25) Ethyl acetate	10.19	43	1218322	11.00 ppbv #	99
26) Tetrahydrofuran	10.59	42	644522	11.61 ppbv	87
27) Chloroform	10.60	83	1103519	11.49 ppbv	100
28) 1,1,1-Trichloroethane	10.85	97	1056792	11.46 ppbv #	94
29) Cyclohexane	10.86	56	990206	11.66 ppbv	85
30) Carbon tetrachloride	11.01	117	860254m	10.79 ppbv	
31) Benzene	11.30	78	1239854	10.84 ppbv	93
32) 1,2-Dichloroethane	11.37	62	672356	11.46 ppbv #	97
34) Heptane	11.34	43	1262767	11.23 ppbv #	87
35) Trichloroethene	12.02	130	543267	9.95 ppbv	92
36) 1,2-Dichloropropane	12.38	63	498248	10.59 ppbv	97
37) 1,4-Dioxane	12.46	88	156742	10.22 ppbv #	78
38) Bromodichloromethane	12.67	83	866327	10.35 ppbv	98
39) cis-1,3-Dichloropropene	13.22	75	692424	10.21 ppbv	96
40) 4-Methyl-2-pentanone	13.33	58	333241	10.70 ppbv #	91
41) Toluene	13.62	91	1249316	10.35 ppbv	97
42) trans-1,3-Dichloropropene	13.93	75	567163	9.73 ppbv	95
43) 1,1,2-Trichloroethane	14.20	97	408198	10.13 ppbv	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\100611\10061112.D
Acq On : 6 Oct 2011 6:37 pm
Sample : CCV1 VOA1 100611
Misc : ICV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Oct 6 20:54 2011

Vial: 12
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00
Quant Results File: 100611V1.RES

Quant Method : C:\HPCHEM\1\METHODS\100611V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 06 20:53:18 2011
Response via : Initial Calibration
DataAcq Meth : 100611V1

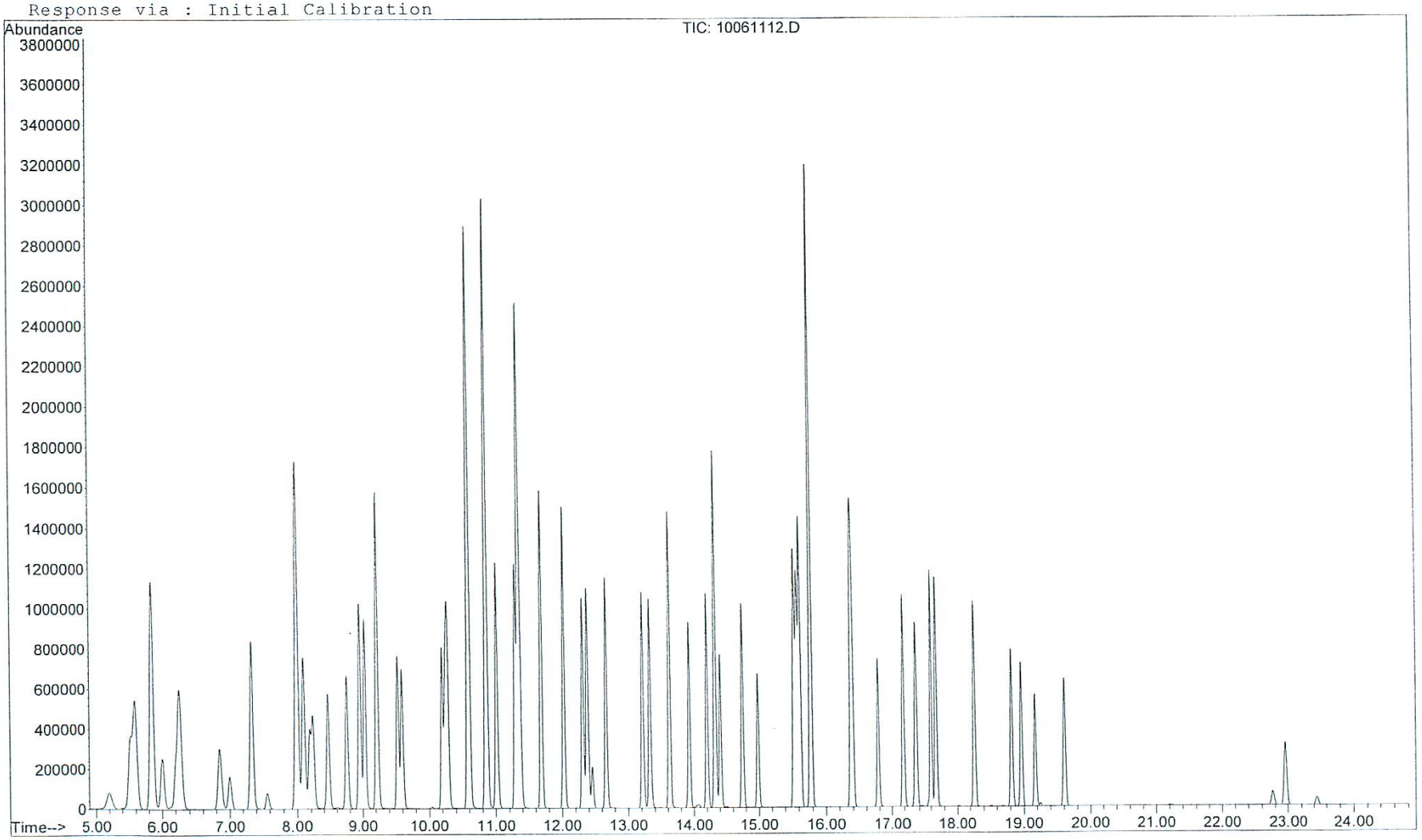
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44) Tetrachloroethene	14.33	166	594281	9.82	ppbv		98
45) 2-Hexanone	14.41	43	702999	10.71	ppbv		91
46) Chlorodibromomethane	14.75	129	627352	10.11	ppbv		98
47) 1,2-Dibromoethane	14.98	107	567662	9.89	ppbv		100
49) Chlorobenzene	15.58	112	730477	10.29	ppbv	#	84
50) Ethylbenzene	15.62	91	1275133	10.42	ppbv		92
51) m,p-Xylene	15.77	91	2211247	21.73	ppbv		90
52) o-Xylene	16.37	91	938257	10.50	ppbv	#	87
53) Styrene	16.40	104	608173	10.00	ppbv		96
54) Bromoform	16.78	173	433013	9.87	ppbv	#	97
56) 1,1,2,2-Tetrachloroethane	17.35	83	624465	10.20	ppbv	#	98
57) 4-Ethyltoluene	17.60	105	957430	9.69	ppbv		95
58) 1,3,5-Trimethylbenzene	17.68	105	786170	9.41	ppbv		96
59) 1,2,4-Trimethylbenzene	18.26	105	707546	9.28	ppbv		96
60) 1,3-Dichlorobenzene	18.82	146	417732	9.15	ppbv		97
61) 1,4-Dichlorobenzene	18.96	146	379950	8.92	ppbv		97
62) Benzyl chloride	19.17	91	546626	10.38	ppbv		96
63) 1,2-Dichlorobenzene	19.61	146	368285	8.86	ppbv		97
64) 1,2,4-Trichlorobenzene	22.76	180	46716	7.37	ppbv		96
65) Hexachlorobutadiene	22.97	225	127095	8.48	ppbv		99
66) Naphthalene	23.46	128	69704	7.26	ppbv		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\100611\10061112.D Vial: 12
Acq On : 6 Oct 2011 6:37 pm Operator: RACHEL HILL
Sample : CCV1 VOA1 100611 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 6 20:54 2011 Quant Results File: 100611V1.RES

Method : C:\HPCHEM\1\METHODS\100611V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 06 20:53:18 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_111006B **Run No.:** 43338

Analytical Run Date: 10/6/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 43330 **Column ID:** 0.25mm, 1.4umFT

Column Length: 30m

Run Comments: ch rev 10/10/11 Ran on 10.7.11 - Created sequence w/ wrong date. RH

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 VOA1 100611	BFB_TUNE	TUNE	R43338	10/7/2011 6:07:00 PM	Celeste Hoitash		
CCV1 VOA1 100611	EPA_TO15	ICV	R43338	10/7/2011 6:49:00 PM	Celeste Hoitash		
RLVS1 VOA1 10061	EPA_TO15	RLVS	R43338	10/7/2011 7:33:00 PM	Celeste Hoitash		
BLANK VOA1 10061	EPA_TO15	MBLK	R43338	10/7/2011 8:21:00 PM	Celeste Hoitash		
1109555-020A	EPA_TO15	SAMP	R43338	10/7/2011 9:10:00 PM	Celeste Hoitash		
1109555-021A	EPA_TO15	SAMP	R43338	10/7/2011 9:58:00 PM	Celeste Hoitash		
1109555-022A	EPA_TO15	SAMP	R43338	10/7/2011 10:47:00 PM	Celeste Hoitash		
1109555-024A	EPA_TO15	SAMP	R43338	10/8/2011 12:25:00 AM	Celeste Hoitash		
1109988-004B	EPA_TO15	SAMP	R43338	10/8/2011 5:10:00 AM	Celeste Hoitash		Accidentally over diluted sample. Reported here to show that sample and duplicate were analyzed. Will re-run at a lower dilution.
1109988-004BDUP	EPA_TO15	DUP	R43338	10/8/2011 5:52:00 AM	Celeste Hoitash		
1109988-020A	EPA_TO15	DUP	R43338	10/8/2011 6:38:00 AM	Celeste Hoitash		
1109988-005B	EPA_TO15	SAMP	R43338	10/8/2011 7:27:00 AM	Celeste Hoitash		
1109988-006B	EPA_TO15	SAMP	R43338	10/8/2011 8:09:00 AM	Celeste Hoitash		
1109988-007B	EPA_TO15	SAMP	R43338	10/8/2011 8:51:00 AM	Celeste Hoitash		
RLVS1 VOA1 10061	EPA_TO15	RLVS	R43338	10/8/2011 9:34:00 AM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 43338

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
845974	BFB1 VOA1 100611	BFB_TUNE	TUNE	\1\DATA\100611	10/7/2011 6:07:0	1	R43338		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		70.7	70.7		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		99.2	99.2		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.9	6.9		0	0	0	0	0	0	0%	5	9	0%	
50	M		26.6	26.6		0	0	0	0	0	0	0%	8	40	0%	
75	M		53.5	53.5		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		7.4	7.4		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
845975	CCV1 VOA1 100611	EPA_TO15	ICV	\1\DATA\100611	10/7/2011 6:49:0	1	R43338		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	9.97	9.97		9.6	0	0	0.107	1	0	104%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	9.16	9.16		10	0	0	0.211	1	0	92%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.29	10.29		9.8	0	0	0.108	1	0	105%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	8.36	8.36		9.8	0	0	0.2	1	0	85%	70	130	0%	
1,1-Dichloroethane	A	ppbv	9.77	9.77		9.7	0	0	0.111	1	0	101%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.04	11.04		9.9	0	0	0.097	1	0	112%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	8.03	8.03		9.1	0	0	0.271	1	0	88%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	8.65	8.65		9.8	0	0	0.245	1	0	88%	70	130	0%	
1,2-Dibromoethane	A	ppbv	8.28	8.28		9.6	0	0	0.186	1	0	86%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	8.82	8.82		9.7	0	0	0.208	1	0	91%	70	130	0%	
1,2-Dichloroethane	A	ppbv	9.47	9.47		9.7	0	0	0.196	1	0	98%	70	130	0%	
1,2-Dichloropropane	A	ppbv	8.51	8.51		9.8	0	0	0.224	1	0	87%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	8.38	8.38		9.7	0	0	0.24	1	0	86%	70	130	0%	
1,3-Butadiene	A	ppbv	12.54	12.54		9.8	0	0	0.152	1	0	128%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	8.73	8.73		9.7	0	0	0.202	1	0	90%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
845975	CCV1 VOA1 100611	EPA_TO15	ICV	\1\DATA\100611	10/7/2011 6:49:0	1	R43338		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	8.55	8.55		9.6	0	0	0.194	1	0	89%	70	130	0%	
1,4-Dioxane	A	ppbv	8.5	8.5		9.6	0	0	0.128	1	0	89%	70	130	0%	
2-Butanone	A	ppbv	9.82	9.82		9.9	0	0	0.287	1	0	99%	70	130	0%	
2-Hexanone	A	ppbv	8.88	8.88		9.8	0	0	0.135	1	0	91%	70	130	0%	
2-Propanol	A	ppbv	10.54	10.54		10.1	0	0	0.329	1	0	104%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	8.87	8.87		10	0	0	0.157	1	0	89%	70	130	0%	
Acetone	A	ppbv	9.99	9.99		10	0	0	0.43	1	0	100%	70	130	0%	
Benzene	A	ppbv	9.14	9.14		9.6	0	0	0.126	1	0	95%	70	130	0%	
Benzyl chloride	A	ppbv	9.17	9.17		9.7	0	0	0.155	1	0	95%	70	130	0%	
Bromodichloromethane	A	ppbv	8.25	8.25		9.6	0	0	0.156	1	0	86%	70	130	0%	
Bromoform	A	ppbv	8.12	8.12		9.6	0	0	0.197	1	0	85%	70	130	0%	
Bromomethane	A	ppbv	10.04	10.04		9.3	0	0	0.075	1	0	108%	70	130	0%	
Carbon disulfide	A	ppbv	10.76	10.76		9.7	0	0	0.093	1	0	111%	70	130	0%	
Carbon tetrachloride	A	ppbv	9.35	9.35		9.5	0	0	0.114	1	0	98%	70	130	0%	M
Chlorobenzene	A	ppbv	8.25	8.25		9.9	0	0	0.275	1	0	83%	70	130	0%	
Chlorodibromomethane	A	ppbv	8.22	8.22		9.2	0	0	0.165	1	0	89%	70	130	0%	
Chloroethane	A	ppbv	10.21	10.21		9.8	0	0	0.063	1	0	104%	70	130	0%	
Chloroform	A	ppbv	10.2	10.2		9.4	0	0	0.126	1	0	109%	70	130	0%	
Chloromethane	A	ppbv	11.35	11.35		9.8	0	0	0.104	1	0	116%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	9.66	9.66		9.8	0	0	0.107	1	0	99%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	8.25	8.25		9.5	0	0	0.166	1	0	87%	70	130	0%	
Cyclohexane	A	ppbv	10.85	10.85		9.8	0	0	0.684	2	0	111%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.88	9.88		9.2	0	0	0.086	1	0	107%	70	130	0%	
Ethanol	A	ppbv	9.39	9.39		9.2	0	0	1.962	5	0	102%	70	130	0%	
Ethyl acetate	A	ppbv	9.94	9.94		9.8	0	0	0.157	1	0	101%	70	130	0%	
Ethylbenzene	A	ppbv	8.28	8.28		9.8	0	0	0.737	2	0	84%	70	130	0%	
Heptane	A	ppbv	9.87	9.87		9.9	0	0	0.249	1	0	100%	70	130	0%	
Hexachlorobutadiene	A	ppbv	8.71	8.71		9.4	0	0	0.374	2	0	93%	70	130	0%	
m,p-Xylene	A	ppbv	17	17		19.2	0	0	0.524	2	0	89%	70	130	0%	
Methylene chloride	A	ppbv	10.73	10.73		10	0	0	2.077	5	0	107%	70	130	0%	
n-Hexane	A	ppbv	10.54	10.54		10.1	0	0	0.692	2	0	104%	70	130	0%	
Naphthalene	A	ppbv	8.21	8.21		9.2	0	0	0.247	1	0	89%	70	130	0%	
o-Xylene	A	ppbv	8.43	8.43		10	0	0	0.258	1	0	84%	70	130	0%	
Propylene	A	ppbv	11.42	11.42		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
845975	CCV1 VOA1 100611	EPA_TO15	ICV	:\1\DATA\100611	10/7/2011 6:49:0	1	R43338		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	8.26	8.26		9.8	0	0	0.263	1	0	84%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	9.11	9.11		9.9	0	0	0.228	1	0	92%	70	130	0%	
Tetrachloroethene	A	ppbv	8.66	8.66		9.6	0	0	0.148	1	0	90%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.3	10.3		10	0	0	0.201	1	0	103%	70	130	0%	
Toluene	A	ppbv	8.47	8.47		9.8	0	0	0.158	1	0	86%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.32	10.32		9.8	0	0	0.117	1	0	105%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	7.97	7.97		9.1	0	0	0.171	1	0	88%	70	130	0%	
Trichloroethene	A	ppbv	8.55	8.55		9.6	0	0	0.119	1	0	89%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.16	10.16		9.6	0	0	0.148	1	0	106%	70	130	0%	
Vinyl acetate	A	ppbv	10.2	10.2		9.9	0	0	0.266	1	0	103%	70	130	0%	
Vinyl chloride	A	ppbv	11.4	11.4		9.4	0	0	0.072	1	0	121%	70	130	0%	
Xylenes, Total	C	ppbv	25.43	25.43		29.2	0	0	0.782	3	0	87%	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	13.08	13.08		12.5	0	0	0	0	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
845976	RLVS1 VOA1 10061	EPA_TO15	RLVS	:\1\DATA\100611	10/7/2011 7:33:0	1	R43338		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	0.79	0.79		0.996	0	0	0.107	1	0	79%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.1	1.1		1	0	0	0.211	1	0	110%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	0.88	0.88		0.98	0	0	0.108	1	0	90%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.74	0.74		0.98	0	0	0.2	1	0	76%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1	1		0.97	0	0	0.111	1	0	103%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.02	1.02		0.99	0	0	0.097	1	0	103%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.76	1.76		0.91	0	0	0.271	1	0	193%	70	130	0%	S
1,2,4-Trimethylbenzene	A	ppbv	1.29	1.29		0.98	0	0	0.245	1	0	132%	70	130	0%	S
1,2-Dibromoethane	A	ppbv	0.73	0.73		0.96	0	0	0.186	1	0	76%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.4	1.4		0.97	0	0	0.208	1	0	144%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	0.95	0.95		0.97	0	0	0.196	1	0	98%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.74	0.74		0.98	0	0	0.224	1	0	76%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\100611\10061134.D Vial: 2
Acq On : 7 Oct 2011 6:49 pm Operator: RACHEL HILL
Sample : CCV1 VOA1 100611 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\100611V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 06 20:53:18 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	102	0.00
2	T	Propylene	1.304	1.460	-12.0	101	0.00
3	T	Dichlorodifluoromethane	3.309	3.555	-7.4	101	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.171	2.299	-5.9	100	0.00
5	T	Chloromethane	1.531	1.829	-19.5	101	0.00
6	T	Vinyl chloride	1.379	1.673	-21.3	102	0.00
7	T	1,3-Butadiene	1.286	1.645	-27.9	102	0.00
8	T	Bromomethane	1.173	1.266	-7.9	100	0.00
9	T	Chloroethane	0.744	0.826	-11.0	99	0.00
10	T	Trichlorofluoromethane	3.006	3.180	-5.8	99	0.00
11	T	Ethanol	0.374	0.382	-2.1	82	0.00
12	T	Freon113	2.482	2.606	-5.0	93	0.00
13	T	1,1-Dichloroethene	2.049	2.284	-11.5	98	0.00
14	T	Acetone	2.170	2.168	0.1	81	0.00
15	T	Carbon disulfide	3.246	3.601	-10.9	99	0.00
16	T	2-Propanol	1.896	1.978	-4.3	84	0.00
17	T	Methylene chloride	1.636	1.756	-7.3	93	0.00
18	T	tert-Butyl Methyl Ether	2.877	2.648	8.0	76	0.00
19	T	trans-1,2-Dichloroethene	1.981	2.086	-5.3	92	0.00
20	T	n-Hexane	2.203	2.299	-4.4	90	0.00
21	T	1,1-Dichloroethane	2.213	2.229	-0.7	85	0.00
22	T	Vinyl acetate	3.355	3.457	-3.0	77	0.00
23	T	cis-1,2-Dichloroethene	1.183	1.166	1.4	88	0.00
24	T	2-Butanone	2.302	2.284	0.8	79	0.00
25	T	Ethyl acetate	2.992	3.035	-1.4	79	0.00
26	T	Tetrahydrofuran	1.500	1.545	-3.0	81	0.00
27	T	Chloroform	2.595	2.702	-4.1	86	0.00
28	T	1,1,1-Trichloroethane	2.490	2.588	-3.9	87	0.00
29	T	Cyclohexane	2.294	2.540	-10.7	89	0.00
30	T	Carbon tetrachloride	2.155	2.120	1.6	88	0.00
31	T	Benzene	3.091	2.941	4.9	80	0.00
32	T	1,2-Dichloroethane	1.585	1.548	2.3	79	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	108	0.00
34	T	Heptane	1.015	1.012	0.3	88	0.00
35	T	Trichloroethene	0.493	0.438	11.2	89	0.00
36	T	1,2-Dichloropropane	0.425	0.369	13.2	79	0.00
37	T	1,4-Dioxane	0.138	0.123	10.9	83	0.00
38	T	Bromodichloromethane	0.756	0.649	14.2	81	0.00
39	T	cis-1,3-Dichloropropene	0.612	0.531	13.2	81	0.00
40	T	4-Methyl-2-pentanone	0.281	0.249	11.4	81	0.00
41	T	Toluene	1.089	0.941	13.6	82	0.00
42	T	trans-1,3-Dichloropropene	0.526	0.460	12.5	82	0.00
43	T	1,1,2-Trichloroethane	0.364	0.310	14.8	83	0.00
44	T	Tetrachloroethene	0.546	0.493	9.7	91	0.00
45	T	2-Hexanone	0.592	0.537	9.3	80	0.00
46	T	Chlorodibromomethane	0.560	0.470	16.1	83	0.00
47	T	1,2-Dibromoethane	0.518	0.447	13.7	84	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\100611\10061134.D Vial: 2
Acq On : 7 Oct 2011 6:49 pm Operator: RACHEL HILL
Sample : CCV1 VOA1 100611 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\100611V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 06 20:53:18 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	1.075	0.895	16.7	85	0.00
50	T	Ethylbenzene	1.853	1.566	15.5	85	0.00
51	T	m,p-Xylene	1.541	1.364	11.5	84	0.00
52	T	o-Xylene	1.353	1.140	15.7	87	0.00
53	T	Styrene	0.921	0.777	15.6	88	0.00
54	T	Bromoform	0.664	0.562	15.4	89	0.00
55	S	4-Bromofluorobenzene	0.546	0.572	-4.8	120	0.00
56	T	1,1,2,2-Tetrachloroethane	0.927	0.849	8.4	96	0.00
57	T	4-Ethyltoluene	1.496	1.287	14.0	95	0.00
58	T	1,3,5-Trimethylbenzene	1.265	1.092	13.7	97	0.00
59	T	1,2,4-Trimethylbenzene	1.155	1.019	11.8	101	0.00
60	T	1,3-Dichlorobenzene	0.691	0.623	9.8	97	0.00
61	T	1,4-Dichlorobenzene	0.645	0.575	10.9	95	0.00
62	T	Benzyl chloride	0.798	0.754	5.5	91	0.00
63	T	1,2-Dichlorobenzene	0.629	0.572	9.1	99	0.00
64	T	1,2,4-Trichlorobenzene	0.096	0.085	11.5	84	0.00
65	T	Hexachlorobutadiene	0.227	0.210	7.5	85	0.00
66		Naphthalene	0.145	0.130	10.3	86	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\100611\10061134.D Vial: 2
Acq On : 7 Oct 2011 6:49 pm Operator: RACHEL HILL
Sample : CCV1 VOA1 100611 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 9 19:02 2011 Quant Results File: 100611V1.RES

