RTI Laboratories, Inc.

Date: *27-Jul.-12*

CLIENT: Shaw Environmental & Infrastructure, Inc.

Project: Kirtland AFB
CO#: 501
Tracking #: 140705-036A
Project No.: 140705
Prime Contract: W912DY-10-D0014
Task Order: 02
Work Order: 1206785

CASE NARRATIVE

SAMPLE RECEIPT:
Samples were received at the RTI Laboratory, Livonia, MI via commercial delivery on 6/20/2012 in good condition. The sample set consisted of 46 air samples.

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

Sample IDs 1206785-001A, -002A, -003A, -004A, -005A, -012A, -013A, -014A, 015A, -016A, -017A, -018A, -019A, -020A, -021A, -022A, -023A, -035A and -036A were analyzed beyond the holding time for MA_APH method. Five days of lost analytical time was due to equipment failure. A decision was made to concentrate on analyzing the samples currently within their holding times.

QUALITY CONTROL:

Volatile Organic Compounds Analyses:

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

Surrogate recoveries were within established control limits.

Analytical Sequence ID 49973:
- Sample ID 1206785-010Adup exhibited RPD results outside acceptance limits for 2-Butanone (36.5%).

Analytical Sequence ID 49985:
- Sample ID 1206785-033Adup exhibited RPD results outside acceptance limits for Ethylbenzene (200%).

Analytical Sequence ID 49993:
- Sample ID 1206785-029Adup exhibited RPD results outside acceptance limits for Acetone (29.0%) and Methylene chloride (200%).

Volatile Organic Compounds Analyses (cont'd):

Analytical Sequence ID 50123:

- Sample ID 1206952-004Adup exhibited RPD results outside acceptance limits for Acetone (200%).

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.

Analytical Sequence ID 50271:

- Analytical Comments for METHOD MA_APH, SAMPLE 1206785-023A: Under-diluted sample analyte concentrations exceeded calibration range. Sample was the parent sample for the duplicate analysis and analyzed at the same dilution as the batch duplicate. Sample results at this dilution are not reported. Batch duplicate is reported. Sample results are reported are at a different dilution than the batch duplicate.

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

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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:__ _____for_____Date: July 27, 2012_____
Charles O'Bryan, Director, Quality Management

RTI Laboratories - Definitions and Acronyms

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

DEFINITIONS:

DF: Dilution factor; the dilution factor applied to the prepared sample.

DUP: Duplicate; aliquots of a sample taken from the same container under laboratory conditions and processed and analyzed independently, used to calculate Precision (%RPD).

LCS: Laboratory Control Sample; prepared by adding a known amount of target analytes to a specified amount of clean matrix and prepared with the batch of samples, used to calculate Accuracy (%REC).

LCSD: A duplicate LCS sample, used to calculate both Accuracy (%REC) and Precision (%RPD)

MBLK: Method Blank; a sample of similar matrix that does not contain target analytes or interference that may impact the analytical results and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedure, used to assess and verify that the analytical process is free of contamination.

MDL: Method Detection Limit; The lowest concentration of analyte that can be detected by the method in the applicable matrix.

Mg/Kg or mg/L: Units of part per million (PPM) – milligram per Kilogram (W/W) or milligram per Liter (W/V).

MS: Matrix Spike; prepared by adding a known amount of target analytes to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available, used to calculate Accuracy (%REC)

MSD: A duplicate MS sample, used to calculate both Accuracy (%REC) and Precision (%RPD)

% REC: Percent Recovery of a known spike (SPK); a measure of accuracy expressed as a percentage of a measured (recovered) concentration compared to the known concentration (SPK) added to the sample. This is compared to the Low Limit and High Limit.

% RPD: Relative Percent Difference; a measure of precision expressed as a percentage of the difference between two duplicates relative to the average concentration. This is compared to the RPD Limit.

PL: Permit limit:; Not included on all reports. Used primarily for wastewater discharge permits.

PQL: Practical Quantitation Limit; The lowest verified limit to which data is quantified without qualifications. Analyte concentrations below PQL are reported either as ND or as a number with a “J” qualifier.

Qual: Qualifier that applies to the analyte reported

RL: Reporting Limit: See PQL

SPK: Spike; used in the QC section for both SPK Value and SPK Ref Val

Ug/Kg or ug/L: Units of part per billion (PPB) – microgram per Kilogram (W/W) or microgram per Liter (W/V).

QUALIFIERS:

*/X: Reported value exceeds the maximum allowed concentration by regulation or permit

B: Analyte detected in the associated Method Blank at a concentration > ½ the PQL

E: Analyte concentration reported that exceeds the upper calibration standard. Greater uncertainty is associated with this result and data should be considered estimated.

H: Holding time for preparation or analysis has been exceeded

J: Analyte concentration is reported, and is less than the PQL and greater than or equal to the established MDL. Greater uncertainty is associated with this result and data reported is estimated. These analytes are not routinely reviewed nor narrated as to their potential for being laboratory artifacts.

M: Manual Integration used to determine area response

ND: Not detected at the Reporting Limit

P: Second column RPD exceeds 40%

R: % RPD exceeds control limits

S: % REC exceeds control limits

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV093

Project Number: 140705
Project Name: Kirtland AFB
Sample Coordinator: Mark Lyon
Turnaround Time: 1206785

Samples Shipment Date: 14 JUN 2012
Lab Destination: RTI Laboratories
Lab Contact: Mike Truchan
Project Contact: Pamela Moss
Carrier/Waybill No.: UPS/2323121426

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 ☐

Sample Disposal: Return to Client ☐ Disposal by Lab ☑ Archive (mos.)

1. Relinquished By (Signature/Affiliation) T Nager	Date: 6/14/12 Time: 1445	1. Received By (Signature/Affiliation)	Date: Time:
2. Relinquished By (Signature/Affiliation)	Date: Time:	2. Received By (Signature/Affiliation)	Date: Time:
3. Relinquished By (Signature/Affiliation)	Date: Time:	3. Received By (Signature/Affiliation)	Date: 6/20/12 Time: 10:47

Comments:

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA1353	SVMW-10-050-GS-VA1353-REG	13 JUN 2012	9:22	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0819
VA1353	SVMW-10-050-GS-VA1353-REG	13 JUN 2012	9:22	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1354	SVMW-10-100-GS-VA1354-REG	13 JUN 2012	9:56	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1217
VA1354	SVMW-10-100-GS-VA1354-REG	13 JUN 2012	9:56	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1355	SVMW-10-150-GS-VA1355-REG	13 JUN 2012	10:29	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0708
VA1355	SVMW-10-150-GS-VA1355-REG	13 JUN 2012	10:29	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1356	SVMW-10-150-GS-VA1356-FD	13 JUN 2012	10:29	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by			N		529

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV093

1206 785

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
							MA DEP, VOCs / TPH by TO-15					
VA1356	SVMW-10-150-GS-VA1356-FD	13 JUN 2012	10:29	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1357	SVMW-10-250-GS-VA1357-REG	13 JUN 2012	11:35	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0746
VA1357	SVMW-10-250-GS-VA1357-REG	13 JUN 2012	11:35	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1362	SVMW-12-150-GS-VA1362-REG	14 JUN 2012	10:57	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1208
VA1362	SVMW-12-150-GS-VA1362-REG	14 JUN 2012	10:57	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1363	SVMW-12-250-GS-VA1363-REG	14 JUN 2012	11:28	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1155
VA1363	SVMW-12-250-GS-VA1363-REG	14 JUN 2012	11:28	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1364	SVMW-12-350-GS-VA1364-REG	14 JUN 2012	12:08	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1148
VA1364	SVMW-12-350-GS-VA1364-REG	14 JUN 2012	12:08	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1365	SVMW-12-450-GS-VA1365-REG	14 JUN 2012	12:40	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1173
VA1365	SVMW-12-450-GS-VA1365-REG	14 JUN 2012	12:40	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1384	SVEW-01-260-GS-VA1384-REG	13 JUN 2012	8:41	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0700
VA1384	SVEW-01-260-GS-VA1384-REG	13 JUN 2012	8:41	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1385	SVEW-02-060-GS-VA1385-REG	13 JUN 2012	9:17	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1174
VA1385	SVEW-02-060-GS-VA1385-REG	13 JUN 2012	9:17	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1386	SVEW-03-160-GS-VA1386-REG	13 JUN 2012	9:49	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0649
VA1386	SVEW-03-160-GS-VA1386-REG	13 JUN 2012	9:49	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1387	SVEW-03-160-GS-VA1387-FD	13 JUN 2012	9:49	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1152
VA1387	SVEW-03-160-GS-VA1387-FD	13 JUN 2012	9:49	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1388	SVEW-04-313-GS-VA1388-REG	13 JUN 2012	11:17	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		~~1143~~ 1213 a
VA1388	SVEW-04-313-GS-VA1388-REG	13 JUN 2012	11:17	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1389	SVEW-05-460-GS-VA1389-REG	13 JUN 2012	10:39	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		~~0828~~ 1143 c
VA1389	SVEW-05-460-GS-VA1389-REG	13 JUN 2012	10:39	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1390	SVEW-06-060-GS-VA1390-REG	13 JUN 2012	12:42	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0828
VA1390	SVEW-06-060-GS-VA1390-REG	13 JUN 2012	12:42	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1391	SVEW-07-160-GS-VA1391-REG	13 JUN 2012	12:05	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0798
VA1391	SVEW-07-160-GS-VA1391-REG	13 JUN 2012	12:05	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV093

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA1392	SVEW-08-260-GS-VA1392-REG	13 JUN 2012	13:20	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1210
VA1392	SVEW-08-260-GS-VA1392-REG	13 JUN 2012	13:20	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1393	SVEW-09-460-GS-VA1393-REG	13 JUN 2012	13:51	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1153
VA1393	SVEW-09-460-GS-VA1393-REG	13 JUN 2012	13:51	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1418	KAFB-106111-025-GS-VA1418-REG	13 JUN 2012	13:19	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		530
VA1418	KAFB-106111-025-GS-VA1418-REG	13 JUN 2012	13:19	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1419	KAFB-106111-050-GS-VA1419-REG	13 JUN 2012	14:00	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0621
VA1419	KAFB-106111-050-GS-VA1419-REG	13 JUN 2012	14:00	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1420	KAFB-106111-050-GS-VA1420-FD	13 JUN 2012	14:00	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0843
VA1420	KAFB-106111-050-GS-VA1420-FD	13 JUN 2012	14:00	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1421	KAFB-106111-150-GS-VA1421-REG	13 JUN 2012	15:06	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		523
VA1421	KAFB-106111-150-GS-VA1421-REG	13 JUN 2012	15:06	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1422	KAFB-106111-250-GS-VA1422-REG	13 JUN 2012	15:46	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		515
VA1422	KAFB-106111-250-GS-VA1422-REG	13 JUN 2012	15:46	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1423	KAFB-106111-350-GS-VA1423-REG	14 JUN 2012	9:10	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1176
VA1423	KAFB-106111-350-GS-VA1423-REG	14 JUN 2012	9:10	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1424	KAFB-106111-450-GS-VA1424-REG	14 JUN 2012	9:56	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1147
VA1424	KAFB-106111-450-GS-VA1424-REG	14 JUN 2012	9:56	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1477	KAFB-106119-450-GS-VA1477-REG	13 JUN 2012	8:32	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1201
VA1477	KAFB-106119-450-GS-VA1477-REG	13 JUN 2012	8:32	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1491	KAFB-106122-025-GS-VA1491-REG	12 JUN 2012	12:45	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0718
VA1491	KAFB-106122-025-GS-VA1491-REG	12 JUN 2012	12:45	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1492	KAFB-106122-050-GS-VA1492-REG	12 JUN 2012	13:24	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0787
VA1492	KAFB-106122-050-GS-VA1492-REG	12 JUN 2012	13:24	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1493	KAFB-106122-150-GS-VA1493-REG	12 JUN 2012	14:00	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0603
VA1493	KAFB-106122-150-GS-VA1493-REG	12 JUN 2012	14:00	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1494	KAFB-106122-250-GS-VA1494-REG	12 JUN 2012	14:49	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0615
VA1494	KAFB-106122-250-GS-VA1494-REG	12 JUN 2012	14:49	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		

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Shaw E & I, Inc. 1206785

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV093

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Filt	CID	Condition On Receipt
VA1495	KAFB-106122-350-GS-VA1495-REG	12 JUN 2012	15:30	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		527
VA1495	KAFB-106122-350-GS-VA1495-REG	12 JUN 2012	15:30	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1496	KAFB-106122-450-GS-VA1496-REG	12 JUN 2012	16:15	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0597
VA1496	KAFB-106122-450-GS-VA1496-REG	12 JUN 2012	16:15	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA9053-TB	FIELDQC-AC-VA9053-TB-TB	13 JUN 2012	08:00	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15			N		0626
VA9056	ST106-IN-GS-VA9056-REG	13 JUN 2012	15:26	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1175
VA9056	ST106-IN-GS-VA9056-REG	13 JUN 2012	15:26	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA9057	ST106-IN-GS-VA9057-FD	13 JUN 2012	15:26	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0653
VA9057	ST106-IN-GS-VA9057-FD	13 JUN 2012	15:26	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA9058	ST106-POSTC1-GS-VA9058-REG	13 JUN 2012	15:45	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0633
VA9058	ST106-POSTC1-GS-VA9058-REG	13 JUN 2012	15:45	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA9059	ST106-POSTC2-GS-VA9059-REG	14 JUN 2012	13:09	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1204
VA9059	ST106-POSTC2-GS-VA9059-REG	14 JUN 2012	13:09	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA9060	KAFB-106149-GS-VA9060-REG - IN	14 JUN 2012	9:41	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1194
VA9060	KAFB-106149-GS-VA9060-REG - IN	14 JUN 2012	9:41	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA9061	KAFB-106149-GS-VA9061-REG - EXT	14 JUN 2012	8:42	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1171
VA9061	KAFB-106149-GS-VA9061-REG - EXT	14 JUN 2012	8:42	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA9062	KAFB-106149-GS-VA9062-REG - P_{vac}	14 JUN 2012	8:50	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA9062	KAFB-106149-GS-VA9062-REG - P_{vac}	14 JUN 2012	8:50	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0638
VA9063	KAFB-106160-GS-VA9063-REG - IN	14 JUN 2012	12:00	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0722
VA9063	KAFB-106160-GS-VA9063-REG - IN	14 JUN 2012	12:00	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA9065	KAFB-106160-GS-VA9065-REG - P_{vac}	14 JUN 2012	11:38	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1147
VA9065	KAFB-106160-GS-VA9065-REG - P_{vac}	14 JUN 2012	11:38	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA9066	KAFB-106161-GS-VA9066-REG - IN	14 JUN 2012	10:47	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1158
VA9066	KAFB-106161-GS-VA9066-REG - IN	14 JUN 2012	10:47	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA9067	KAFB-106161-GS-VA9067-FD - IN	14 JUN 2012	10:47	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0759
VA9067	KAFB-106161-GS-VA9067-FD - IN	14 JUN 2012	10:47	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA9068	KAFB-106161-GS-VA9068-REG - P_{vac}	14 JUN 2012	10:26	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		[illegible]

Correct 8/29/12

DLW 8/29/12 Postc1

DLW 8/29/12 Postc1

DLW 8/29/12 EXT IN

DLW 8/29/12 IN

Shaw™
Shaw E & I, Inc. 1206785

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV093

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA9068	KAFB-106161-GS-VA9068-REG-Post	14 JUN 2012	10:26	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1178

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

20 LBS **1 OF 8**
DWT: 20,14,12

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4199 3654

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

1206785

REF 1:140705
REF 2:BB010030

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

CUSTODY SEAL
DATE 6/14/12
SIGNATURE T. Nagy

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

VA	1420	0843
	1421	523
	9059	1204
	9060	1194
	9061	1171
	9062	0638
	9063	0722
	9065	1197
	9066	1158
	9067	0759
	9068	1178
	8093-TB	0626

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

20 LBS **2 OF 8**
DWT: 20,14,12

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4038 6268

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

1206 785

REF 1:140705
REF 2:BB010030

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

CUSTODY SEAL
DATE 6/14/12
SIGNATURE T Nagle

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

04/2012

Tedlars - VA 9067
VA9061

VA	Bottle #
1353	0819
1354	1217
1355	0708
1356	529
1357	0746

VA	Bottle #
1418	530
1419	0621
1422	515
1423	1176
1477	1201

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

20 LBS **3 OF 8**
DWT: 20,14,12

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4042 9471

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

1206785

REF 1:140705
REF 2:BB010030

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

CUSTODY SEAL
DATE 6/14/12
SIGNATURE T Nagl

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

04/2012

Fold here and place in this pouch

VA 1362	1208
1363	1155
1364	1148
1384	0700
1385	1174
1386	0649
1387	1152
1389	1143
1390	0828
1392	1210
1393	1153
1424	1147

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

20 LBS **4 OF 8**
DWT: 20,14,12

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4239 9287

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

1206785

REF 1:140705
REF 2:BB010030

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

9 scan

WS 15.0.16 HP LaserJet 4 27.0A 04/2012

Fold here and place in label pouch

CUSTODY SEAL
DATE 6/14/12
SIGNATURE T Vogel

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

VA	Bottle #	VA	Bottle #
1365	1173	9056	1175
1388	1213	9057	0653
1391	0798	9058	0633
1491	0718		
1492	0787		
1493	0603		
1494	0615		
1495	527		
1496	0597		

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

3 LBS **5 OF 8**
DWT: 24,14,18

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4153 1698

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

1206785

REF 1:140705
REF 2:BB010030

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

Custody seal intact until UPS

WS 15.0.16 HP LaserJet 4 27.0A 04/2012

Fold here and place in label pouch

Tedlar bags

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

9 LBS **6 OF 8**
DWT: 24,13,14

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4062 2707

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

1206785

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

WS 15.0.1[illegible] A 04/2012

CUSTODY SEAL
DATE 6/14/12
SIGNATURE T Vogel

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

Cooler Blue 123

Tedlar Bags

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

10 LBS **7 OF 8**
DWT: 24,13,14

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4162 8316

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

1206785

REF 1:140705
REF 2:BB010030

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

A 04/2012

CUSTODY SEAL
DATE 6/4/12
SIGNATURE T Nagle

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

Cooler A-50

Tedlar Bags

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

10 LBS **8 OF 8**
DWT: 20,8,4

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4026 4523

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

1206785

REF 1:140705
REF 2:BB010030

BILLING: P/P

CUSTODY SEAL
DATE 6/14/12
SIGNATURE T Nose

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

7 0A 04/2012

Fold here and place in label pouch

Regulators

RTI LABORATORIES, INC.

RTI Laboratories
31628 Glendale St.
Livonia, MI 48150
TEL: (734) 422-8000 FAX: (734) 422-5342
Website: www.rtilab.com

Sample Receipt Checklist

Client Name: **SHA04**

Date and Time Received **6/20/2012 10:47:00 AM**

Work Order Number **1206785** RcptNo: **1**

Received by: **Armando Flores**

Completed by

Reviewed by:

Completed Date: 6/21/2012 1:49:23 PM

Reviewed Date: 6/28/2012 12:12:35 PM

Carrier name: UPS

Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐	Not Present	☐
Are matrices correctly identified on Chain of custody?	Yes ☑	No ☐		
Is it clear what analyses were requested?	Yes ☑	No ☐		
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present	☑
Samples in proper container/bottle?	Yes ☑	No ☐		
Were correct preservatives used and noted?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
Were container lables complete (ID, Pres, Date)?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Was an attempt made to cool the samples?	Yes ☐	No ☑		
All samples received at a temp. of > 0° C to 6.0° C?	Yes ☐	No ☑		
Response when temperature is outside of range:	Not required			
Preservative added to bottles:				
Sample Temp. taken and recorded upon receipt?	Yes ☐	No ☑	To	ºC
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:	1Z10335E0340429471, 1Z10335E0342399287			
Sample Tags Present?	Yes ☐	No ☑		
Sample Tags Listed on COC?	Yes ☐	No ☑		
Tag Numbers:				
Sample Condition?	Intact ☑	Broken ☐	Leaking	☐

Case Number: SDG: SAS:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
Cardboard B	N/A	Not Good	No			
Cardboard B	N/A	Good	Yes		6/14/2012	See CoC

Adjusted? _____ Checked by _____

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

RTI LABORATORIES, INC.

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31628 Glendale St.
Livonia, MI 48150
TEL: (734) 422-8000 FAX: (734) 422-5342
Website: www.rtilab.com

Sample Receipt Checklist

Client Name: **SHA04**

Date and Time Received **6/20/2012 10:47:00 AM**

Work Order Number **1206785**

RcptNo: **1**

Received by: **Armando Flores**

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1206785-001A	Container-01 of 01	Bottle				
1206785-001B	Container-01 of 01	Bottle				
1206785-002A	Container-01 of 01	Bottle				
1206785-002B	Container-01 of 01	Bottle				
1206785-003A	Container-01 of 01	Bottle				
1206785-003B	Container-01 of 01	Bottle				
1206785-004A	Container-01 of 01	Bottle				
1206785-004B	Container-01 of 01	Bottle				
1206785-005A	Container-01 of 01	Bottle				
1206785-005B	Container-01 of 01	Bottle				
1206785-006A	Container-01 of 01	Bottle				
1206785-006B	Container-01 of 01	Bottle				
1206785-007A	Container-01 of 01	Bottle				
1206785-007B	Container-01 of 01	Bottle				
1206785-008A	Container-01 of 01	Bottle				
1206785-008B	Container-01 of 01	Bottle				
1206785-009A	Container-01 of 01	Bottle				
1206785-009B	Container-01 of 01	Bottle				
1206785-010A	Container-01 of 01	Bottle				
1206785-010B	Container-01 of 01	Bottle				
1206785-011A	Container-01 of 01	Bottle				
1206785-011B	Container-01 of 01	Bottle				
1206785-012A	Container-01 of 01	Bottle				
1206785-012B	Container-01 of 01	Bottle				
1206785-013A	Container-01 of 01	Bottle				
1206785-013B	Container-01 of 01	Bottle				
1206785-014A	Container-01 of 01	Bottle				
1206785-014B	Container-01 of 01	Bottle				
1206785-015A	Container-01 of 01	Bottle				

RTI LABORATORIES, INC.

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Website: www.rtilab.com

Sample Receipt Checklist

Client Name: **SHA04**

Date and Time Received **6/20/2012 10:47:00 AM**

Work Order Number **1206785** RcptNo: **1**

Received by: **Armando Flores**

1206785-015B	Container-01 of 01	Bottle
1206785-016A	Container-01 of 01	Bottle
1206785-016B	Container-01 of 01	Bottle
1206785-017A	Container-01 of 01	Bottle
1206785-017B	Container-01 of 01	Bottle
1206785-018A	Container-01 of 01	Bottle
1206785-018B	Container-01 of 01	Bottle
1206785-019A	Container-01 of 01	Bottle
1206785-019B	Container-01 of 01	Bottle
1206785-020A	Container-01 of 01	Bottle
1206785-020B	Container-01 of 01	Bottle
1206785-021A	Container-01 of 01	Bottle
1206785-021B	Container-01 of 01	Bottle
1206785-022A	Container-01 of 01	Bottle
1206785-022B	Container-01 of 01	Bottle
1206785-023A	Container-01 of 01	Bottle
1206785-023B	Container-01 of 01	Bottle
1206785-024A	Container-01 of 01	Bottle
1206785-024B	Container-01 of 01	Bottle
1206785-025A	Container-01 of 01	Bottle
1206785-025B	Container-01 of 01	Bottle
1206785-026A	Container-01 of 01	Bottle
1206785-026B	Container-01 of 01	Bottle
1206785-027A	Container-01 of 01	Bottle
1206785-027B	Container-01 of 01	Bottle
1206785-028A	Container-01 of 01	Bottle
1206785-028B	Container-01 of 01	Bottle
1206785-029A	Container-01 of 01	Bottle
1206785-029B	Container-01 of 01	Bottle
1206785-030A	Container-01 of 01	Bottle

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Website: www.rtilab.com

Sample Receipt Checklist

Client Name: **SHA04** Date and Time Received **6/20/2012 10:47:00 AM**

Work Order Number **1206785** RcptNo: **1** Received by: **Armando Flores**

1206785-030B	Container-01 of 01	Bottle
1206785-031A	Container-01 of 01	Bottle
1206785-031B	Container-01 of 01	Bottle
1206785-032A	Container-01 of 01	Bottle
1206785-032B	Container-01 of 01	Bottle
1206785-033A	Container-01 of 01	Bottle
1206785-033B	Container-01 of 01	Bottle
1206785-034A	Container-01 of 01	Bottle
1206785-035A	Container-01 of 01	Bottle
1206785-035B	Container-01 of 01	Bottle
1206785-036A	Container-01 of 01	Bottle
1206785-036B	Container-01 of 01	Bottle
1206785-037A	Container-01 of 01	Bottle
1206785-037B	Container-01 of 01	Bottle
1206785-038A	Container-01 of 01	Bottle
1206785-038B	Container-01 of 01	Bottle
1206785-039A	Container-01 of 01	Bottle
1206785-039B	Container-01 of 01	Bottle
1206785-040A	Container-01 of 01	Bottle
1206785-040B	Container-01 of 01	Bottle
1206785-041A	Container-01 of 01	Bottle
1206785-041B	Container-01 of 01	Bottle
1206785-042A	Container-01 of 01	Bottle
1206785-042B	Container-01 of 01	Bottle
1206785-043A	Container-01 of 01	Bottle
1206785-043B	Container-01 of 01	Bottle
1206785-044A	Container-01 of 01	Bottle
1206785-044B	Container-01 of 01	Bottle
1206785-045A	Container-01 of 01	Bottle
1206785-045B	Container-01 of 01	Bottle

RTI LABORATORIES, INC.