Quant Method : C:\HPCHEM\1\METHODS\100611V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 06 20:53:18 2011
Response via : Initial Calibration
DataAcq Meth : 100411V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.59	130	406287	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	1292758	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.54	117	816280	12.50	ppbv	0.00
System Monitoring Compounds						
55) 4-Bromofluorobenzene	17.18	95	466682	13.08	ppbv	0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 104.64%			
Target Compounds						Qvalue
2) Propylene	5.52	41	483911	11.42	ppbv	98
3) Dichlorodifluoromethane	5.58	85	1063103	9.88	ppbv	98
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	709855	10.06	ppbv #	67
5) Chloromethane	6.00	50	564755	11.35	ppbv	99
6) Vinyl chloride	6.20	62	511144	11.40	ppbv #	98
7) 1,3-Butadiene	6.26	39	524101	12.54	ppbv	93
8) Bromomethane	6.85	94	382658	10.04	ppbv #	98
9) Chloroethane	7.00	64	246901	10.21	ppbv #	95
10) Trichlorofluoromethane	7.33	101	992366	10.16	ppbv #	97
11) Ethanol	7.56	45	114185	9.39	ppbv	98
12) Freon113	7.99	101	830138	10.29	ppbv	86
13) 1,1-Dichloroethene	8.09	61	735061	11.04	ppbv #	85
14) Acetone	8.18	43	704659	9.99	ppbv #	89
15) Carbon disulfide	8.46	76	1135415	10.76	ppbv #	99
16) 2-Propanol	8.23	45	649328	10.54	ppbv	85
17) Methylene chloride	8.75	49	570666	10.73	ppbv #	74
18) tert-Butyl Methyl Ether	8.95	73	852087	9.11	ppbv #	85
19) trans-1,2-Dichloroethene	9.03	61	664531	10.32	ppbv #	80
20) n-Hexane	9.22	57	754735	10.54	ppbv #	85
21) 1,1-Dichloroethane	9.59	63	702640	9.77	ppbv #	97
22) Vinyl acetate	9.53	43	1112264	10.20	ppbv #	94
23) cis-1,2-Dichloroethene	10.28	96	371523	9.66	ppbv #	78
24) 2-Butanone	10.24	43	735077	9.82	ppbv #	86
25) Ethyl acetate	10.20	43	966581	9.94	ppbv #	99
26) Tetrahydrofuran	10.58	42	502299	10.30	ppbv #	84
27) Chloroform	10.60	83	860653	10.20	ppbv	100
28) 1,1,1-Trichloroethane	10.85	97	807410	9.97	ppbv #	92
29) Cyclohexane	10.86	56	808951	10.85	ppbv #	82
30) Carbon tetrachloride	11.01	117	654509m	9.35	ppbv	
31) Benzene	11.30	78	917747	9.14	ppbv	93
32) 1,2-Dichloroethane	11.37	62	488152	9.47	ppbv #	97
34) Heptane	11.34	43	1036166	9.87	ppbv #	85
35) Trichloroethene	12.03	130	435338	8.55	ppbv	92
36) 1,2-Dichloropropane	12.38	63	373830	8.51	ppbv	96
37) 1,4-Dioxane	12.46	88	121682	8.50	ppbv #	79
38) Bromodichloromethane	12.67	83	644706	8.25	ppbv	98
39) cis-1,3-Dichloropropene	13.22	75	521997	8.25	ppbv	96
40) 4-Methyl-2-pentanone	13.33	58	257898	8.87	ppbv #	90
41) Toluene	13.62	91	953879	8.47	ppbv	97
42) trans-1,3-Dichloropropene	13.93	75	433263	7.97	ppbv	95
43) 1,1,2-Trichloroethane	14.20	97	314306	8.36	ppbv	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\100611\10061134.D Vial: 2
Acq On : 7 Oct 2011 6:49 pm Operator: RACHEL HILL
Sample : CCV1 VOA1 100611 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 9 19:02 2011 Quant Results File: 100611V1.RES

Quant Method : C:\HPCHEM\1\METHODS\100611V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 06 20:53:18 2011
Response via : Initial Calibration
DataAcq Meth : 100411V1

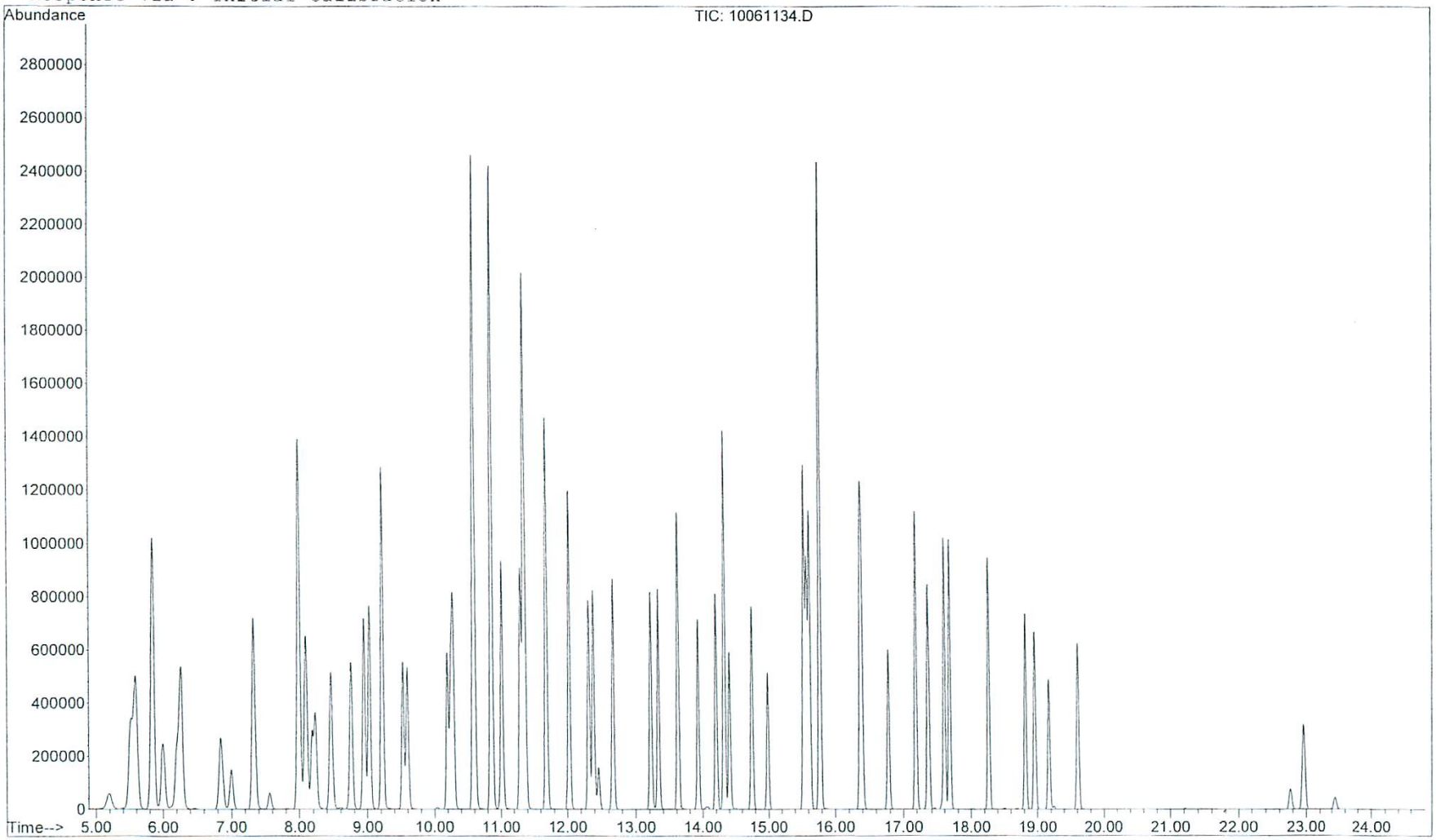
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	Tetrachloroethene	14.32	166	489094	8.66	ppbv		98
45)	2-Hexanone	14.41	43	543982	8.88	ppbv		91
46)	Chlorodibromomethane	14.75	129	475870	8.22	ppbv		99
47)	1,2-Dibromoethane	14.98	107	443441	8.28	ppbv		100
49)	Chlorobenzene	15.58	112	578861	8.25	ppbv	#	83
50)	Ethylbenzene	15.62	91	1002151	8.28	ppbv		92
51)	m,p-Xylene	15.78	91	1710694	17.00	ppbv		89
52)	o-Xylene	16.37	91	744445	8.43	ppbv	#	86
53)	Styrene	16.40	104	497257	8.26	ppbv		96
54)	Bromoform	16.78	173	352097	8.12	ppbv	#	97
56)	1,1,2,2-Tetrachloroethane	17.36	83	554111	9.16	ppbv	#	99
57)	4-Ethyltoluene	17.60	105	823762	8.43	ppbv		96
58)	1,3,5-Trimethylbenzene	17.68	105	691952	8.38	ppbv		96
59)	1,2,4-Trimethylbenzene	18.26	105	652360	8.65	ppbv		96
60)	1,3-Dichlorobenzene	18.82	146	394376	8.73	ppbv		97
61)	1,4-Dichlorobenzene	18.96	146	360303	8.55	ppbv	#	97
62)	Benzyl chloride	19.17	91	477526	9.17	ppbv		96
63)	1,2-Dichlorobenzene	19.61	146	362189	8.82	ppbv		97
64)	1,2,4-Trichlorobenzene	22.77	180	50360	8.03	ppbv		98
65)	Hexachlorobutadiene	22.96	225	129033	8.71	ppbv		98
66)	Naphthalene	23.46	128	77932	8.21	ppbv		97

(#) = qualifier out of range (m) = manual integration
10061134.D 100611V1.M Thu Oct 20 12:21:49 2011

Quantitation Report

Data File : C:\HPCHEM\1\DATA\100611\10061134.D Vial: 2
Acq On : 7 Oct 2011 6:49 pm Operator: RACHEL HILL
Sample : CCV1 VOA1 100611 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 9 19:02 2011 Quant Results File: 100611V1.RES

Method : C:\HPCHEM\1\METHODS\100611V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 06 20:53:18 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_111010A **Run No.:** 43399

Analytical Run Date: 10/10/2011 **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 101011	BFB_TUNE	TUNE	R43399	10/10/2011 10:00:00 AM	Robert Lynch		
1ppbv ICAL	EPA_TO15	ICAL	R43399	10/10/2011 1:03:00 PM	Robert Lynch		
10ppbv ICAL	EPA_TO15	ICAL	R43399	10/10/2011 1:45:00 PM	Robert Lynch		
12ppbv ICAL	EPA_TO15	ICAL	R43399	10/10/2011 2:27:00 PM	Robert Lynch		
15ppbv ICAL	EPA_TO15	ICAL	R43399	10/10/2011 3:09:00 PM	Robert Lynch		
20ppbv ICAL	EPA_TO15	ICAL	R43399	10/10/2011 5:57:00 PM	Robert Lynch		
30ppbv ICAL	EPA_TO15	ICAL	R43399	10/10/2011 6:39:00 PM	Robert Lynch		
50ppbv ICAL	EPA_TO15	ICAL	R43399	10/10/2011 7:23:00 PM	Robert Lynch		
BFB2 VOA1 101011	BFB_TUNE	TUNE	R43399	10/10/2011 8:03:00 PM	Robert Lynch		
ICV1 VOA1 101011	EPA_TO15	ICV	R43399	10/10/2011 10:05:00 PM	Robert Lynch		
RLVS1 VOA1 10101	EPA_TO15	RLVS	R43399	10/10/2011 10:46:00 PM	Robert Lynch		
BLANK VOA1 10101	EPA_TO15	MBLK	R43399	10/10/2011 11:34:00 PM	Robert Lynch		
1108688-007A	EPA_TO15	SAMP	R43399	10/11/2011 12:16:00 AM	Robert Lynch	H	
1109555-031A	EPA_TO15	SAMP	R43399	10/11/2011 12:56:00 AM	Robert Lynch	H	
1109555-032A	EPA_TO15	SAMP	R43399	10/11/2011 1:37:00 AM	Robert Lynch	H	
1109555-023A	EPA_TO15	SAMP	R43399	10/11/2011 2:17:00 AM	Robert Lynch	H	
1109555-025A	EPA_TO15	SAMP	R43399	10/11/2011 2:58:00 AM	Robert Lynch	H	
1109555-026A	EPA_TO15	SAMP	R43399	10/11/2011 3:39:00 AM	Robert Lynch	H	
1109988-001B	EPA_TO15	SAMP	R43399	10/11/2011 4:19:00 AM	Robert Lynch	H	
1109988-003B	EPA_TO15	SAMP	R43399	10/11/2011 5:00:00 AM	Robert Lynch	H	
1109988-004B	EPA_TO15	SAMP	R43399	10/11/2011 5:47:00 AM	Robert Lynch	H	
1109988-008B	EPA_TO15	SAMP	R43399	10/11/2011 6:34:00 AM	Robert Lynch		
1109988-009B	EPA_TO15	SAMP	R43399	10/11/2011 7:22:00 AM	Robert Lynch		
1109988-010B	EPA_TO15	SAMP	R43399	10/11/2011 8:06:00 AM	Robert Lynch		
1109988-011B	EPA_TO15	SAMP	R43399	10/11/2011 8:53:00 AM	Robert Lynch		
1109988-012B	EPA_TO15	SAMP	R43399	10/11/2011 9:40:00 AM	Robert Lynch		
1109988-013B	EPA_TO15	SAMP	R43399	10/11/2011 10:21:00 AM	Robert Lynch		
1109988-013BDUP	EPA_TO15	DUP	R43399	10/11/2011 11:02:00 AM	Robert Lynch		
1109988-014B	EPA_TO15	SAMP	R43399	10/11/2011 11:42:00 AM	Robert Lynch		
1109988-015B	EPA_TO15	SAMP	R43399	10/11/2011 12:29:00 PM	Robert Lynch		
1109988-016B	EPA_TO15	SAMP	R43399	10/11/2011 1:09:00 PM	Robert Lynch		
1109988-017B	EPA_TO15	SAMP	R43399	10/11/2011 1:50:00 PM	Robert Lynch		
1109988-018B	EPA_TO15	SAMP	R43399	10/11/2011 2:38:00 PM	Robert Lynch		
1109988-019B	EPA_TO15	SAMP	R43399	10/11/2011 3:25:00 PM	Robert Lynch		
1110067-046A	EPA_TO15	SAMP	R43399	10/11/2011 4:07:00 PM	Robert Lynch		
1110067-044B	EPA_TO15	SAMP	R43399	10/11/2011 4:51:00 PM	Robert Lynch		