RTI Laboratories
31628 Glendale St.
Livonia, MI 48150
TEL: (734) 422-8000 FAX: (734) 422-5342
Website: www.rtilab.com

Sample Receipt Checklist

Client Name: **SHA04**

Date and Time Received **6/20/2012 10:47:00 AM**

Work Order Number **1206785** RcptNo: **1**

Received by: **Armando Flores**

1206785-046A	Container-01 of 01	Bottle
1206785-046B	Container-01 of 01	Bottle

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

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

Client Instructions:

Date Contacted: Contacted By:

Regarding:

CorrectiveAction:

Comments:
1Z10335E0341531698
1Z10335E0340622707
1Z10335E0341628316
1Z10335E0340264523

One box arrived with slight damage that caused a custody seal to break. Box contained Tedlar bags; no harm done. CM

RTI Laboratories - Workorder Sample Summary

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1206785-001A	VA1353		6/13/2012 9:22 AM	6/20/2012 10:47 AM	Air
1206785-001B	VA1353		6/13/2012 9:22 AM	6/20/2012 10:47 AM	Air
1206785-002A	VA1354		6/13/2012 9:56 AM	6/20/2012 10:47 AM	Air
1206785-002B	VA1354		6/13/2012 9:56 AM	6/20/2012 10:47 AM	Air
1206785-003A	VA1355		6/13/2012 10:29 AM	6/20/2012 10:47 AM	Air
1206785-003B	VA1355		6/13/2012 10:29 AM	6/20/2012 10:47 AM	Air
1206785-004A	VA1356		6/13/2012 10:29 AM	6/20/2012 10:47 AM	Air
1206785-004B	VA1356		6/13/2012 10:29 AM	6/20/2012 10:47 AM	Air
1206785-005A	VA1357		6/13/2012 11:35 AM	6/20/2012 10:47 AM	Air
1206785-005B	VA1357		6/13/2012 11:35 AM	6/20/2012 10:47 AM	Air
1206785-006A	VA1362		6/14/2012 10:57 AM	6/20/2012 10:47 AM	Air
1206785-006B	VA1362		6/14/2012 10:57 AM	6/20/2012 10:47 AM	Air
1206785-007A	VA1363		6/14/2012 11:28 AM	6/20/2012 10:47 AM	Air
1206785-007B	VA1363		6/14/2012 11:28 AM	6/20/2012 10:47 AM	Air
1206785-008A	VA1364		6/14/2012 12:08 PM	6/20/2012 10:47 AM	Air
1206785-008B	VA1364		6/14/2012 12:08 PM	6/20/2012 10:47 AM	Air
1206785-009A	VA1365		6/14/2012 12:40 PM	6/20/2012 10:47 AM	Air
1206785-009B	VA1365		6/14/2012 12:40 PM	6/20/2012 10:47 AM	Air
1206785-010A	VA1384		6/13/2012 8:41 AM	6/20/2012 10:47 AM	Air
1206785-010B	VA1384		6/13/2012 8:41 AM	6/20/2012 10:47 AM	Air
1206785-011A	VA1385		6/13/2012 9:17 AM	6/20/2012 10:47 AM	Air
1206785-011B	VA1385		6/13/2012 9:17 AM	6/20/2012 10:47 AM	Air
1206785-012A	VA1386		6/13/2012 9:49 AM	6/20/2012 10:47 AM	Air
1206785-012B	VA1386		6/13/2012 9:49 AM	6/20/2012 10:47 AM	Air
1206785-013A	VA1387		6/13/2012 9:49 AM	6/20/2012 10:47 AM	Air
1206785-013B	VA1387		6/13/2012 9:49 AM	6/20/2012 10:47 AM	Air
1206785-014A	VA1388		6/13/2012 11:17 AM	6/20/2012 10:47 AM	Air
1206785-014B	VA1388		6/13/2012 11:17 AM	6/20/2012 10:47 AM	Air
1206785-015A	VA1389		6/13/2012 10:39 AM	6/20/2012 10:47 AM	Air
1206785-015B	VA1389		6/13/2012 10:39 AM	6/20/2012 10:47 AM	Air
1206785-016A	VA1390		6/13/2012 12:42 PM	6/20/2012 10:47 AM	Air
1206785-016B	VA1390		6/13/2012 12:42 PM	6/20/2012 10:47 AM	Air
1206785-017A	VA1391		6/13/2012 12:05 PM	6/20/2012 10:47 AM	Air
1206785-017B	VA1391		6/13/2012 12:05 PM	6/20/2012 10:47 AM	Air
1206785-018A	VA1392		6/13/2012 1:20 PM	6/20/2012 10:47 AM	Air
1206785-018B	VA1392		6/13/2012 1:20 PM	6/20/2012 10:47 AM	Air
1206785-019A	VA1393		6/13/2012 1:51 PM	6/20/2012 10:47 AM	Air
1206785-019B	VA1393		6/13/2012 1:51 PM	6/20/2012 10:47 AM	Air
1206785-020A	VA1418		6/13/2012 1:19 PM	6/20/2012 10:47 AM	Air
1206785-020B	VA1418		6/13/2012 1:19 PM	6/20/2012 10:47 AM	Air
1206785-021A	VA1419		6/13/2012 2:00 PM	6/20/2012 10:47 AM	Air
1206785-021B	VA1419		6/13/2012 2:00 PM	6/20/2012 10:47 AM	Air
1206785-022A	VA1420		6/13/2012 2:00 PM	6/20/2012 10:47 AM	Air
1206785-022B	VA1420		6/13/2012 2:00 PM	6/20/2012 10:47 AM	Air
1206785-023A	VA1421		6/13/2012 3:06 PM	6/20/2012 10:47 AM	Air

RTI Laboratories - Workorder Sample Summary

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1206785-023B	VA1421		6/13/2012 3:06 PM	6/20/2012 10:47 AM	Air
1206785-024A	VA1422		6/13/2012 3:46 PM	6/20/2012 10:47 AM	Air
1206785-024B	VA1422		6/13/2012 3:46 PM	6/20/2012 10:47 AM	Air
1206785-025A	VA1423		6/14/2012 9:10 AM	6/20/2012 10:47 AM	Air
1206785-025B	VA1423		6/14/2012 9:10 AM	6/20/2012 10:47 AM	Air
1206785-026A	VA1424		6/14/2012 9:56 AM	6/20/2012 10:47 AM	Air
1206785-026B	VA1424		6/14/2012 9:56 AM	6/20/2012 10:47 AM	Air
1206785-027A	VA1477		6/13/2012 8:32 AM	6/20/2012 10:47 AM	Air
1206785-027B	VA1477		6/13/2012 8:32 AM	6/20/2012 10:47 AM	Air
1206785-028A	VA1491		6/12/2012 12:45 PM	6/20/2012 10:47 AM	Air
1206785-028B	VA1491		6/12/2012 12:45 PM	6/20/2012 10:47 AM	Air
1206785-029A	VA1492		6/12/2012 1:24 PM	6/20/2012 10:47 AM	Air
1206785-029B	VA1492		6/12/2012 1:24 PM	6/20/2012 10:47 AM	Air
1206785-030A	VA1493		6/12/2012 2:00 PM	6/20/2012 10:47 AM	Air
1206785-030B	VA1493		6/12/2012 2:00 PM	6/20/2012 10:47 AM	Air
1206785-031A	VA1494		6/12/2012 2:49 PM	6/20/2012 10:47 AM	Air
1206785-031B	VA1494		6/12/2012 2:49 PM	6/20/2012 10:47 AM	Air
1206785-032A	VA1495		6/12/2012 3:30 PM	6/20/2012 10:47 AM	Air
1206785-032B	VA1495		6/12/2012 3:30 PM	6/20/2012 10:47 AM	Air
1206785-033A	VA1496		6/12/2012 4:16 PM	6/20/2012 10:47 AM	Air
1206785-033B	VA1496		6/12/2012 4:16 PM	6/20/2012 10:47 AM	Air
1206785-034A	VA8093-TB		6/13/2012 8:00 AM	6/20/2012 10:47 AM	Air
1206785-035A	VA9056		6/13/2012 3:26 PM	6/20/2012 10:47 AM	Air
1206785-035B	VA9056		6/13/2012 3:26 PM	6/20/2012 10:47 AM	Air
1206785-036A	VA9057		6/13/2012 3:26 PM	6/20/2012 10:47 AM	Air
1206785-036B	VA9057		6/13/2012 3:26 PM	6/20/2012 10:47 AM	Air
1206785-037A	VA9058		6/13/2012 3:45 PM	6/20/2012 10:47 AM	Air
1206785-037B	VA9058		6/13/2012 3:45 PM	6/20/2012 10:47 AM	Air
1206785-038A	VA9059		6/14/2012 1:09 PM	6/20/2012 10:47 AM	Air
1206785-038B	VA9059		6/14/2012 1:09 PM	6/20/2012 10:47 AM	Air
1206785-039A	VA9060		6/14/2012 9:41 AM	6/20/2012 10:47 AM	Air
1206785-039B	VA9060		6/14/2012 9:41 AM	6/20/2012 10:47 AM	Air
1206785-040A	VA9061		6/14/2012 8:42 AM	6/20/2012 10:47 AM	Air
1206785-040B	VA9061		6/14/2012 8:42 AM	6/20/2012 10:47 AM	Air
1206785-041A	VA9062		6/14/2012 8:50 AM	6/20/2012 10:47 AM	Air
1206785-041B	VA9062		6/14/2012 8:50 AM	6/20/2012 10:47 AM	Air
1206785-042A	VA9063		6/14/2012 12:00 PM	6/20/2012 10:47 AM	Air
1206785-042B	VA9063		6/14/2012 12:00 PM	6/20/2012 10:47 AM	Air
1206785-043A	VA9065		6/14/2012 11:38 AM	6/20/2012 10:47 AM	Air
1206785-043B	VA9065		6/14/2012 11:38 AM	6/20/2012 10:47 AM	Air
1206785-044A	VA9066		6/14/2012 10:47 AM	6/20/2012 10:47 AM	Air
1206785-044B	VA9066		6/14/2012 10:47 AM	6/20/2012 10:47 AM	Air
1206785-045A	VA9067		6/14/2012 10:47 AM	6/20/2012 10:47 AM	Air
1206785-045B	VA9067		6/14/2012 10:47 AM	6/20/2012 10:47 AM	Air
1206785-046A	VA9068		6/14/2012 10:26 AM	6/20/2012 10:47 AM	Air

RTI Laboratories - Workorder Sample Summary

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1206785-046B	VA9068		6/14/2012 10:26 AM	6/20/2012 10:47 AM	Air

RTI Laboratories - DATES REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1206785-001A	VA1353	6/13/2012 9:22 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/17/2012 8:34 PM
				EPA_TO15-Volatile Organic Compounds			7/10/2012 1:08 AM
				EPA_TO15-Volatile Organic Compounds			7/11/2012 2:46 PM
1206785-001B	VA1353	6/13/2012 9:22 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/29/2012 10:46 AM
1206785-002A	VA1354	6/13/2012 9:56 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/17/2012 10:52 PM
				EPA_TO15-Volatile Organic Compounds			7/10/2012 3:13 AM
1206785-002B	VA1354	6/13/2012 9:56 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/29/2012 11:01 AM
1206785-003A	VA1355	6/13/2012 10:29 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/17/2012 11:36 PM
				EPA_TO15-Volatile Organic Compounds			7/10/2012 1:02 PM
1206785-003B	VA1355	6/13/2012 10:29 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/29/2012 11:17 AM
1206785-004A	VA1356	6/13/2012 10:29 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/18/2012 12:21 AM
				EPA_TO15-Volatile Organic Compounds			7/10/2012 1:44 PM
				EPA_TO15-Volatile Organic Compounds			7/11/2012 2:38 AM
1206785-004B	VA1356	6/13/2012 10:29 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/29/2012 11:32 AM
1206785-005A	VA1357	6/13/2012 11:35 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/18/2012 2:32 AM
				EPA_TO15-Volatile Organic Compounds			7/10/2012 6:55 PM
				EPA_TO15-Volatile Organic Compounds			7/12/2012 10:19 PM
1206785-005B	VA1357	6/13/2012 11:35 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/29/2012 11:50 AM

RTI Laboratories - DATES REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1206785-006A	VA1362	6/14/2012 10:57 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/14/2012 8:21 AM
				EPA_TO15-Volatile Organic Compounds			7/12/2012 6:38 PM
1206785-006B	VA1362	6/14/2012 10:57 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/29/2012 12:09 PM
1206785-007A	VA1363	6/14/2012 11:28 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/14/2012 9:05 AM
				EPA_TO15-Volatile Organic Compounds			7/12/2012 8:07 PM
1206785-007B	VA1363	6/14/2012 11:28 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/29/2012 12:24 PM
1206785-008A	VA1364	6/14/2012 12:08 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/14/2012 6:54 AM
				EPA_TO15-Volatile Organic Compounds			7/12/2012 8:52 PM
1206785-008B	VA1364	6/14/2012 12:08 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/29/2012 12:39 PM
1206785-009A	VA1365	6/14/2012 12:40 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/14/2012 7:36 AM
				EPA_TO15-Volatile Organic Compounds			7/12/2012 9:37 PM
1206785-009B	VA1365	6/14/2012 12:40 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/29/2012 12:56 PM
1206785-010A	VA1384	6/13/2012 8:41 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/12/2012 4:47 PM
				EPA_TO15-Volatile Organic Compounds			7/5/2012 6:35 PM
1206785-010B	VA1384	6/13/2012 8:41 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/29/2012 1:11 PM
1206785-011A	VA1385	6/13/2012 9:17 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/12/2012 5:30 PM
				EPA_TO15-Volatile Organic Compounds			7/5/2012 8:02 PM

RTI Laboratories - DATES REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1206785-011B	VA1385	6/13/2012 9:17 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/29/2012 2:14 PM
1206785-012A	VA1386	6/13/2012 9:49 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/17/2012 9:20 PM
				EPA_TO15-Volatile Organic Compounds			7/10/2012 1:49 AM
				EPA_TO15-Volatile Organic Compounds			7/11/2012 3:28 PM
1206785-012B	VA1386	6/13/2012 9:49 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/29/2012 2:29 PM
1206785-013A	VA1387	6/13/2012 9:49 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/17/2012 10:06 PM
				EPA_TO15-Volatile Organic Compounds			7/10/2012 2:31 AM
				EPA_TO15-Volatile Organic Compounds			7/11/2012 4:09 PM
1206785-013B	VA1387	6/13/2012 9:49 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/29/2012 2:44 PM
1206785-014A	VA1388	6/13/2012 11:17 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/18/2012 1:48 AM
				EPA_TO15-Volatile Organic Compounds			7/10/2012 6:11 PM
				EPA_TO15-Volatile Organic Compounds			7/11/2012 4:51 PM
1206785-014B	VA1388	6/13/2012 11:17 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/29/2012 3:01 PM
1206785-015A	VA1389	6/13/2012 10:39 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/18/2012 9:27 PM
				EPA_TO15-Volatile Organic Compounds			7/10/2012 3:54 AM
1206785-015B	VA1389	6/13/2012 10:39 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/29/2012 3:16 PM
1206785-016A	VA1390	6/13/2012 12:42 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/18/2012 3:58 AM
				EPA_TO15-Volatile Organic Compounds			7/10/2012 8:17 PM

RTI Laboratories - DATES REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1206785-016B	VA1390	6/13/2012 12:42 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/29/2012 3:31 PM
1206785-017A	VA1391	6/13/2012 12:05 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/18/2012 3:15 AM
				EPA_TO15-Volatile Organic Compounds			7/10/2012 7:36 PM
1206785-017B	VA1391	6/13/2012 12:05 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/29/2012 3:46 PM
1206785-018A	VA1392	6/13/2012 1:20 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/18/2012 9:32 AM
				EPA_TO15-Volatile Organic Compounds			7/10/2012 9:46 PM
				EPA_TO15-Volatile Organic Compounds			7/11/2012 6:53 AM
1206785-018B	VA1392	6/13/2012 1:20 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/29/2012 4:00 PM
1206785-019A	VA1393	6/13/2012 1:51 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/18/2012 10:15 AM
				EPA_TO15-Volatile Organic Compounds			7/10/2012 10:31 PM
				EPA_TO15-Volatile Organic Compounds			7/11/2012 6:15 PM
1206785-019B	VA1393	6/13/2012 1:51 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/29/2012 4:15 PM
1206785-020A	VA1418	6/13/2012 1:19 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/17/2012 6:58 PM
				EPA_TO15-Volatile Organic Compounds			7/10/2012 9:02 PM
1206785-020B	VA1418	6/13/2012 1:19 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/29/2012 4:30 PM
1206785-021A	VA1419	6/13/2012 2:00 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/18/2012 10:53 PM
				EPA_TO15-Volatile Organic Compounds			7/11/2012 7:00 PM
				EPA_TO15-Volatile Organic Compounds			7/12/2012 3:29 AM

RTI Laboratories - DATES REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1206785-021B	VA1419	6/13/2012 2:00 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/2/2012 9:57 AM
1206785-022A	VA1420	6/13/2012 2:00 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/18/2012 10:10 PM
				EPA_TO15-Volatile Organic Compounds			7/11/2012 6:12 AM
1206785-022B	VA1420	6/13/2012 2:00 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/2/2012 10:12 AM
1206785-023A	VA1421	6/13/2012 3:06 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/18/2012 6:26 PM
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/19/2012 2:17 AM
				EPA_TO15-Volatile Organic Compounds			7/11/2012 3:22 AM
1206785-023B	VA1421	6/13/2012 3:06 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/2/2012 10:27 AM
1206785-024A	VA1422	6/13/2012 3:46 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/13/2012 3:21 PM
				EPA_TO15-Volatile Organic Compounds			7/11/2012 10:40 PM
1206785-024B	VA1422	6/13/2012 3:46 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/2/2012 10:43 AM
1206785-025A	VA1423	6/14/2012 9:10 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/13/2012 6:23 PM
				EPA_TO15-Volatile Organic Compounds			7/13/2012 12:37 AM
1206785-025B	VA1423	6/14/2012 9:10 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/2/2012 10:58 AM
1206785-026A	VA1424	6/14/2012 9:56 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/13/2012 7:56 PM
				EPA_TO15-Volatile Organic Compounds			7/12/2012 2:07 AM
1206785-026B	VA1424	6/14/2012 9:56 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/2/2012 11:13 AM

RTI Laboratories - DATES REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1206785-027A	VA1477	6/13/2012 8:32 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/12/2012 4:04 PM
				EPA_TO15-Volatile Organic Compounds			7/5/2012 8:44 PM
1206785-027B	VA1477	6/13/2012 8:32 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/2/2012 11:29 AM
1206785-028A	VA1491	6/12/2012 12:45 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/7/2012 6:49 AM
				EPA_TO15-Volatile Organic Compounds			7/9/2012 7:27 PM
1206785-028B	VA1491	6/12/2012 12:45 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/2/2012 11:47 AM
1206785-029A	VA1492	6/12/2012 1:24 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/12/2012 10:47 AM
				EPA_TO15-Volatile Organic Compounds			7/10/2012 4:45 PM
				EPA_TO15-Volatile Organic Compounds			7/11/2012 2:05 PM
1206785-029B	VA1492	6/12/2012 1:24 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/2/2012 12:02 PM
1206785-030A	VA1493	6/12/2012 2:00 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/12/2012 11:31 AM
				EPA_TO15-Volatile Organic Compounds			7/9/2012 8:50 PM
				EPA_TO15-Volatile Organic Compounds			7/10/2012 2:30 PM
1206785-030B	VA1493	6/12/2012 2:00 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/2/2012 12:17 PM
1206785-031A	VA1494	6/12/2012 2:49 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/12/2012 1:01 PM
				EPA_TO15-Volatile Organic Compounds			7/10/2012 3:15 PM
1206785-031B	VA1494	6/12/2012 2:49 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/2/2012 1:21 PM
1206785-032A	VA1495	6/12/2012 3:30 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/12/2012 1:47 PM

RTI Laboratories - DATES REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1206785-032A	VA1495	6/12/2012 3:30 PM	Air				
				EPA_TO15-Volatile Organic Compounds			7/10/2012 4:00 PM
1206785-032B	VA1495	6/12/2012 3:30 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/2/2012 1:36 PM
1206785-033A	VA1496	6/12/2012 4:16 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/12/2012 3:16 PM
				EPA_TO15-Volatile Organic Compounds			7/9/2012 10:16 PM
1206785-033B	VA1496	6/12/2012 4:16 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/2/2012 1:51 PM
1206785-034A	VA8093-TB	6/13/2012 8:00 AM	Air				
				EPA_TO15-Volatile Organic Compounds			7/10/2012 12:26 AM
1206785-035A	VA9056	6/13/2012 3:26 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/18/2012 7:58 PM
				EPA_TO15-Volatile Organic Compounds			7/13/2012 2:33 PM
1206785-035B	VA9056	6/13/2012 3:26 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/2/2012 2:13 PM
1206785-036A	VA9057	6/13/2012 3:26 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/18/2012 8:44 PM
				EPA_TO15-Volatile Organic Compounds			7/13/2012 3:19 PM
1206785-036B	VA9057	6/13/2012 3:26 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/2/2012 2:28 PM
1206785-037A	VA9058	6/13/2012 3:45 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/13/2012 2:35 PM
				EPA_TO15-Volatile Organic Compounds			7/12/2012 4:17 AM
1206785-037B	VA9058	6/13/2012 3:45 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/2/2012 2:44 PM
1206785-038A	VA9059	6/14/2012 1:09 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/14/2012 4:16 AM
				EPA_TO15-Volatile Organic Compounds			7/13/2012 4:18 AM

RTI Laboratories - DATES REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1206785-038B	VA9059	6/14/2012 1:09 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/2/2012 2:59 PM
1206785-039A	VA9060	6/14/2012 9:41 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/13/2012 11:44 PM
				EPA_TO15-Volatile Organic Compounds			7/13/2012 1:25 AM
1206785-039B	VA9060	6/14/2012 9:41 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/2/2012 3:15 PM
1206785-040A	VA9061	6/14/2012 8:42 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/13/2012 4:04 PM
				EPA_TO15-Volatile Organic Compounds			7/11/2012 11:21 PM
				EPA_TO15-Volatile Organic Compounds			7/12/2012 11:49 PM
1206785-040B	VA9061	6/14/2012 8:42 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/2/2012 3:30 PM
1206785-041A	VA9062	6/14/2012 8:50 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/13/2012 4:49 PM
				EPA_TO15-Volatile Organic Compounds			7/12/2012 12:02 AM
				EPA_TO15-Volatile Organic Compounds			7/12/2012 5:02 AM
1206785-041B	VA9062	6/14/2012 8:50 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/2/2012 3:46 PM
1206785-042A	VA9063	6/14/2012 12:00 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/14/2012 2:00 AM
				EPA_TO15-Volatile Organic Compounds			7/12/2012 2:40 PM
1206785-042B	VA9063	6/14/2012 12:00 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/3/2012 10:50 AM
1206785-043A	VA9065	6/14/2012 11:38 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/14/2012 1:17 AM
				EPA_TO15-Volatile Organic Compounds			7/12/2012 1:58 PM
				EPA_TO15-Volatile Organic Compounds			7/13/2012 3:37 AM

RTI Laboratories - DATES REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1206785-043B	VA9065	6/14/2012 11:38 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/3/2012 11:05 AM
1206785-044A	VA9066	6/14/2012 10:47 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/13/2012 9:28 PM
				EPA_TO15-Volatile Organic Compounds			7/12/2012 12:36 PM
				EPA_TO15-Volatile Organic Compounds			7/13/2012 2:07 AM
1206785-044B	VA9066	6/14/2012 10:47 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/3/2012 11:22 AM
1206785-045A	VA9067	6/14/2012 10:47 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/13/2012 10:12 PM
				EPA_TO15-Volatile Organic Compounds			7/12/2012 1:17 PM
				EPA_TO15-Volatile Organic Compounds			7/13/2012 2:48 AM
1206785-045B	VA9067	6/14/2012 10:47 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/3/2012 11:37 AM
1206785-046A	VA9068	6/14/2012 10:26 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			7/13/2012 8:45 PM
				EPA_TO15-Volatile Organic Compounds			7/12/2012 4:03 PM
				EPA_TO15-Volatile Organic Compounds			7/12/2012 5:53 PM
1206785-046B	VA9068	6/14/2012 10:26 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			7/3/2012 11:52 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 9:22:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-001	**Matrix:**	Air
Client Sample ID:	VA1353		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	8.1	0.10		%	1	6/29/2012 10:46 AM
Carbon Monoxide	ND	0.10	U	%	1	6/29/2012 10:46 AM
Methane	ND	0.50	U	%	1	6/29/2012 10:46 AM
Nitrogen	81	0.10		%	1	6/29/2012 10:46 AM
Oxygen	7.2	0.10		%	1	6/29/2012 10:46 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
1,1,2,2-Tetrachloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
1,1,2-Trichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
1,1-Dichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
1,1-Dichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
1,2,4-Trichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
1,2,4-Trimethylbenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
1,2-Dibromoethane	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
1,2-Dichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
1,2-Dichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
1,2-Dichloropropane	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
1,3,5-Trimethylbenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
1,3-Butadiene	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
1,3-Dichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
1,4-Dichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
2-Butanone	68,000	20,000		ppbv	20000	7/10/2012 1:08 AM
2-Hexanone	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
4-Methyl-2-pentanone	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Acetone	330,000	20,000		ppbv	20000	7/10/2012 1:08 AM
Benzene	440,000	20,000		ppbv	20000	7/10/2012 1:08 AM
Benzyl chloride	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Bromodichloromethane	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Bromoform	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Bromomethane	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Carbon disulfide	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Carbon tetrachloride	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Chlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Chlorodibromomethane	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Chloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Chloroform	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Chloromethane	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
cis-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
cis-1,3-dichloropropene	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 9:22:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-001	**Matrix:**	Air
Client Sample ID:	VA1353		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	2,200,000	160,000		ppbv	80000	7/11/2012 2:46 PM
Dichlorodifluoromethane	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Ethyl acetate	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Ethylbenzene	ND	40,000	U	ppbv	20000	7/10/2012 1:08 AM
Heptane	890,000	20,000		ppbv	20000	7/10/2012 1:08 AM
Hexachlorobutadiene	ND	40,000	U	ppbv	20000	7/10/2012 1:08 AM
m,p-Xylene	29,000	40,000	J	ppbv	20000	7/10/2012 1:08 AM
Methylene chloride	ND	100,000	U	ppbv	20000	7/10/2012 1:08 AM
n-Hexane	1,500,000	160,000		ppbv	80000	7/11/2012 2:46 PM
Naphthalene	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
o-Xylene	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Propylene	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Styrene	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
tert-Butyl Methyl Ether	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Tetrachloroethene	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Tetrahydrofuran	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Toluene	610,000	20,000		ppbv	20000	7/10/2012 1:08 AM
trans-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
trans-1,3-dichloropropene	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Trichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Trichlorofluoromethane	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Vinyl acetate	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Vinyl chloride	ND	20,000	U	ppbv	20000	7/10/2012 1:08 AM
Xylenes, Total	29,000	60,000	J	ppbv	20000	7/10/2012 1:08 AM
Surr: 4-Bromofluorobenzene	97.3	70-130		%REC	20000	7/10/2012 1:08 AM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	57,000,000	9,400,000	H	µg/m³	80000	7/17/2012 8:34 PM
C9-C10 Aromatic Hydrocarbons	ND	11,000,000	UH	µg/m³	80000	7/17/2012 8:34 PM
C9-C12 Aliphatic Hydrocarbons	ND	15,000,000	UH	µg/m³	80000	7/17/2012 8:34 PM
Surr: 4-Bromofluorobenzene	99.9	70-130	H	%REC	80000	7/17/2012 8:34 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 9:56:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-002	**Matrix:**	Air
Client Sample ID:	VA1354		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	4.5	0.10		%	1	6/29/2012 11:01 AM
Carbon Monoxide	ND	0.10	U	%	1	6/29/2012 11:01 AM
Methane	ND	0.50	U	%	1	6/29/2012 11:01 AM
Nitrogen	79	0.10		%	1	6/29/2012 11:01 AM
Oxygen	13	0.10		%	1	6/29/2012 11:01 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
1,1,2,2-Tetrachloroethane	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
1,1,2-Trichloroethane	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
1,1-Dichloroethane	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
1,1-Dichloroethene	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
1,2,4-Trichlorobenzene	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
1,2,4-Trimethylbenzene	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
1,2-Dibromoethane	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
1,2-Dichlorobenzene	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
1,2-Dichloroethane	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
1,2-Dichloropropane	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
1,3,5-Trimethylbenzene	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
1,3-Butadiene	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
1,3-Dichlorobenzene	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
1,4-Dichlorobenzene	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
2-Butanone	110,000	40,000		ppbv	40000	7/10/2012 3:13 AM
2-Hexanone	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
4-Methyl-2-pentanone	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Acetone	680,000	40,000		ppbv	40000	7/10/2012 3:13 AM
Benzene	490,000	40,000		ppbv	40000	7/10/2012 3:13 AM
Benzyl chloride	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Bromodichloromethane	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Bromoform	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Bromomethane	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Carbon disulfide	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Carbon tetrachloride	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Chlorobenzene	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Chlorodibromomethane	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Chloroethane	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Chloroform	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Chloromethane	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
cis-1,2-Dichloroethene	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
cis-1,3-dichloropropene	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 9:56:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-002	**Matrix:**	Air
Client Sample ID:	VA1354		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,500,000	80,000		ppbv	40000	7/10/2012 3:13 AM
Dichlorodifluoromethane	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Ethyl acetate	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Ethylbenzene	ND	80,000	U	ppbv	40000	7/10/2012 3:13 AM
Heptane	660,000	40,000		ppbv	40000	7/10/2012 3:13 AM
Hexachlorobutadiene	ND	80,000	U	ppbv	40000	7/10/2012 3:13 AM
m,p-Xylene	ND	80,000	U	ppbv	40000	7/10/2012 3:13 AM
Methylene chloride	ND	200,000	U	ppbv	40000	7/10/2012 3:13 AM
n-Hexane	1,800,000	80,000		ppbv	40000	7/10/2012 3:13 AM
Naphthalene	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
o-Xylene	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Propylene	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Styrene	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
tert-Butyl Methyl Ether	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Tetrachloroethene	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Tetrahydrofuran	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Toluene	400,000	40,000		ppbv	40000	7/10/2012 3:13 AM
trans-1,2-Dichloroethene	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
trans-1,3-dichloropropene	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Trichloroethene	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Trichlorofluoromethane	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Vinyl acetate	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Vinyl chloride	ND	40,000	U	ppbv	40000	7/10/2012 3:13 AM
Xylenes, Total	ND	120,000	U	ppbv	40000	7/10/2012 3:13 AM
Surr: 4-Bromofluorobenzene	97.0	70-130		%REC	40000	7/10/2012 3:13 AM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	40,000,000	4,700,000	H	µg/m³	40000	7/17/2012 10:52 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300,000	UH	µg/m³	40000	7/17/2012 10:52 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600,000	UH	µg/m³	40000	7/17/2012 10:52 PM
Surr: 4-Bromofluorobenzene	99.4	70-130	H	%REC	40000	7/17/2012 10:52 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 10:29:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-003	**Matrix:**	Air
Client Sample ID:	VA1355		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	4.4	0.10		%	1	6/29/2012 11:17 AM
Carbon Monoxide	ND	0.10	U	%	1	6/29/2012 11:17 AM
Methane	ND	0.50	U	%	1	6/29/2012 11:17 AM
Nitrogen	82	0.10		%	1	6/29/2012 11:17 AM
Oxygen	10	0.10		%	1	6/29/2012 11:17 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
1,1,2,2-Tetrachloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
1,1,2-Trichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
1,1-Dichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
1,1-Dichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
1,2,4-Trichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
1,2,4-Trimethylbenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
1,2-Dibromoethane	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
1,2-Dichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
1,2-Dichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
1,2-Dichloropropane	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
1,3,5-Trimethylbenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
1,3-Butadiene	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
1,3-Dichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
1,4-Dichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
2-Butanone	26,000	20,000		ppbv	20000	7/10/2012 1:02 PM
2-Hexanone	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
4-Methyl-2-pentanone	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Acetone	250,000	20,000		ppbv	20000	7/10/2012 1:02 PM
Benzene	170,000	20,000		ppbv	20000	7/10/2012 1:02 PM
Benzyl chloride	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Bromodichloromethane	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Bromoform	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Bromomethane	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Carbon disulfide	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Carbon tetrachloride	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Chlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Chlorodibromomethane	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Chloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Chloroform	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Chloromethane	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
cis-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
cis-1,3-dichloropropene	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 10:29:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-003	**Matrix:**	Air
Client Sample ID:	VA1355		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	430,000	40,000		ppbv	20000	7/10/2012 1:02 PM
Dichlorodifluoromethane	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Ethyl acetate	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Ethylbenzene	ND	40,000	U	ppbv	20000	7/10/2012 1:02 PM
Heptane	230,000	20,000		ppbv	20000	7/10/2012 1:02 PM
Hexachlorobutadiene	ND	40,000	U	ppbv	20000	7/10/2012 1:02 PM
m,p-Xylene	ND	40,000	U	ppbv	20000	7/10/2012 1:02 PM
Methylene chloride	ND	100,000	U	ppbv	20000	7/10/2012 1:02 PM
n-Hexane	620,000	40,000		ppbv	20000	7/10/2012 1:02 PM
Naphthalene	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
o-Xylene	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Propylene	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Styrene	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
tert-Butyl Methyl Ether	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Tetrachloroethene	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Tetrahydrofuran	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Toluene	180,000	20,000		ppbv	20000	7/10/2012 1:02 PM
trans-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
trans-1,3-dichloropropene	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Trichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Trichlorofluoromethane	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Vinyl acetate	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Vinyl chloride	ND	20,000	U	ppbv	20000	7/10/2012 1:02 PM
Xylenes, Total	ND	60,000	U	ppbv	20000	7/10/2012 1:02 PM
Surr: 4-Bromofluorobenzene	96.9	70-130		%REC	20000	7/10/2012 1:02 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	18,000,000	4,700,000	H	µg/m³	40000	7/17/2012 11:36 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300,000	UH	µg/m³	40000	7/17/2012 11:36 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600,000	UH	µg/m³	40000	7/17/2012 11:36 PM
Surr: 4-Bromofluorobenzene	98.6	70-130	H	%REC	40000	7/17/2012 11:36 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 10:29:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-004	**Matrix:**	Air
Client Sample ID:	VA1356		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	2.7	0.10		%	1	6/29/2012 11:32 AM
Carbon Monoxide	ND	0.10	U	%	1	6/29/2012 11:32 AM
Methane	ND	0.50	U	%	1	6/29/2012 11:32 AM
Nitrogen	80	0.10		%	1	6/29/2012 11:32 AM
Oxygen	15	0.10		%	1	6/29/2012 11:32 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
1,1,2,2-Tetrachloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
1,1,2-Trichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
1,1-Dichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
1,1-Dichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
1,2,4-Trichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
1,2,4-Trimethylbenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
1,2-Dibromoethane	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
1,2-Dichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
1,2-Dichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
1,2-Dichloropropane	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
1,3,5-Trimethylbenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
1,3-Butadiene	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
1,3-Dichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
1,4-Dichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
2-Butanone	76,000	20,000		ppbv	20000	7/10/2012 1:44 PM
2-Hexanone	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
4-Methyl-2-pentanone	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Acetone	560,000	20,000		ppbv	20000	7/10/2012 1:44 PM
Benzene	360,000	20,000		ppbv	20000	7/10/2012 1:44 PM
Benzyl chloride	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Bromodichloromethane	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Bromoform	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Bromomethane	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Carbon disulfide	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Carbon tetrachloride	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Chlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Chlorodibromomethane	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Chloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Chloroform	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Chloromethane	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
cis-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
cis-1,3-dichloropropene	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 10:29:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-004	**Matrix:**	Air
Client Sample ID:	VA1356		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	950,000	40,000		ppbv	20000	7/10/2012 1:44 PM
Dichlorodifluoromethane	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Ethyl acetate	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Ethylbenzene	20,000	40,000	J	ppbv	20000	7/10/2012 1:44 PM
Heptane	560,000	20,000		ppbv	20000	7/10/2012 1:44 PM
Hexachlorobutadiene	ND	40,000	U	ppbv	20000	7/10/2012 1:44 PM
m,p-Xylene	44,000	40,000		ppbv	20000	7/10/2012 1:44 PM
Methylene chloride	ND	100,000	U	ppbv	20000	7/10/2012 1:44 PM
n-Hexane	1,400,000	80,000		ppbv	40000	7/11/2012 2:38 AM
Naphthalene	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
o-Xylene	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Propylene	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Styrene	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
tert-Butyl Methyl Ether	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Tetrachloroethene	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Tetrahydrofuran	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Toluene	500,000	20,000		ppbv	20000	7/10/2012 1:44 PM
trans-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
trans-1,3-dichloropropene	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Trichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Trichlorofluoromethane	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Vinyl acetate	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Vinyl chloride	ND	20,000	U	ppbv	20000	7/10/2012 1:44 PM
Xylenes, Total	44,000	60,000	J	ppbv	20000	7/10/2012 1:44 PM
Surr: 4-Bromofluorobenzene	98.4	70-130		%REC	20000	7/10/2012 1:44 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	29,000,000	4,700,000	H	µg/m³	40000	7/18/2012 12:21 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300,000	UH	µg/m³	40000	7/18/2012 12:21 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600,000	UH	µg/m³	40000	7/18/2012 12:21 AM
Surr: 4-Bromofluorobenzene	98.5	70-130	H	%REC	40000	7/18/2012 12:21 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 11:35:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-005	**Matrix:**	Air
Client Sample ID:	VA1357		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	1.3	0.10		%	1	6/29/2012 11:50 AM
Carbon Monoxide	ND	0.10	U	%	1	6/29/2012 11:50 AM
Methane	ND	0.50	U	%	1	6/29/2012 11:50 AM
Nitrogen	80	0.10		%	1	6/29/2012 11:50 AM
Oxygen	18	0.10		%	1	6/29/2012 11:50 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
1,3-Butadiene	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
2-Butanone	35,000	8,000		ppbv	8000	7/10/2012 6:55 PM
2-Hexanone	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Acetone	130,000	8,000		ppbv	8000	7/10/2012 6:55 PM
Benzene	110,000	8,000		ppbv	8000	7/10/2012 6:55 PM
Benzyl chloride	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Bromodichloromethane	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Bromoform	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Bromomethane	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Carbon disulfide	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Chlorobenzene	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Chloroethane	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Chloroform	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Chloromethane	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 11:35:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-005	**Matrix:**	Air
Client Sample ID:	VA1357		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	370,000	16,000		ppbv	8000	7/10/2012 6:55 PM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Ethyl acetate	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Ethylbenzene	17,000	16,000		ppbv	8000	7/10/2012 6:55 PM
Heptane	350,000	8,000		ppbv	8000	7/10/2012 6:55 PM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	7/10/2012 6:55 PM
m,p-Xylene	54,000	16,000		ppbv	8000	7/10/2012 6:55 PM
Methylene chloride	ND	40,000	U	ppbv	8000	7/10/2012 6:55 PM
n-Hexane	260,000	80,000		ppbv	40000	7/12/2012 10:19 PM
Naphthalene	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
o-Xylene	14,000	8,000		ppbv	8000	7/10/2012 6:55 PM
Propylene	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Styrene	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Tetrachloroethene	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Toluene	330,000	8,000		ppbv	8000	7/10/2012 6:55 PM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Trichloroethene	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Vinyl acetate	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Vinyl chloride	ND	8,000	U	ppbv	8000	7/10/2012 6:55 PM
Xylenes, Total	68,000	24,000		ppbv	8000	7/10/2012 6:55 PM
Surr: 4-Bromofluorobenzene	95.7	70-130		%REC	8000	7/10/2012 6:55 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	17,000,000	2,300,000	H	µg/m³	20000	7/18/2012 2:32 AM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	UH	µg/m³	20000	7/18/2012 2:32 AM
C9-C12 Aliphatic Hydrocarbons	1,300,000	3,800,000	JH	µg/m³	20000	7/18/2012 2:32 AM
Surr: 4-Bromofluorobenzene	100	70-130	H	%REC	20000	7/18/2012 2:32 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 10:57:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-006	**Matrix:**	Air
Client Sample ID:	VA1362		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.12	0.10		%	1	6/29/2012 12:09 PM
Carbon Monoxide	ND	0.10	U	%	1	6/29/2012 12:09 PM
Methane	ND	0.50	U	%	1	6/29/2012 12:09 PM
Nitrogen	78	0.10		%	1	6/29/2012 12:09 PM
Oxygen	21	0.10		%	1	6/29/2012 12:09 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	7/12/2012 6:38 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	7/12/2012 6:38 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	7/12/2012 6:38 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	7/12/2012 6:38 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	7/12/2012 6:38 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	7/12/2012 6:38 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	7/12/2012 6:38 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	7/12/2012 6:38 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	7/12/2012 6:38 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	7/12/2012 6:38 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	7/12/2012 6:38 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	7/12/2012 6:38 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	7/12/2012 6:38 PM
1,3-Butadiene	ND	800	U	ppbv	800	7/12/2012 6:38 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	7/12/2012 6:38 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	7/12/2012 6:38 PM
2-Butanone	940	800		ppbv	800	7/12/2012 6:38 PM
2-Hexanone	ND	800	U	ppbv	800	7/12/2012 6:38 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Acetone	2,100	800		ppbv	800	7/12/2012 6:38 PM
Benzene	7,800	800		ppbv	800	7/12/2012 6:38 PM
Benzyl chloride	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Bromodichloromethane	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Bromoform	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Bromomethane	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Carbon disulfide	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Carbon tetrachloride	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Chlorobenzene	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Chlorodibromomethane	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Chloroethane	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Chloroform	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Chloromethane	ND	800	U	ppbv	800	7/12/2012 6:38 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	7/12/2012 6:38 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	7/12/2012 6:38 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 10:57:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-006	**Matrix:**	Air
Client Sample ID:	VA1362		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	17,000	1,600		ppbv	800	7/12/2012 6:38 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Ethyl acetate	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Ethylbenzene	1,400	1,600	J	ppbv	800	7/12/2012 6:38 PM
Heptane	14,000	800		ppbv	800	7/12/2012 6:38 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	7/12/2012 6:38 PM
m,p-Xylene	4,100	1,600		ppbv	800	7/12/2012 6:38 PM
Methylene chloride	ND	4,000	U	ppbv	800	7/12/2012 6:38 PM
n-Hexane	12,000	1,600		ppbv	800	7/12/2012 6:38 PM
Naphthalene	ND	800	U	ppbv	800	7/12/2012 6:38 PM
o-Xylene	1,200	800		ppbv	800	7/12/2012 6:38 PM
Propylene	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Styrene	ND	800	U	ppbv	800	7/12/2012 6:38 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Tetrachloroethene	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Tetrahydrofuran	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Toluene	26,000	800		ppbv	800	7/12/2012 6:38 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	7/12/2012 6:38 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Trichloroethene	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Vinyl acetate	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Vinyl chloride	ND	800	U	ppbv	800	7/12/2012 6:38 PM
Xylenes, Total	5,300	2,400		ppbv	800	7/12/2012 6:38 PM
Surr: 4-Bromofluorobenzene	96.8	70-130		%REC	800	7/12/2012 6:38 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,200,000	190,000		µg/m³	1600	7/14/2012 8:21 AM
C9-C10 Aromatic Hydrocarbons	ND	210,000	U	µg/m³	1600	7/14/2012 8:21 AM
C9-C12 Aliphatic Hydrocarbons	200,000	300,000	J	µg/m³	1600	7/14/2012 8:21 AM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1600	7/14/2012 8:21 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 11:28:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-007	**Matrix:**	Air
Client Sample ID:	VA1363		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.17	0.10		%	1	6/29/2012 12:24 PM
Carbon Monoxide	ND	0.10	U	%	1	6/29/2012 12:24 PM
Methane	ND	0.50	U	%	1	6/29/2012 12:24 PM
Nitrogen	78	0.10		%	1	6/29/2012 12:24 PM
Oxygen	21	0.10		%	1	6/29/2012 12:24 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	7/12/2012 8:07 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	7/12/2012 8:07 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	7/12/2012 8:07 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	7/12/2012 8:07 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	7/12/2012 8:07 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	7/12/2012 8:07 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	7/12/2012 8:07 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	7/12/2012 8:07 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	7/12/2012 8:07 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	7/12/2012 8:07 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	7/12/2012 8:07 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	7/12/2012 8:07 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	7/12/2012 8:07 PM
1,3-Butadiene	ND	800	U	ppbv	800	7/12/2012 8:07 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	7/12/2012 8:07 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	7/12/2012 8:07 PM
2-Butanone	960	800		ppbv	800	7/12/2012 8:07 PM
2-Hexanone	ND	800	U	ppbv	800	7/12/2012 8:07 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Acetone	2,000	800		ppbv	800	7/12/2012 8:07 PM
Benzene	8,800	800		ppbv	800	7/12/2012 8:07 PM
Benzyl chloride	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Bromodichloromethane	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Bromoform	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Bromomethane	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Carbon disulfide	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Carbon tetrachloride	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Chlorobenzene	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Chlorodibromomethane	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Chloroethane	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Chloroform	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Chloromethane	ND	800	U	ppbv	800	7/12/2012 8:07 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	7/12/2012 8:07 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	7/12/2012 8:07 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 11:28:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-007	**Matrix:**	Air
Client Sample ID:	VA1363		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	18,000	1,600		ppbv	800	7/12/2012 8:07 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Ethyl acetate	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Ethylbenzene	1,800	1,600		ppbv	800	7/12/2012 8:07 PM
Heptane	14,000	800		ppbv	800	7/12/2012 8:07 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	7/12/2012 8:07 PM
m,p-Xylene	5,400	1,600		ppbv	800	7/12/2012 8:07 PM
Methylene chloride	ND	4,000	U	ppbv	800	7/12/2012 8:07 PM
n-Hexane	12,000	1,600		ppbv	800	7/12/2012 8:07 PM
Naphthalene	ND	800	U	ppbv	800	7/12/2012 8:07 PM
o-Xylene	1,600	800		ppbv	800	7/12/2012 8:07 PM
Propylene	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Styrene	ND	800	U	ppbv	800	7/12/2012 8:07 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Tetrachloroethene	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Tetrahydrofuran	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Toluene	28,000	800		ppbv	800	7/12/2012 8:07 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	7/12/2012 8:07 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Trichloroethene	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Vinyl acetate	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Vinyl chloride	ND	800	U	ppbv	800	7/12/2012 8:07 PM
Xylenes, Total	6,900	2,400		ppbv	800	7/12/2012 8:07 PM
Surr: 4-Bromofluorobenzene	97.6	70-130		%REC	800	7/12/2012 8:07 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,400,000	190,000		µg/m³	1600	7/14/2012 9:05 AM
C9-C10 Aromatic Hydrocarbons	ND	210,000	U	µg/m³	1600	7/14/2012 9:05 AM
C9-C12 Aliphatic Hydrocarbons	180,000	300,000	J	µg/m³	1600	7/14/2012 9:05 AM
Surr: 4-Bromofluorobenzene	98.9	70-130		%REC	1600	7/14/2012 9:05 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 12:08:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-008	**Matrix:**	Air
Client Sample ID:	VA1364		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.37	0.10		%	1	6/29/2012 12:39 PM
Carbon Monoxide	ND	0.10	U	%	1	6/29/2012 12:39 PM
Methane	ND	0.50	U	%	1	6/29/2012 12:39 PM