RTI Laboratories

Run ID: VOA1_111010A **Run No.: 43399**

1110067-045B	EPA_TO15	SAMP	R43399	10/11/2011 5:35:00 PM	Robert Lynch		
RLVS2 VOA1 10101	EPA_TO15	RLVS	R43399	10/11/2011 6:17:00 PM	Robert Lynch		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
847556	ICV1 VOA1 101011	EPA_TO15	ICV	:\1\DATA\101011	10/10/2011 10:0	1	R43399		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	11.09	11.09		9.6	0	0	0.107	1	0	116%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.6	10.6		10	0	0	0.211	1	0	106%	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	9.92	9.92		9.8	0	0	0.2	1	0	101%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.62	10.62		9.7	0	0	0.111	1	0	109%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.04	11.04		9.9	0	0	0.097	1	0	112%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	8.46	8.46		9.1	0	0	0.271	1	0	93%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.77	9.77		9.8	0	0	0.245	1	0	100%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.73	9.73		9.6	0	0	0.186	1	0	101%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.17	10.17		9.7	0	0	0.208	1	0	105%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.96	10.96		9.7	0	0	0.196	1	0	113%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.25	10.25		9.8	0	0	0.224	1	0	105%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.5	9.5		9.7	0	0	0.24	1	0	98%	70	130	0%	
1,3-Butadiene	A	ppbv	12.71	12.71		9.8	0	0	0.152	1	0	130%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.01	10.01		9.7	0	0	0.202	1	0	103%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	9.96	9.96		9.6	0	0	0.194	1	0	104%	70	130	0%	
1,4-Dioxane	A	ppbv	10.12	10.12		9.6	0	0	0.128	1	0	105%	70	130	0%	
2-Butanone	A	ppbv	11.02	11.02		9.9	0	0	0.287	1	0	111%	70	130	0%	
2-Hexanone	A	ppbv	10.27	10.27		9.8	0	0	0.135	1	0	105%	70	130	0%	
2-Propanol	A	ppbv	11.18	11.18		10.1	0	0	0.329	1	0	111%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.4	10.4		10	0	0	0.157	1	0	104%	70	130	0%	
Acetone	A	ppbv	11.06	11.06		10	0	0	0.43	1	0	111%	70	130	0%	
Benzene	A	ppbv	10.37	10.37		9.6	0	0	0.126	1	0	108%	70	130	0%	
Benzyl chloride	A	ppbv	10.96	10.96		9.7	0	0	0.155	1	0	113%	70	130	0%	
Bromodichloromethane	A	ppbv	10.07	10.07		9.6	0	0	0.156	1	0	105%	70	130	0%	
Bromoform	A	ppbv	9.82	9.82		9.6	0	0	0.197	1	0	102%	70	130	0%	
Bromomethane	A	ppbv	10.37	10.37		9.3	0	0	0.075	1	0	112%	70	130	0%	
Carbon disulfide	A	ppbv	10.84	10.84		9.7	0	0	0.093	1	0	112%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.41	10.41		9.5	0	0	0.114	1	0	110%	70	130	0%	M
Chlorobenzene	A	ppbv	10.07	10.07		9.9	0	0	0.275	1	0	102%	70	130	0%	
Chlorodibromomethane	A	ppbv	9.76	9.76		9.2	0	0	0.165	1	0	106%	70	130	0%	
Chloroethane	A	ppbv	10.27	10.27		9.8	0	0	0.063	1	0	105%	70	130	0%	
Chloroform	A	ppbv	11.28	11.28		9.4	0	0	0.126	1	0	120%	70	130	0%	
Chloromethane	A	ppbv	10.34	10.34		9.8	0	0	0.104	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
847556	ICV1 VOA1 101011	EPA_TO15	ICV	\1\DATA\101011	10/10/2011 10:0	1	R43399		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	10.46	10.46		9.8	0	0	0.107	1	0	107%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.96	9.96		9.5	0	0	0.166	1	0	105%	70	130	0%	
Cyclohexane	A	ppbv	11.23	11.23		9.8	0	0	0.684	2	0	115%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	10.07	10.07		9.2	0	0	0.086	1	0	109%	70	130	0%	
Ethanol	A	ppbv	10.37	10.37		9.2	0	0	1.962	5	0	113%	70	130	0%	
Ethyl acetate	A	ppbv	11.1	11.1		9.8	0	0	0.157	1	0	113%	70	130	0%	
Ethylbenzene	A	ppbv	10.06	10.06		9.8	0	0	0.737	2	0	103%	70	130	0%	
Heptane	A	ppbv	10.93	10.93		9.9	0	0	0.249	1	0	110%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.58	9.58		9.4	0	0	0.374	2	0	102%	70	130	0%	
m,p-Xylene	A	ppbv	20.61	20.61		19.2	0	0	0.524	2	0	107%	70	130	0%	
Methylene chloride	A	ppbv	10.62	10.62		10	0	0	2.077	5	0	106%	70	130	0%	
n-Hexane	A	ppbv	10.94	10.94		10.1	0	0	0.692	2	0	108%	70	130	0%	
Naphthalene	A	ppbv	8.64	8.64		9.2	0	0	0.247	1	0	94%	70	130	0%	
o-Xylene	A	ppbv	9.99	9.99		10	0	0	0.258	1	0	100%	70	130	0%	
Propylene	A	ppbv	11.06	11.06		10.2	0	0	0.075	1	0	108%	70	130	0%	
Styrene	A	ppbv	9.86	9.86		9.8	0	0	0.263	1	0	101%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.96	10.96		9.9	0	0	0.228	1	0	111%	70	130	0%	
Tetrachloroethene	A	ppbv	9.71	9.71		9.6	0	0	0.148	1	0	101%	70	130	0%	
Tetrahydrofuran	A	ppbv	11	11		10	0	0	0.201	1	0	110%	70	130	0%	
Toluene	A	ppbv	9.97	9.97		9.8	0	0	0.158	1	0	102%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.71	10.71		9.8	0	0	0.117	1	0	109%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.67	9.67		9.1	0	0	0.171	1	0	106%	70	130	0%	
Trichloroethene	A	ppbv	9.74	9.74		9.6	0	0	0.119	1	0	101%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.7	10.7		9.6	0	0	0.148	1	0	111%	70	130	0%	
Vinyl acetate	A	ppbv	11.69	11.69		9.9	0	0	0.266	1	0	118%	70	130	0%	
Vinyl chloride	A	ppbv	10.6	10.6		9.4	0	0	0.072	1	0	113%	70	130	0%	
Xylenes, Total	C	ppbv	30.6	30.6		29.2	0	0	0.782	3	0	105%	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	12.96	12.96		12.5	0	0	0	0	0	104%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\101011\10101116.D
Acq On : 10 Oct 2011 10:05 pm
Sample : ICV1 VOA1 101011
Misc : ICV EPA_TO15
MS Integration Params: CLME.P

Vial: 4
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\101011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 11 12:39:37 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	120	0.00
2	T	Propylene	1.309	1.418	-8.3	112	0.00
3	T	Dichlorodifluoromethane	3.291	3.603	-9.5	120	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.188	2.358	-7.8	118	0.00
5	T	Chloromethane	1.550	1.687	-8.8	106	0.00
6	T	Vinyl chloride	1.365	1.540	-12.8	107	0.00
7	T	1,3-Butadiene	1.184	1.535	-29.6	125	0.00
8	T	Bromomethane	1.168	1.303	-11.6	117	0.01
9	T	Chloroethane	0.736	0.821	-11.5	113	0.00
10	T	Trichlorofluoromethane	2.930	3.265	-11.4	118	0.00
11	T	Ethanol	0.361	0.407	-12.7	103	-0.01
12	T	Freon113	2.418	2.687	-11.1	112	0.00
13	T	1,1-Dichloroethene	1.995	2.226	-11.6	111	0.00
14	T	Acetone	2.049	2.265	-10.5	106	0.00
15	T	Carbon disulfide	3.202	3.578	-11.7	113	0.00
16	T	2-Propanol	1.848	2.047	-10.8	107	0.00
17	T	Methylene chloride	1.619	1.719	-6.2	106	0.00
18	T	tert-Butyl Methyl Ether	2.651	2.936	-10.8	110	0.00
19	T	trans-1,2-Dichloroethene	1.925	2.104	-9.3	109	0.00
20	T	n-Hexane	2.142	2.320	-8.3	107	0.00
21	T	1,1-Dichloroethane	2.117	2.318	-9.5	107	0.00
22	T	Vinyl acetate	3.132	3.700	-18.1	106	0.00
23	T	cis-1,2-Dichloroethene	1.143	1.220	-6.7	109	0.00
24	T	2-Butanone	2.190	2.438	-11.3	105	0.00
25	T	Ethyl acetate	2.785	3.154	-13.2	105	0.00
26	T	Tetrahydrofuran	1.417	1.559	-10.0	104	0.00
27	T	Chloroform	2.487	2.863	-15.1	113	0.00
28	T	1,1,1-Trichloroethane	2.371	2.738	-15.5	113	0.00
29	T	Cyclohexane	2.213	2.536	-14.6	106	0.00
30	T	Carbon tetrachloride	2.060	2.257	-9.6	114	0.00
31	T	Benzene	2.902	3.134	-8.0	107	0.00
32	T	1,2-Dichloroethane	1.467	1.658	-13.0	109	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	119	0.00
34	T	Heptane	0.966	1.066	-10.4	107	0.00
35	T	Trichloroethene	0.475	0.482	-1.5	111	0.00
36	T	1,2-Dichloropropane	0.394	0.412	-4.6	106	0.00
37	T	1,4-Dioxane	0.132	0.139	-5.3	107	0.00
38	T	Bromodichloromethane	0.705	0.740	-5.0	111	0.00
39	T	cis-1,3-Dichloropropene	0.575	0.603	-4.9	109	0.00
40	T	4-Methyl-2-pentanone	0.262	0.272	-3.8	107	0.00
41	T	Toluene	1.014	1.031	-1.7	107	0.00
42	T	trans-1,3-Dichloropropene	0.495	0.526	-6.3	110	0.00
43	T	1,1,2-Trichloroethane	0.340	0.345	-1.5	108	0.00
44	T	Tetrachloroethene	0.522	0.528	-1.1	110	0.00
45	T	2-Hexanone	0.561	0.588	-4.8	104	0.00
46	T	Chlorodibromomethane	0.529	0.526	0.6	109	0.00
47	T	1,2-Dibromoethane	0.492	0.498	-1.2	109	0.00

(#) = Out of Range
10101116.D 101011V1.M Thu Oct 20 10:50:37 2011

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\101011\10101116.D Vial: 4
Acq On : 10 Oct 2011 10:05 pm Operator: RACHEL HILL
Sample : ICV1 VOA1 101011 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\101011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 11 12:39:37 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	1.004	1.021	-1.7	108	0.00
50	T	Ethylbenzene	1.718	1.764	-2.7	108	0.00
51	T	m,p-Xylene	1.425	1.530	-7.4	107	0.00
52	T	o-Xylene	1.264	1.263	0.1	107	0.00
53	T	Styrene	0.862	0.867	-0.6	108	0.00
54	T	Bromoform	0.637	0.652	-2.4	109	0.00
55	S	4-Bromofluorobenzene	0.545	0.565	-3.7	117	0.00
56	T	1,1,2,2-Tetrachloroethane	0.884	0.937	-6.0	112	0.00
57	T	4-Ethyltoluene	1.424	1.410	1.0	108	0.00
58	T	1,3,5-Trimethylbenzene	1.208	1.183	2.1	108	0.00
59	T	1,2,4-Trimethylbenzene	1.105	1.101	0.4	112	0.00
60	T	1,3-Dichlorobenzene	0.661	0.682	-3.2	111	0.00
61	T	1,4-Dichlorobenzene	0.614	0.637	-3.7	109	0.00
62	T	Benzyl chloride	0.754	0.852	-13.0	110	0.00
63	T	1,2-Dichlorobenzene	0.594	0.623	-4.9	111	0.00
64	T	1,2,4-Trichlorobenzene	0.091	0.084	7.7	88	0.00
65	T	Hexachlorobutadiene	0.206	0.210	-1.9	93	0.00
66		Naphthalene	0.137	0.129	5.8	88	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101011\10101116.D Vial: 4
Acq On : 10 Oct 2011 10:05 pm Operator: RACHEL HILL
Sample : ICV1 VOA1 101011 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 11 12:40 2011 Quant Results File: 101011V1.RES

Quant Method : C:\HPCHEM\1\METHODS\101011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 11 12:39:37 2011
Response via : Initial Calibration
DataAcq Meth : 101011V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.59	130	469165	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	1405947	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.54	117	846557	12.50	ppbv	0.00
System Monitoring Compounds						
55) 4-Bromofluorobenzene	17.18	95	478028	12.96	ppbv	0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 103.68%			
Target Compounds						Qvalue
2) Propylene	5.51	41	543006	11.06	ppbv	98
3) Dichlorodifluoromethane	5.59	85	1244148	10.07	ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	840619	10.23	ppbv #	68
5) Chloromethane	6.00	50	601484	10.34	ppbv	99
6) Vinyl chloride	6.21	62	543296	10.60	ppbv #	98
7) 1,3-Butadiene	6.26	39	564755	12.71	ppbv	94
8) Bromomethane	6.85	94	454688	10.37	ppbv #	97
9) Chloroethane	6.99	64	283668	10.27	ppbv #	95
10) Trichlorofluoromethane	7.33	101	1176431	10.70	ppbv #	98
11) Ethanol	7.56	45	140532	10.37	ppbv	98
12) Freon113	7.99	101	988176	10.89	ppbv	87
13) 1,1-Dichloroethene	8.09	61	827015	11.04	ppbv #	86
14) Acetone	8.18	43	850176	11.06	ppbv	92
15) Carbon disulfide	8.46	76	1302720	10.84	ppbv #	99
16) 2-Propanol	8.23	45	775893	11.18	ppbv #	1
17) Methylene chloride	8.75	49	645333	10.62	ppbv #	77
18) tert-Butyl Methyl Ether	8.95	73	1091022	10.96	ppbv #	87
19) trans-1,2-Dichloroethene	9.03	61	773826	10.71	ppbv #	82
20) n-Hexane	9.22	57	879613	10.94	ppbv #	87
21) 1,1-Dichloroethane	9.59	63	843951	10.62	ppbv #	97
22) Vinyl acetate	9.53	43	1374865	11.69	ppbv #	95
23) cis-1,2-Dichloroethene	10.27	96	448600	10.46	ppbv #	79
24) 2-Butanone	10.24	43	906093	11.02	ppbv #	87
25) Ethyl acetate	10.20	43	1160095	11.10	ppbv #	99
26) Tetrahydrofuran	10.58	42	585037	11.00	ppbv	87
27) Chloroform	10.60	83	1053064	11.28	ppbv	100
28) 1,1,1-Trichloroethane	10.85	97	986423	11.09	ppbv #	94
29) Cyclohexane	10.86	56	932661	11.23	ppbv	85
30) Carbon tetrachloride	11.01	117	804750m	10.41	ppbv	
31) Benzene	11.29	78	1129231	10.37	ppbv	94
32) 1,2-Dichloroethane	11.37	62	603728	10.96	ppbv #	97
34) Heptane	11.35	43	1187445	10.93	ppbv #	87
35) Trichloroethene	12.03	130	520377	9.74	ppbv	92
36) 1,2-Dichloropropane	12.38	63	453917	10.25	ppbv	97
37) 1,4-Dioxane	12.46	88	149811	10.12	ppbv #	80
38) Bromodichloromethane	12.66	83	798905	10.07	ppbv	98
39) cis-1,3-Dichloropropene	13.22	75	644327	9.96	ppbv	96
40) 4-Methyl-2-pentanone	13.33	58	306340	10.40	ppbv #	91
41) Toluene	13.62	91	1136659	9.97	ppbv	97
42) trans-1,3-Dichloropropene	13.92	75	538792	9.67	ppbv	95
43) 1,1,2-Trichloroethane	14.20	97	379783	9.92	ppbv	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101011\10101116.D
Acq On : 10 Oct 2011 10:05 pm
Sample : ICV1 VOA1 101011
Misc : ICV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Oct 11 12:40 2011

Vial: 4
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Quant Results File: 101011V1.RES

Quant Method : C:\HPCHEM\1\METHODS\101011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 11 12:39:37 2011
Response via : Initial Calibration
DataAcq Meth : 101011V1

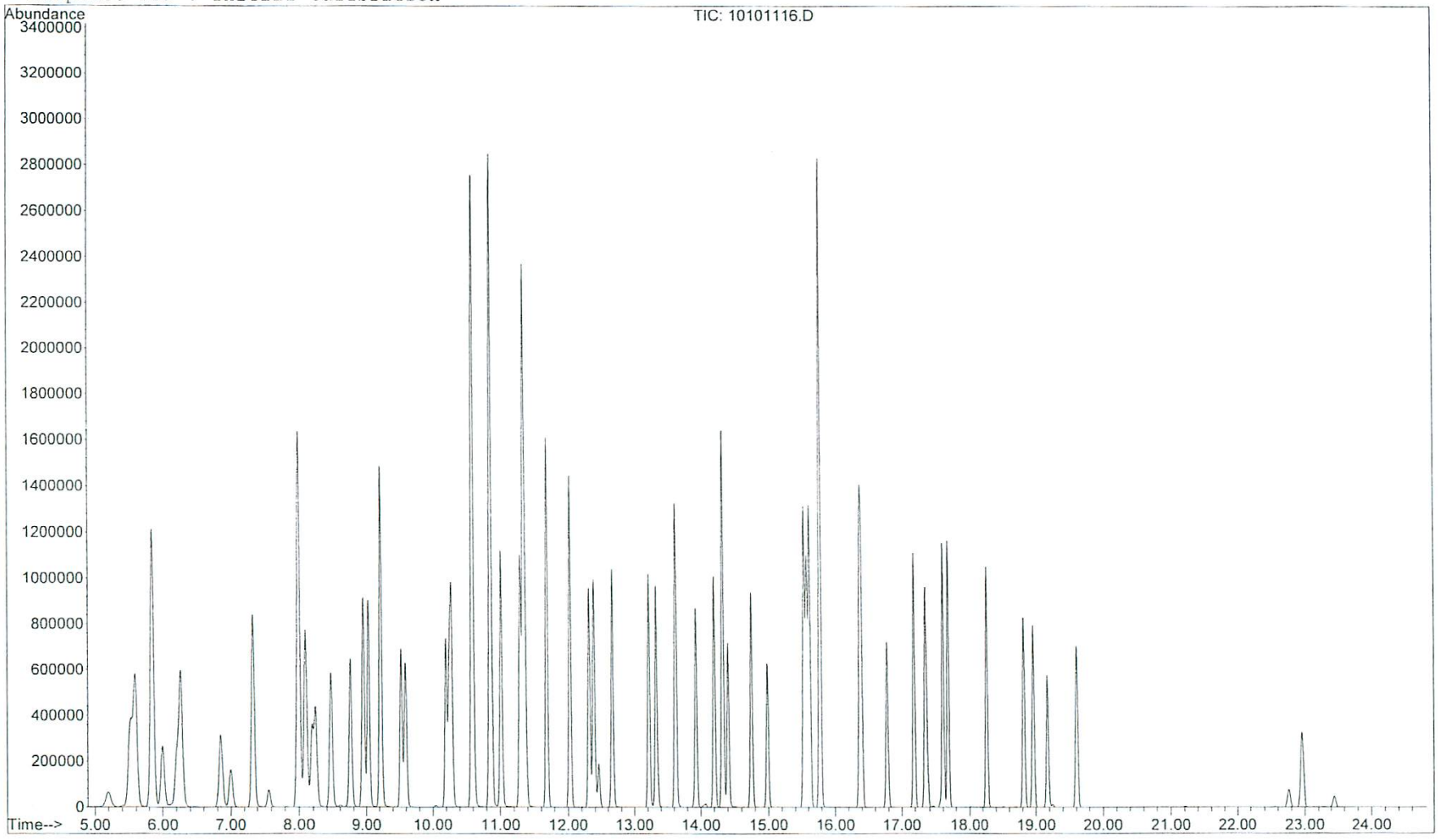
Compound	R.T.	QIon	Response	Conc Unit		Qvalue
44) Tetrachloroethene	14.33	166	569961	9.71 ppbv		98
45) 2-Hexanone	14.41	43	647684	10.27 ppbv		91
46) Chlorodibromomethane	14.75	129	580262	9.76 ppbv		99
47) 1,2-Dibromoethane	14.98	107	538092	9.73 ppbv		99
49) Chlorobenzene	15.58	112	684260	10.07 ppbv	#	85
50) Ethylbenzene	15.62	91	1170488	10.06 ppbv		91
51) m,p-Xylene	15.78	91	1989630	20.61 ppbv		89
52) o-Xylene	16.37	91	855138	9.99 ppbv	#	87
53) Styrene	16.39	104	575592	9.86 ppbv		96
54) Bromoform	16.78	173	423660	9.82 ppbv	#	97
56) 1,1,2,2-Tetrachloroethane	17.36	83	634805	10.60 ppbv	#	98
57) 4-Ethyltoluene	17.60	105	935703	9.70 ppbv		96
58) 1,3,5-Trimethylbenzene	17.68	105	777087	9.50 ppbv		96
59) 1,2,4-Trimethylbenzene	18.27	105	730677	9.77 ppbv		96
60) 1,3-Dichlorobenzene	18.82	146	447838	10.01 ppbv		97
61) 1,4-Dichlorobenzene	18.96	146	414202	9.96 ppbv		97
62) Benzyl chloride	19.17	91	559740	10.96 ppbv		96
63) 1,2-Dichlorobenzene	19.61	146	409028	10.17 ppbv		97
64) 1,2,4-Trichlorobenzene	22.76	180	51931	8.46 ppbv		97
65) Hexachlorobutadiene	22.96	225	133957	9.58 ppbv		99
66) Naphthalene	23.45	128	80490	8.64 ppbv		98