Nitrogen	78	0.10		%	1	6/29/2012 12:39 PM
Oxygen	20	0.10		%	1	6/29/2012 12:39 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	7/12/2012 8:52 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	7/12/2012 8:52 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	7/12/2012 8:52 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	7/12/2012 8:52 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	7/12/2012 8:52 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	7/12/2012 8:52 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	7/12/2012 8:52 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	7/12/2012 8:52 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	7/12/2012 8:52 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	7/12/2012 8:52 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	7/12/2012 8:52 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	7/12/2012 8:52 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	7/12/2012 8:52 PM
1,3-Butadiene	ND	800	U	ppbv	800	7/12/2012 8:52 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	7/12/2012 8:52 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	7/12/2012 8:52 PM
2-Butanone	1,200	800		ppbv	800	7/12/2012 8:52 PM
2-Hexanone	ND	800	U	ppbv	800	7/12/2012 8:52 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Acetone	2,500	800		ppbv	800	7/12/2012 8:52 PM
Benzene	7,900	800		ppbv	800	7/12/2012 8:52 PM
Benzyl chloride	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Bromodichloromethane	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Bromoform	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Bromomethane	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Carbon disulfide	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Carbon tetrachloride	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Chlorobenzene	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Chlorodibromomethane	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Chloroethane	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Chloroform	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Chloromethane	ND	800	U	ppbv	800	7/12/2012 8:52 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	7/12/2012 8:52 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	7/12/2012 8:52 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 12:08:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-008	**Matrix:**	Air
Client Sample ID:	VA1364		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	19,000	1,600		ppbv	800	7/12/2012 8:52 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Ethyl acetate	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Ethylbenzene	2,200	1,600		ppbv	800	7/12/2012 8:52 PM
Heptane	16,000	800		ppbv	800	7/12/2012 8:52 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	7/12/2012 8:52 PM
m,p-Xylene	6,500	1,600		ppbv	800	7/12/2012 8:52 PM
Methylene chloride	ND	4,000	U	ppbv	800	7/12/2012 8:52 PM
n-Hexane	12,000	1,600		ppbv	800	7/12/2012 8:52 PM
Naphthalene	ND	800	U	ppbv	800	7/12/2012 8:52 PM
o-Xylene	1,900	800		ppbv	800	7/12/2012 8:52 PM
Propylene	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Styrene	ND	800	U	ppbv	800	7/12/2012 8:52 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Tetrachloroethene	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Tetrahydrofuran	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Toluene	32,000	800		ppbv	800	7/12/2012 8:52 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	7/12/2012 8:52 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Trichloroethene	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Vinyl acetate	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Vinyl chloride	ND	800	U	ppbv	800	7/12/2012 8:52 PM
Xylenes, Total	8,300	2,400		ppbv	800	7/12/2012 8:52 PM
Surr: 4-Bromofluorobenzene	97.3	70-130		%REC	800	7/12/2012 8:52 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,100,000	940,000		µg/m³	8000	7/14/2012 6:54 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	7/14/2012 6:54 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	7/14/2012 6:54 AM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	8000	7/14/2012 6:54 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 12:40:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-009	**Matrix:**	Air
Client Sample ID:	VA1365		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.17	0.10		%	1	6/29/2012 12:56 PM
Carbon Monoxide	ND	0.10	U	%	1	6/29/2012 12:56 PM
Methane	ND	0.50	U	%	1	6/29/2012 12:56 PM
Nitrogen	78	0.10		%	1	6/29/2012 12:56 PM
Oxygen	21	0.10		%	1	6/29/2012 12:56 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	7/12/2012 9:37 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	7/12/2012 9:37 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	7/12/2012 9:37 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	7/12/2012 9:37 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	7/12/2012 9:37 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	7/12/2012 9:37 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	7/12/2012 9:37 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	7/12/2012 9:37 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	7/12/2012 9:37 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	7/12/2012 9:37 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	7/12/2012 9:37 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	7/12/2012 9:37 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	7/12/2012 9:37 PM
1,3-Butadiene	ND	800	U	ppbv	800	7/12/2012 9:37 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	7/12/2012 9:37 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	7/12/2012 9:37 PM
2-Butanone	980	800		ppbv	800	7/12/2012 9:37 PM
2-Hexanone	ND	800	U	ppbv	800	7/12/2012 9:37 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Acetone	2,400	800		ppbv	800	7/12/2012 9:37 PM
Benzene	6,400	800		ppbv	800	7/12/2012 9:37 PM
Benzyl chloride	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Bromodichloromethane	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Bromoform	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Bromomethane	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Carbon disulfide	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Carbon tetrachloride	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Chlorobenzene	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Chlorodibromomethane	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Chloroethane	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Chloroform	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Chloromethane	ND	800	U	ppbv	800	7/12/2012 9:37 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	7/12/2012 9:37 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	7/12/2012 9:37 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 12:40:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-009	**Matrix:**	Air
Client Sample ID:	VA1365		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	18,000	1,600		ppbv	800	7/12/2012 9:37 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Ethyl acetate	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Ethylbenzene	2,000	1,600		ppbv	800	7/12/2012 9:37 PM
Heptane	13,000	800		ppbv	800	7/12/2012 9:37 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	7/12/2012 9:37 PM
m,p-Xylene	6,000	1,600		ppbv	800	7/12/2012 9:37 PM
Methylene chloride	ND	4,000	U	ppbv	800	7/12/2012 9:37 PM
n-Hexane	10,000	1,600		ppbv	800	7/12/2012 9:37 PM
Naphthalene	ND	800	U	ppbv	800	7/12/2012 9:37 PM
o-Xylene	1,700	800		ppbv	800	7/12/2012 9:37 PM
Propylene	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Styrene	ND	800	U	ppbv	800	7/12/2012 9:37 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Tetrachloroethene	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Tetrahydrofuran	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Toluene	26,000	800		ppbv	800	7/12/2012 9:37 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	7/12/2012 9:37 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Trichloroethene	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Vinyl acetate	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Vinyl chloride	ND	800	U	ppbv	800	7/12/2012 9:37 PM
Xylenes, Total	7,700	2,400		ppbv	800	7/12/2012 9:37 PM
Surr: 4-Bromofluorobenzene	94.7	70-130		%REC	800	7/12/2012 9:37 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,400,000	190,000		µg/m³	1600	7/14/2012 7:36 AM
C9-C10 Aromatic Hydrocarbons	ND	210,000	U	µg/m³	1600	7/14/2012 7:36 AM
C9-C12 Aliphatic Hydrocarbons	200,000	300,000	J	µg/m³	1600	7/14/2012 7:36 AM
Surr: 4-Bromofluorobenzene	99.1	70-130		%REC	1600	7/14/2012 7:36 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 8:41:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-010	**Matrix:**	Air
Client Sample ID:	VA1384		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	3.1	0.10		%	1	6/29/2012 1:11 PM
Carbon Monoxide	ND	0.10	U	%	1	6/29/2012 1:11 PM
Methane	ND	0.50	U	%	1	6/29/2012 1:11 PM
Nitrogen	80	0.10		%	1	6/29/2012 1:11 PM
Oxygen	14	0.10		%	1	6/29/2012 1:11 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
1,1,2,2-Tetrachloroethane	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
1,1,2-Trichloroethane	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
1,1-Dichloroethane	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
1,1-Dichloroethene	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
1,2,4-Trichlorobenzene	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
1,2,4-Trimethylbenzene	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
1,2-Dibromoethane	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
1,2-Dichlorobenzene	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
1,2-Dichloroethane	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
1,2-Dichloropropane	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
1,3,5-Trimethylbenzene	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
1,3-Butadiene	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
1,3-Dichlorobenzene	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
1,4-Dichlorobenzene	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
2-Butanone	120,000	40,000		ppbv	40000	7/5/2012 6:35 PM
2-Hexanone	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
4-Methyl-2-pentanone	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Acetone	920,000	40,000		ppbv	40000	7/5/2012 6:35 PM
Benzene	200,000	40,000		ppbv	40000	7/5/2012 6:35 PM
Benzyl chloride	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Bromodichloromethane	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Bromoform	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Bromomethane	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Carbon disulfide	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Carbon tetrachloride	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Chlorobenzene	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Chlorodibromomethane	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Chloroethane	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Chloroform	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Chloromethane	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
cis-1,2-Dichloroethene	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
cis-1,3-dichloropropene	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 8:41:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-010	**Matrix:**	Air
Client Sample ID:	VA1384		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	950,000	80,000		ppbv	40000	7/5/2012 6:35 PM
Dichlorodifluoromethane	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Ethyl acetate	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Ethylbenzene	ND	80,000	U	ppbv	40000	7/5/2012 6:35 PM
Heptane	840,000	40,000		ppbv	40000	7/5/2012 6:35 PM
Hexachlorobutadiene	ND	80,000	U	ppbv	40000	7/5/2012 6:35 PM
m,p-Xylene	ND	80,000	U	ppbv	40000	7/5/2012 6:35 PM
Methylene chloride	ND	200,000	U	ppbv	40000	7/5/2012 6:35 PM
n-Hexane	660,000	80,000		ppbv	40000	7/5/2012 6:35 PM
Naphthalene	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
o-Xylene	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Propylene	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Styrene	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
tert-Butyl Methyl Ether	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Tetrachloroethene	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Tetrahydrofuran	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Toluene	400,000	40,000		ppbv	40000	7/5/2012 6:35 PM
trans-1,2-Dichloroethene	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
trans-1,3-dichloropropene	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Trichloroethene	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Trichlorofluoromethane	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Vinyl acetate	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Vinyl chloride	ND	40,000	U	ppbv	40000	7/5/2012 6:35 PM
Xylenes, Total	ND	120,000	U	ppbv	40000	7/5/2012 6:35 PM
Surr: 4-Bromofluorobenzene	99.6	70-130		%REC	40000	7/5/2012 6:35 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	35,000,000	4,700,000		µg/m³	40000	7/12/2012 4:47 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300,000	U	µg/m³	40000	7/12/2012 4:47 PM
C9-C12 Aliphatic Hydrocarbons	1,100,000	7,600,000	J	µg/m³	40000	7/12/2012 4:47 PM
Surr: 4-Bromofluorobenzene	97.9	70-130		%REC	40000	7/12/2012 4:47 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 9:17:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-011	**Matrix:**	Air
Client Sample ID:	VA1385		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	10	0.10		%	1	6/29/2012 2:14 PM
Carbon Monoxide	ND	0.10	U	%	1	6/29/2012 2:14 PM
Methane	ND	0.50	U	%	1	6/29/2012 2:14 PM
Nitrogen	86	0.10		%	1	6/29/2012 2:14 PM
Oxygen	3.2	0.10		%	1	6/29/2012 2:14 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
1,1,2,2-Tetrachloroethane	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
1,1,2-Trichloroethane	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
1,1-Dichloroethane	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
1,1-Dichloroethene	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
1,2,4-Trichlorobenzene	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
1,2,4-Trimethylbenzene	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
1,2-Dibromoethane	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
1,2-Dichlorobenzene	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
1,2-Dichloroethane	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
1,2-Dichloropropane	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
1,3,5-Trimethylbenzene	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
1,3-Butadiene	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
1,3-Dichlorobenzene	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
1,4-Dichlorobenzene	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
2-Butanone	74,000	40,000		ppbv	40000	7/5/2012 8:02 PM
2-Hexanone	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
4-Methyl-2-pentanone	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Acetone	670,000	40,000		ppbv	40000	7/5/2012 8:02 PM
Benzene	290,000	40,000		ppbv	40000	7/5/2012 8:02 PM
Benzyl chloride	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Bromodichloromethane	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Bromoform	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Bromomethane	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Carbon disulfide	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Carbon tetrachloride	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Chlorobenzene	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Chlorodibromomethane	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Chloroethane	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Chloroform	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Chloromethane	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
cis-1,2-Dichloroethene	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
cis-1,3-dichloropropene	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 9:17:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-011	**Matrix:**	Air
Client Sample ID:	VA1385		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,400,000	80,000		ppbv	40000	7/5/2012 8:02 PM
Dichlorodifluoromethane	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Ethyl acetate	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Ethylbenzene	ND	80,000	U	ppbv	40000	7/5/2012 8:02 PM
Heptane	1,100,000	40,000		ppbv	40000	7/5/2012 8:02 PM
Hexachlorobutadiene	ND	80,000	U	ppbv	40000	7/5/2012 8:02 PM
m,p-Xylene	56,000	80,000	J	ppbv	40000	7/5/2012 8:02 PM
Methylene chloride	ND	200,000	U	ppbv	40000	7/5/2012 8:02 PM
n-Hexane	1,300,000	80,000		ppbv	40000	7/5/2012 8:02 PM
Naphthalene	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
o-Xylene	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Propylene	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Styrene	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
tert-Butyl Methyl Ether	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Tetrachloroethene	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Tetrahydrofuran	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Toluene	540,000	40,000		ppbv	40000	7/5/2012 8:02 PM
trans-1,2-Dichloroethene	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
trans-1,3-dichloropropene	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Trichloroethene	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Trichlorofluoromethane	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Vinyl acetate	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Vinyl chloride	ND	40,000	U	ppbv	40000	7/5/2012 8:02 PM
Xylenes, Total	56,000	120,000	J	ppbv	40000	7/5/2012 8:02 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	40000	7/5/2012 8:02 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	41,000,000	4,700,000		µg/m³	40000	7/12/2012 5:30 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300,000	U	µg/m³	40000	7/12/2012 5:30 PM
C9-C12 Aliphatic Hydrocarbons	1,800,000	7,600,000	J	µg/m³	40000	7/12/2012 5:30 PM
Surr: 4-Bromofluorobenzene	98.3	70-130		%REC	40000	7/12/2012 5:30 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 9:49:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-012	**Matrix:**	Air
Client Sample ID:	VA1386		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	7.9	0.10		%	1	6/29/2012 2:29 PM
Carbon Monoxide	ND	0.10	U	%	1	6/29/2012 2:29 PM
Methane	ND	0.50	U	%	1	6/29/2012 2:29 PM
Nitrogen	85	0.10		%	1	6/29/2012 2:29 PM
Oxygen	6.1	0.10		%	1	6/29/2012 2:29 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
1,1,2,2-Tetrachloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
1,1,2-Trichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
1,1-Dichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
1,1-Dichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
1,2,4-Trichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
1,2,4-Trimethylbenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
1,2-Dibromoethane	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
1,2-Dichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
1,2-Dichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
1,2-Dichloropropane	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
1,3,5-Trimethylbenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
1,3-Butadiene	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
1,3-Dichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
1,4-Dichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
2-Butanone	45,000	20,000		ppbv	20000	7/10/2012 1:49 AM
2-Hexanone	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
4-Methyl-2-pentanone	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Acetone	430,000	20,000		ppbv	20000	7/10/2012 1:49 AM
Benzene	320,000	20,000		ppbv	20000	7/10/2012 1:49 AM
Benzyl chloride	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Bromodichloromethane	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Bromoform	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Bromomethane	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Carbon disulfide	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Carbon tetrachloride	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Chlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Chlorodibromomethane	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Chloroethane	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Chloroform	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Chloromethane	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
cis-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
cis-1,3-dichloropropene	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 9:49:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-012	**Matrix:**	Air
Client Sample ID:	VA1386		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,300,000	160,000		ppbv	80000	7/11/2012 3:28 PM
Dichlorodifluoromethane	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Ethyl acetate	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Ethylbenzene	ND	40,000	U	ppbv	20000	7/10/2012 1:49 AM
Heptane	490,000	20,000		ppbv	20000	7/10/2012 1:49 AM
Hexachlorobutadiene	ND	40,000	U	ppbv	20000	7/10/2012 1:49 AM
m,p-Xylene	41,000	40,000		ppbv	20000	7/10/2012 1:49 AM
Methylene chloride	ND	100,000	U	ppbv	20000	7/10/2012 1:49 AM
n-Hexane	2,000,000	160,000		ppbv	80000	7/11/2012 3:28 PM
Naphthalene	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
o-Xylene	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Propylene	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Styrene	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
tert-Butyl Methyl Ether	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Tetrachloroethene	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Tetrahydrofuran	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Toluene	260,000	20,000		ppbv	20000	7/10/2012 1:49 AM
trans-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
trans-1,3-dichloropropene	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Trichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Trichlorofluoromethane	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Vinyl acetate	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Vinyl chloride	ND	20,000	U	ppbv	20000	7/10/2012 1:49 AM
Xylenes, Total	41,000	60,000	J	ppbv	20000	7/10/2012 1:49 AM
Surr: 4-Bromofluorobenzene	97.8	70-130		%REC	20000	7/10/2012 1:49 AM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	47,000,000	9,400,000	H	µg/m³	80000	7/17/2012 9:20 PM
C9-C10 Aromatic Hydrocarbons	ND	11,000,000	UH	µg/m³	80000	7/17/2012 9:20 PM
C9-C12 Aliphatic Hydrocarbons	ND	15,000,000	UH	µg/m³	80000	7/17/2012 9:20 PM
Surr: 4-Bromofluorobenzene	99.5	70-130	H	%REC	80000	7/17/2012 9:20 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 9:49:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-013	**Matrix:**	Air
Client Sample ID:	VA1387		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	8.3	0.10		%	1	6/29/2012 2:44 PM
Carbon Monoxide	ND	0.10	U	%	1	6/29/2012 2:44 PM
Methane	ND	0.50	U	%	1	6/29/2012 2:44 PM
Nitrogen	85	0.10		%	1	6/29/2012 2:44 PM
Oxygen	5.1	0.10		%	1	6/29/2012 2:44 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
1,1,2,2-Tetrachloroethane	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
1,1,2-Trichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
1,1-Dichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
1,1-Dichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
1,2,4-Trichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
1,2,4-Trimethylbenzene	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
1,2-Dibromoethane	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
1,2-Dichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
1,2-Dichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
1,2-Dichloropropane	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
1,3,5-Trimethylbenzene	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
1,3-Butadiene	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
1,3-Dichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
1,4-Dichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
2-Butanone	64,000	20,000		ppbv	20000	7/10/2012 2:31 AM
2-Hexanone	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
4-Methyl-2-pentanone	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Acetone	560,000	20,000		ppbv	20000	7/10/2012 2:31 AM
Benzene	390,000	20,000		ppbv	20000	7/10/2012 2:31 AM
Benzyl chloride	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Bromodichloromethane	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Bromoform	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Bromomethane	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Carbon disulfide	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Carbon tetrachloride	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Chlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Chlorodibromomethane	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Chloroethane	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Chloroform	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Chloromethane	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
cis-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
cis-1,3-dichloropropene	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 9:49:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-013	**Matrix:**	Air
Client Sample ID:	VA1387		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,600,000	160,000		ppbv	80000	7/11/2012 4:09 PM
Dichlorodifluoromethane	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Ethyl acetate	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Ethylbenzene	ND	40,000	U	ppbv	20000	7/10/2012 2:31 AM
Heptane	590,000	20,000		ppbv	20000	7/10/2012 2:31 AM
Hexachlorobutadiene	ND	40,000	U	ppbv	20000	7/10/2012 2:31 AM
m,p-Xylene	45,000	40,000		ppbv	20000	7/10/2012 2:31 AM
Methylene chloride	ND	100,000	U	ppbv	20000	7/10/2012 2:31 AM
n-Hexane	2,400,000	160,000		ppbv	80000	7/11/2012 4:09 PM
Naphthalene	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
o-Xylene	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Propylene	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Styrene	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
tert-Butyl Methyl Ether	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Tetrachloroethene	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Tetrahydrofuran	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Toluene	320,000	20,000		ppbv	20000	7/10/2012 2:31 AM
trans-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
trans-1,3-dichloropropene	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Trichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Trichlorofluoromethane	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Vinyl acetate	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Vinyl chloride	ND	20,000	U	ppbv	20000	7/10/2012 2:31 AM
Xylenes, Total	45,000	60,000	J	ppbv	20000	7/10/2012 2:31 AM
Surr: 4-Bromofluorobenzene	98.0	70-130		%REC	20000	7/10/2012 2:31 AM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	47,000,000	9,400,000	H	µg/m³	80000	7/17/2012 10:06 PM
C9-C10 Aromatic Hydrocarbons	ND	11,000,000	UH	µg/m³	80000	7/17/2012 10:06 PM
C9-C12 Aliphatic Hydrocarbons	ND	15,000,000	UH	µg/m³	80000	7/17/2012 10:06 PM
Surr: 4-Bromofluorobenzene	100	70-130	H	%REC	80000	7/17/2012 10:06 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 11:17:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-014	**Matrix:**	Air
Client Sample ID:	VA1388		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	1.1	0.10		%	1	6/29/2012 3:01 PM
Carbon Monoxide	ND	0.10	U	%	1	6/29/2012 3:01 PM
Methane	ND	0.50	U	%	1	6/29/2012 3:01 PM
Nitrogen	79	0.10		%	1	6/29/2012 3:01 PM
Oxygen	19	0.10		%	1	6/29/2012 3:01 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
1,3-Butadiene	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
2-Butanone	45,000	8,000		ppbv	8000	7/10/2012 6:11 PM
2-Hexanone	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Acetone	270,000	8,000		ppbv	8000	7/10/2012 6:11 PM
Benzene	120,000	8,000		ppbv	8000	7/10/2012 6:11 PM
Benzyl chloride	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Bromodichloromethane	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Bromoform	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Bromomethane	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Carbon disulfide	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Chlorobenzene	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Chloroethane	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Chloroform	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Chloromethane	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 11:17:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-014	**Matrix:**	Air
Client Sample ID:	VA1388		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	390,000	40,000		ppbv	20000	7/11/2012 4:51 PM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Ethyl acetate	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Ethylbenzene	23,000	16,000		ppbv	8000	7/10/2012 6:11 PM
Heptane	340,000	8,000		ppbv	8000	7/10/2012 6:11 PM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	7/10/2012 6:11 PM
m,p-Xylene	58,000	16,000		ppbv	8000	7/10/2012 6:11 PM
Methylene chloride	ND	40,000	U	ppbv	8000	7/10/2012 6:11 PM
n-Hexane	340,000	16,000		ppbv	8000	7/10/2012 6:11 PM
Naphthalene	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
o-Xylene	18,000	8,000		ppbv	8000	7/10/2012 6:11 PM
Propylene	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Styrene	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Tetrachloroethene	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Toluene	300,000	8,000		ppbv	8000	7/10/2012 6:11 PM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Trichloroethene	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Vinyl acetate	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Vinyl chloride	ND	8,000	U	ppbv	8000	7/10/2012 6:11 PM
Xylenes, Total	75,000	24,000		ppbv	8000	7/10/2012 6:11 PM
Surr: 4-Bromofluorobenzene	97.5	70-130		%REC	8000	7/10/2012 6:11 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	16,000,000	2,300,000	H	µg/m³	20000	7/18/2012 1:48 AM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	UH	µg/m³	20000	7/18/2012 1:48 AM
C9-C12 Aliphatic Hydrocarbons	1,700,000	3,800,000	JH	µg/m³	20000	7/18/2012 1:48 AM
Surr: 4-Bromofluorobenzene	99.9	70-130	H	%REC	20000	7/18/2012 1:48 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 10:39:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-015	**Matrix:**	Air
Client Sample ID:	VA1389		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	1.4	0.10		%	1	6/29/2012 3:16 PM
Carbon Monoxide	ND	0.10	U	%	1	6/29/2012 3:16 PM
Methane	ND	0.50	U	%	1	6/29/2012 3:16 PM
Nitrogen	78	0.10		%	1	6/29/2012 3:16 PM
Oxygen	19	0.10		%	1	6/29/2012 3:16 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
1,3-Butadiene	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
2-Butanone	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
2-Hexanone	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Acetone	57,000	8,000		ppbv	8000	7/10/2012 3:54 AM
Benzene	98,000	8,000		ppbv	8000	7/10/2012 3:54 AM
Benzyl chloride	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Bromodichloromethane	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Bromoform	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Bromomethane	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Carbon disulfide	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Chlorobenzene	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Chloroethane	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Chloroform	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Chloromethane	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 10:39:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-015	**Matrix:**	Air
Client Sample ID:	VA1389		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	250,000	16,000		ppbv	8000	7/10/2012 3:54 AM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Ethyl acetate	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Ethylbenzene	15,000	16,000	J	ppbv	8000	7/10/2012 3:54 AM
Heptane	180,000	8,000		ppbv	8000	7/10/2012 3:54 AM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	7/10/2012 3:54 AM
m,p-Xylene	37,000	16,000		ppbv	8000	7/10/2012 3:54 AM
Methylene chloride	ND	40,000	U	ppbv	8000	7/10/2012 3:54 AM
n-Hexane	240,000	16,000		ppbv	8000	7/10/2012 3:54 AM
Naphthalene	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
o-Xylene	11,000	8,000		ppbv	8000	7/10/2012 3:54 AM
Propylene	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Styrene	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Tetrachloroethene	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Toluene	160,000	8,000		ppbv	8000	7/10/2012 3:54 AM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Trichloroethene	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Vinyl acetate	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Vinyl chloride	ND	8,000	U	ppbv	8000	7/10/2012 3:54 AM
Xylenes, Total	48,000	24,000		ppbv	8000	7/10/2012 3:54 AM
Surr: 4-Bromofluorobenzene	95.3	70-130		%REC	8000	7/10/2012 3:54 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	14,000,000	2,300,000	H	µg/m³	20000	7/18/2012 9:27 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	UH	µg/m³	20000	7/18/2012 9:27 PM
C9-C12 Aliphatic Hydrocarbons	2,300,000	3,800,000	JH	µg/m³	20000	7/18/2012 9:27 PM
Surr: 4-Bromofluorobenzene	99.4	70-130	H	%REC	20000	7/18/2012 9:27 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 12:42:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-016	**Matrix:**	Air
Client Sample ID:	VA1390		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	5.9	0.10		%	1	6/29/2012 3:31 PM
Carbon Monoxide	ND	0.10	U	%	1	6/29/2012 3:31 PM
Methane	ND	0.50	U	%	1	6/29/2012 3:31 PM
Nitrogen	84	0.10		%	1	6/29/2012 3:31 PM
Oxygen	10	0.10		%	1	6/29/2012 3:31 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
1,3-Butadiene	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
2-Butanone	14,000	8,000		ppbv	8000	7/10/2012 8:17 PM
2-Hexanone	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Acetone	63,000	8,000		ppbv	8000	7/10/2012 8:17 PM
Benzene	68,000	8,000		ppbv	8000	7/10/2012 8:17 PM
Benzyl chloride	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Bromodichloromethane	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Bromoform	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Bromomethane	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Carbon disulfide	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Chlorobenzene	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Chloroethane	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Chloroform	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Chloromethane	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 12:42:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-016	**Matrix:**	Air
Client Sample ID:	VA1390		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	290,000	16,000		ppbv	8000	7/10/2012 8:17 PM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Ethyl acetate	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Ethylbenzene	21,000	16,000		ppbv	8000	7/10/2012 8:17 PM
Heptane	160,000	8,000		ppbv	8000	7/10/2012 8:17 PM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	7/10/2012 8:17 PM
m,p-Xylene	45,000	16,000		ppbv	8000	7/10/2012 8:17 PM
Methylene chloride	ND	40,000	U	ppbv	8000	7/10/2012 8:17 PM
n-Hexane	290,000	16,000		ppbv	8000	7/10/2012 8:17 PM
Naphthalene	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
o-Xylene	14,000	8,000		ppbv	8000	7/10/2012 8:17 PM
Propylene	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Styrene	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Tetrachloroethene	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Toluene	150,000	8,000		ppbv	8000	7/10/2012 8:17 PM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Trichloroethene	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Vinyl acetate	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Vinyl chloride	ND	8,000	U	ppbv	8000	7/10/2012 8:17 PM
Xylenes, Total	59,000	24,000		ppbv	8000	7/10/2012 8:17 PM
Surr: 4-Bromofluorobenzene	96.2	70-130		%REC	8000	7/10/2012 8:17 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	9,700,000	2,300,000	H	µg/m³	20000	7/18/2012 3:58 AM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	UH	µg/m³	20000	7/18/2012 3:58 AM
C9-C12 Aliphatic Hydrocarbons	1,600,000	3,800,000	JH	µg/m³	20000	7/18/2012 3:58 AM
Surr: 4-Bromofluorobenzene	99.3	70-130	H	%REC	20000	7/18/2012 3:58 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 12:05:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-017	**Matrix:**	Air
Client Sample ID:	VA1391		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.75	0.10		%	1	6/29/2012 3:46 PM
Carbon Monoxide	ND	0.10	U	%	1	6/29/2012 3:46 PM
Methane	ND	0.50	U	%	1	6/29/2012 3:46 PM
Nitrogen	78	0.10		%	1	6/29/2012 3:46 PM
Oxygen	19	0.10		%	1	6/29/2012 3:46 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
1,1,2,2-Tetrachloroethane	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
1,1,2-Trichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
1,1-Dichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
1,1-Dichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
1,2,4-Trichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
1,2,4-Trimethylbenzene	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
1,2-Dibromoethane	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
1,2-Dichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
1,2-Dichloroethane	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
1,2-Dichloropropane	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
1,3,5-Trimethylbenzene	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
1,3-Butadiene	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
1,3-Dichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
1,4-Dichlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
2-Butanone	23,000	20,000		ppbv	20000	7/10/2012 7:36 PM
2-Hexanone	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
4-Methyl-2-pentanone	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Acetone	130,000	20,000		ppbv	20000	7/10/2012 7:36 PM
Benzene	110,000	20,000		ppbv	20000	7/10/2012 7:36 PM
Benzyl chloride	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Bromodichloromethane	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Bromoform	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Bromomethane	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Carbon disulfide	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Carbon tetrachloride	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Chlorobenzene	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Chlorodibromomethane	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Chloroethane	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Chloroform	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Chloromethane	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
cis-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
cis-1,3-dichloropropene	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 12:05:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-017	**Matrix:**	Air
Client Sample ID:	VA1391		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	390,000	40,000		ppbv	20000	7/10/2012 7:36 PM
Dichlorodifluoromethane	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Ethyl acetate	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Ethylbenzene	21,000	40,000	J	ppbv	20000	7/10/2012 7:36 PM
Heptane	220,000	20,000		ppbv	20000	7/10/2012 7:36 PM
Hexachlorobutadiene	ND	40,000	U	ppbv	20000	7/10/2012 7:36 PM
m,p-Xylene	53,000	40,000		ppbv	20000	7/10/2012 7:36 PM
Methylene chloride	ND	100,000	U	ppbv	20000	7/10/2012 7:36 PM
n-Hexane	720,000	40,000		ppbv	20000	7/10/2012 7:36 PM
Naphthalene	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
o-Xylene	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Propylene	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Styrene	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
tert-Butyl Methyl Ether	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Tetrachloroethene	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Tetrahydrofuran	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Toluene	190,000	20,000		ppbv	20000	7/10/2012 7:36 PM
trans-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
trans-1,3-dichloropropene	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Trichloroethene	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Trichlorofluoromethane	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Vinyl acetate	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Vinyl chloride	ND	20,000	U	ppbv	20000	7/10/2012 7:36 PM
Xylenes, Total	53,000	60,000	J	ppbv	20000	7/10/2012 7:36 PM
Surr: 4-Bromofluorobenzene	98.1	70-130		%REC	20000	7/10/2012 7:36 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	10,000,000	2,300,000	H	µg/m³	20000	7/18/2012 3:15 AM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	UH	µg/m³	20000	7/18/2012 3:15 AM
C9-C12 Aliphatic Hydrocarbons	1,200,000	3,800,000	JH	µg/m³	20000	7/18/2012 3:15 AM
Surr: 4-Bromofluorobenzene	99.1	70-130	H	%REC	20000	7/18/2012 3:15 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 1:20:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-018	**Matrix:**	Air
Client Sample ID:	VA1392		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	1.6	0.10		%	1	6/29/2012 4:00 PM
Carbon Monoxide	ND	0.10	U	%	1	6/29/2012 4:00 PM
Methane	ND	0.50	U	%	1	6/29/2012 4:00 PM
Nitrogen	81	0.10		%	1	6/29/2012 4:00 PM
Oxygen	17	0.10		%	1	6/29/2012 4:00 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	7/10/2012 9:46 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	7/10/2012 9:46 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	7/10/2012 9:46 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	7/10/2012 9:46 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	7/10/2012 9:46 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	7/10/2012 9:46 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	7/10/2012 9:46 PM
1,2,4-Trimethylbenzene	3,000	800		ppbv	800	7/10/2012 9:46 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	7/10/2012 9:46 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	7/10/2012 9:46 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	7/10/2012 9:46 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	7/10/2012 9:46 PM
1,3,5-Trimethylbenzene	1,400	800		ppbv	800	7/10/2012 9:46 PM
1,3-Butadiene	ND	800	U	ppbv	800	7/10/2012 9:46 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	7/10/2012 9:46 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	7/10/2012 9:46 PM
2-Butanone	4,600	800		ppbv	800	7/10/2012 9:46 PM
2-Hexanone	ND	800	U	ppbv	800	7/10/2012 9:46 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	7/10/2012 9:46 PM
Acetone	23,000	800		ppbv	800	7/10/2012 9:46 PM
Benzene	19,000	800		ppbv	800	7/10/2012 9:46 PM
Benzyl chloride	ND	800	U	ppbv	800	7/10/2012 9:46 PM
Bromodichloromethane	ND	800	U	ppbv	800	7/10/2012 9:46 PM
Bromoform	ND	800	U	ppbv	800	7/10/2012 9:46 PM
Bromomethane	ND	800	U	ppbv	800	7/10/2012 9:46 PM
Carbon disulfide	ND	800	U	ppbv	800	7/10/2012 9:46 PM
Carbon tetrachloride	ND	800	U	ppbv	800	7/10/2012 9:46 PM
Chlorobenzene	ND	800	U	ppbv	800	7/10/2012 9:46 PM
Chlorodibromomethane	ND	800	U	ppbv	800	7/10/2012 9:46 PM
Chloroethane	ND	800	U	ppbv	800	7/10/2012 9:46 PM
Chloroform	ND	800	U	ppbv	800	7/10/2012 9:46 PM
Chloromethane	ND	800	U	ppbv	800	7/10/2012 9:46 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	7/10/2012 9:46 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	7/10/2012 9:46 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 1:20:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-018	**Matrix:**	Air
Client Sample ID:	VA1392		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	280,000	16,000		ppbv	8000	7/11/2012 6:53 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	7/10/2012 9:46 PM
Ethyl acetate	ND	800	U	ppbv	800	7/10/2012 9:46 PM
Ethylbenzene	11,000	1,600		ppbv	800	7/10/2012 9:46 PM
Heptane	95,000	8,000		ppbv	8000	7/11/2012 6:53 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	7/10/2012 9:46 PM
m,p-Xylene	25,000	1,600		ppbv	800	7/10/2012 9:46 PM
Methylene chloride	ND	4,000	U	ppbv	800	7/10/2012 9:46 PM
n-Hexane	130,000	16,000		ppbv	8000	7/11/2012 6:53 AM
Naphthalene	ND	800	U	ppbv	800	7/10/2012 9:46 PM
o-Xylene	8,400	800		ppbv	800	7/10/2012 9:46 PM
Propylene	3,000	800		ppbv	800	7/10/2012 9:46 PM
Styrene	ND	800	U	ppbv	800	7/10/2012 9:46 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	7/10/2012 9:46 PM
Tetrachloroethene	ND	800	U	ppbv	800	7/10/2012 9:46 PM
Tetrahydrofuran	ND	800	U	ppbv	800	7/10/2012 9:46 PM
Toluene	93,000	8,000		ppbv	8000	7/11/2012 6:53 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	7/10/2012 9:46 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	7/10/2012 9:46 PM
Trichloroethene	ND	800	U	ppbv	800	7/10/2012 9:46 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	7/10/2012 9:46 PM
Vinyl acetate	ND	800	U	ppbv	800	7/10/2012 9:46 PM
Vinyl chloride	ND	800	U	ppbv	800	7/10/2012 9:46 PM
Xylenes, Total	34,000	2,400		ppbv	800	7/10/2012 9:46 PM
Surr: 4-Bromofluorobenzene	97.1	70-130		%REC	800	7/10/2012 9:46 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	7,500,000	940,000	H	µg/m³	8000	7/18/2012 9:32 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	UH	µg/m³	8000	7/18/2012 9:32 AM
C9-C12 Aliphatic Hydrocarbons	1,200,000	1,500,000	JH	µg/m³	8000	7/18/2012 9:32 AM
Surr: 4-Bromofluorobenzene	101	70-130	H	%REC	8000	7/18/2012 9:32 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 1:51:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-019	**Matrix:**	Air
Client Sample ID:	VA1393		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	1.5	0.10		%	1	6/29/2012 4:15 PM
Carbon Monoxide	ND	0.10	U	%	1	6/29/2012 4:15 PM
Methane	ND	0.50	U	%	1	6/29/2012 4:15 PM
Nitrogen	81	0.10		%	1	6/29/2012 4:15 PM
Oxygen	17	0.10		%	1	6/29/2012 4:15 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	7/10/2012 10:31 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	7/10/2012 10:31 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	7/10/2012 10:31 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	7/10/2012 10:31 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	7/10/2012 10:31 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	7/10/2012 10:31 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	7/10/2012 10:31 PM
1,2,4-Trimethylbenzene	2,500	800		ppbv	800	7/10/2012 10:31 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	7/10/2012 10:31 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	7/10/2012 10:31 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	7/10/2012 10:31 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	7/10/2012 10:31 PM
1,3,5-Trimethylbenzene	1,200	800		ppbv	800	7/10/2012 10:31 PM
1,3-Butadiene	ND	800	U	ppbv	800	7/10/2012 10:31 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	7/10/2012 10:31 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	7/10/2012 10:31 PM
2-Butanone	2,400	800		ppbv	800	7/10/2012 10:31 PM
2-Hexanone	ND	800	U	ppbv	800	7/10/2012 10:31 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Acetone	9,000	800		ppbv	800	7/10/2012 10:31 PM
Benzene	12,000	800		ppbv	800	7/10/2012 10:31 PM
Benzyl chloride	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Bromodichloromethane	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Bromoform	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Bromomethane	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Carbon disulfide	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Carbon tetrachloride	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Chlorobenzene	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Chlorodibromomethane	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Chloroethane	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Chloroform	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Chloromethane	ND	800	U	ppbv	800	7/10/2012 10:31 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	7/10/2012 10:31 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	7/10/2012 10:31 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 1:51:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-019	**Matrix:**	Air
Client Sample ID:	VA1393		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	250,000	16,000		ppbv	8000	7/11/2012 6:15 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Ethyl acetate	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Ethylbenzene	7,900	1,600		ppbv	800	7/10/2012 10:31 PM
Heptane	39,000	800		ppbv	800	7/10/2012 10:31 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	7/10/2012 10:31 PM
m,p-Xylene	20,000	1,600		ppbv	800	7/10/2012 10:31 PM
Methylene chloride	ND	4,000	U	ppbv	800	7/10/2012 10:31 PM
n-Hexane	110,000	16,000		ppbv	8000	7/11/2012 6:15 PM
Naphthalene	ND	800	U	ppbv	800	7/10/2012 10:31 PM
o-Xylene	6,500	800		ppbv	800	7/10/2012 10:31 PM
Propylene	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Styrene	ND	800	U	ppbv	800	7/10/2012 10:31 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Tetrachloroethene	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Tetrahydrofuran	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Toluene	68,000	8,000		ppbv	8000	7/11/2012 6:15 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	7/10/2012 10:31 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Trichloroethene	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Vinyl acetate	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Vinyl chloride	ND	800	U	ppbv	800	7/10/2012 10:31 PM
Xylenes, Total	26,000	2,400		ppbv	800	7/10/2012 10:31 PM
Surr: 4-Bromofluorobenzene	94.5	70-130		%REC	800	7/10/2012 10:31 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	6,500,000	940,000	H	µg/m³	8000	7/18/2012 10:15 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	UH	µg/m³	8000	7/18/2012 10:15 AM
C9-C12 Aliphatic Hydrocarbons	870,000	1,500,000	JH	µg/m³	8000	7/18/2012 10:15 AM
Surr: 4-Bromofluorobenzene	99.8	70-130	H	%REC	8000	7/18/2012 10:15 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 1:19:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-020	**Matrix:**	Air
Client Sample ID:	VA1418		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.37	0.10		%	1	6/29/2012 4:30 PM
Carbon Monoxide	ND	0.10	U	%	1	6/29/2012 4:30 PM
Methane	ND	0.50	U	%	1	6/29/2012 4:30 PM
Nitrogen	79	0.10		%	1	6/29/2012 4:30 PM
Oxygen	21	0.10		%	1	6/29/2012 4:30 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	7/10/2012 9:02 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	7/10/2012 9:02 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	7/10/2012 9:02 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	7/10/2012 9:02 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	7/10/2012 9:02 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	7/10/2012 9:02 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	7/10/2012 9:02 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	7/10/2012 9:02 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	7/10/2012 9:02 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	7/10/2012 9:02 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	7/10/2012 9:02 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	7/10/2012 9:02 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	7/10/2012 9:02 PM
1,3-Butadiene	ND	800	U	ppbv	800	7/10/2012 9:02 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	7/10/2012 9:02 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	7/10/2012 9:02 PM
2-Butanone	2,700	800		ppbv	800	7/10/2012 9:02 PM
2-Hexanone	ND	800	U	ppbv	800	7/10/2012 9:02 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Acetone	5,300	800		ppbv	800	7/10/2012 9:02 PM
Benzene	13,000	800		ppbv	800	7/10/2012 9:02 PM
Benzyl chloride	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Bromodichloromethane	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Bromoform	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Bromomethane	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Carbon disulfide	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Carbon tetrachloride	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Chlorobenzene	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Chlorodibromomethane	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Chloroethane	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Chloroform	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Chloromethane	ND	800	U	ppbv	800	7/10/2012 9:02 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	7/10/2012 9:02 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	7/10/2012 9:02 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 1:19:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-020	**Matrix:**	Air
Client Sample ID:	VA1418		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	32,000	1,600		ppbv	800	7/10/2012 9:02 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Ethyl acetate	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Ethylbenzene	1,900	1,600		ppbv	800	7/10/2012 9:02 PM
Heptane	30,000	800		ppbv	800	7/10/2012 9:02 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	7/10/2012 9:02 PM
m,p-Xylene	5,400	1,600		ppbv	800	7/10/2012 9:02 PM
Methylene chloride	ND	4,000	U	ppbv	800	7/10/2012 9:02 PM
n-Hexane	27,000	1,600		ppbv	800	7/10/2012 9:02 PM
Naphthalene	ND	800	U	ppbv	800	7/10/2012 9:02 PM
o-Xylene	1,500	800		ppbv	800	7/10/2012 9:02 PM
Propylene	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Styrene	ND	800	U	ppbv	800	7/10/2012 9:02 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Tetrachloroethene	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Tetrahydrofuran	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Toluene	36,000	800		ppbv	800	7/10/2012 9:02 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	7/10/2012 9:02 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Trichloroethene	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Vinyl acetate	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Vinyl chloride	ND	800	U	ppbv	800	7/10/2012 9:02 PM
Xylenes, Total	6,900	2,400		ppbv	800	7/10/2012 9:02 PM
Surr: 4-Bromofluorobenzene	96.1	70-130		%REC	800	7/10/2012 9:02 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,800,000	190,000	H	µg/m³	1600	7/17/2012 6:58 PM
C9-C10 Aromatic Hydrocarbons	ND	210,000	UH	µg/m³	1600	7/17/2012 6:58 PM
C9-C12 Aliphatic Hydrocarbons	200,000	300,000	JH	µg/m³	1600	7/17/2012 6:58 PM
Surr: 4-Bromofluorobenzene	102	70-130	H	%REC	1600	7/17/2012 6:58 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 2:00:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-021	**Matrix:**	Air
Client Sample ID:	VA1419		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	1.0	0.10		%	1	7/2/2012 9:57 AM
Carbon Monoxide	ND	0.10	U	%	1	7/2/2012 9:57 AM
Methane	ND	0.50	U	%	1	7/2/2012 9:57 AM
Nitrogen	78	0.10		%	1	7/2/2012 9:57 AM
Oxygen	19	0.10		%	1	7/2/2012 9:57 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	7/11/2012 7:00 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	7/11/2012 7:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	7/11/2012 7:00 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	7/11/2012 7:00 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	7/11/2012 7:00 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	7/11/2012 7:00 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	7/11/2012 7:00 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	7/11/2012 7:00 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	7/11/2012 7:00 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	7/11/2012 7:00 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	7/11/2012 7:00 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	7/11/2012 7:00 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	7/11/2012 7:00 PM
1,3-Butadiene	ND	800	U	ppbv	800	7/11/2012 7:00 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	7/11/2012 7:00 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	7/11/2012 7:00 PM
2-Butanone	3,200	800		ppbv	800	7/11/2012 7:00 PM
2-Hexanone	ND	800	U	ppbv	800	7/11/2012 7:00 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Acetone	7,300	800		ppbv	800	7/11/2012 7:00 PM
Benzene	16,000	800		ppbv	800	7/11/2012 7:00 PM
Benzyl chloride	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Bromodichloromethane	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Bromoform	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Bromomethane	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Carbon disulfide	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Carbon tetrachloride	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Chlorobenzene	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Chlorodibromomethane	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Chloroethane	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Chloroform	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Chloromethane	ND	800	U	ppbv	800	7/11/2012 7:00 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	7/11/2012 7:00 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	7/11/2012 7:00 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 2:00:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-021	**Matrix:**	Air
Client Sample ID:	VA1419		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	49,000	16,000		ppbv	8000	7/12/2012 3:29 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Ethyl acetate	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Ethylbenzene	3,500	1,600		ppbv	800	7/11/2012 7:00 PM
Heptane	38,000	800		ppbv	800	7/11/2012 7:00 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	7/11/2012 7:00 PM
m,p-Xylene	10,000	1,600		ppbv	800	7/11/2012 7:00 PM
Methylene chloride	3,000	4,000	J	ppbv	800	7/11/2012 7:00 PM
n-Hexane	32,000	1,600		ppbv	800	7/11/2012 7:00 PM
Naphthalene	ND	800	U	ppbv	800	7/11/2012 7:00 PM
o-Xylene	2,800	800		ppbv	800	7/11/2012 7:00 PM
Propylene	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Styrene	ND	800	U	ppbv	800	7/11/2012 7:00 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Tetrachloroethene	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Tetrahydrofuran	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Toluene	78,000	8,000		ppbv	8000	7/12/2012 3:29 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	7/11/2012 7:00 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Trichloroethene	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Vinyl acetate	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Vinyl chloride	ND	800	U	ppbv	800	7/11/2012 7:00 PM
Xylenes, Total	13,000	2,400		ppbv	800	7/11/2012 7:00 PM
Surr: 4-Bromofluorobenzene	94.4	70-130		%REC	800	7/11/2012 7:00 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	3,300,000	940,000	H	µg/m³	8000	7/18/2012 10:53 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	UH	µg/m³	8000	7/18/2012 10:53 PM
C9-C12 Aliphatic Hydrocarbons	450,000	1,500,000	JH	µg/m³	8000	7/18/2012 10:53 PM
Surr: 4-Bromofluorobenzene	98.3	70-130	H	%REC	8000	7/18/2012 10:53 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 2:00:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-022	**Matrix:**	Air
Client Sample ID:	VA1420		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.72	0.10		%	1	7/2/2012 10:12 AM
Carbon Monoxide	ND	0.10	U	%	1	7/2/2012 10:12 AM
Methane	ND	0.50	U	%	1	7/2/2012 10:12 AM
Nitrogen	77	0.10		%	1	7/2/2012 10:12 AM
Oxygen	20	0.10		%	1	7/2/2012 10:12 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	7/11/2012 6:12 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	7/11/2012 6:12 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	7/11/2012 6:12 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	7/11/2012 6:12 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	7/11/2012 6:12 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	7/11/2012 6:12 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	7/11/2012 6:12 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	7/11/2012 6:12 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	7/11/2012 6:12 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	7/11/2012 6:12 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	7/11/2012 6:12 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	7/11/2012 6:12 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	7/11/2012 6:12 AM
1,3-Butadiene	ND	800	U	ppbv	800	7/11/2012 6:12 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	7/11/2012 6:12 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	7/11/2012 6:12 AM
2-Butanone	1,400	800		ppbv	800	7/11/2012 6:12 AM
2-Hexanone	ND	800	U	ppbv	800	7/11/2012 6:12 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Acetone	3,600	800		ppbv	800	7/11/2012 6:12 AM
Benzene	6,700	800		ppbv	800	7/11/2012 6:12 AM
Benzyl chloride	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Bromodichloromethane	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Bromoform	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Bromomethane	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Carbon disulfide	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Carbon tetrachloride	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Chlorobenzene	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Chlorodibromomethane	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Chloroethane	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Chloroform	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Chloromethane	ND	800	U	ppbv	800	7/11/2012 6:12 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	7/11/2012 6:12 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	7/11/2012 6:12 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 2:00:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-022	**Matrix:**	Air
Client Sample ID:	VA1420		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	19,000	1,600		ppbv	800	7/11/2012 6:12 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Ethyl acetate	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Ethylbenzene	1,000	1,600	J	ppbv	800	7/11/2012 6:12 AM
Heptane	16,000	800		ppbv	800	7/11/2012 6:12 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	7/11/2012 6:12 AM
m,p-Xylene	2,900	1,600		ppbv	800	7/11/2012 6:12 AM
Methylene chloride	ND	4,000	U	ppbv	800	7/11/2012 6:12 AM
n-Hexane	16,000	1,600		ppbv	800	7/11/2012 6:12 AM
Naphthalene	ND	800	U	ppbv	800	7/11/2012 6:12 AM
o-Xylene	800	800		ppbv	800	7/11/2012 6:12 AM
Propylene	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Styrene	ND	800	U	ppbv	800	7/11/2012 6:12 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Tetrachloroethene	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Tetrahydrofuran	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Toluene	19,000	800		ppbv	800	7/11/2012 6:12 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	7/11/2012 6:12 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Trichloroethene	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Vinyl acetate	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Vinyl chloride	ND	800	U	ppbv	800	7/11/2012 6:12 AM
Xylenes, Total	3,700	2,400		ppbv	800	7/11/2012 6:12 AM
Surr: 4-Bromofluorobenzene	98.3	70-130		%REC	800	7/11/2012 6:12 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,800,000	940,000	H	µg/m³	8000	7/18/2012 10:10 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	UH	µg/m³	8000	7/18/2012 10:10 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	UH	µg/m³	8000	7/18/2012 10:10 PM
Surr: 4-Bromofluorobenzene	99.0	70-130	H	%REC	8000	7/18/2012 10:10 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 3:06:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-023	**Matrix:**	Air
Client Sample ID:	VA1421		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.77	0.10		%	1	7/2/2012 10:27 AM
Carbon Monoxide	ND	0.10	U	%	1	7/2/2012 10:27 AM
Methane	ND	0.50	U	%	1	7/2/2012 10:27 AM
Nitrogen	78	0.10		%	1	7/2/2012 10:27 AM
Oxygen	19	0.10		%	1	7/2/2012 10:27 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	7/11/2012 3:22 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	7/11/2012 3:22 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	7/11/2012 3:22 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	7/11/2012 3:22 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	7/11/2012 3:22 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	7/11/2012 3:22 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	7/11/2012 3:22 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	7/11/2012 3:22 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	7/11/2012 3:22 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	7/11/2012 3:22 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	7/11/2012 3:22 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	7/11/2012 3:22 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	7/11/2012 3:22 AM