(#) = qualifier out of range (m) = manual integration
10101116.D 101011V1.M Thu Oct 20 12:17:00 2011

Quantitation Report

Data File : C:\HPCHEM\1\DATA\101011\10101116.D Vial: 4
Acq On : 10 Oct 2011 10:05 pm Operator: RACHEL HILL
Sample : ICV1 VOA1 101011 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 11 12:40 2011 Quant Results File: 101011V1.RES

Method : C:\HPCHEM\1\METHODS\101011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 11 12:39:37 2011
Response via : Initial Calibration



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	23.45	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

092911V1.M Thu Oct 20 10:35:48 2011

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\100611V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 06 20:53:18 2011
Response via : Initial Calibration

Calibration Files
2 =10061104.D 4 =10061105.D 5 =10061106.D
6 =10061107.D 7 =10061108.D 8 =10061109.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.584	1.474	1.359	1.243	1.178	1.115	1.304	13.35
3)	T	Dichlorodifluoromet	3.811	3.575	3.330	3.124	3.003	2.977	3.309	9.25
4)	T	1,2-Dichloro-1,2,2,	2.126	2.342	2.194	2.088	2.078	2.145	2.171	4.24
5)	T	Chloromethane	1.939	1.850	1.654	1.493	1.361	1.235	1.531	19.25
6)	T	Vinyl chloride	1.839	1.676	1.543	1.337	1.192	1.064	1.379	22.98
7)	T	1,3-Butadiene	1.822	1.641	1.525	1.292	1.032	0.872	1.286	30.47
8)	T	Bromomethane	1.247	1.298	1.217	1.122	1.080	1.056	1.173	7.63
9)	T	Chloroethane	0.815	0.852	0.791	0.728	0.682	0.648	0.744	10.22
10)	T	Trichlorofluorometh	3.006	3.279	3.105	2.958	2.843	2.890	3.006	4.87
11)	T	Ethanol		0.478	0.425	0.385	0.331	0.311	0.374	17.98
12)	T	Freon113	2.339	2.849	2.728	2.645	2.443	2.324	2.482	11.12
13)	T	1,1-Dichloroethene	2.225	2.383	2.185	2.035	1.860	1.808	2.049	10.84
14)	T	Acetone	2.760	2.742	2.431	2.182	1.807	1.639	2.170	22.66
15)	T	Carbon disulfide	3.565	3.697	3.408	3.171	2.955	2.867	3.246	9.75
16)	T	2-Propanol	1.839	2.417	2.126	1.939	1.717	1.600	1.896	15.50
17)	T	Methylene chloride	2.104	1.922	1.752	1.609	1.407	1.321	1.636	18.59
18)	T	tert-Butyl Methyl E	3.192	3.565	3.195	2.916	2.449	2.355	2.877	16.19
19)	T	trans-1,2-Dichloroe	2.118	2.320	2.151	2.007	1.777	1.743	1.981	11.57
20)	T	n-Hexane	2.355	2.619	2.420	2.245	2.003	1.937	2.203	12.90
21)	T	1,1-Dichloroethane	2.372	2.682	2.449	2.249	1.935	1.865	2.213	13.98
22)	T	Vinyl acetate	2.733	4.587	4.046	3.652	2.998	2.741	3.355	22.30
23)	T	cis-1,2-Dichloroeth	1.193	1.355	1.252	1.180	1.063	1.087	1.183	8.36
24)	T	2-Butanone	2.560	2.945	2.613	2.288	2.064	1.846	2.302	18.53
25)	T	Ethyl acetate	3.138	3.936	3.430	3.036	2.615	2.324	2.992	19.16
26)	T	Tetrahydrofuran	1.801	1.943	1.719	1.553	1.299	1.147	1.500	23.01
27)	T	Chloroform	2.605	3.198	2.949	2.766	2.451	2.214	2.595	16.20
28)	T	1,1,1-Trichloroetha	2.198	3.052	2.895	2.758	2.466	2.189	2.490	17.25
29)	T	Cyclohexane	2.390	2.898	2.692	2.495	2.157	1.866	2.294	20.38
30)	T	Carbon tetrachlorid	1.984	2.466	2.322	2.223	2.082	2.067	2.155	8.86
31)	T	Benzene	3.394	3.755	3.384	3.142	2.677	2.572	3.091	14.50
32)	T	1,2-Dichloroethane	1.653	2.004	1.811	1.691	1.447	1.306	1.585	18.19
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.882	1.234	1.179	1.120	1.036	0.916	1.015	17.61
35)	T	Trichloroethene	0.398	0.529	0.515	0.513	0.504	0.520	0.493	9.33
36)	T	1,2-Dichloropropane	0.356	0.502	0.464	0.449	0.402	0.402	0.425	11.64
37)	T	1,4-Dioxane	0.147	0.159	0.148	0.141	0.128	0.123	0.138	10.20
38)	T	Bromodichloromethan	0.583	0.861	0.815	0.800	0.750	0.762	0.756	11.81
39)	T	cis-1,3-Dichloropro	0.489	0.704	0.660	0.634	0.592	0.593	0.612	11.00
40)	T	4-Methyl-2-pentanon	0.224	0.331	0.308	0.293	0.270	0.270	0.281	12.11
41)	T	Toluene	0.971	1.241	1.162	1.123	1.046	1.054	1.089	8.40
42)	T	trans-1,3-Dichlorop	0.404	0.602	0.567	0.546	0.514	0.508	0.526	11.86
43)	T	1,1,2-Trichloroetha	0.314	0.402	0.379	0.369	0.351	0.360	0.364	7.49
44)	T	Tetrachloroethene	0.490	0.584	0.571	0.560	0.577	0.560	0.546	7.77
45)	T	2-Hexanone	0.524	0.723	0.653	0.622	0.564	0.537	0.592	12.85
46)	T	Chlorodibromomethan	0.417	0.611	0.579	0.581	0.572	0.602	0.560	11.72
47)	T	1,2-Dibromoethane	0.445	0.573	0.539	0.533	0.507	0.511	0.518	7.53
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.996	1.199	1.117	1.072	1.021	1.041	1.075	6.29

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\100611V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 06 20:53:18 2011
Response via : Initial Calibration

Calibration Files
2 =10061104.D 4 =10061105.D 5 =10061106.D
6 =10061107.D 7 =10061108.D 8 =10061109.D

		Compound	2	4	5	6	7	8	Avg	%RSD
50)	T	Ethylbenzene	1.730	2.101	1.960	1.885	1.769	1.811	1.853	7.55
51)	T	m,p-Xylene	1.353	1.853	1.762	1.715	1.578	1.418	1.541	17.11
52)	T	o-Xylene	1.257	1.496	1.413	1.368	1.313	1.378	1.353	6.57
53)	T	Styrene	0.906	1.008	0.939	0.913	0.882	0.924	0.921	4.78
54)	T	Bromoform	0.580	0.718	0.688	0.678	0.661	0.681	0.664	6.59
55)	S	4-Bromofluorobenzen	0.644	0.543	0.540	0.546	0.531	0.518	0.546	8.33
56)	T	1,1,2,2-Tetrachloro	1.134	1.011	0.948	0.903	0.850	0.830	0.927	12.45
57)	T	4-Ethyltoluene	2.069	1.540	1.435	1.395	1.316	1.377	1.496	17.62
58)	T	1,3,5-Trimethylbenz	1.764	1.284	1.208	1.163	1.116	1.182	1.265	17.93
59)	T	1,2,4-Trimethylbenz	1.753	1.153	1.072	1.049	0.994	1.036	1.155	23.23
60)	T	1,3-Dichlorobenzene	1.054	0.733	0.677	0.651	0.589	0.557	0.691	24.80
61)	T	1,4-Dichlorobenzene	0.946	0.691	0.637	0.622	0.553	0.520	0.645	22.54
62)	T	Benzyl chloride	0.614	0.950	0.901	0.862	0.781	0.733	0.798	14.37
63)	T	1,2-Dichlorobenzene	1.030	0.660	0.610	0.584	0.538	0.485	0.629	29.80
64)	T	1,2,4-Trichlorobenz		0.114	0.103	0.103	0.092	0.077	0.096	14.22
65)	T	Hexachlorobutadiene		0.283	0.248	0.245	0.212	0.180	0.227	17.04
66)		Naphthalene		0.172	0.157	0.157	0.140	0.117	0.145	14.13

(#) = Out of Range ### Number of calibration levels exceeded format ###

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\100611V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 06 20:53:18 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	5.51	0.521	A	2	A	B
3	T	Dichlorodifluoromethane	85	5.58	0.528	A	3	A	B
4	T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.84	0.552	A	2	A	B
5	T	Chloromethane	50	5.99	0.566	A	3	A	B
6	T	Vinyl chloride	62	6.20	0.585	A	2	A	B
7	T	1,3-Butadiene	39	6.26	0.592	A	2	A	B
8	T	Bromomethane	94	6.84	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	7.55	0.714	A	2	A	B
12	T	Freon113	101	7.99	0.755	A	2	A	B
13	T	1,1-Dichloroethene	61	8.09	0.764	A	2	A	B
14	T	Acetone	43	8.18	0.773	A	2	A	B
15	T	Carbon disulfide	76	8.46	0.799	A	3	A	B
16	T	2-Propanol	45	8.23	0.778	A	2	A	B
17	T	Methylene chloride	49	8.75	0.827	A	2	A	B
18	T	tert-Butyl Methyl Ether	73	8.95	0.845	A	2	A	B
19	T	trans-1,2-Dichloroethene	61	9.03	0.853	A	2	A	B
20	T	n-Hexane	57	9.22	0.871	A	3	A	B
21	T	1,1-Dichloroethane	63	9.59	0.906	A	3	A	B
22	T	Vinyl acetate	43	9.53	0.900	A	2	A	B
23	T	cis-1,2-Dichloroethene	96	10.27	0.971	A	3	A	B
24	T	2-Butanone	43	10.24	0.968	A	2	A	B
25	T	Ethyl acetate	43	10.20	0.963	A	3	A	B
26	T	Tetrahydrofuran	42	10.58	1.000	A	2	A	B
27	T	Chloroform	83	10.60	1.001	A	2	A	B
28	T	1,1,1-Trichloroethane	97	10.85	1.025	A	3	A	B
29	T	Cyclohexane	56	10.86	1.026	A	2	A	B
30	T	Carbon tetrachloride	117	11.01	1.041	A	3	A	B
31	T	Benzene	78	11.29	1.067	A	3	A	B
32	T	1,2-Dichloroethane	62	11.37	1.074	A	3	A	B
33	I	1,4-Difluorobenzene	114	11.69	1.000	A	2	A	B
34	T	Heptane	43	11.35	0.971	A	3	A	B
35	T	Trichloroethene	130	12.03	1.029	A	3	A	B
36	T	1,2-Dichloropropane	63	12.38	1.060	A	3	A	B
37	T	1,4-Dioxane	88	12.46	1.066	A	2	A	B
38	T	Bromodichloromethane	83	12.66	1.084	A	2	A	B
39	T	cis-1,3-Dichloropropene	75	13.22	1.131	A	2	A	B
40	T	4-Methyl-2-pentanone	58	13.33	1.141	A	3	A	B
41	T	Toluene	91	13.63	1.166	A	2	A	B
42	T	trans-1,3-Dichloropropene	75	13.93	1.192	A	3	A	B
43	T	1,1,2-Trichloroethane	97	14.20	1.215	A	3	A	B
44	T	Tetrachloroethene	166	14.33	1.226	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	15.62	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	16.39	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	17.68	1.138	A	2	A	B
59	T	1,2,4-Trimethylbenzene	105	18.27	1.176	A	2	A	B

60	T	1,3-Dichlorobenzene	146	18.82	1.211	A	3	A	B
61	T	1,4-Dichlorobenzene	146	18.96	1.221	A	3	A	B
62	T	Benzyl chloride	91	19.17	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	22.76	1.465	A	3	A	B
65	T	Hexachlorobutadiene	225	22.96	1.478	A	2	A	B
66		Naphthalene	128	23.45	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

100611V1.M Thu Oct 20 10:38:14 2011

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\101011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 11 12:39:37 2011
Response via : Initial Calibration

Calibration Files
2 =10101105.D 4 =10101106.D 5 =10101107.D
6 =10101108.D 7 =10101112.D 8 =10101113.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.465	1.525	1.400	1.277	1.184	1.115	1.309	11.94
3)	T	Dichlorodifluoromet	3.495	3.620	3.390	3.146	3.030	2.975	3.291	7.41
4)	T	1,2-Dichloro-1,2,2,	1.995	2.408	2.255	2.120	2.114	2.153	2.188	6.16
5)	T	Chloromethane	1.872	1.923	1.748	1.566	1.358	1.199	1.550	19.99
6)	T	Vinyl chloride	1.644	1.739	1.559	1.395	1.181	1.037	1.365	21.75
7)	T	1,3-Butadiene	1.582	1.481	1.384	1.191	0.977	0.852	1.184	26.06
8)	T	Bromomethane	1.181	1.335	1.241	1.160	1.054	1.019	1.168	9.18
9)	T	Chloroethane	0.755	0.877	0.813	0.744	0.656	0.618	0.736	12.27
10)	T	Trichlorofluorometh	2.805	3.322	3.155	2.942	2.672	2.686	2.930	8.20
11)	T	Ethanol		0.476	0.415	0.363	0.299	0.300	0.361	19.87
12)	T	Freon113	2.180	2.899	2.768	2.557	2.257	2.221	2.418	13.46
13)	T	1,1-Dichloroethene	2.076	2.415	2.235	2.020	1.728	1.685	1.995	13.62
14)	T	Acetone	2.638	2.579	2.359	1.990	1.626	1.568	2.049	23.22
15)	T	Carbon disulfide	3.384	3.811	3.522	3.226	2.795	2.691	3.202	12.62
16)	T	2-Propanol	1.974	2.300	2.092	1.814	1.602	1.546	1.848	15.44
17)	T	Methylene chloride	2.111	1.953	1.800	1.572	1.317	1.264	1.619	21.05
18)	T	tert-Butyl Methyl E	2.896	3.212	3.044	2.607	2.184	2.223	2.651	15.39
19)	T	trans-1,2-Dichloroe	1.978	2.328	2.167	1.930	1.667	1.673	1.925	13.25
20)	T	n-Hexane	2.214	2.609	2.452	2.154	1.871	1.855	2.142	14.31
21)	T	1,1-Dichloroethane	2.207	2.599	2.440	2.097	1.790	1.787	2.117	15.06
22)	T	Vinyl acetate	2.561	4.213	3.924	3.287	2.686	2.610	3.132	22.01
23)	T	cis-1,2-Dichloroeth	1.101	1.344	1.251	1.116	0.999	1.048	1.143	10.38
24)	T	2-Butanone	2.559	2.784	2.495	2.069	1.860	1.787	2.190	18.99
25)	T	Ethyl acetate	2.996	3.610	3.185	2.751	2.320	2.291	2.785	18.20
26)	T	Tetrahydrofuran	1.733	1.812	1.679	1.441	1.174	1.084	1.417	23.64
27)	T	Chloroform	2.401	3.060	2.913	2.627	2.303	2.139	2.487	16.09
28)	T	1,1,1-Trichloroetha	1.991	2.911	2.841	2.604	2.294	2.088	2.371	17.66
29)	T	Cyclohexane	2.191	2.870	2.702	2.395	2.009	1.773	2.213	21.63
30)	T	Carbon tetrachlorid	1.854	2.386	2.297	2.080	1.916	1.971	2.060	10.01
31)	T	Benzene	3.104	3.525	3.329	2.851	2.425	2.451	2.902	14.89
32)	T	1,2-Dichloroethane	1.461	1.823	1.758	1.514	1.297	1.250	1.467	17.15
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.795	1.184	1.152	1.048	0.951	0.893	0.966	17.74
35)	T	Trichloroethene	0.379	0.515	0.509	0.478	0.465	0.511	0.475	9.98
36)	T	1,2-Dichloropropane	0.327	0.460	0.445	0.398	0.358	0.383	0.394	11.78
37)	T	1,4-Dioxane	0.146	0.154	0.144	0.130	0.112	0.118	0.132	12.57
38)	T	Bromodichloromethan	0.518	0.793	0.787	0.715	0.676	0.742	0.705	13.17
39)	T	cis-1,3-Dichloropro	0.439	0.655	0.645	0.578	0.530	0.583	0.575	12.75
40)	T	4-Methyl-2-pentanon	0.222	0.302	0.288	0.263	0.240	0.257	0.262	10.40
41)	T	Toluene	0.892	1.141	1.120	1.011	0.924	1.011	1.014	9.05
42)	T	trans-1,3-Dichlorop	0.361	0.566	0.553	0.501	0.460	0.508	0.495	13.87
43)	T	1,1,2-Trichloroetha	0.278	0.378	0.367	0.335	0.312	0.352	0.340	10.33
44)	T	Tetrachloroethene	0.445	0.569	0.565	0.524	0.525	0.549	0.522	8.83
45)	T	2-Hexanone	0.550	0.670	0.631	0.562	0.497	0.517	0.561	11.90
46)	T	Chlorodibromomethan	0.388	0.574	0.566	0.529	0.509	0.587	0.529	12.79
47)	T	1,2-Dibromoethane	0.403	0.541	0.534	0.487	0.452	0.519	0.492	10.03
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.915	1.090	1.068	0.986	0.923	1.000	1.004	6.81

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\101011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 11 12:39:37 2011
Response via : Initial Calibration

Calibration Files
2 =10101105.D 4 =10101106.D 5 =10101107.D
6 =10101108.D 7 =10101112.D 8 =10101113.D

		Compound	2	4	5	6	7	8	Avg	%RSD
50)	T	Ethylbenzene	1.608	1.888	1.838	1.702	1.607	1.710	1.718	6.27
51)	T	m,p-Xylene	1.263	1.651	1.649	1.533	1.440	1.348	1.425	14.49
52)	T	o-Xylene	1.201	1.363	1.337	1.240	1.187	1.291	1.264	5.36
53)	T	Styrene	0.814	0.925	0.915	0.848	0.796	0.874	0.862	5.57
54)	T	Bromoform	0.546	0.691	0.691	0.633	0.600	0.667	0.637	8.19
55)	S	4-Bromofluorobenzen	0.590	0.556	0.562	0.552	0.535	0.515	0.545	5.41
56)	T	1,1,2,2-Tetrachloro	1.036	0.970	0.956	0.863	0.784	0.789	0.884	11.63
57)	T	4-Ethyltoluene	1.816	1.508	1.469	1.338	1.238	1.288	1.424	13.96
58)	T	1,3,5-Trimethylbenz	1.565	1.261	1.236	1.121	1.053	1.102	1.208	14.44
59)	T	1,2,4-Trimethylbenz	1.527	1.141	1.128	1.030	0.938	0.965	1.105	18.20
60)	T	1,3-Dichlorobenzene	0.962	0.712	0.707	0.628	0.548	0.535	0.661	23.23
61)	T	1,4-Dichlorobenzene	0.850	0.675	0.662	0.592	0.515	0.500	0.614	20.78
62)	T	Benzyl chloride	0.611	0.899	0.910	0.798	0.702	0.683	0.754	15.49
63)	T	1,2-Dichlorobenzene	0.915	0.647	0.646	0.562	0.480	0.463	0.594	27.71
64)	T	1,2,4-Trichlorobenz		0.110	0.114	0.094	0.076	0.083	0.091	20.56
65)	T	Hexachlorobutadiene		0.261	0.254	0.217	0.178	0.182	0.206	22.13
66)		Naphthalene		0.169	0.175	0.142	0.116	0.124	0.137	21.82

(#) = Out of Range ### Number of calibration levels exceeded format ###

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\101011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 11 12:39:37 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	10.59	1.000	A	2	A	B
2	T	Propylene	41	5.51	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	5.84	0.552	A	2	A	B
5	T	Chloromethane	50	5.99	0.566	A	3	A	B
6	T	Vinyl chloride	62	6.20	0.585	A	2	A	B
7	T	1,3-Butadiene	39	6.26	0.591	A	2	A	B
8	T	Bromomethane	94	6.84	0.646	A	3	A	B
9	T	Chloroethane	64	6.99	0.660	A	3	A	B
10	T	Trichlorofluoromethane	101	7.33	0.692	A	3	A	B
11	T	Ethanol	45	7.57	0.715	A	2	A	B
12	T	Freon113	101	7.99	0.754	A	2	A	B
13	T	1,1-Dichloroethene	61	8.09	0.764	A	2	A	B
14	T	Acetone	43	8.19	0.773	A	2	A	B
15	T	Carbon disulfide	76	8.46	0.799	A	3	A	B
16	T	2-Propanol	45	8.24	0.778	A	2	A	B
17	T	Methylene chloride	49	8.75	0.827	A	2	A	B
18	T	tert-Butyl Methyl Ether	73	8.95	0.846	A	2	A	B
19	T	trans-1,2-Dichloroethene	61	9.03	0.853	A	2	A	B
20	T	n-Hexane	57	9.22	0.871	A	3	A	B
21	T	1,1-Dichloroethane	63	9.59	0.906	A	3	A	B
22	T	Vinyl acetate	43	9.53	0.900	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	0.963	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	10.86	1.026	A	2	A	B
30	T	Carbon tetrachloride	117	11.01	1.041	A	3	A	B
31	T	Benzene	78	11.30	1.067	A	3	A	B
32	T	1,2-Dichloroethane	62	11.38	1.075	A	3	A	B
33	I	1,4-Difluorobenzene	114	11.68	1.000	A	2	A	B
34	T	Heptane	43	11.34	0.971	A	3	A	B
35	T	Trichloroethene	130	12.02	1.029	A	3	A	B
36	T	1,2-Dichloropropane	63	12.39	1.060	A	3	A	B
37	T	1,4-Dioxane	88	12.46	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	13.22	1.131	A	2	A	B
40	T	4-Methyl-2-pentanone	58	13.33	1.141	A	3	A	B
41	T	Toluene	91	13.62	1.166	A	2	A	B
42	T	trans-1,3-Dichloropropene	75	13.93	1.192	A	3	A	B
43	T	1,1,2-Trichloroethane	97	14.20	1.215	A	3	A	B
44	T	Tetrachloroethene	166	14.33	1.226	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	14.98	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	15.62	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	17.35	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	17.68	1.138	A	2	A	B
59	T	1,2,4-Trimethylbenzene	105	18.26	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	18.96	1.220	A	3	A	B
62	T	Benzyl chloride	91	19.17	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	23.45	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

101011V1.M Thu Oct 20 10:39:41 2011

RTI Laboratories

Run ID: VOA9_110921A **Run No.:** 42997

Analytical Run Date: 9/21/2011 **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 092111 VOA9	BFB_TUNE	TUNE	R42997	9/21/2011 2:19:00 PM	Charles O`Bryan		
APH ICAL Level 1	MA_APH	ICAL	R42997	9/21/2011 3:43:00 PM	Charles O`Bryan		
APH ICAL Level 2	MA_APH	ICAL	R42997	9/21/2011 4:26:00 PM	Charles O`Bryan		
APH ICAL Level 3	MA_APH	ICAL	R42997	9/21/2011 5:09:00 PM	Charles O`Bryan		
APH ICAL Level 4	MA_APH	ICAL	R42997	9/21/2011 5:51:00 PM	Charles O`Bryan		
APH ICAL Level 5	MA_APH	ICAL	R42997	9/21/2011 6:34:00 PM	Charles O`Bryan		
APH ICAL Level 6	MA_APH	ICAL	R42997	9/21/2011 7:18:00 PM	Charles O`Bryan		
APH ICAL Level 7	MA_APH	ICAL	R42997	9/21/2011 8:03:00 PM	Charles O`Bryan		
BFB2 092111 VOA9	BFB_TUNE	TUNE	R42997	9/21/2011 8:45:00 PM	Charles O`Bryan		
CCV 092111 VOA9	MA_APH	CCV	R42997	9/21/2011 9:27:00 PM	Charles O`Bryan		
RLVS1 092111 VOA	MA_APH	RLVS	R42997	9/21/2011 10:09:00 PM	Charles O`Bryan		
BLK1 092111 VOA9	MA_APH	MBLK	R42997	9/21/2011 10:58:00 PM	Charles O`Bryan		
1108899-030A	MA_APH	SAMP	R42997	9/21/2011 11:40:00 PM	Charles O`Bryan	H	
1109555-010A	MA_APH	SAMP	R42997	9/22/2011 1:50:00 AM	Charles O`Bryan		
1109555-011A	MA_APH	SAMP	R42997	9/22/2011 2:35:00 AM	Charles O`Bryan		
1109555-012A	MA_APH	SAMP	R42997	9/22/2011 3:20:00 AM	Charles O`Bryan		
1109555-027A	MA_APH	SAMP	R42997	9/22/2011 4:53:00 AM	Charles O`Bryan		
1109555-028A	MA_APH	SAMP	R42997	9/22/2011 5:38:00 AM	Charles O`Bryan		
1108899-025A	MA_APH	SAMP	R42997	9/22/2011 12:48:00 PM	Charles O`Bryan	H	
1108899-036A	MA_APH	SAMP	R42997	9/22/2011 2:19:00 PM	Charles O`Bryan	H	
1108899-036ADUP	MA_APH	DUP	R42997	9/22/2011 3:01:00 PM	Charles O`Bryan	H	
1108688-012A	MA_APH	SAMP	R42997	9/22/2011 5:17:00 PM	Charles O`Bryan	H	
1108899-001A	MA_APH	SAMP	R42997	9/22/2011 6:06:00 PM	Charles O`Bryan	H	
1108899-006A	MA_APH	SAMP	R42997	9/22/2011 6:48:00 PM	Charles O`Bryan	H	
RLVS2 092111 VOA	MA_APH	RLVS	R42997	9/22/2011 7:30:00 PM	Charles O`Bryan		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
847556	ICV1 VOA1 101011	EPA_TO15	ICV	\1\DATA\101011	10/10/2011 10:0	1	R43399		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	11.09	11.09		9.6	0	0	0.107	1	0	116%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.6	10.6		10	0	0	0.211	1	0	106%	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	9.92	9.92		9.8	0	0	0.2	1	0	101%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.62	10.62		9.7	0	0	0.111	1	0	109%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.04	11.04		9.9	0	0	0.097	1	0	112%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	8.46	8.46		9.1	0	0	0.271	1	0	93%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.77	9.77		9.8	0	0	0.245	1	0	100%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.73	9.73		9.6	0	0	0.186	1	0	101%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.17	10.17		9.7	0	0	0.208	1	0	105%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.96	10.96		9.7	0	0	0.196	1	0	113%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.25	10.25		9.8	0	0	0.224	1	0	105%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.5	9.5		9.7	0	0	0.24	1	0	98%	70	130	0%	
1,3-Butadiene	A	ppbv	12.71	12.71		9.8	0	0	0.152	1	0	130%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.01	10.01		9.7	0	0	0.202	1	0	103%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	9.96	9.96		9.6	0	0	0.194	1	0	104%	70	130	0%	
1,4-Dioxane	A	ppbv	10.12	10.12		9.6	0	0	0.128	1	0	105%	70	130	0%	
2-Butanone	A	ppbv	11.02	11.02		9.9	0	0	0.287	1	0	111%	70	130	0%	
2-Hexanone	A	ppbv	10.27	10.27		9.8	0	0	0.135	1	0	105%	70	130	0%	
2-Propanol	A	ppbv	11.18	11.18		10.1	0	0	0.329	1	0	111%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.4	10.4		10	0	0	0.157	1	0	104%	70	130	0%	
Acetone	A	ppbv	11.06	11.06		10	0	0	0.43	1	0	111%	70	130	0%	
Benzene	A	ppbv	10.37	10.37		9.6	0	0	0.126	1	0	108%	70	130	0%	
Benzyl chloride	A	ppbv	10.96	10.96		9.7	0	0	0.155	1	0	113%	70	130	0%	
Bromodichloromethane	A	ppbv	10.07	10.07		9.6	0	0	0.156	1	0	105%	70	130	0%	
Bromoform	A	ppbv	9.82	9.82		9.6	0	0	0.197	1	0	102%	70	130	0%	
Bromomethane	A	ppbv	10.37	10.37		9.3	0	0	0.075	1	0	112%	70	130	0%	
Carbon disulfide	A	ppbv	10.84	10.84		9.7	0	0	0.093	1	0	112%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.41	10.41		9.5	0	0	0.114	1	0	110%	70	130	0%	M
Chlorobenzene	A	ppbv	10.07	10.07		9.9	0	0	0.275	1	0	102%	70	130	0%	
Chlorodibromomethane	A	ppbv	9.76	9.76		9.2	0	0	0.165	1	0	106%	70	130	0%	
Chloroethane	A	ppbv	10.27	10.27		9.8	0	0	0.063	1	0	105%	70	130	0%	
Chloroform	A	ppbv	11.28	11.28		9.4	0	0	0.126	1	0	120%	70	130	0%	
Chloromethane	A	ppbv	10.34	10.34		9.8	0	0	0.104	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
847556	ICV1 VOA1 101011	EPA_TO15	ICV	\1\DATA\101011	10/10/2011 10:0	1	R43399		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	10.46	10.46		9.8	0	0	0.107	1	0	107%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.96	9.96		9.5	0	0	0.166	1	0	105%	70	130	0%	
Cyclohexane	A	ppbv	11.23	11.23		9.8	0	0	0.684	2	0	115%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	10.07	10.07		9.2	0	0	0.086	1	0	109%	70	130	0%	
Ethanol	A	ppbv	10.37	10.37		9.2	0	0	1.962	5	0	113%	70	130	0%	
Ethyl acetate	A	ppbv	11.1	11.1		9.8	0	0	0.157	1	0	113%	70	130	0%	
Ethylbenzene	A	ppbv	10.06	10.06		9.8	0	0	0.737	2	0	103%	70	130	0%	
Heptane	A	ppbv	10.93	10.93		9.9	0	0	0.249	1	0	110%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.58	9.58		9.4	0	0	0.374	2	0	102%	70	130	0%	
m,p-Xylene	A	ppbv	20.61	20.61		19.2	0	0	0.524	2	0	107%	70	130	0%	
Methylene chloride	A	ppbv	10.62	10.62		10	0	0	2.077	5	0	106%	70	130	0%	
n-Hexane	A	ppbv	10.94	10.94		10.1	0	0	0.692	2	0	108%	70	130	0%	
Naphthalene	A	ppbv	8.64	8.64		9.2	0	0	0.247	1	0	94%	70	130	0%	
o-Xylene	A	ppbv	9.99	9.99		10	0	0	0.258	1	0	100%	70	130	0%	
Propylene	A	ppbv	11.06	11.06		10.2	0	0	0.075	1	0	108%	70	130	0%	
Styrene	A	ppbv	9.86	9.86		9.8	0	0	0.263	1	0	101%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.96	10.96		9.9	0	0	0.228	1	0	111%	70	130	0%	
Tetrachloroethene	A	ppbv	9.71	9.71		9.6	0	0	0.148	1	0	101%	70	130	0%	
Tetrahydrofuran	A	ppbv	11	11		10	0	0	0.201	1	0	110%	70	130	0%	
Toluene	A	ppbv	9.97	9.97		9.8	0	0	0.158	1	0	102%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.71	10.71		9.8	0	0	0.117	1	0	109%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.67	9.67		9.1	0	0	0.171	1	0	106%	70	130	0%	
Trichloroethene	A	ppbv	9.74	9.74		9.6	0	0	0.119	1	0	101%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.7	10.7		9.6	0	0	0.148	1	0	111%	70	130	0%	
Vinyl acetate	A	ppbv	11.69	11.69		9.9	0	0	0.266	1	0	118%	70	130	0%	
Vinyl chloride	A	ppbv	10.6	10.6		9.4	0	0	0.072	1	0	113%	70	130	0%	
Xylenes, Total	C	ppbv	30.6	30.6		29.2	0	0	0.782	3	0	105%	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	12.96	12.96		12.5	0	0	0	0	0	104%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092111\09211111.D
Acq On : 21 Sep 2011 9:27 pm
Sample : CCV 092111 VOA9
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Sep 22 10:02 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	574128	12.50	ug/m3	0.00
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.34	95	370861	90.18	ug/m3	0.00
Spiked Amount 89.500	Range	70 - 130	Recovery	=	100.76%	
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.17	TIC	1078911	34.67	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.56	TIC	1211685	40.22	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	1573561	47.14	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	1231808	38.74	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.92	TIC	1484092	46.42	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.30	TIC	1782905	54.59	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.17	TIC	8362962m	261.73	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	2170131	61.39	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	2105619	62.05	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	2005671	67.19	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	2089686	67.12	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	1985397	75.63	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.47	TIC	1785177	79.76	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	12141681m	414.92	ug/m3	
15) C9-C10 Aromatic HC	17.98	120	202979	55.41	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	213353	55.07	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	320023	56.73	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	73003	62.76	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.29	120	246107	56.92	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	202608	63.53	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.98	TIC	1258073m	287.82	ug/m3	

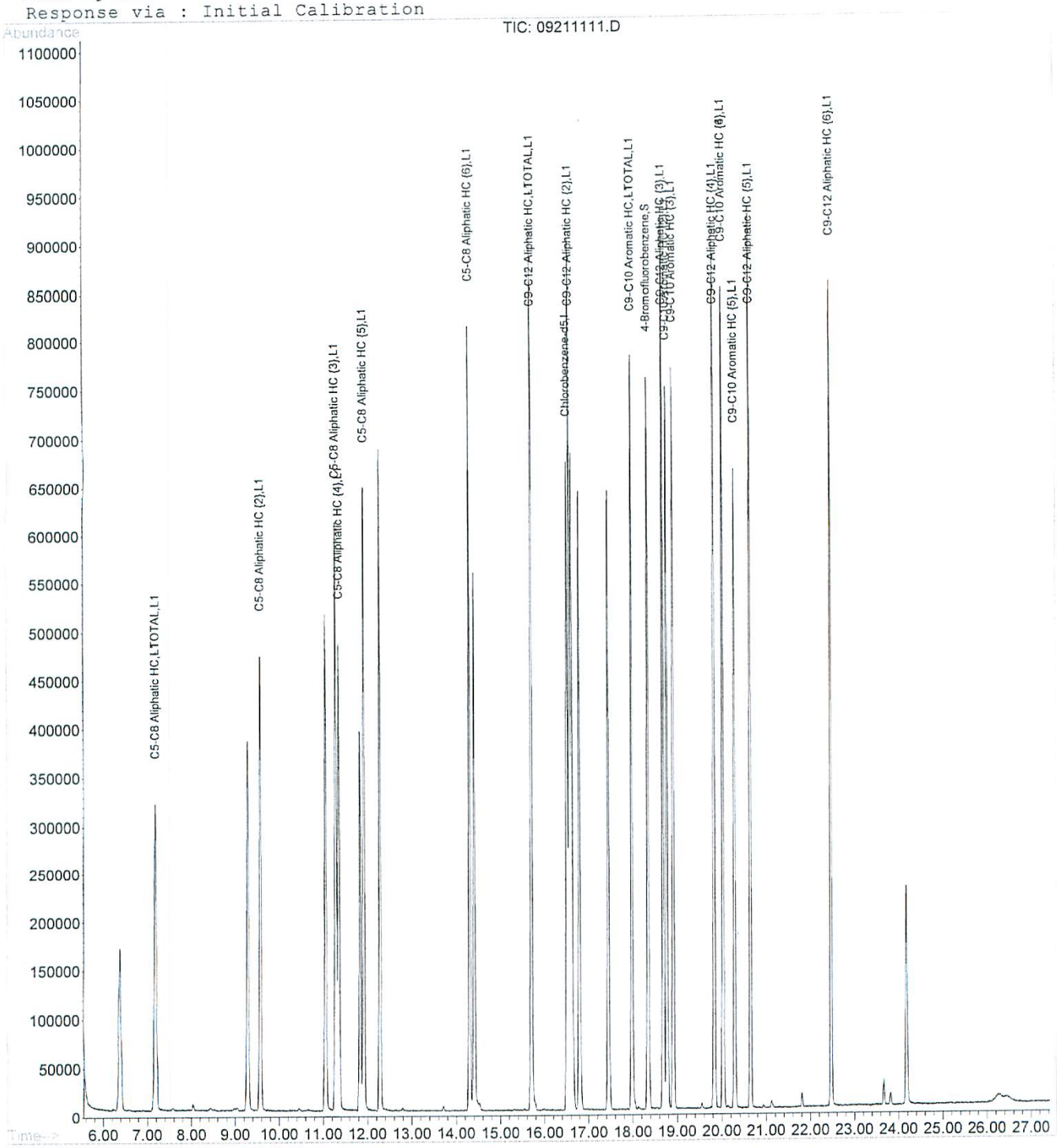
(#) = qualifier out of range (m) = manual integration
09211111.D 092111V9.M Thu Oct 20 10:57:08 2011

Quantitation Report

Data File : C:\HPCHEM\1\DATA\092111\09211111.D
Acq On : 21 Sep 2011 9:27 pm
Sample : CCV 092111 VOA9
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Sep 22 10:02 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_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