1,3-Butadiene	ND	800	U	ppbv	800	7/11/2012 3:22 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	7/11/2012 3:22 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	7/11/2012 3:22 AM
2-Butanone	1,300	800		ppbv	800	7/11/2012 3:22 AM
2-Hexanone	ND	800	U	ppbv	800	7/11/2012 3:22 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Acetone	3,500	800		ppbv	800	7/11/2012 3:22 AM
Benzene	8,700	800		ppbv	800	7/11/2012 3:22 AM
Benzyl chloride	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Bromodichloromethane	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Bromoform	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Bromomethane	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Carbon disulfide	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Carbon tetrachloride	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Chlorobenzene	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Chlorodibromomethane	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Chloroethane	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Chloroform	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Chloromethane	ND	800	U	ppbv	800	7/11/2012 3:22 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	7/11/2012 3:22 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	7/11/2012 3:22 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 3:06:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-023	**Matrix:**	Air
Client Sample ID:	VA1421		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	21,000	1,600		ppbv	800	7/11/2012 3:22 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Ethyl acetate	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Ethylbenzene	2,200	1,600		ppbv	800	7/11/2012 3:22 AM
Heptane	20,000	800		ppbv	800	7/11/2012 3:22 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	7/11/2012 3:22 AM
m,p-Xylene	6,300	1,600		ppbv	800	7/11/2012 3:22 AM
Methylene chloride	4,000	4,000		ppbv	800	7/11/2012 3:22 AM
n-Hexane	16,000	1,600		ppbv	800	7/11/2012 3:22 AM
Naphthalene	ND	800	U	ppbv	800	7/11/2012 3:22 AM
o-Xylene	1,700	800		ppbv	800	7/11/2012 3:22 AM
Propylene	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Styrene	ND	800	U	ppbv	800	7/11/2012 3:22 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Tetrachloroethene	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Tetrahydrofuran	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Toluene	35,000	800		ppbv	800	7/11/2012 3:22 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	7/11/2012 3:22 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Trichloroethene	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Vinyl acetate	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Vinyl chloride	ND	800	U	ppbv	800	7/11/2012 3:22 AM
Xylenes, Total	8,000	2,400		ppbv	800	7/11/2012 3:22 AM
Surr: 4-Bromofluorobenzene	96.3	70-130		%REC	800	7/11/2012 3:22 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,300,000	190,000	H	µg/m³	1600	7/19/2012 2:17 AM
C9-C10 Aromatic Hydrocarbons	ND	210,000	UH	µg/m³	1600	7/19/2012 2:17 AM
C9-C12 Aliphatic Hydrocarbons	220,000	300,000	JH	µg/m³	1600	7/19/2012 2:17 AM
Surr: 4-Bromofluorobenzene	105	70-130	H	%REC	1600	7/19/2012 2:17 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 3:46:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-024	**Matrix:**	Air
Client Sample ID:	VA1422		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.31	0.10		%	1	7/2/2012 10:43 AM
Carbon Monoxide	ND	0.10	U	%	1	7/2/2012 10:43 AM
Methane	ND	0.50	U	%	1	7/2/2012 10:43 AM
Nitrogen	77	0.10		%	1	7/2/2012 10:43 AM
Oxygen	20	0.10		%	1	7/2/2012 10:43 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	7/11/2012 10:40 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	7/11/2012 10:40 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	7/11/2012 10:40 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	7/11/2012 10:40 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	7/11/2012 10:40 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	7/11/2012 10:40 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	7/11/2012 10:40 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	7/11/2012 10:40 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	7/11/2012 10:40 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	7/11/2012 10:40 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	7/11/2012 10:40 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	7/11/2012 10:40 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	7/11/2012 10:40 PM
1,3-Butadiene	ND	800	U	ppbv	800	7/11/2012 10:40 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	7/11/2012 10:40 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	7/11/2012 10:40 PM
2-Butanone	920	800		ppbv	800	7/11/2012 10:40 PM
2-Hexanone	ND	800	U	ppbv	800	7/11/2012 10:40 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Acetone	2,300	800		ppbv	800	7/11/2012 10:40 PM
Benzene	6,200	800		ppbv	800	7/11/2012 10:40 PM
Benzyl chloride	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Bromodichloromethane	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Bromoform	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Bromomethane	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Carbon disulfide	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Carbon tetrachloride	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Chlorobenzene	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Chlorodibromomethane	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Chloroethane	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Chloroform	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Chloromethane	ND	800	U	ppbv	800	7/11/2012 10:40 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	7/11/2012 10:40 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	7/11/2012 10:40 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 3:46:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-024	**Matrix:**	Air
Client Sample ID:	VA1422		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	13,000	1,600		ppbv	800	7/11/2012 10:40 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Ethyl acetate	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Ethylbenzene	1,600	1,600		ppbv	800	7/11/2012 10:40 PM
Heptane	13,000	800		ppbv	800	7/11/2012 10:40 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	7/11/2012 10:40 PM
m,p-Xylene	4,700	1,600		ppbv	800	7/11/2012 10:40 PM
Methylene chloride	ND	4,000	U	ppbv	800	7/11/2012 10:40 PM
n-Hexane	10,000	1,600		ppbv	800	7/11/2012 10:40 PM
Naphthalene	ND	800	U	ppbv	800	7/11/2012 10:40 PM
o-Xylene	1,300	800		ppbv	800	7/11/2012 10:40 PM
Propylene	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Styrene	ND	800	U	ppbv	800	7/11/2012 10:40 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Tetrachloroethene	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Tetrahydrofuran	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Toluene	23,000	800		ppbv	800	7/11/2012 10:40 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	7/11/2012 10:40 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Trichloroethene	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Vinyl acetate	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Vinyl chloride	ND	800	U	ppbv	800	7/11/2012 10:40 PM
Xylenes, Total	6,000	2,400		ppbv	800	7/11/2012 10:40 PM
Surr: 4-Bromofluorobenzene	95.8	70-130		%REC	800	7/11/2012 10:40 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	930,000	94,000		µg/m³	800	7/13/2012 3:21 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	7/13/2012 3:21 PM
C9-C12 Aliphatic Hydrocarbons	190,000	150,000		µg/m³	800	7/13/2012 3:21 PM
Surr: 4-Bromofluorobenzene	97.4	70-130		%REC	800	7/13/2012 3:21 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 9:10:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-025	**Matrix:**	Air
Client Sample ID:	VA1423		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.28	0.10		%	1	7/2/2012 10:58 AM
Carbon Monoxide	ND	0.10	U	%	1	7/2/2012 10:58 AM
Methane	ND	0.50	U	%	1	7/2/2012 10:58 AM
Nitrogen	78	0.10		%	1	7/2/2012 10:58 AM
Oxygen	20	0.10		%	1	7/2/2012 10:58 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	7/13/2012 12:37 AM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	7/13/2012 12:37 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	7/13/2012 12:37 AM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	7/13/2012 12:37 AM
1,1-Dichloroethane	ND	400	U	ppbv	400	7/13/2012 12:37 AM
1,1-Dichloroethene	ND	400	U	ppbv	400	7/13/2012 12:37 AM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	7/13/2012 12:37 AM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	7/13/2012 12:37 AM
1,2-Dibromoethane	ND	400	U	ppbv	400	7/13/2012 12:37 AM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	7/13/2012 12:37 AM
1,2-Dichloroethane	ND	400	U	ppbv	400	7/13/2012 12:37 AM
1,2-Dichloropropane	ND	400	U	ppbv	400	7/13/2012 12:37 AM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	7/13/2012 12:37 AM
1,3-Butadiene	ND	400	U	ppbv	400	7/13/2012 12:37 AM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	7/13/2012 12:37 AM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	7/13/2012 12:37 AM
2-Butanone	ND	400	U	ppbv	400	7/13/2012 12:37 AM
2-Hexanone	ND	400	U	ppbv	400	7/13/2012 12:37 AM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Acetone	970	400		ppbv	400	7/13/2012 12:37 AM
Benzene	2,100	400		ppbv	400	7/13/2012 12:37 AM
Benzyl chloride	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Bromodichloromethane	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Bromoform	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Bromomethane	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Carbon disulfide	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Carbon tetrachloride	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Chlorobenzene	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Chlorodibromomethane	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Chloroethane	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Chloroform	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Chloromethane	ND	400	U	ppbv	400	7/13/2012 12:37 AM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	7/13/2012 12:37 AM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	7/13/2012 12:37 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 9:10:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-025	**Matrix:**	Air
Client Sample ID:	VA1423		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	3,200	800		ppbv	400	7/13/2012 12:37 AM
Dichlorodifluoromethane	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Ethyl acetate	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Ethylbenzene	ND	800	U	ppbv	400	7/13/2012 12:37 AM
Heptane	3,000	400		ppbv	400	7/13/2012 12:37 AM
Hexachlorobutadiene	ND	800	U	ppbv	400	7/13/2012 12:37 AM
m,p-Xylene	980	800		ppbv	400	7/13/2012 12:37 AM
Methylene chloride	4,200	2,000		ppbv	400	7/13/2012 12:37 AM
n-Hexane	2,900	800		ppbv	400	7/13/2012 12:37 AM
Naphthalene	ND	400	U	ppbv	400	7/13/2012 12:37 AM
o-Xylene	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Propylene	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Styrene	ND	400	U	ppbv	400	7/13/2012 12:37 AM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Tetrachloroethene	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Tetrahydrofuran	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Toluene	5,900	400		ppbv	400	7/13/2012 12:37 AM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	7/13/2012 12:37 AM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Trichloroethene	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Trichlorofluoromethane	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Vinyl acetate	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Vinyl chloride	ND	400	U	ppbv	400	7/13/2012 12:37 AM
Xylenes, Total	980	1,200	J	ppbv	400	7/13/2012 12:37 AM
Surr: 4-Bromofluorobenzene	97.3	70-130		%REC	400	7/13/2012 12:37 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	340,000	47,000		µg/m³	400	7/13/2012 6:23 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	7/13/2012 6:23 PM
C9-C12 Aliphatic Hydrocarbons	53,000	76,000	J	µg/m³	400	7/13/2012 6:23 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	400	7/13/2012 6:23 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 9:56:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-026	**Matrix:**	Air
Client Sample ID:	VA1424		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.81	0.10		%	1	7/2/2012 11:13 AM
Carbon Monoxide	ND	0.10	U	%	1	7/2/2012 11:13 AM
Methane	ND	0.50	U	%	1	7/2/2012 11:13 AM
Nitrogen	80	0.10		%	1	7/2/2012 11:13 AM
Oxygen	17	0.10		%	1	7/2/2012 11:13 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
1,3-Butadiene	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
2-Butanone	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
2-Hexanone	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Acetone	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Benzene	16,000	8,000		ppbv	8000	7/12/2012 2:07 AM
Benzyl chloride	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Bromodichloromethane	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Bromoform	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Bromomethane	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Carbon disulfide	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Chlorobenzene	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Chloroethane	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Chloroform	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Chloromethane	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 9:56:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-026	**Matrix:**	Air
Client Sample ID:	VA1424		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	31,000	16,000		ppbv	8000	7/12/2012 2:07 AM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Ethyl acetate	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Ethylbenzene	ND	16,000	U	ppbv	8000	7/12/2012 2:07 AM
Heptane	11,000	8,000		ppbv	8000	7/12/2012 2:07 AM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	7/12/2012 2:07 AM
m,p-Xylene	ND	16,000	U	ppbv	8000	7/12/2012 2:07 AM
Methylene chloride	ND	40,000	U	ppbv	8000	7/12/2012 2:07 AM
n-Hexane	33,000	16,000		ppbv	8000	7/12/2012 2:07 AM
Naphthalene	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
o-Xylene	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Propylene	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Styrene	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Tetrachloroethene	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Toluene	18,000	8,000		ppbv	8000	7/12/2012 2:07 AM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Trichloroethene	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Vinyl acetate	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Vinyl chloride	ND	8,000	U	ppbv	8000	7/12/2012 2:07 AM
Xylenes, Total	ND	24,000	U	ppbv	8000	7/12/2012 2:07 AM
Surr: 4-Bromofluorobenzene	97.7	70-130		%REC	8000	7/12/2012 2:07 AM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	3,000,000	940,000		µg/m³	8000	7/13/2012 7:56 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	7/13/2012 7:56 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	7/13/2012 7:56 PM
Surr: 4-Bromofluorobenzene	99.4	70-130		%REC	8000	7/13/2012 7:56 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 8:32:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-027	**Matrix:**	Air
Client Sample ID:	VA1477		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	1.8	0.10		%	1	7/2/2012 11:29 AM
Carbon Monoxide	ND	0.10	U	%	1	7/2/2012 11:29 AM
Methane	ND	0.50	U	%	1	7/2/2012 11:29 AM
Nitrogen	80	0.10		%	1	7/2/2012 11:29 AM
Oxygen	16	0.10		%	1	7/2/2012 11:29 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
1,1,2,2-Tetrachloroethane	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
1,1,2-Trichloroethane	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
1,1-Dichloroethane	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
1,1-Dichloroethene	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
1,2,4-Trichlorobenzene	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
1,2,4-Trimethylbenzene	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
1,2-Dibromoethane	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
1,2-Dichlorobenzene	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
1,2-Dichloroethane	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
1,2-Dichloropropane	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
1,3,5-Trimethylbenzene	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
1,3-Butadiene	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
1,3-Dichlorobenzene	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
1,4-Dichlorobenzene	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
2-Butanone	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
2-Hexanone	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
4-Methyl-2-pentanone	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Acetone	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Benzene	60,000	20,000		ppbv	20000	7/5/2012 8:44 PM
Benzyl chloride	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Bromodichloromethane	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Bromoform	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Bromomethane	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Carbon disulfide	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Carbon tetrachloride	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Chlorobenzene	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Chlorodibromomethane	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Chloroethane	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Chloroform	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Chloromethane	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
cis-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
cis-1,3-dichloropropene	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 8:32:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-027	**Matrix:**	Air
Client Sample ID:	VA1477		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	110,000	40,000		ppbv	20000	7/5/2012 8:44 PM
Dichlorodifluoromethane	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Ethyl acetate	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Ethylbenzene	ND	40,000	U	ppbv	20000	7/5/2012 8:44 PM
Heptane	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Hexachlorobutadiene	ND	40,000	U	ppbv	20000	7/5/2012 8:44 PM
m,p-Xylene	ND	40,000	U	ppbv	20000	7/5/2012 8:44 PM
Methylene chloride	530,000	100,000		ppbv	20000	7/5/2012 8:44 PM
n-Hexane	49,000	40,000		ppbv	20000	7/5/2012 8:44 PM
Naphthalene	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
o-Xylene	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Propylene	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Styrene	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
tert-Butyl Methyl Ether	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Tetrachloroethene	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Tetrahydrofuran	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Toluene	100,000	20,000		ppbv	20000	7/5/2012 8:44 PM
trans-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
trans-1,3-dichloropropene	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Trichloroethene	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Trichlorofluoromethane	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Vinyl acetate	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Vinyl chloride	ND	20,000	U	ppbv	20000	7/5/2012 8:44 PM
Xylenes, Total	ND	60,000	U	ppbv	20000	7/5/2012 8:44 PM
Surr: 4-Bromofluorobenzene	98.6	70-130		%REC	20000	7/5/2012 8:44 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	7,800,000	2,300,000		µg/m³	20000	7/12/2012 4:04 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	U	µg/m³	20000	7/12/2012 4:04 PM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000	U	µg/m³	20000	7/12/2012 4:04 PM
Surr: 4-Bromofluorobenzene	95.1	70-130		%REC	20000	7/12/2012 4:04 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/12/2012 12:45:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-028	**Matrix:**	Air
Client Sample ID:	VA1491		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.90	0.10		%	1	7/2/2012 11:47 AM
Carbon Monoxide	ND	0.10	U	%	1	7/2/2012 11:47 AM
Methane	ND	0.50	U	%	1	7/2/2012 11:47 AM
Nitrogen	78	0.10		%	1	7/2/2012 11:47 AM
Oxygen	20	0.10		%	1	7/2/2012 11:47 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
1,3-Butadiene	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
2-Butanone	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
2-Hexanone	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Acetone	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Benzene	32,000	8,000		ppbv	8000	7/9/2012 7:27 PM
Benzyl chloride	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Bromodichloromethane	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Bromoform	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Bromomethane	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Carbon disulfide	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Chlorobenzene	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Chloroethane	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Chloroform	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Chloromethane	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/12/2012 12:45:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-028	**Matrix:**	Air
Client Sample ID:	VA1491		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	75,000	16,000		ppbv	8000	7/9/2012 7:27 PM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Ethyl acetate	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Ethylbenzene	ND	16,000	U	ppbv	8000	7/9/2012 7:27 PM
Heptane	45,000	8,000		ppbv	8000	7/9/2012 7:27 PM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	7/9/2012 7:27 PM
m,p-Xylene	8,600	16,000	J	ppbv	8000	7/9/2012 7:27 PM
Methylene chloride	73,000	40,000		ppbv	8000	7/9/2012 7:27 PM
n-Hexane	46,000	16,000		ppbv	8000	7/9/2012 7:27 PM
Naphthalene	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
o-Xylene	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Propylene	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Styrene	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Tetrachloroethene	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Toluene	61,000	8,000		ppbv	8000	7/9/2012 7:27 PM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Trichloroethene	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Vinyl acetate	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Vinyl chloride	ND	8,000	U	ppbv	8000	7/9/2012 7:27 PM
Xylenes, Total	8,600	24,000	J	ppbv	8000	7/9/2012 7:27 PM
Surr: 4-Bromofluorobenzene	95.2	70-130		%REC	8000	7/9/2012 7:27 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	5,300,000	2,300,000		µg/m³	20000	7/7/2012 6:49 AM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	U	µg/m³	20000	7/7/2012 6:49 AM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000	U	µg/m³	20000	7/7/2012 6:49 AM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	20000	7/7/2012 6:49 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/12/2012 1:24:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-029	**Matrix:**	Air
Client Sample ID:	VA1492		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	1.0	0.10		%	1	7/2/2012 12:02 PM
Carbon Monoxide	ND	0.10	U	%	1	7/2/2012 12:02 PM
Methane	ND	0.50	U	%	1	7/2/2012 12:02 PM
Nitrogen	78	0.10		%	1	7/2/2012 12:02 PM
Oxygen	19	0.10		%	1	7/2/2012 12:02 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	7/10/2012 4:45 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	7/10/2012 4:45 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	7/10/2012 4:45 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	7/10/2012 4:45 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	7/10/2012 4:45 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	7/10/2012 4:45 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	7/10/2012 4:45 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	7/10/2012 4:45 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	7/10/2012 4:45 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	7/10/2012 4:45 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	7/10/2012 4:45 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	7/10/2012 4:45 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	7/10/2012 4:45 PM
1,3-Butadiene	ND	800	U	ppbv	800	7/10/2012 4:45 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	7/10/2012 4:45 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	7/10/2012 4:45 PM
2-Butanone	ND	800	U	ppbv	800	7/10/2012 4:45 PM
2-Hexanone	ND	800	U	ppbv	800	7/10/2012 4:45 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Acetone	1,200	800		ppbv	800	7/10/2012 4:45 PM
Benzene	18,000	800		ppbv	800	7/10/2012 4:45 PM
Benzyl chloride	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Bromodichloromethane	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Bromoform	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Bromomethane	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Carbon disulfide	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Carbon tetrachloride	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Chlorobenzene	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Chlorodibromomethane	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Chloroethane	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Chloroform	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Chloromethane	ND	800	U	ppbv	800	7/10/2012 4:45 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	7/10/2012 4:45 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	7/10/2012 4:45 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/12/2012 1:24:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-029	**Matrix:**	Air
Client Sample ID:	VA1492		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	33,000	1,600		ppbv	800	7/10/2012 4:45 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Ethyl acetate	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Ethylbenzene	3,200	1,600		ppbv	800	7/10/2012 4:45 PM
Heptane	25,000	800		ppbv	800	7/10/2012 4:45 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	7/10/2012 4:45 PM
m,p-Xylene	6,600	1,600		ppbv	800	7/10/2012 4:45 PM
Methylene chloride	ND	4,000	U	ppbv	800	7/10/2012 4:45 PM
n-Hexane	19,000	1,600		ppbv	800	7/10/2012 4:45 PM
Naphthalene	ND	800	U	ppbv	800	7/10/2012 4:45 PM
o-Xylene	2,000	800		ppbv	800	7/10/2012 4:45 PM
Propylene	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Styrene	ND	800	U	ppbv	800	7/10/2012 4:45 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Tetrachloroethene	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Tetrahydrofuran	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Toluene	86,000	8,000		ppbv	8000	7/11/2012 2:05 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	7/10/2012 4:45 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Trichloroethene	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Vinyl acetate	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Vinyl chloride	ND	800	U	ppbv	800	7/10/2012 4:45 PM
Xylenes, Total	8,700	2,400		ppbv	800	7/10/2012 4:45 PM
Surr: 4-Bromofluorobenzene	97.8	70-130		%REC	800	7/10/2012 4:45 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,900,000	940,000		µg/m³	8000	7/12/2012 10:47 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	7/12/2012 10:47 AM
C9-C12 Aliphatic Hydrocarbons	480,000	1,500,000	J	µg/m³	8000	7/12/2012 10:47 AM
Surr: 4-Bromofluorobenzene	98.9	70-130		%REC	8000	7/12/2012 10:47 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/12/2012 2:00:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-030	**Matrix:**	Air
Client Sample ID:	VA1493		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.24	0.10		%	1	7/2/2012 12:17 PM
Carbon Monoxide	ND	0.10	U	%	1	7/2/2012 12:17 PM
Methane	ND	0.50	U	%	1	7/2/2012 12:17 PM
Nitrogen	78	0.10		%	1	7/2/2012 12:17 PM
Oxygen	20	0.10		%	1	7/2/2012 12:17 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	7/10/2012 2:30 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	7/10/2012 2:30 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	7/10/2012 2:30 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	7/10/2012 2:30 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	7/10/2012 2:30 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	7/10/2012 2:30 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	7/10/2012 2:30 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	7/10/2012 2:30 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	7/10/2012 2:30 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	7/10/2012 2:30 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	7/10/2012 2:30 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	7/10/2012 2:30 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	7/10/2012 2:30 PM
1,3-Butadiene	ND	800	U	ppbv	800	7/10/2012 2:30 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	7/10/2012 2:30 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	7/10/2012 2:30 PM
2-Butanone	ND	800	U	ppbv	800	7/10/2012 2:30 PM
2-Hexanone	ND	800	U	ppbv	800	7/10/2012 2:30 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Acetone	1,900	800		ppbv	800	7/10/2012 2:30 PM
Benzene	14,000	800		ppbv	800	7/10/2012 2:30 PM
Benzyl chloride	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Bromodichloromethane	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Bromoform	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Bromomethane	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Carbon disulfide	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Carbon tetrachloride	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Chlorobenzene	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Chlorodibromomethane	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Chloroethane	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Chloroform	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Chloromethane	ND	800	U	ppbv	800	7/10/2012 2:30 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	7/10/2012 2:30 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	7/10/2012 2:30 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/12/2012 2:00:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-030	**Matrix:**	Air
Client Sample ID:	VA1493		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	25,000	1,600		ppbv	800	7/10/2012 2:30 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Ethyl acetate	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Ethylbenzene	3,600	1,600		ppbv	800	7/10/2012 2:30 PM
Heptane	19,000	800		ppbv	800	7/10/2012 2:30 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	7/10/2012 2:30 PM
m,p-Xylene	7,500	1,600		ppbv	800	7/10/2012 2:30 PM
Methylene chloride	2,000	4,000	J	ppbv	800	7/10/2012 2:30 PM
n-Hexane	14,000	1,600		ppbv	800	7/10/2012 2:30 PM
Naphthalene	ND	800	U	ppbv	800	7/10/2012 2:30 PM
o-Xylene	2,400	800		ppbv	800	7/10/2012 2:30 PM
Propylene	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Styrene	ND	800	U	ppbv	800	7/10/2012 2:30 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Tetrachloroethene	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Tetrahydrofuran	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Toluene	36,000	8,000		ppbv	8000	7/9/2012 8:50 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	7/10/2012 2:30 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Trichloroethene	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Vinyl acetate	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Vinyl chloride	ND	800	U	ppbv	800	7/10/2012 2:30 PM
Xylenes, Total	9,900	2,400		ppbv	800	7/10/2012 2:30 PM
Surr: 4-Bromofluorobenzene	94.6	70-130		%REC	800	7/10/2012 2:30 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,500,000	190,000		µg/m³	1600	7/12/2012 11:31 AM