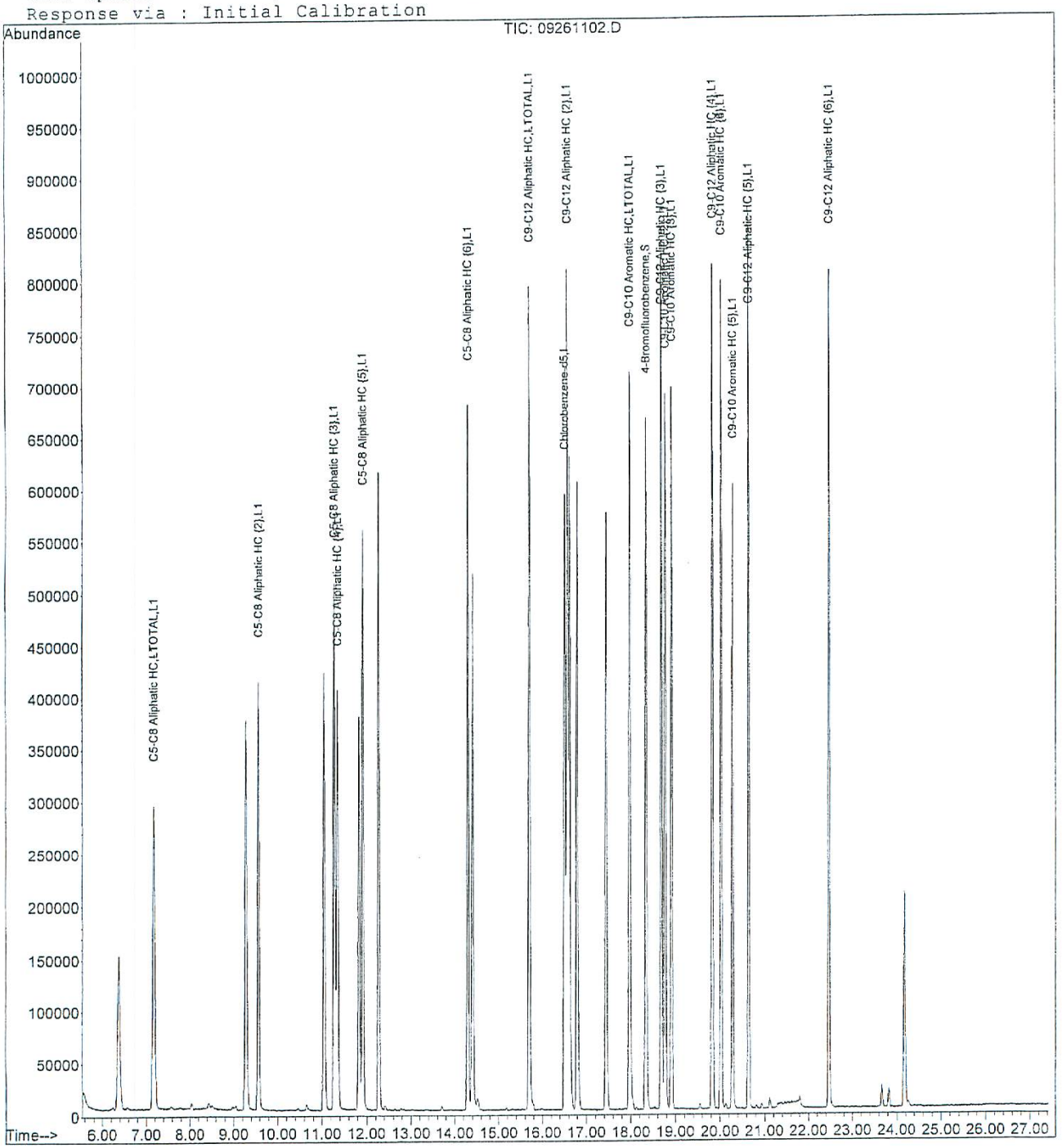
Quantitation Report

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

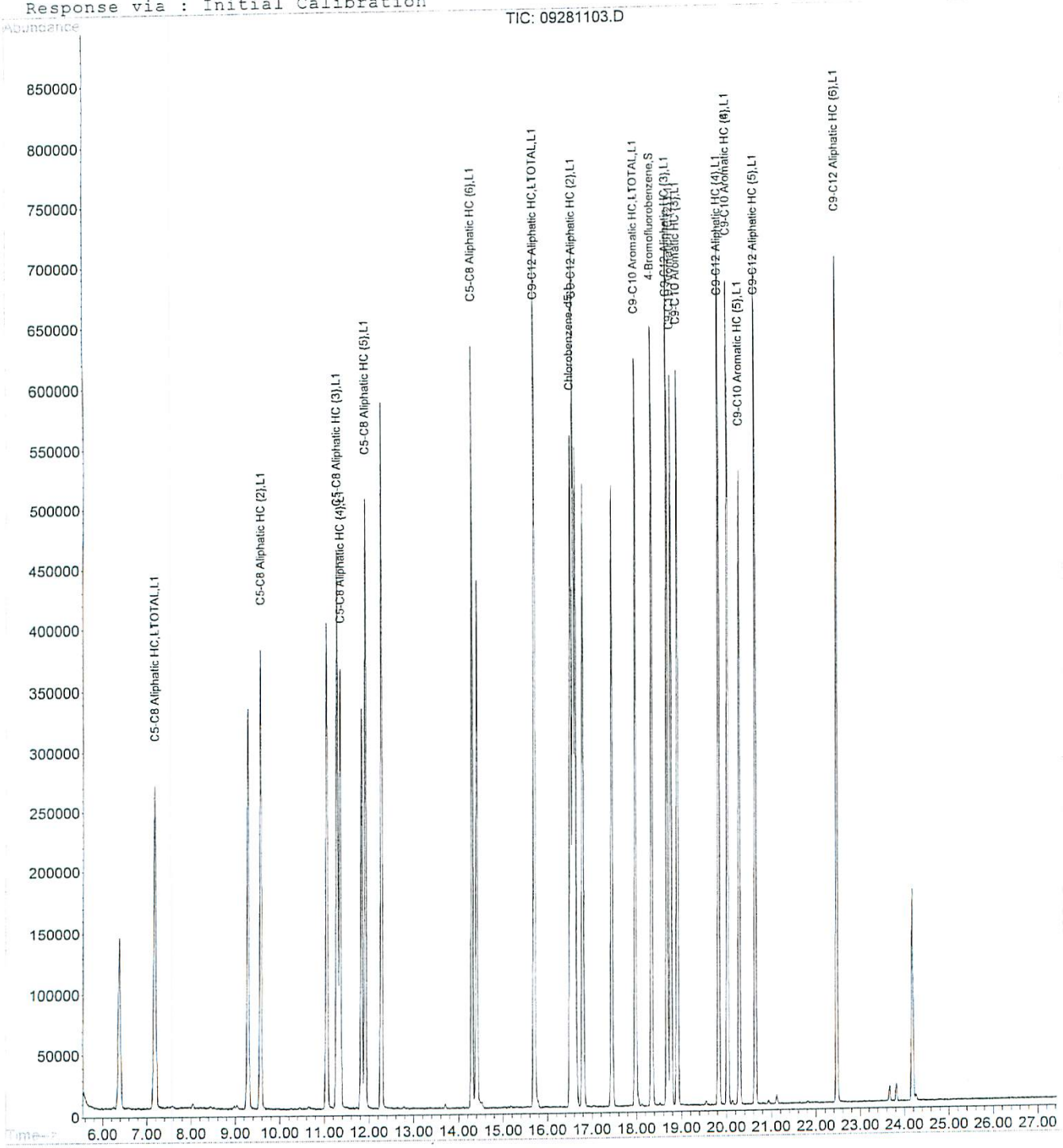
Quantitation Report

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



09281103.D 092111V9.M Thu Oct 20 11:00:47 2011

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

20-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	\I\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	\I\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

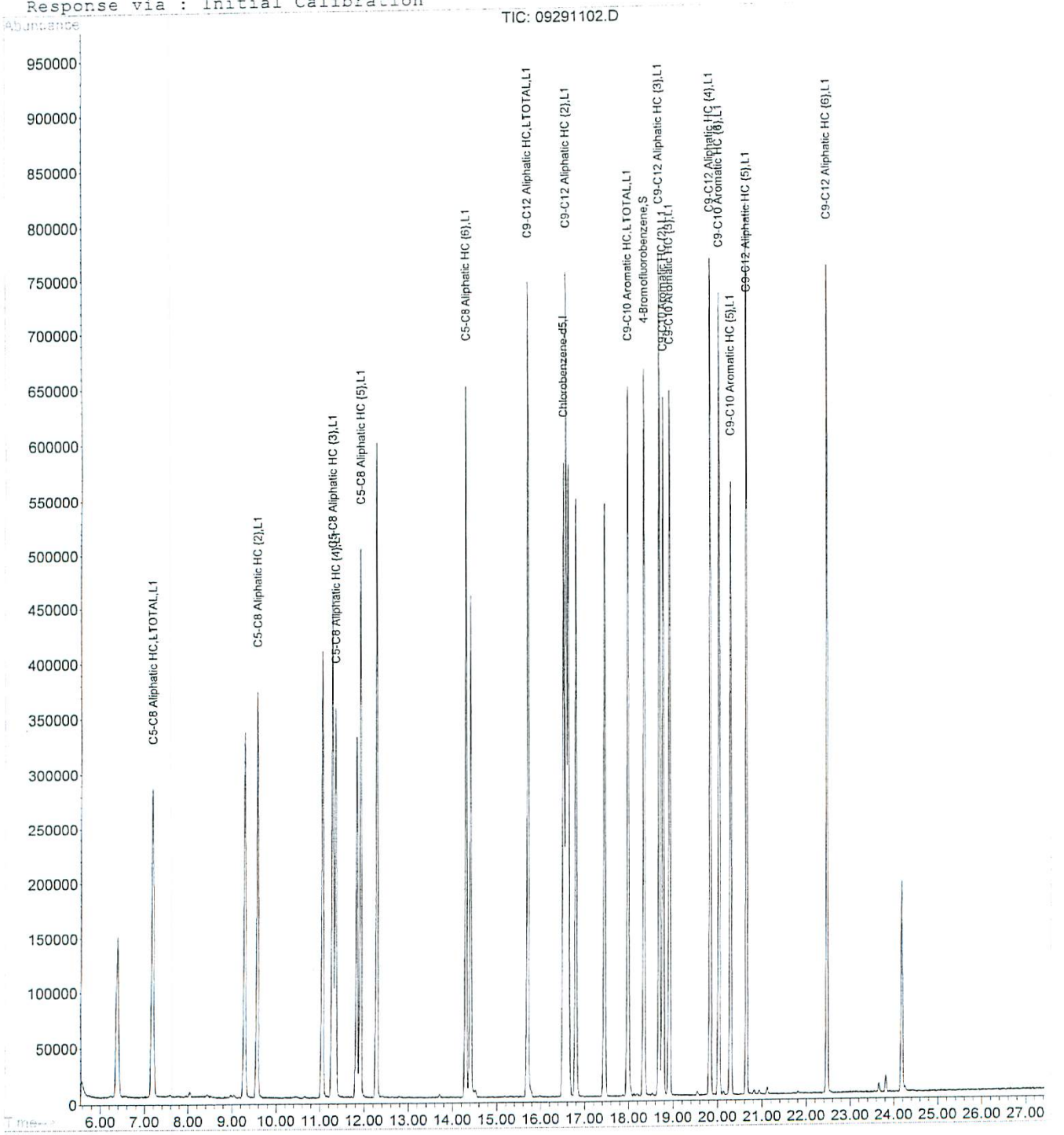
Quantitation Report

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



RTI Laboratories

Run ID: VOA9_110930A **Run No.:** 43191

Analytical Run Date: 9/30/2011 **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 093011 VOA9	BFB_TUNE	TUNE	R43191	9/30/2011 11:56:00 AM			
CCV1 093011 VOA9	MA_APH	CCV	R43191	9/30/2011 12:39:00 PM			
RLVS1 093011 VOA	MA_APH	RLVS	R43191	9/30/2011 1:35:00 PM			
BLK1093011 VOA9	MA_APH	MBLK	R43191	9/30/2011 2:24:00 PM			
1109555-018A	MA_APH	SAMP	R43191	9/30/2011 3:06:00 PM			
1109555-022A	MA_APH	SAMP	R43191	9/30/2011 5:39:00 PM			
1109555-023A	MA_APH	SAMP	R43191	9/30/2011 6:30:00 PM			
1109555-024A	MA_APH	SAMP	R43191	9/30/2011 7:20:00 PM			
1109988-007B	MA_APH	SAMP	R43191	10/1/2011 2:14:00 AM			Sample needs higher dilution. Reported here to show that sample and duplicate were analyzed.
1109988-007BDUP	MA_APH	DUP	R43191	10/1/2011 2:58:00 AM			
1109555-025a	MA_APH	SAMP	R43191	10/1/2011 3:48:00 AM			
1109555-026a	MA_APH	SAMP	R43191	10/1/2011 4:39:00 AM			
1109988-001B	MA_APH	SAMP	R43191	10/1/2011 5:30:00 AM			
1109988-002B	MA_APH	SAMP	R43191	10/1/2011 6:23:00 AM			
1109988-003B	MA_APH	SAMP	R43191	10/1/2011 7:14:00 AM			
1109988-005B	MA_APH	SAMP	R43191	10/1/2011 8:55:00 AM			
RLVS2 093011 VOA	MA_APH	RLVS	R43191	10/1/2011 9:39:00 AM			

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 43191

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
841716	BFB1 093011 VOA9	BFB_TUNE	TUNE	:\1\DATA\093011	9/30/2011 11:56:	1	R43191		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		98.4	98.4		0	0	0	0	0	0	0%	50	120	0%	
175	M		8.2	8.2		0	0	0	0	0	0	0%	4	9	0%	
176	M		97.7	97.7		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.5	6.5		0	0	0	0	0	0	0%	5	9	0%	
50	M		21.7	21.7		0	0	0	0	0	0	0%	8	40	0%	
75	M		45.9	45.9		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		6.7	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
841717	CCV1 093011 VOA9	MA_APH	CCV	:\1\DATA\093011	9/30/2011 12:39:	1	R43191		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	192.89	192.89		234	0	0	0	0	0	82%	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	215.1	215.1		266	0	0	0	0	0	81%	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	331.3	331.3		378	0	0	0	0	0	88%	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	101.26	101.26		89.5	0	0	0	0	0	113%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\093011\09301102.D Vial: 2
Acq On : 30 Sep 2011 12:39 pm Operator: RACHEL HILL
Sample : CCV1 093011 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 2 11:06 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	430964	12.50	ug/m3	0.00

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.34	95	312576	101.26	ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 113.14%

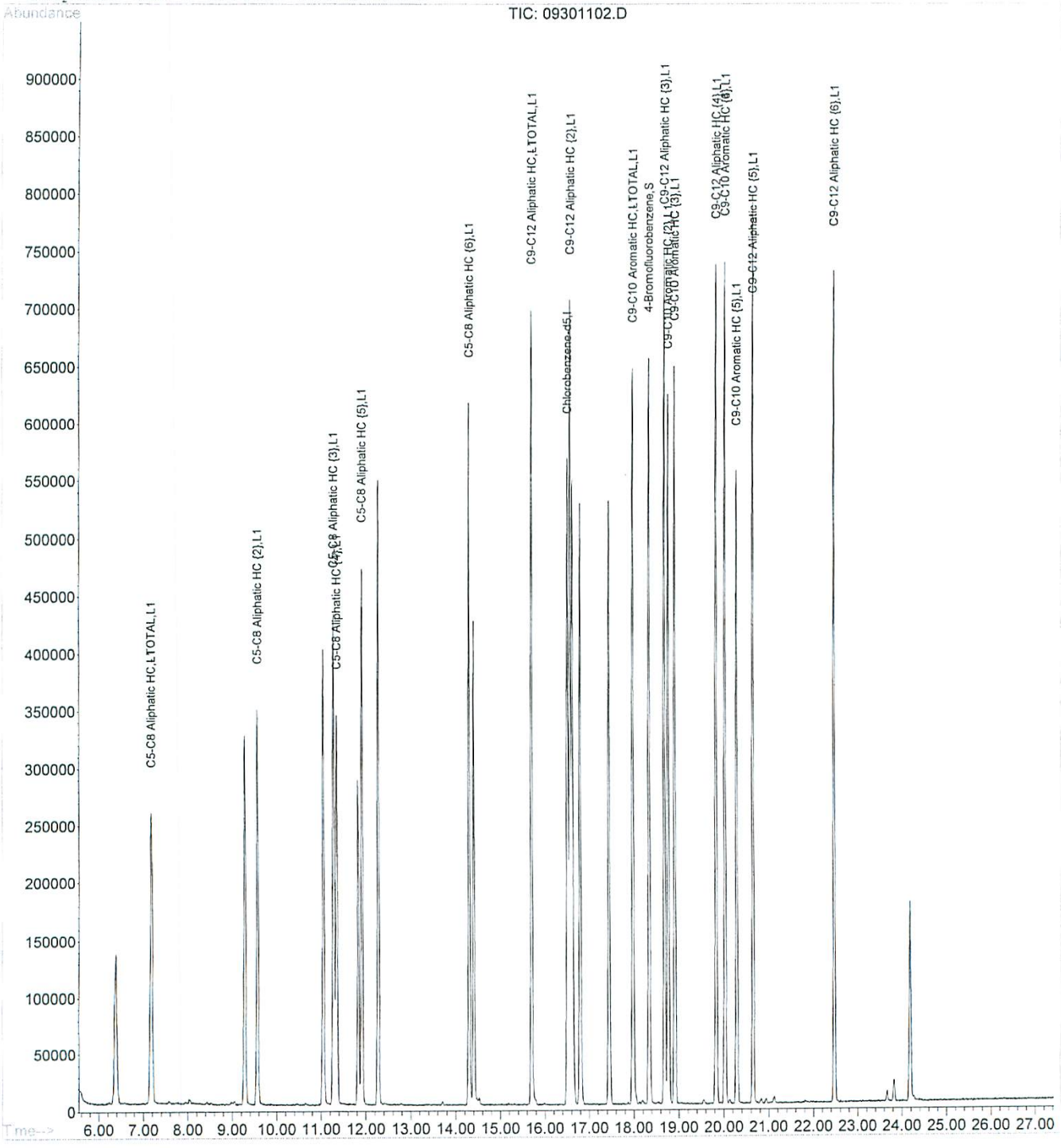
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.17	TIC	871754	28.01	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	881520	29.26	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	1141665	34.20	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	858093	26.98	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	1083208	33.88	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.30	TIC	1327002	40.63	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.17	TIC	6163242m	192.89	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	1631198	46.14	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	1640109	48.33	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	1583437	53.04	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	1671239	53.68	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.65	TIC	1648401	62.79	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.47	TIC	1520342	67.92	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	9694726m	331.30	ug/m3	
15) C9-C10 Aromatic HC	17.98	120	147794	40.34	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	158381	40.88	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	235136	41.68	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	58733	50.49	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.29	120	182481	42.21	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	157692	49.44	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.98	TIC	940217m	215.10	ug/m3	

(#) = qualifier out of range (m) = manual integration
09301102.D 092111V9.M Thu Oct 20 11:01:47 2011

Quantitation Report

Data File : C:\HPCHEM\1\DATA\093011\09301102.D Vial: 2
Acq On : 30 Sep 2011 12:39 pm Operator: RACHEL HILL
Sample : CCV1 093011 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 2 11:06 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



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 Fri Sep 30 11:57:19 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 Fri Sep 30 11:57:24 2011

RTI Laboratories

Run ID: GC-TCD 1_110928A **Run No.:** 43165

Analytical Run Date: 9/28/2011 **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	R43165	9/28/2011 10:38:00 AM	Robert Lynch		
ccv std 1-2 a	ASTM-D2504	CCV	R43165	9/28/2011 11:27:00 AM	Robert Lynch		
lcs	ASTM-D2504	LCS	R43165	9/28/2011 11:46:00 AM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R43165	9/28/2011 12:12:00 PM	Robert Lynch		
1109555-001b	ASTM-D2504	SAMP	R43165	9/28/2011 12:41:00 PM	Robert Lynch		
1109555-002b	ASTM-D2504	SAMP	R43165	9/28/2011 1:07:00 PM	Robert Lynch		
1109555-003b	ASTM-D2504	SAMP	R43165	9/28/2011 1:29:00 PM	Robert Lynch		
1109555-004b	ASTM-D2504	SAMP	R43165	9/28/2011 1:51:00 PM	Robert Lynch		
1109555-005b	ASTM-D2504	SAMP	R43165	9/28/2011 2:14:00 PM	Robert Lynch		
1109555-006b	ASTM-D2504	SAMP	R43165	9/28/2011 2:47:00 PM	Robert Lynch		
1109555-007b	ASTM-D2504	SAMP	R43165	9/28/2011 3:08:00 PM	Robert Lynch		
1109555-008b	ASTM-D2504	SAMP	R43165	9/28/2011 3:35:00 PM	Robert Lynch		
1109555-009b	ASTM-D2504	SAMP	R43165	9/28/2011 3:58:00 PM	Robert Lynch		
1109555-010b	ASTM-D2504	SAMP	R43165	9/28/2011 4:25:00 PM	Robert Lynch		
1109555-010bdup	ASTM-D2504	DUP	R43165	9/28/2011 4:52:00 PM	Robert Lynch		
ccv std 1-2 b	ASTM-D2504	CCV	R43165	9/28/2011 5:19:00 PM	Robert Lynch		
1109555-011b	ASTM-D2504	SAMP	R43165	9/28/2011 5:45:00 PM	Robert Lynch		
1109555-012b	ASTM-D2504	SAMP	R43165	9/28/2011 6:14:00 PM	Robert Lynch		
1109555-013b	ASTM-D2504	SAMP	R43165	9/28/2011 6:35:00 PM	Robert Lynch		
1109555-014b	ASTM-D2504	SAMP	R43165	9/28/2011 6:56:00 PM	Robert Lynch		
1109555-015b	ASTM-D2504	SAMP	R43165	9/28/2011 7:20:00 PM	Robert Lynch		
ccv std 1-2 b	ASTM-D2504	CCV	R43165	9/28/2011 7:45:00 PM	Robert Lynch		
crql std 2% b	ASTM-D2504	CRQL	R43165	9/28/2011 8:15:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