C9-C10 Aromatic Hydrocarbons	ND	210,000	U	µg/m³	1600	7/12/2012 11:31 AM
C9-C12 Aliphatic Hydrocarbons	330,000	300,000		µg/m³	1600	7/12/2012 11:31 AM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1600	7/12/2012 11:31 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/12/2012 2:49:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-031	**Matrix:**	Air
Client Sample ID:	VA1494		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.26	0.10		%	1	7/2/2012 1:21 PM
Carbon Monoxide	ND	0.10	U	%	1	7/2/2012 1:21 PM
Methane	ND	0.50	U	%	1	7/2/2012 1:21 PM
Nitrogen	78	0.10		%	1	7/2/2012 1:21 PM
Oxygen	20	0.10		%	1	7/2/2012 1:21 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	7/10/2012 3:15 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	7/10/2012 3:15 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	7/10/2012 3:15 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	7/10/2012 3:15 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	7/10/2012 3:15 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	7/10/2012 3:15 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	7/10/2012 3:15 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	7/10/2012 3:15 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	7/10/2012 3:15 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	7/10/2012 3:15 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	7/10/2012 3:15 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	7/10/2012 3:15 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	7/10/2012 3:15 PM
1,3-Butadiene	ND	800	U	ppbv	800	7/10/2012 3:15 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	7/10/2012 3:15 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	7/10/2012 3:15 PM
2-Butanone	ND	800	U	ppbv	800	7/10/2012 3:15 PM
2-Hexanone	ND	800	U	ppbv	800	7/10/2012 3:15 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Acetone	2,100	800		ppbv	800	7/10/2012 3:15 PM
Benzene	8,400	800		ppbv	800	7/10/2012 3:15 PM
Benzyl chloride	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Bromodichloromethane	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Bromoform	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Bromomethane	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Carbon disulfide	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Carbon tetrachloride	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Chlorobenzene	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Chlorodibromomethane	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Chloroethane	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Chloroform	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Chloromethane	ND	800	U	ppbv	800	7/10/2012 3:15 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	7/10/2012 3:15 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	7/10/2012 3:15 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/12/2012 2:49:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-031	**Matrix:**	Air
Client Sample ID:	VA1494		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	16,000	1,600		ppbv	800	7/10/2012 3:15 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Ethyl acetate	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Ethylbenzene	2,200	1,600		ppbv	800	7/10/2012 3:15 PM
Heptane	12,000	800		ppbv	800	7/10/2012 3:15 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	7/10/2012 3:15 PM
m,p-Xylene	4,700	1,600		ppbv	800	7/10/2012 3:15 PM
Methylene chloride	2,000	4,000	J	ppbv	800	7/10/2012 3:15 PM
n-Hexane	8,800	1,600		ppbv	800	7/10/2012 3:15 PM
Naphthalene	ND	800	U	ppbv	800	7/10/2012 3:15 PM
o-Xylene	1,500	800		ppbv	800	7/10/2012 3:15 PM
Propylene	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Styrene	ND	800	U	ppbv	800	7/10/2012 3:15 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Tetrachloroethene	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Tetrahydrofuran	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Toluene	26,000	800		ppbv	800	7/10/2012 3:15 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	7/10/2012 3:15 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Trichloroethene	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Vinyl acetate	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Vinyl chloride	ND	800	U	ppbv	800	7/10/2012 3:15 PM
Xylenes, Total	6,200	2,400		ppbv	800	7/10/2012 3:15 PM
Surr: 4-Bromofluorobenzene	97.0	70-130		%REC	800	7/10/2012 3:15 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,100,000	190,000		µg/m³	1600	7/12/2012 1:01 PM
C9-C10 Aromatic Hydrocarbons	ND	210,000	U	µg/m³	1600	7/12/2012 1:01 PM
C9-C12 Aliphatic Hydrocarbons	280,000	300,000	J	µg/m³	1600	7/12/2012 1:01 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1600	7/12/2012 1:01 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/12/2012 3:30:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-032	**Matrix:**	Air
Client Sample ID:	VA1495		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.41	0.10		%	1	7/2/2012 1:36 PM
Carbon Monoxide	ND	0.10	U	%	1	7/2/2012 1:36 PM
Methane	ND	0.50	U	%	1	7/2/2012 1:36 PM
Nitrogen	77	0.10		%	1	7/2/2012 1:36 PM
Oxygen	20	0.10		%	1	7/2/2012 1:36 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	7/10/2012 4:00 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	7/10/2012 4:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	7/10/2012 4:00 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	7/10/2012 4:00 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	7/10/2012 4:00 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	7/10/2012 4:00 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	7/10/2012 4:00 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	7/10/2012 4:00 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	7/10/2012 4:00 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	7/10/2012 4:00 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	7/10/2012 4:00 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	7/10/2012 4:00 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	7/10/2012 4:00 PM
1,3-Butadiene	ND	800	U	ppbv	800	7/10/2012 4:00 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	7/10/2012 4:00 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	7/10/2012 4:00 PM
2-Butanone	ND	800	U	ppbv	800	7/10/2012 4:00 PM
2-Hexanone	ND	800	U	ppbv	800	7/10/2012 4:00 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Acetone	970	800		ppbv	800	7/10/2012 4:00 PM
Benzene	7,300	800		ppbv	800	7/10/2012 4:00 PM
Benzyl chloride	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Bromodichloromethane	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Bromoform	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Bromomethane	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Carbon disulfide	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Carbon tetrachloride	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Chlorobenzene	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Chlorodibromomethane	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Chloroethane	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Chloroform	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Chloromethane	ND	800	U	ppbv	800	7/10/2012 4:00 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	7/10/2012 4:00 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	7/10/2012 4:00 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/12/2012 3:30:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-032	**Matrix:**	Air
Client Sample ID:	VA1495		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	13,000	1,600		ppbv	800	7/10/2012 4:00 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Ethyl acetate	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Ethylbenzene	2,000	1,600		ppbv	800	7/10/2012 4:00 PM
Heptane	10,000	800		ppbv	800	7/10/2012 4:00 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	7/10/2012 4:00 PM
m,p-Xylene	4,300	1,600		ppbv	800	7/10/2012 4:00 PM
Methylene chloride	ND	4,000	U	ppbv	800	7/10/2012 4:00 PM
n-Hexane	6,900	1,600		ppbv	800	7/10/2012 4:00 PM
Naphthalene	ND	800	U	ppbv	800	7/10/2012 4:00 PM
o-Xylene	1,400	800		ppbv	800	7/10/2012 4:00 PM
Propylene	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Styrene	ND	800	U	ppbv	800	7/10/2012 4:00 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Tetrachloroethene	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Tetrahydrofuran	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Toluene	22,000	800		ppbv	800	7/10/2012 4:00 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	7/10/2012 4:00 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Trichloroethene	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Vinyl acetate	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Vinyl chloride	ND	800	U	ppbv	800	7/10/2012 4:00 PM
Xylenes, Total	5,700	2,400		ppbv	800	7/10/2012 4:00 PM
Surr: 4-Bromofluorobenzene	97.5	70-130		%REC	800	7/10/2012 4:00 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	910,000	94,000		µg/m³	800	7/12/2012 1:47 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	7/12/2012 1:47 PM
C9-C12 Aliphatic Hydrocarbons	200,000	150,000		µg/m³	800	7/12/2012 1:47 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	800	7/12/2012 1:47 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/12/2012 4:16:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-033	**Matrix:**	Air
Client Sample ID:	VA1496		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.11	0.10		%	1	7/2/2012 1:51 PM
Carbon Monoxide	ND	0.10	U	%	1	7/2/2012 1:51 PM
Methane	ND	0.50	U	%	1	7/2/2012 1:51 PM
Nitrogen	77	0.10		%	1	7/2/2012 1:51 PM
Oxygen	21	0.10		%	1	7/2/2012 1:51 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
1,1,2,2-Tetrachloroethane	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
1,1,2-Trichloroethane	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
1,1-Dichloroethane	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
1,1-Dichloroethene	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
1,2,4-Trichlorobenzene	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
1,2,4-Trimethylbenzene	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
1,2-Dibromoethane	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
1,2-Dichlorobenzene	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
1,2-Dichloroethane	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
1,2-Dichloropropane	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
1,3,5-Trimethylbenzene	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
1,3-Butadiene	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
1,3-Dichlorobenzene	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
1,4-Dichlorobenzene	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
2-Butanone	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
2-Hexanone	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
4-Methyl-2-pentanone	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Acetone	3,100	2,000		ppbv	2000	7/9/2012 10:16 PM
Benzene	12,000	2,000		ppbv	2000	7/9/2012 10:16 PM
Benzyl chloride	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Bromodichloromethane	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Bromoform	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Bromomethane	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Carbon disulfide	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Carbon tetrachloride	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Chlorobenzene	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Chlorodibromomethane	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Chloroethane	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Chloroform	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Chloromethane	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
cis-1,2-Dichloroethene	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
cis-1,3-dichloropropene	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/12/2012 4:16:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-033	**Matrix:**	Air
Client Sample ID:	VA1496		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	33,000	4,000		ppbv	2000	7/9/2012 10:16 PM
Dichlorodifluoromethane	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Ethyl acetate	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Ethylbenzene	ND	4,000	U	ppbv	2000	7/9/2012 10:16 PM
Heptane	13,000	2,000		ppbv	2000	7/9/2012 10:16 PM
Hexachlorobutadiene	ND	4,000	U	ppbv	2000	7/9/2012 10:16 PM
m,p-Xylene	3,900	4,000	J	ppbv	2000	7/9/2012 10:16 PM
Methylene chloride	92,000	10,000		ppbv	2000	7/9/2012 10:16 PM
n-Hexane	31,000	4,000		ppbv	2000	7/9/2012 10:16 PM
Naphthalene	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
o-Xylene	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Propylene	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Styrene	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
tert-Butyl Methyl Ether	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Tetrachloroethene	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Tetrahydrofuran	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Toluene	28,000	2,000		ppbv	2000	7/9/2012 10:16 PM
trans-1,2-Dichloroethene	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
trans-1,3-dichloropropene	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Trichloroethene	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Trichlorofluoromethane	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Vinyl acetate	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Vinyl chloride	ND	2,000	U	ppbv	2000	7/9/2012 10:16 PM
Xylenes, Total	3,900	6,000	J	ppbv	2000	7/9/2012 10:16 PM
Surr: 4-Bromofluorobenzene	94.2	70-130		%REC	2000	7/9/2012 10:16 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	7,400,000	2,300,000		µg/m³	20000	7/12/2012 3:16 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	U	µg/m³	20000	7/12/2012 3:16 PM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000	U	µg/m³	20000	7/12/2012 3:16 PM
Surr: 4-Bromofluorobenzene	99.0	70-130		%REC	20000	7/12/2012 3:16 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 8:00:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-034	**Matrix:**	Air
Client Sample ID:	VA8093-TB		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
1,1,2,2-Tetrachloroethane	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
1,1,2-Trichloroethane	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
1,1-Dichloroethane	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
1,1-Dichloroethene	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
1,2,4-Trichlorobenzene	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
1,2,4-Trimethylbenzene	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
1,2-Dibromoethane	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
1,2-Dichlorobenzene	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
1,2-Dichloroethane	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
1,2-Dichloropropane	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
1,3,5-Trimethylbenzene	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
1,3-Butadiene	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
1,3-Dichlorobenzene	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
1,4-Dichlorobenzene	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
2-Butanone	4.4	4.0		ppbv	4	7/10/2012 12:26 AM
2-Hexanone	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
4-Methyl-2-pentanone	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Acetone	20	4.0		ppbv	4	7/10/2012 12:26 AM
Benzene	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Benzyl chloride	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Bromodichloromethane	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Bromoform	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Bromomethane	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Carbon disulfide	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Carbon tetrachloride	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Chlorobenzene	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Chlorodibromomethane	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Chloroethane	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Chloroform	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Chloromethane	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
cis-1,2-Dichloroethene	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
cis-1,3-dichloropropene	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Cyclohexane	5.2	8.0	J	ppbv	4	7/10/2012 12:26 AM
Dichlorodifluoromethane	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Ethyl acetate	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Ethylbenzene	ND	8.0	U	ppbv	4	7/10/2012 12:26 AM
Heptane	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Hexachlorobutadiene	ND	8.0	U	ppbv	4	7/10/2012 12:26 AM
m,p-Xylene	4.2	8.0	J	ppbv	4	7/10/2012 12:26 AM
Methylene chloride	30	20		ppbv	4	7/10/2012 12:26 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 8:00:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-034	**Matrix:**	Air
Client Sample ID:	VA8093-TB		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
n-Hexane	17	8.0		ppbv	4	7/10/2012 12:26 AM
Naphthalene	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
o-Xylene	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Propylene	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Styrene	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
tert-Butyl Methyl Ether	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Tetrachloroethene	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Tetrahydrofuran	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Toluene	22	4.0		ppbv	4	7/10/2012 12:26 AM
trans-1,2-Dichloroethene	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
trans-1,3-dichloropropene	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Trichloroethene	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Trichlorofluoromethane	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Vinyl acetate	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Vinyl chloride	ND	4.0	U	ppbv	4	7/10/2012 12:26 AM
Xylenes, Total	4.2	12	J	ppbv	4	7/10/2012 12:26 AM
Surr: 4-Bromofluorobenzene	95.8	70-130		%REC	4	7/10/2012 12:26 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 3:26:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-035	**Matrix:**	Air
Client Sample ID:	VA9056		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	2.7	0.10		%	1	7/2/2012 2:13 PM
Carbon Monoxide	ND	0.10	U	%	1	7/2/2012 2:13 PM
Methane	ND	0.50	U	%	1	7/2/2012 2:13 PM
Nitrogen	81	0.10		%	1	7/2/2012 2:13 PM
Oxygen	15	0.10		%	1	7/2/2012 2:13 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	7/13/2012 2:33 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	7/13/2012 2:33 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	7/13/2012 2:33 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	7/13/2012 2:33 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	7/13/2012 2:33 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	7/13/2012 2:33 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	7/13/2012 2:33 PM
1,2,4-Trimethylbenzene	560	400		ppbv	400	7/13/2012 2:33 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	7/13/2012 2:33 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	7/13/2012 2:33 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	7/13/2012 2:33 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	7/13/2012 2:33 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	7/13/2012 2:33 PM
1,3-Butadiene	ND	400	U	ppbv	400	7/13/2012 2:33 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	7/13/2012 2:33 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	7/13/2012 2:33 PM
2-Butanone	470	400		ppbv	400	7/13/2012 2:33 PM
2-Hexanone	ND	400	U	ppbv	400	7/13/2012 2:33 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Acetone	1,700	400		ppbv	400	7/13/2012 2:33 PM
Benzene	2,300	400		ppbv	400	7/13/2012 2:33 PM
Benzyl chloride	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Bromodichloromethane	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Bromoform	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Bromomethane	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Carbon disulfide	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Carbon tetrachloride	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Chlorobenzene	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Chlorodibromomethane	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Chloroethane	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Chloroform	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Chloromethane	ND	400	U	ppbv	400	7/13/2012 2:33 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	7/13/2012 2:33 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	7/13/2012 2:33 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 3:26:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-035	**Matrix:**	Air
Client Sample ID:	VA9056		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	6,200	800		ppbv	400	7/13/2012 2:33 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Ethyl acetate	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Ethylbenzene	1,700	800		ppbv	400	7/13/2012 2:33 PM
Heptane	8,100	400		ppbv	400	7/13/2012 2:33 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	7/13/2012 2:33 PM
m,p-Xylene	4,900	800		ppbv	400	7/13/2012 2:33 PM
Methylene chloride	1,400	2,000	J	ppbv	400	7/13/2012 2:33 PM
n-Hexane	3,000	800		ppbv	400	7/13/2012 2:33 PM
Naphthalene	ND	400	U	ppbv	400	7/13/2012 2:33 PM
o-Xylene	1,500	400		ppbv	400	7/13/2012 2:33 PM
Propylene	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Styrene	ND	400	U	ppbv	400	7/13/2012 2:33 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Tetrachloroethene	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Tetrahydrofuran	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Toluene	15,000	400		ppbv	400	7/13/2012 2:33 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	7/13/2012 2:33 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Trichloroethene	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Vinyl acetate	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Vinyl chloride	ND	400	U	ppbv	400	7/13/2012 2:33 PM
Xylenes, Total	6,400	1,200		ppbv	400	7/13/2012 2:33 PM
Surr: 4-Bromofluorobenzene	94.0	70-130		%REC	400	7/13/2012 2:33 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	630,000	94,000	H	µg/m³	800	7/18/2012 7:58 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	UH	µg/m³	800	7/18/2012 7:58 PM
C9-C12 Aliphatic Hydrocarbons	220,000	150,000	H	µg/m³	800	7/18/2012 7:58 PM
Surr: 4-Bromofluorobenzene	100	70-130	H	%REC	800	7/18/2012 7:58 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 3:26:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-036	**Matrix:**	Air
Client Sample ID:	VA9057		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	2.5	0.10		%	1	7/2/2012 2:28 PM
Carbon Monoxide	ND	0.10	U	%	1	7/2/2012 2:28 PM
Methane	ND	0.50	U	%	1	7/2/2012 2:28 PM
Nitrogen	80	0.10		%	1	7/2/2012 2:28 PM
Oxygen	15	0.10		%	1	7/2/2012 2:28 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	7/13/2012 3:19 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	7/13/2012 3:19 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	7/13/2012 3:19 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	7/13/2012 3:19 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	7/13/2012 3:19 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	7/13/2012 3:19 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	7/13/2012 3:19 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	7/13/2012 3:19 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	7/13/2012 3:19 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	7/13/2012 3:19 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	7/13/2012 3:19 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	7/13/2012 3:19 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	7/13/2012 3:19 PM
1,3-Butadiene	ND	400	U	ppbv	400	7/13/2012 3:19 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	7/13/2012 3:19 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	7/13/2012 3:19 PM
2-Butanone	ND	400	U	ppbv	400	7/13/2012 3:19 PM
2-Hexanone	ND	400	U	ppbv	400	7/13/2012 3:19 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Acetone	640	400		ppbv	400	7/13/2012 3:19 PM
Benzene	430	400		ppbv	400	7/13/2012 3:19 PM
Benzyl chloride	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Bromodichloromethane	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Bromoform	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Bromomethane	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Carbon disulfide	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Carbon tetrachloride	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Chlorobenzene	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Chlorodibromomethane	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Chloroethane	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Chloroform	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Chloromethane	ND	400	U	ppbv	400	7/13/2012 3:19 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	7/13/2012 3:19 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	7/13/2012 3:19 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 3:26:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-036	**Matrix:**	Air
Client Sample ID:	VA9057		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,100	800		ppbv	400	7/13/2012 3:19 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Ethyl acetate	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Ethylbenzene	430	800	J	ppbv	400	7/13/2012 3:19 PM
Heptane	1,300	400		ppbv	400	7/13/2012 3:19 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	7/13/2012 3:19 PM
m,p-Xylene	1,200	800		ppbv	400	7/13/2012 3:19 PM
Methylene chloride	ND	2,000	U	ppbv	400	7/13/2012 3:19 PM
n-Hexane	560	800	J	ppbv	400	7/13/2012 3:19 PM
Naphthalene	ND	400	U	ppbv	400	7/13/2012 3:19 PM
o-Xylene	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Propylene	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Styrene	ND	400	U	ppbv	400	7/13/2012 3:19 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Tetrachloroethene	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Tetrahydrofuran	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Toluene	2,800	400		ppbv	400	7/13/2012 3:19 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	7/13/2012 3:19 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Trichloroethene	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Vinyl acetate	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Vinyl chloride	ND	400	U	ppbv	400	7/13/2012 3:19 PM
Xylenes, Total	1,200	1,200		ppbv	400	7/13/2012 3:19 PM
Surr: 4-Bromofluorobenzene	96.3	70-130		%REC	400	7/13/2012 3:19 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	210,000	94,000	H	µg/m³	800	7/18/2012 8:44 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	UH	µg/m³	800	7/18/2012 8:44 PM
C9-C12 Aliphatic Hydrocarbons	91,000	150,000	JH	µg/m³	800	7/18/2012 8:44 PM
Surr: 4-Bromofluorobenzene	103	70-130	H	%REC	800	7/18/2012 8:44 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 3:45:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-037	**Matrix:**	Air
Client Sample ID:	VA9058		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	8.9	0.10		%	1	7/2/2012 2:44 PM
Carbon Monoxide	0.15	0.10		%	1	7/2/2012 2:44 PM
Methane	ND	0.50	U	%	1	7/2/2012 2:44 PM
Nitrogen	85	0.10		%	1	7/2/2012 2:44 PM
Oxygen	2.7	0.10		%	1	7/2/2012 2:44 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	7/12/2012 4:17 AM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	7/12/2012 4:17 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	7/12/2012 4:17 AM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	7/12/2012 4:17 AM
1,1-Dichloroethane	ND	400	U	ppbv	400	7/12/2012 4:17 AM
1,1-Dichloroethene	ND	400	U	ppbv	400	7/12/2012 4:17 AM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	7/12/2012 4:17 AM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	7/12/2012 4:17 AM
1,2-Dibromoethane	ND	400	U	ppbv	400	7/12/2012 4:17 AM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	7/12/2012 4:17 AM
1,2-Dichloroethane	ND	400	U	ppbv	400	7/12/2012 4:17 AM
1,2-Dichloropropane	ND	400	U	ppbv	400	7/12/2012 4:17 AM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	7/12/2012 4:17 AM
1,3-Butadiene	520	400		ppbv	400	7/12/2012 4:17 AM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	7/12/2012 4:17 AM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	7/12/2012 4:17 AM
2-Butanone	500	400		ppbv	400	7/12/2012 4:17 AM
2-Hexanone	ND	400	U	ppbv	400	7/12/2012 4:17 AM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Acetone	4,000	400		ppbv	400	7/12/2012 4:17 AM
Benzene	970	400		ppbv	400	7/12/2012 4:17 AM
Benzyl chloride	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Bromodichloromethane	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Bromoform	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Bromomethane	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Carbon disulfide	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Carbon tetrachloride	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Chlorobenzene	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Chlorodibromomethane	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Chloroethane	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Chloroform	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Chloromethane	ND	400	U	ppbv	400	7/12/2012 4:17 AM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	7/12/2012 4:17 AM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	7/12/2012 4:17 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/13/2012 3:45:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-037	**Matrix:**	Air
Client Sample ID:	VA9058		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	2,600	800		ppbv	400	7/12/2012 4:17 AM
Dichlorodifluoromethane	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Ethyl acetate	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Ethylbenzene	ND	800	U	ppbv	400	7/12/2012 4:17 AM
Heptane	3,200	400		ppbv	400	7/12/2012 4:17 AM
Hexachlorobutadiene	ND	800	U	ppbv	400	7/12/2012 4:17 AM
m,p-Xylene	420	800	J	ppbv	400	7/12/2012 4:17 AM
Methylene chloride	4,400	2,000		ppbv	400	7/12/2012 4:17 AM
n-Hexane	2,400	800		ppbv	400	7/12/2012 4:17 AM
Naphthalene	ND	400	U	ppbv	400	7/12/2012 4:17 AM
o-Xylene	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Propylene	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Styrene	ND	400	U	ppbv	400	7/12/2012 4:17 AM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Tetrachloroethene	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Tetrahydrofuran	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Toluene	1,400	400		ppbv	400	7/12/2012 4:17 AM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	7/12/2012 4:17 AM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Trichloroethene	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Trichlorofluoromethane	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Vinyl acetate	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Vinyl chloride	ND	400	U	ppbv	400	7/12/2012 4:17 AM
Xylenes, Total	420	1,200	J	ppbv	400	7/12/2012 4:17 AM
Surr: 4-Bromofluorobenzene	98.4	70-130		%REC	400	7/12/2012 4:17 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	220,000	47,000		µg/m³	400	7/13/2012 2:35 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	7/13/2012 2:35 PM
C9-C12 Aliphatic Hydrocarbons	30,000	76,000	J	µg/m³	400	7/13/2012 2:35 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	400	7/13/2012 2:35 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 1:09:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-038	**Matrix:**	Air
Client Sample ID:	VA9059		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	8.9	0.10		%	1	7/2/2012 2:59 PM
Carbon Monoxide	ND	0.10	U	%	1	7/2/2012 2:59 PM
Methane	ND	0.50	U	%	1	7/2/2012 2:59 PM
Nitrogen	85	0.10		%	1	7/2/2012 2:59 PM