18-Oct-11

RunNo 43165

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
841024	mblk	ASTM-D2504	MBLK	ıTA\092811\0928	9/28/2011 10:38:	1	R43165		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	0.025	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
841025	ccv std 1-2 a	ASTM-D2504	CCV	ıTA\092811\0928	9/28/2011 11:27:	1	R43165		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.646	2.646		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Carbon Monoxide	A	%	2.394	2.394		2.5	0	0	0.025	0.1	0	96%	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	%	2.04	2.04		2	0	0	0.025	0.5	0	102%	85	115	0%	
Nitrogen	A	%	2.496	2.496		2.5	0	0	0.025	0.1	0	100%	85	115	0%	
Oxygen	A	%	2.149	2.149		2.5	0	0	0.025	0.1	0	86%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
841026	lcs	ASTM-D2504	LCS	ıTA\092811\0928	9/28/2011 11:46:	1	R43165		0	841025	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.729	2.729		2.5	0	2.646	0.025	0.1	0	109%	70	130	3%	
Carbon Monoxide	A	%	2.44	2.44		2.5	0	2.394	0.025	0.1	0	98%	70	130	2%	
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	%	2.07	2.07		2	0	2.04	0.025	0.5	0	104%	70	130	1%	
Nitrogen	A	%	2.452	2.452		2.5	0	2.496	0.025	0.1	0	98%	70	130	2%	
Oxygen	A	%	2.236	2.236		2.5	0	2.149	0.025	0.1	0	89%	70	130	4%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
841037	1109555-010b (Container-01 of 01)	ASTM-D2504	SAMP	.TA\092811\0928	9/28/2011 4:25:0	1	R43165		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Nitrogen	A	%	78.75	78.75		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	20.405	20.405		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
841038	1109555-010bdup	ASTM-D2504	DUP	.TA\092811\0928	9/28/2011 4:52:0	1	R43165		0	841037	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.346	0.346		0	0	0.342	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	%	78.689	78.689		0	0	78.75	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	20.379	20.379		0	0	20.405	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
841039	ccv std 1-2 b	ASTM-D2504	CCV	.TA\092811\0928	9/28/2011 5:19:0	1	R43165		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.684	2.684		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Carbon Monoxide	A	%	2.422	2.422		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	%	1.997	1.997		2	0	0	0.025	0.5	0	100%	85	115	0%	
Nitrogen	A	%	2.423	2.423		2.5	0	0	0.025	0.1	0	97%	85	115	0%	
Oxygen	A	%	2.234	2.234		2.5	0	0	0.025	0.1	0	89%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
841045	ccv std 1-2 b	ASTM-D2504	CCV	.TA\092811\0928	9/28/2011 7:45:0	1	R43165		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.814	2.814		2.5	0	0	0.025	0.1	0	113%	85	115	0%	
Carbon Monoxide	A	%	2.493	2.493		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	%	2.099	2.099		2	0	0	0.025	0.5	0	105%	85	115	0%	
Nitrogen	A	%	2.324	2.324		2.5	0	0	0.025	0.1	0	93%	85	115	0%	
Oxygen	A	%	2.266	2.266		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
841046	crql std 2% b	ASTM-D2504	CRQL	.TA\092811\0928	9/28/2011 8:15:0	1	R43165		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.356	0.356		0.3	0	0	0.025	0.1	0	119%	80	120	0%	
Carbon Monoxide	A	%	0.144	0.144		0.14	0	0	0.025	0.1	0	103%	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	%	0.103	0.103		0.09	0	0	0.025	0.5	0	114%	80	120	0%	
Nitrogen	A	%	1.366	1.366		1.39	0	0	0.025	0.1	0	98%	80	120	0%	
Oxygen	A	%	0.078	0.078		0.08	0	0	0.025	0.1	0	98%	80	120	0%	

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\2\DATA\092811\09281102.D          Vial: 1
Acq On    : 28 Sep 2011  11:27 am                    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	2.149	14.0	0	0.02
2	Nitrogen	2.500	2.496	0.2	0	0.00
3	Carbon Monoxide	2.500	2.394	4.2	0	-0.04
4	Methane	2.000	2.040	-2.0	0	-0.06
5	Carbon dioxide	2.500	2.646	-5.8	0	-0.10

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\092811\09281102.D          Vial: 1
Acq On    : 28 Sep 2011  11:27 am                    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 14:47:36 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092811\09281102.D Vial: 1
Acq On : 28 Sep 2011 11:27 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 30 12:22 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 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	2.12	307694	2.149 %
2)	Nitrogen	2.30	430018	2.496 %
3)	Carbon Monoxide	2.99	377077	2.394 %
4)	Methane	6.19f	263284	2.040 %
5)	Carbon dioxide	11.08f	480356	2.646 %

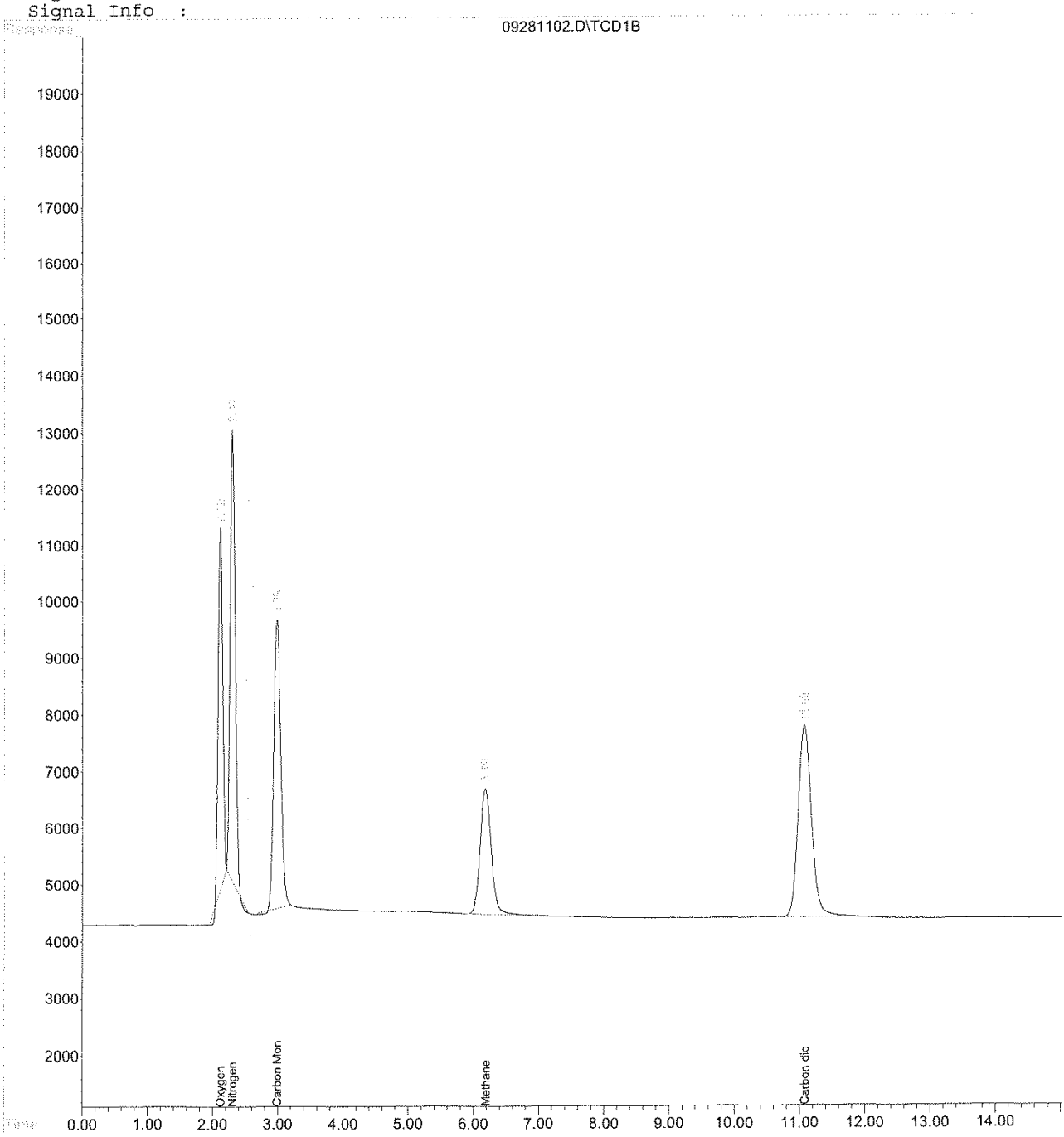
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092811\09281102.D Vial: 1
Acq On : 28 Sep 2011 11:27 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 30 12:22 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 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\092811\09281116.D          Vial: 1
Acq On    : 28 Sep 2011   5:19 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	2.234	10.6	0	0.00
2	Nitrogen	2.500	2.423	3.1	0	-0.02
3	Carbon Monoxide	2.500	2.422	3.1	0	-0.07
4	Methane	2.000	1.997	0.1	0	-0.10
5	Carbon dioxide	2.500	2.684	-7.4	0	-0.14

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\092811\09281116.D          Vial: 1
Acq On    : 28 Sep 2011   5:19 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 14:48:36 2011   TESTCAL
```

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092811\09281116.D Vial: 1
Acq On : 28 Sep 2011 5:19 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 30 12:25 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Fri Sep 30 13:25:32 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	2.09	319984	2.234 %
2)	Nitrogen	2.28	417457	2.423 %
3)	Carbon Monoxide	2.95f	381416	2.422 %
4)	Methane	6.14f	257329	1.997 %
5)	Carbon dioxide	11.04f	487475	2.684 %

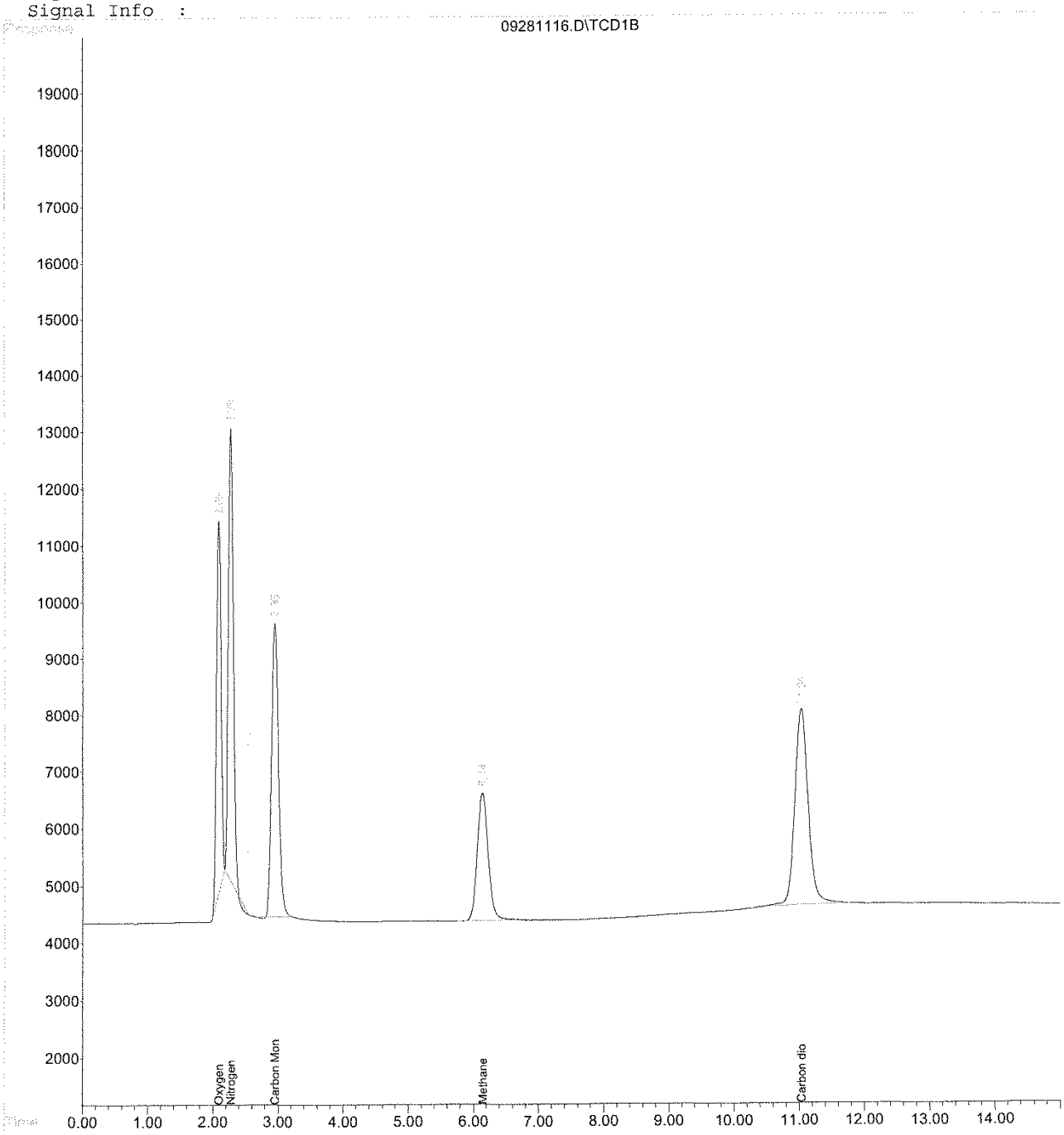
(f)=RT Delta > 1/2 Window (m)=manual int.
09281116.D 030511.M Thu Oct 20 14:48:33 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092811\09281116.D Vial: 1
Acq On : 28 Sep 2011 5:19 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 30 12:25 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Fri Sep 30 13:25:32 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\092811\09281122.D Vial: 1
Acq On : 28 Sep 2011 7:45 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	2.266	9.4	0	0.00
2	Nitrogen	2.500	2.324	7.0	0	-0.01
3	Carbon Monoxide	2.500	2.493	0.3	0	-0.06
4	Methane	2.000	2.099	-5.0	0	-0.09
5	Carbon dioxide	2.500	2.814	-12.6	0	-0.12

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\092811\09281122.D Vial: 1
Acq On : 28 Sep 2011 7:45 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 14:49:29 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092811\09281122.D Vial: 1
Acq On : 28 Sep 2011 7:45 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 30 12:26 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Fri Sep 30 13:25:32 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	324583	2.266 %
2)	Nitrogen	2.29	400397	2.324 %
3)	Carbon Monoxide	2.97f	392718	2.493 %
4)	Methane	6.16	271570	2.099 %
5)	Carbon dioxide	11.06f	511961	2.814 %

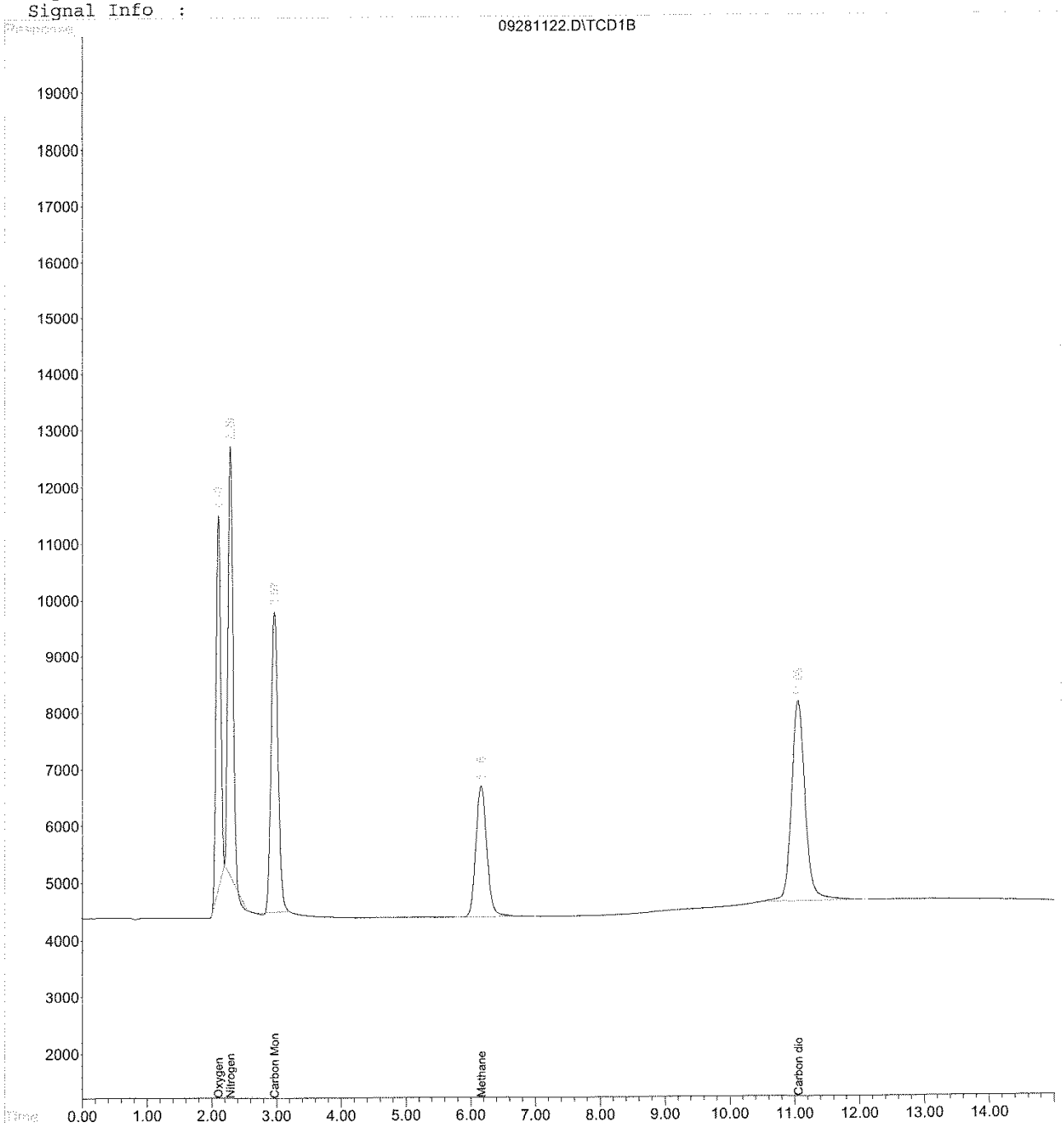
(f)=RT Delta > 1/2 Window (m)=manual int.
09281122.D 030511.M Thu Oct 20 14:49:26 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092811\09281122.D Vial: 1
Acq On : 28 Sep 2011 7:45 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 30 12:26 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Fri Sep 30 13:25:32 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-TCD 1_110929A **Run No.:** 43164

Analytical Run Date: 9/29/2011 **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	R43164	9/29/2011 11:08:00 AM	Robert Lynch		
ccv std 1-2 a	ASTM-D2504	CCV	R43164	9/29/2011 11:40:00 AM	Robert Lynch		
lcs	ASTM-D2504	LCS	R43164	9/29/2011 12:00:00 PM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R43164	9/29/2011 12:21:00 PM	Robert Lynch		
1109555-016b	ASTM-D2504	SAMP	R43164	9/29/2011 12:42:00 PM	Robert Lynch		
1109555-017b	ASTM-D2504	SAMP	R43164	9/29/2011 1:12:00 PM	Robert Lynch		
1109555-018b	ASTM-D2504	SAMP	R43164	9/29/2011 1:52:00 PM	Robert Lynch		
1109555-019b	ASTM-D2504	SAMP	R43164	9/29/2011 2:23:00 PM	Robert Lynch		
1109555-020b	ASTM-D2504	SAMP	R43164	9/29/2011 2:48:00 PM	Robert Lynch		
1109555-021b	ASTM-D2504	SAMP	R43164	9/29/2011 3:08:00 PM	Robert Lynch		
1109555-022b	ASTM-D2504	SAMP	R43164	9/29/2011 3:48:00 PM	Robert Lynch		
1109555-023b	ASTM-D2504	SAMP	R43164	9/29/2011 4:07:00 PM	Robert Lynch		
1109555-024b	ASTM-D2504	SAMP	R43164	9/29/2011 5:26:00 PM	Robert Lynch		
1109555-025b	ASTM-D2504	SAMP	R43164	9/29/2011 5:45:00 PM	Robert Lynch		
1109555-025bdup	ASTM-D2504	DUP	R43164	9/29/2011 6:07:00 PM	Robert Lynch		
ccv std 1-2 b	ASTM-D2504	CCV	R43164	9/29/2011 6:31:00 PM	Robert Lynch		
1109555-026b	ASTM-D2504	SAMP	R43164	9/29/2011 6:55:00 PM	Robert Lynch		
1109555-027b	ASTM-D2504	SAMP	R43164	9/29/2011 7:19:00 PM	Robert Lynch		
1109555-028b	ASTM-D2504	SAMP	R43164	9/29/2011 7:38:00 PM	Robert Lynch		
1109555-029b	ASTM-D2504	SAMP	R43164	9/29/2011 7:58:00 PM	Robert Lynch		
1109555-030b	ASTM-D2504	SAMP	R43164	9/29/2011 8:18:00 PM	Robert Lynch		
1109555-031b	ASTM-D2504	SAMP	R43164	9/29/2011 8:39:00 PM	Robert Lynch		
1109555-032b	ASTM-D2504	SAMP	R43164	9/29/2011 9:11:00 PM	Robert Lynch		
1109555-033b	ASTM-D2504	SAMP	R43164	9/29/2011 9:34:00 PM	Robert Lynch		
ccv std 1-2 b	ASTM-D2504	CCV	R43164	9/29/2011 9:58:00 PM	Robert Lynch		
crql std 2% b	ASTM-D2504	CRQL	R43164	9/29/2011 10:37:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

18-Oct-11

RunNo 43164

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
841047	mblk	ASTM-D2504	MBLK	\TA\092911\0929	9/29/2011 11:08:	1	R43164		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
841048	ccv std 1-2 a	ASTM-D2504	CCV	\TA\092911\0929	9/29/2011 11:40:	1	R43164		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.686	2.686		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Carbon Monoxide	A	%	2.515	2.515		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	%	2.118	2.118		2	0	0	0.025	0.5	0	106%	85	115	0%	
Nitrogen	A	%	2.521	2.521		2.5	0	0	0.025	0.1	0	101%	85	115	0%	
Oxygen	A	%	2.342	2.342		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
841049	lcs	ASTM-D2504	LCS	\TA\092911\0929	9/29/2011 12:00:	1	R43164		0	841048	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.713	2.713		2.5	0	2.686	0.025	0.1	0	109%	70	130	1%	
Carbon Monoxide	A	%	2.524	2.524		2.5	0	2.515	0.025	0.1	0	101%	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	%	2.136	2.136		2	0	2.118	0.025	0.5	0	107%	70	130	1%	
Nitrogen	A	%	2.509	2.509		2.5	0	2.521	0.025	0.1	0	100%	70	130	0%	
Oxygen	A	%	2.343	2.343		2.5	0	2.342	0.025	0.1	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
841060	1109555-025b (Container-01 of 01)	ASTM-D2504	SAMP	.TA\092911\0929	9/29/2011 5:45:0	1	R43164		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Nitrogen	A	%	79.694	79.694		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	17.5	17.5		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
841061	1109555-025bdup	ASTM-D2504	DUP	.TA\092911\0929	9/29/2011 6:07:0	1	R43164		0	841060	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.643	0.643		0	0	0.626	0.025	0.1	0	0%	0	0	3%	
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	%	79.76	79.76		0	0	79.694	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	17.678	17.678		0	0	17.5	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
841062	ccv std 1-2 b	ASTM-D2504	CCV	.TA\092911\0929	9/29/2011 6:31:0	1	R43164		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.692	2.692		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Carbon Monoxide	A	%	2.614	2.614		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	%	2.192	2.192		2	0	0	0.025	0.5	0	110%	85	115	0%	
Nitrogen	A	%	2.684	2.684		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Oxygen	A	%	2.445	2.445		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
841068	1109555-031b (Container-01 of 01)	ASTM-D2504	SAMP	.TA\092911\0929	9/29/2011 8:39:0	1	R43164		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	1.028	1.028		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	0.025	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	%	78.148	78.148		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	19.251	19.251		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
841069	1109555-032b (Container-01 of 01)	ASTM-D2504	SAMP	.TA\092911\0929	9/29/2011 9:11:0	1	R43164		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.315	0.315		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	0.025	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	%	78.477	78.477		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	19.858	19.858		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
841070	1109555-033b (Container-01 of 01)	ASTM-D2504	SAMP	.TA\092911\0929	9/29/2011 9:34:0	1	R43164		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.554	0.554		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	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\092911\09291102.D Vial: 1
Acq On : 29 Sep 2011 11:40 am 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	2.342	6.3	0	0.01
2	Nitrogen	2.500	2.521	-0.8	0	0.00
3	Carbon Monoxide	2.500	2.515	-0.6	0	-0.05
4	Methane	2.000	2.118	-5.9	0	-0.07
5	Carbon dioxide	2.500	2.686	-7.4	0	-0.11

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\092911\09291102.D Vial: 1
Acq On : 29 Sep 2011 11:40 am 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 14:51:22 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092911\09291102.D Vial: 1
Acq On : 29 Sep 2011 11:40 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 30 12:28 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Fri Sep 30 13:25:32 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	2.11	335553	2.342 %
2)	Nitrogen	2.30	434322	2.521 %
3)	Carbon Monoxide	2.98	396132	2.515 %
4)	Methane	6.17	274265	2.118 %
5)	Carbon dioxide	11.07f	487814	2.686 %

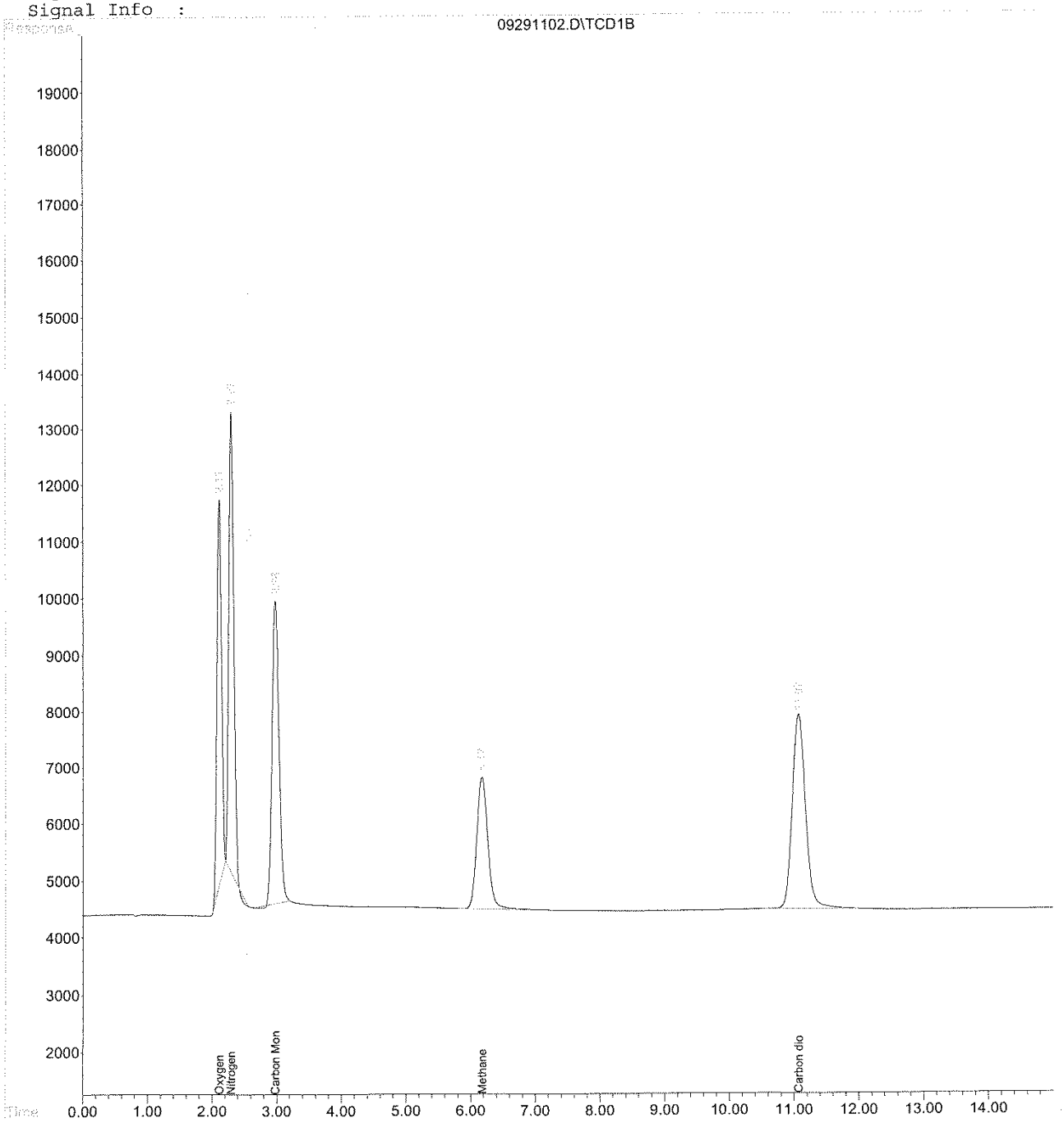
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092911\09291102.D Vial: 1
Acq On : 29 Sep 2011 11:40 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 30 12:28 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Fri Sep 30 13:25:32 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\092911\09291116.D          Vial: 1
Acq On    : 29 Sep 2011   6:31 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	2.445	2.2	0	0.02
2	Nitrogen	2.500	2.684	-7.4	0	0.00
3	Carbon Monoxide	2.500	2.614	-4.6	0	-0.04
4	Methane	2.000	2.192	-9.6	0	-0.06
5	Carbon dioxide	2.500	2.692	-7.7	0	-0.10

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\092911\09291116.D          Vial: 1
Acq On    : 29 Sep 2011   6:31 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 14:52:11 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092911\09291116.D Vial: 1
Acq On : 29 Sep 2011 6:31 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 30 12:29 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Fri Sep 30 13:25:32 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

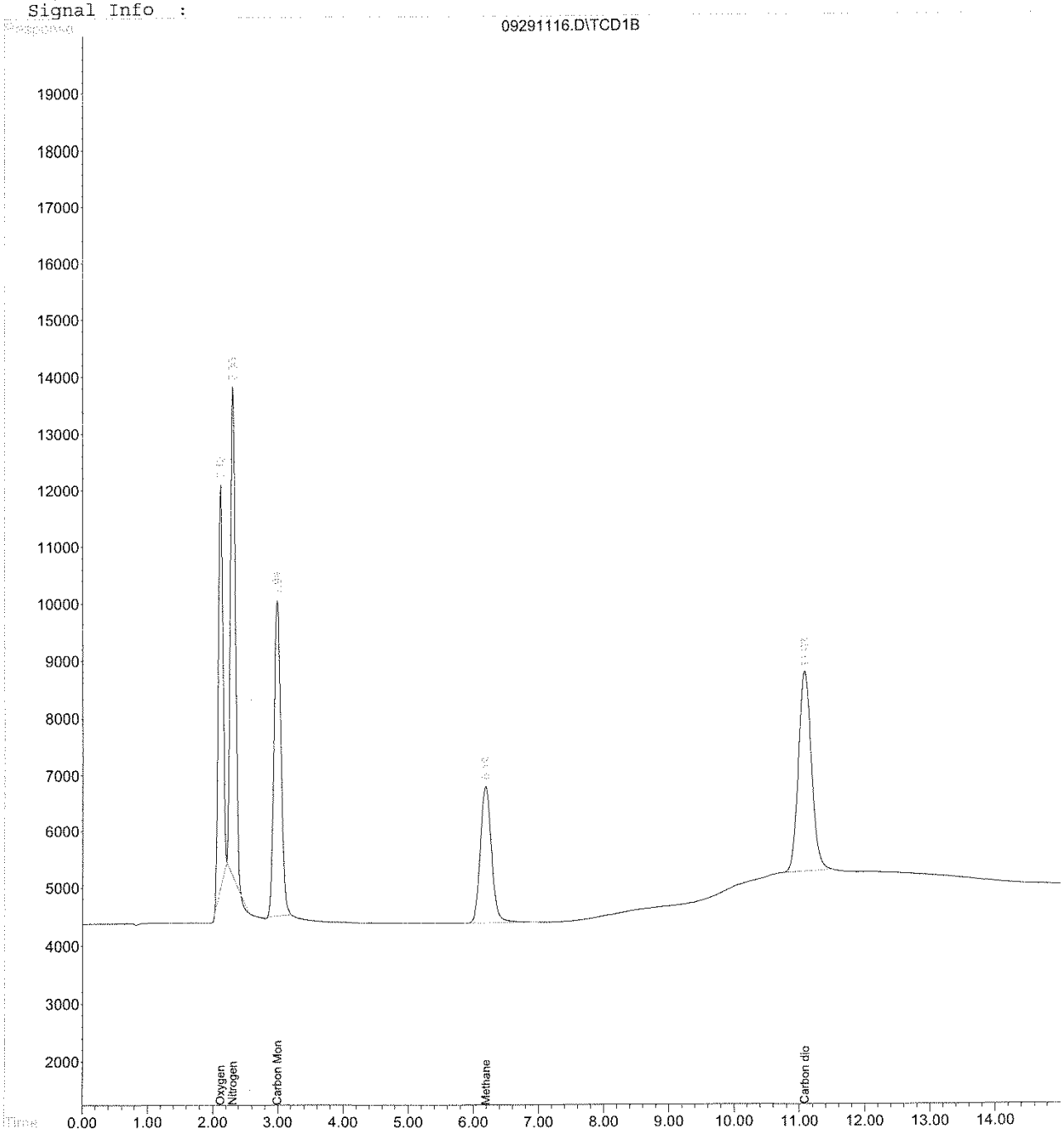
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.12	350321	2.445 %
2)	Nitrogen	2.30	462379	2.684 %
3)	Carbon Monoxide	2.99	411777	2.614 %
4)	Methane	6.19	284641	2.192 %
5)	Carbon dioxide	11.08	488994	2.692 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092911\09291116.D Vial: 1
Acq On : 29 Sep 2011 6:31 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 30 12:29 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Fri Sep 30 13:25:32 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\092911\09291125.D          Vial: 1
Acq On    : 29 Sep 2011   9:58 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	2.395	4.2	0	-0.01
2	Nitrogen	2.500	2.567	-2.7	0	-0.03
3	Carbon Monoxide	2.500	2.571	-2.8	0	-0.08
4	Methane	2.000	2.150	-7.5	0	-0.11
5	Carbon dioxide	2.500	2.614	-4.6	0	-0.15

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\092911\09291125.D          Vial: 1
Acq On    : 29 Sep 2011   9:58 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 14:52:49 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092911\09291125.D Vial: 1
Acq On : 29 Sep 2011 9:58 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 30 12:30 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Fri Sep 30 13:30:15 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	2.09	343131	2.395 %
2)	Nitrogen	2.27	442268	2.567 %
3)	Carbon Monoxide	2.95	404904	2.571 %
4)	Methane	6.14f	278719	2.150 %
5)	Carbon dioxide	11.03f	474318	2.614 %

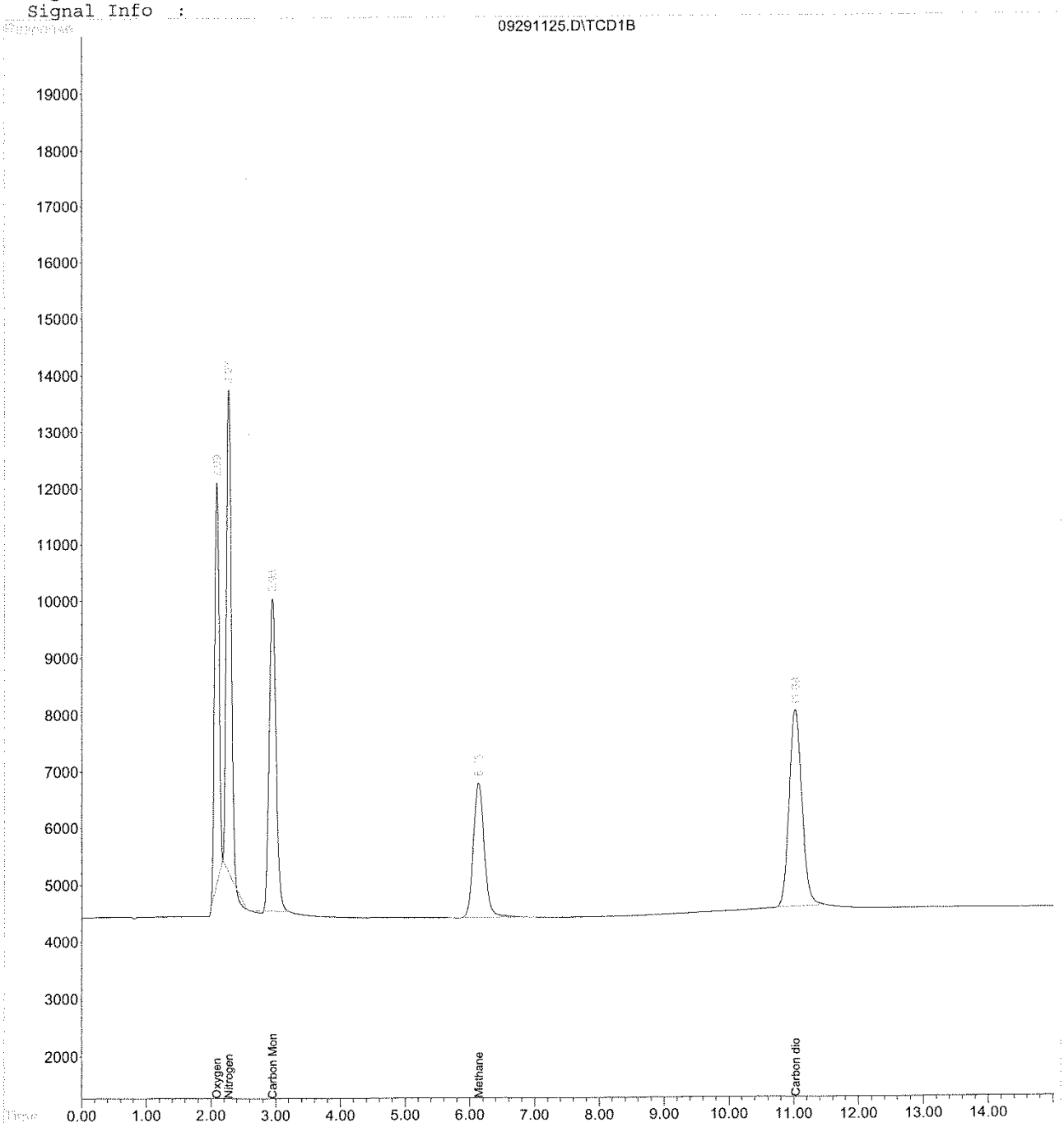
(f)=RT Delta > 1/2 Window (m)=manual int.
09291125.D 030511.M Thu Oct 20 14:52:43 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\092911\09291125.D Vial: 1
Acq On : 29 Sep 2011 9:58 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 30 12:30 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Fri Sep 30 13:30:15 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