Oxygen	3.3	0.10		%	1	7/2/2012 2:59 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	7/13/2012 4:18 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	7/13/2012 4:18 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	7/13/2012 4:18 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	7/13/2012 4:18 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	7/13/2012 4:18 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	7/13/2012 4:18 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	7/13/2012 4:18 AM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	7/13/2012 4:18 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	7/13/2012 4:18 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	7/13/2012 4:18 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	7/13/2012 4:18 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	7/13/2012 4:18 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	7/13/2012 4:18 AM
1,3-Butadiene	ND	40	U	ppbv	40	7/13/2012 4:18 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	7/13/2012 4:18 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	7/13/2012 4:18 AM
2-Butanone	ND	40	U	ppbv	40	7/13/2012 4:18 AM
2-Hexanone	ND	40	U	ppbv	40	7/13/2012 4:18 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Acetone	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Benzene	900	40		ppbv	40	7/13/2012 4:18 AM
Benzyl chloride	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Bromodichloromethane	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Bromoform	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Bromomethane	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Carbon disulfide	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Carbon tetrachloride	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Chlorobenzene	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Chlorodibromomethane	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Chloroethane	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Chloroform	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Chloromethane	ND	40	U	ppbv	40	7/13/2012 4:18 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	7/13/2012 4:18 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	7/13/2012 4:18 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 1:09:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-038	**Matrix:**	Air
Client Sample ID:	VA9059		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	650	80		ppbv	40	7/13/2012 4:18 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Ethyl acetate	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Ethylbenzene	50	80	J	ppbv	40	7/13/2012 4:18 AM
Heptane	530	40		ppbv	40	7/13/2012 4:18 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	7/13/2012 4:18 AM
m,p-Xylene	140	80		ppbv	40	7/13/2012 4:18 AM
Methylene chloride	ND	200	U	ppbv	40	7/13/2012 4:18 AM
n-Hexane	450	80		ppbv	40	7/13/2012 4:18 AM
Naphthalene	ND	40	U	ppbv	40	7/13/2012 4:18 AM
o-Xylene	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Propylene	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Styrene	ND	40	U	ppbv	40	7/13/2012 4:18 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Tetrachloroethene	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Tetrahydrofuran	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Toluene	1,100	40		ppbv	40	7/13/2012 4:18 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	7/13/2012 4:18 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Trichloroethene	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Vinyl acetate	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Vinyl chloride	ND	40	U	ppbv	40	7/13/2012 4:18 AM
Xylenes, Total	140	120		ppbv	40	7/13/2012 4:18 AM
Surr: 4-Bromofluorobenzene	93.9	70-130		%REC	40	7/13/2012 4:18 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	33,000	4,700		µg/m³	40	7/14/2012 4:16 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	7/14/2012 4:16 AM
C9-C12 Aliphatic Hydrocarbons	5,100	7,600	J	µg/m³	40	7/14/2012 4:16 AM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	40	7/14/2012 4:16 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 9:41:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-039	**Matrix:**	Air
Client Sample ID:	VA9060		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.070	0.10	J	%	1	7/2/2012 3:15 PM
Carbon Monoxide	ND	0.10	U	%	1	7/2/2012 3:15 PM
Methane	ND	0.50	U	%	1	7/2/2012 3:15 PM
Nitrogen	77	0.10		%	1	7/2/2012 3:15 PM
Oxygen	21	0.10		%	1	7/2/2012 3:15 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	7/13/2012 1:25 AM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	7/13/2012 1:25 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	7/13/2012 1:25 AM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	7/13/2012 1:25 AM
1,1-Dichloroethane	ND	400	U	ppbv	400	7/13/2012 1:25 AM
1,1-Dichloroethene	ND	400	U	ppbv	400	7/13/2012 1:25 AM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	7/13/2012 1:25 AM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	7/13/2012 1:25 AM
1,2-Dibromoethane	ND	400	U	ppbv	400	7/13/2012 1:25 AM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	7/13/2012 1:25 AM
1,2-Dichloroethane	ND	400	U	ppbv	400	7/13/2012 1:25 AM
1,2-Dichloropropane	ND	400	U	ppbv	400	7/13/2012 1:25 AM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	7/13/2012 1:25 AM
1,3-Butadiene	460	400		ppbv	400	7/13/2012 1:25 AM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	7/13/2012 1:25 AM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	7/13/2012 1:25 AM
2-Butanone	870	400		ppbv	400	7/13/2012 1:25 AM
2-Hexanone	ND	400	U	ppbv	400	7/13/2012 1:25 AM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Acetone	2,000	400		ppbv	400	7/13/2012 1:25 AM
Benzene	11,000	400		ppbv	400	7/13/2012 1:25 AM
Benzyl chloride	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Bromodichloromethane	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Bromoform	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Bromomethane	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Carbon disulfide	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Carbon tetrachloride	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Chlorobenzene	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Chlorodibromomethane	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Chloroethane	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Chloroform	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Chloromethane	ND	400	U	ppbv	400	7/13/2012 1:25 AM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	7/13/2012 1:25 AM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	7/13/2012 1:25 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 9:41:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-039	**Matrix:**	Air
Client Sample ID:	VA9060		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	15,000	800		ppbv	400	7/13/2012 1:25 AM
Dichlorodifluoromethane	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Ethyl acetate	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Ethylbenzene	590	800	J	ppbv	400	7/13/2012 1:25 AM
Heptane	11,000	400		ppbv	400	7/13/2012 1:25 AM
Hexachlorobutadiene	ND	800	U	ppbv	400	7/13/2012 1:25 AM
m,p-Xylene	1,300	800		ppbv	400	7/13/2012 1:25 AM
Methylene chloride	ND	2,000	U	ppbv	400	7/13/2012 1:25 AM
n-Hexane	12,000	800		ppbv	400	7/13/2012 1:25 AM
Naphthalene	ND	400	U	ppbv	400	7/13/2012 1:25 AM
o-Xylene	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Propylene	1,300	400		ppbv	400	7/13/2012 1:25 AM
Styrene	ND	400	U	ppbv	400	7/13/2012 1:25 AM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Tetrachloroethene	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Tetrahydrofuran	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Toluene	13,000	400		ppbv	400	7/13/2012 1:25 AM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	7/13/2012 1:25 AM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Trichloroethene	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Trichlorofluoromethane	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Vinyl acetate	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Vinyl chloride	ND	400	U	ppbv	400	7/13/2012 1:25 AM
Xylenes, Total	1,300	1,200		ppbv	400	7/13/2012 1:25 AM
Surr: 4-Bromofluorobenzene	95.0	70-130		%REC	400	7/13/2012 1:25 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	850,000	94,000		µg/m³	800	7/13/2012 11:44 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	7/13/2012 11:44 PM
C9-C12 Aliphatic Hydrocarbons	110,000	150,000	J	µg/m³	800	7/13/2012 11:44 PM
Surr: 4-Bromofluorobenzene	97.4	70-130		%REC	800	7/13/2012 11:44 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 8:42:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-040	**Matrix:**	Air
Client Sample ID:	VA9061		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	5.8	0.10		%	1	7/2/2012 3:30 PM
Carbon Monoxide	0.63	0.10		%	1	7/2/2012 3:30 PM
Methane	ND	0.50	U	%	1	7/2/2012 3:30 PM
Nitrogen	82	0.10		%	1	7/2/2012 3:30 PM
Oxygen	8.1	0.10		%	1	7/2/2012 3:30 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
1,3-Butadiene	49,000	8,000		ppbv	8000	7/11/2012 11:21 PM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
2-Butanone	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
2-Hexanone	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Acetone	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Benzene	120,000	8,000		ppbv	8000	7/11/2012 11:21 PM
Benzyl chloride	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Bromodichloromethane	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Bromoform	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Bromomethane	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Carbon disulfide	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Chlorobenzene	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Chloroethane	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Chloroform	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Chloromethane	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 8:42:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-040	**Matrix:**	Air
Client Sample ID:	VA9061		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	160,000	16,000		ppbv	8000	7/11/2012 11:21 PM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Ethyl acetate	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Ethylbenzene	ND	16,000	U	ppbv	8000	7/11/2012 11:21 PM
Heptane	88,000	8,000		ppbv	8000	7/11/2012 11:21 PM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	7/11/2012 11:21 PM
m,p-Xylene	ND	16,000	U	ppbv	8000	7/11/2012 11:21 PM
Methylene chloride	ND	40,000	U	ppbv	8000	7/11/2012 11:21 PM
n-Hexane	150,000	16,000		ppbv	8000	7/11/2012 11:21 PM
Naphthalene	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
o-Xylene	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Propylene	470,000	20,000		ppbv	20000	7/12/2012 11:49 PM
Styrene	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Tetrachloroethene	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Toluene	27,000	8,000		ppbv	8000	7/11/2012 11:21 PM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Trichloroethene	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Vinyl acetate	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Vinyl chloride	ND	8,000	U	ppbv	8000	7/11/2012 11:21 PM
Xylenes, Total	ND	24,000	U	ppbv	8000	7/11/2012 11:21 PM
Surr: 4-Bromofluorobenzene	97.7	70-130		%REC	8000	7/11/2012 11:21 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	4,500,000	940,000		µg/m³	8000	7/13/2012 4:04 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	7/13/2012 4:04 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	7/13/2012 4:04 PM
Surr: 4-Bromofluorobenzene	99.5	70-130		%REC	8000	7/13/2012 4:04 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 8:50:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-041	**Matrix:**	Air
Client Sample ID:	VA9062		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	7.7	0.10		%	1	7/2/2012 3:46 PM
Carbon Monoxide	0.41	0.10		%	1	7/2/2012 3:46 PM
Methane	ND	0.50	U	%	1	7/2/2012 3:46 PM
Nitrogen	84	0.10		%	1	7/2/2012 3:46 PM
Oxygen	4.6	0.10		%	1	7/2/2012 3:46 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	7/12/2012 5:02 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	7/12/2012 5:02 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	7/12/2012 5:02 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	7/12/2012 5:02 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	7/12/2012 5:02 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	7/12/2012 5:02 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	7/12/2012 5:02 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	7/12/2012 5:02 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	7/12/2012 5:02 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	7/12/2012 5:02 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	7/12/2012 5:02 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	7/12/2012 5:02 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	7/12/2012 5:02 AM
1,3-Butadiene	29,000	800		ppbv	800	7/12/2012 5:02 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	7/12/2012 5:02 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	7/12/2012 5:02 AM
2-Butanone	ND	800	U	ppbv	800	7/12/2012 5:02 AM
2-Hexanone	ND	800	U	ppbv	800	7/12/2012 5:02 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Acetone	2,900	800		ppbv	800	7/12/2012 5:02 AM
Benzene	34,000	8,000		ppbv	8000	7/12/2012 12:02 AM
Benzyl chloride	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Bromodichloromethane	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Bromoform	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Bromomethane	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Carbon disulfide	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Carbon tetrachloride	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Chlorobenzene	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Chlorodibromomethane	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Chloroethane	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Chloroform	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Chloromethane	ND	800	U	ppbv	800	7/12/2012 5:02 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	7/12/2012 5:02 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	7/12/2012 5:02 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 8:50:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-041	**Matrix:**	Air
Client Sample ID:	VA9062		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	20,000	1,600		ppbv	800	7/12/2012 5:02 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Ethyl acetate	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Ethylbenzene	920	1,600	J	ppbv	800	7/12/2012 5:02 AM
Heptane	11,000	800		ppbv	800	7/12/2012 5:02 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	7/12/2012 5:02 AM
m,p-Xylene	1,500	1,600	J	ppbv	800	7/12/2012 5:02 AM
Methylene chloride	3,400	4,000	J	ppbv	800	7/12/2012 5:02 AM
n-Hexane	20,000	1,600		ppbv	800	7/12/2012 5:02 AM
Naphthalene	ND	800	U	ppbv	800	7/12/2012 5:02 AM
o-Xylene	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Propylene	300,000	8,000		ppbv	8000	7/12/2012 12:02 AM
Styrene	ND	800	U	ppbv	800	7/12/2012 5:02 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Tetrachloroethene	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Tetrahydrofuran	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Toluene	18,000	800		ppbv	800	7/12/2012 5:02 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	7/12/2012 5:02 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Trichloroethene	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Vinyl acetate	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Vinyl chloride	ND	800	U	ppbv	800	7/12/2012 5:02 AM
Xylenes, Total	1,500	2,400	J	ppbv	800	7/12/2012 5:02 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	800	7/12/2012 5:02 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	870,000	190,000		µg/m³	1600	7/13/2012 4:49 PM
C9-C10 Aromatic Hydrocarbons	ND	210,000	U	µg/m³	1600	7/13/2012 4:49 PM
C9-C12 Aliphatic Hydrocarbons	95,000	300,000	J	µg/m³	1600	7/13/2012 4:49 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1600	7/13/2012 4:49 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 12:00:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-042	**Matrix:**	Air
Client Sample ID:	VA9063		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.12	0.10		%	1	7/3/2012 10:50 AM
Carbon Monoxide	ND	0.10	U	%	1	7/3/2012 10:50 AM
Methane	ND	0.50	U	%	1	7/3/2012 10:50 AM
Nitrogen	78	0.10		%	1	7/3/2012 10:50 AM
Oxygen	21	0.10		%	1	7/3/2012 10:50 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
1,3-Butadiene	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
2-Butanone	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
2-Hexanone	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Acetone	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Benzene	36,000	8,000		ppbv	8000	7/12/2012 2:40 PM
Benzyl chloride	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Bromodichloromethane	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Bromoform	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Bromomethane	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Carbon disulfide	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Chlorobenzene	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Chloroethane	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Chloroform	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Chloromethane	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 12:00:00 PM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-042	**Matrix:**	Air
Client Sample ID:	VA9063		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	110,000	16,000		ppbv	8000	7/12/2012 2:40 PM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Ethyl acetate	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Ethylbenzene	ND	16,000	U	ppbv	8000	7/12/2012 2:40 PM
Heptane	55,000	8,000		ppbv	8000	7/12/2012 2:40 PM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	7/12/2012 2:40 PM
m,p-Xylene	ND	16,000	U	ppbv	8000	7/12/2012 2:40 PM
Methylene chloride	ND	40,000	U	ppbv	8000	7/12/2012 2:40 PM
n-Hexane	100,000	16,000		ppbv	8000	7/12/2012 2:40 PM
Naphthalene	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
o-Xylene	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Propylene	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Styrene	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Tetrachloroethene	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Toluene	37,000	8,000		ppbv	8000	7/12/2012 2:40 PM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Trichloroethene	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Vinyl acetate	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Vinyl chloride	ND	8,000	U	ppbv	8000	7/12/2012 2:40 PM
Xylenes, Total	ND	24,000	U	ppbv	8000	7/12/2012 2:40 PM
Surr: 4-Bromofluorobenzene	99.5	70-130		%REC	8000	7/12/2012 2:40 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	4,400,000	940,000		µg/m³	8000	7/14/2012 2:00 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	7/14/2012 2:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	7/14/2012 2:00 AM
Surr: 4-Bromofluorobenzene	98.0	70-130		%REC	8000	7/14/2012 2:00 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 11:38:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-043	**Matrix:**	Air
Client Sample ID:	VA9065		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	7.8	0.10		%	1	7/3/2012 11:05 AM
Carbon Monoxide	0.25	0.10		%	1	7/3/2012 11:05 AM
Methane	ND	0.50	U	%	1	7/3/2012 11:05 AM
Nitrogen	85	0.10		%	1	7/3/2012 11:05 AM
Oxygen	3.1	0.10		%	1	7/3/2012 11:05 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	7/13/2012 3:37 AM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	7/13/2012 3:37 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	7/13/2012 3:37 AM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	7/13/2012 3:37 AM
1,1-Dichloroethane	ND	400	U	ppbv	400	7/13/2012 3:37 AM
1,1-Dichloroethene	ND	400	U	ppbv	400	7/13/2012 3:37 AM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	7/13/2012 3:37 AM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	7/13/2012 3:37 AM
1,2-Dibromoethane	ND	400	U	ppbv	400	7/13/2012 3:37 AM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	7/13/2012 3:37 AM
1,2-Dichloroethane	ND	400	U	ppbv	400	7/13/2012 3:37 AM
1,2-Dichloropropane	ND	400	U	ppbv	400	7/13/2012 3:37 AM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	7/13/2012 3:37 AM
1,3-Butadiene	12,000	400		ppbv	400	7/13/2012 3:37 AM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	7/13/2012 3:37 AM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	7/13/2012 3:37 AM
2-Butanone	ND	400	U	ppbv	400	7/13/2012 3:37 AM
2-Hexanone	ND	400	U	ppbv	400	7/13/2012 3:37 AM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	7/13/2012 3:37 AM
Acetone	780	400		ppbv	400	7/13/2012 3:37 AM
Benzene	20,000	400		ppbv	400	7/13/2012 3:37 AM
Benzyl chloride	ND	400	U	ppbv	400	7/13/2012 3:37 AM
Bromodichloromethane	ND	400	U	ppbv	400	7/13/2012 3:37 AM
Bromoform	ND	400	U	ppbv	400	7/13/2012 3:37 AM
Bromomethane	ND	400	U	ppbv	400	7/13/2012 3:37 AM
Carbon disulfide	ND	400	U	ppbv	400	7/13/2012 3:37 AM
Carbon tetrachloride	ND	400	U	ppbv	400	7/13/2012 3:37 AM
Chlorobenzene	ND	400	U	ppbv	400	7/13/2012 3:37 AM
Chlorodibromomethane	ND	400	U	ppbv	400	7/13/2012 3:37 AM
Chloroethane	ND	400	U	ppbv	400	7/13/2012 3:37 AM
Chloroform	ND	400	U	ppbv	400	7/13/2012 3:37 AM
Chloromethane	ND	400	U	ppbv	400	7/13/2012 3:37 AM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	7/13/2012 3:37 AM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	7/13/2012 3:37 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 11:38:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-043	**Matrix:**	Air
Client Sample ID:	VA9065		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	3,600	800		ppbv	400	7/13/2012 3:37 AM
Dichlorodifluoromethane	ND	400	U	ppbv	400	7/13/2012 3:37 AM
Ethyl acetate	ND	400	U	ppbv	400	7/13/2012 3:37 AM
Ethylbenzene	900	800		ppbv	400	7/13/2012 3:37 AM
Heptane	2,600	400		ppbv	400	7/13/2012 3:37 AM
Hexachlorobutadiene	ND	800	U	ppbv	400	7/13/2012 3:37 AM
m,p-Xylene	2,400	800		ppbv	400	7/13/2012 3:37 AM
Methylene chloride	ND	2,000	U	ppbv	400	7/13/2012 3:37 AM
n-Hexane	3,500	800		ppbv	400	7/13/2012 3:37 AM
Naphthalene	ND	400	U	ppbv	400	7/13/2012 3:37 AM
o-Xylene	730	400		ppbv	400	7/13/2012 3:37 AM
Propylene	130,000	8,000		ppbv	8000	7/12/2012 1:58 PM
Styrene	ND	400	U	ppbv	400	7/13/2012 3:37 AM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	7/13/2012 3:37 AM
Tetrachloroethene	ND	400	U	ppbv	400	7/13/2012 3:37 AM
Tetrahydrofuran	ND	400	U	ppbv	400	7/13/2012 3:37 AM
Toluene	14,000	400		ppbv	400	7/13/2012 3:37 AM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	7/13/2012 3:37 AM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	7/13/2012 3:37 AM
Trichloroethene	ND	400	U	ppbv	400	7/13/2012 3:37 AM
Trichlorofluoromethane	ND	400	U	ppbv	400	7/13/2012 3:37 AM
Vinyl acetate	ND	400	U	ppbv	400	7/13/2012 3:37 AM
Vinyl chloride	ND	400	U	ppbv	400	7/13/2012 3:37 AM
Xylenes, Total	3,100	1,200		ppbv	400	7/13/2012 3:37 AM
Surr: 4-Bromofluorobenzene	96.8	70-130		%REC	400	7/13/2012 3:37 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	270,000	94,000		µg/m³	800	7/14/2012 1:17 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	7/14/2012 1:17 AM
C9-C12 Aliphatic Hydrocarbons	86,000	150,000	J	µg/m³	800	7/14/2012 1:17 AM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	800	7/14/2012 1:17 AM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 10:47:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-044	**Matrix:**	Air
Client Sample ID:	VA9066		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.64	0.10		%	1	7/3/2012 11:22 AM
Carbon Monoxide	ND	0.10	U	%	1	7/3/2012 11:22 AM
Methane	ND	0.50	U	%	1	7/3/2012 11:22 AM
Nitrogen	78	0.10		%	1	7/3/2012 11:22 AM
Oxygen	19	0.10		%	1	7/3/2012 11:22 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
1,3-Butadiene	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
2-Butanone	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
2-Hexanone	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Acetone	9,200	8,000		ppbv	8000	7/12/2012 12:36 PM
Benzene	180,000	8,000		ppbv	8000	7/12/2012 12:36 PM
Benzyl chloride	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Bromodichloromethane	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Bromoform	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Bromomethane	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Carbon disulfide	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Chlorobenzene	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Chloroethane	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Chloroform	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Chloromethane	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 10:47:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-044	**Matrix:**	Air
Client Sample ID:	VA9066		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	250,000	40,000		ppbv	20000	7/13/2012 2:07 AM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Ethyl acetate	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Ethylbenzene	8,600	16,000	J	ppbv	8000	7/12/2012 12:36 PM
Heptane	250,000	8,000		ppbv	8000	7/12/2012 12:36 PM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	7/12/2012 12:36 PM
m,p-Xylene	23,000	16,000		ppbv	8000	7/12/2012 12:36 PM
Methylene chloride	ND	40,000	U	ppbv	8000	7/12/2012 12:36 PM
n-Hexane	280,000	40,000		ppbv	20000	7/13/2012 2:07 AM
Naphthalene	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
o-Xylene	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Propylene	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Styrene	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Tetrachloroethene	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Toluene	230,000	8,000		ppbv	8000	7/12/2012 12:36 PM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Trichloroethene	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Vinyl acetate	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Vinyl chloride	ND	8,000	U	ppbv	8000	7/12/2012 12:36 PM
Xylenes, Total	23,000	24,000	J	ppbv	8000	7/12/2012 12:36 PM
Surr: 4-Bromofluorobenzene	98.9	70-130		%REC	8000	7/12/2012 12:36 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	14,000,000	2,300,000		µg/m³	20000	7/13/2012 9:28 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	U	µg/m³	20000	7/13/2012 9:28 PM
C9-C12 Aliphatic Hydrocarbons	1,300,000	3,800,000	J	µg/m³	20000	7/13/2012 9:28 PM
Surr: 4-Bromofluorobenzene	98.7	70-130		%REC	20000	7/13/2012 9:28 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 10:47:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-045	**Matrix:**	Air
Client Sample ID:	VA9067		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.59	0.10		%	1	7/3/2012 11:37 AM
Carbon Monoxide	ND	0.10	U	%	1	7/3/2012 11:37 AM
Methane	ND	0.50	U	%	1	7/3/2012 11:37 AM
Nitrogen	78	0.10		%	1	7/3/2012 11:37 AM
Oxygen	19	0.10		%	1	7/3/2012 11:37 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
1,3-Butadiene	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
2-Butanone	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
2-Hexanone	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Acetone	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Benzene	170,000	8,000		ppbv	8000	7/12/2012 1:17 PM
Benzyl chloride	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Bromodichloromethane	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Bromoform	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Bromomethane	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Carbon disulfide	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Chlorobenzene	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Chloroethane	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Chloroform	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Chloromethane	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 10:47:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-045	**Matrix:**	Air
Client Sample ID:	VA9067		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	450,000	40,000		ppbv	20000	7/13/2012 2:48 AM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Ethyl acetate	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Ethylbenzene	ND	16,000	U	ppbv	8000	7/12/2012 1:17 PM
Heptane	240,000	8,000		ppbv	8000	7/12/2012 1:17 PM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	7/12/2012 1:17 PM
m,p-Xylene	17,000	16,000		ppbv	8000	7/12/2012 1:17 PM
Methylene chloride	ND	40,000	U	ppbv	8000	7/12/2012 1:17 PM
n-Hexane	520,000	40,000		ppbv	20000	7/13/2012 2:48 AM
Naphthalene	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
o-Xylene	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Propylene	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Styrene	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Tetrachloroethene	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Toluene	200,000	8,000		ppbv	8000	7/12/2012 1:17 PM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Trichloroethene	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Vinyl acetate	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Vinyl chloride	ND	8,000	U	ppbv	8000	7/12/2012 1:17 PM
Xylenes, Total	17,000	24,000	J	ppbv	8000	7/12/2012 1:17 PM
Surr: 4-Bromofluorobenzene	99.5	70-130		%REC	8000	7/12/2012 1:17 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	14,000,000	2,300,000		µg/m³	20000	7/13/2012 10:12 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	U	µg/m³	20000	7/13/2012 10:12 PM
C9-C12 Aliphatic Hydrocarbons	1,600,000	3,800,000	J	µg/m³	20000	7/13/2012 10:12 PM
Surr: 4-Bromofluorobenzene	97.6	70-130		%REC	20000	7/13/2012 10:12 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 10:26:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-046	**Matrix:**	Air
Client Sample ID:	VA9068		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	8.1	0.10		%	1	7/3/2012 11:52 AM
Carbon Monoxide	0.25	0.10		%	1	7/3/2012 11:52 AM
Methane	ND	0.50	U	%	1	7/3/2012 11:52 AM
Nitrogen	85	0.10		%	1	7/3/2012 11:52 AM
Oxygen	2.8	0.10		%	1	7/3/2012 11:52 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	7/12/2012 4:03 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	7/12/2012 4:03 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	7/12/2012 4:03 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	7/12/2012 4:03 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	7/12/2012 4:03 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	7/12/2012 4:03 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	7/12/2012 4:03 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	7/12/2012 4:03 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	7/12/2012 4:03 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	7/12/2012 4:03 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	7/12/2012 4:03 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	7/12/2012 4:03 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	7/12/2012 4:03 PM
1,3-Butadiene	1,600	40		ppbv	40	7/12/2012 4:03 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	7/12/2012 4:03 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	7/12/2012 4:03 PM
2-Butanone	ND	40	U	ppbv	40	7/12/2012 4:03 PM
2-Hexanone	ND	40	U	ppbv	40	7/12/2012 4:03 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	7/12/2012 4:03 PM
Acetone	130	40		ppbv	40	7/12/2012 4:03 PM
Benzene	7,100	400		ppbv	400	7/12/2012 5:53 PM
Benzyl chloride	ND	40	U	ppbv	40	7/12/2012 4:03 PM
Bromodichloromethane	ND	40	U	ppbv	40	7/12/2012 4:03 PM
Bromoform	ND	40	U	ppbv	40	7/12/2012 4:03 PM
Bromomethane	ND	40	U	ppbv	40	7/12/2012 4:03 PM
Carbon disulfide	ND	40	U	ppbv	40	7/12/2012 4:03 PM
Carbon tetrachloride	ND	40	U	ppbv	40	7/12/2012 4:03 PM
Chlorobenzene	ND	40	U	ppbv	40	7/12/2012 4:03 PM
Chlorodibromomethane	ND	40	U	ppbv	40	7/12/2012 4:03 PM
Chloroethane	ND	40	U	ppbv	40	7/12/2012 4:03 PM
Chloroform	ND	40	U	ppbv	40	7/12/2012 4:03 PM
Chloromethane	ND	40	U	ppbv	40	7/12/2012 4:03 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	7/12/2012 4:03 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	7/12/2012 4:03 PM

RTI Laboratories - Analytical Report

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/14/2012 10:26:00 AM
Project:	Kirtland AFB 140705		
Lab ID:	1206785-046	**Matrix:**	Air
Client Sample ID:	VA9068		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	3,600	800		ppbv	400	7/12/2012 5:53 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	7/12/2012 4:03 PM
Ethyl acetate	ND	40	U	ppbv	40	7/12/2012 4:03 PM
Ethylbenzene	140	80		ppbv	40	7/12/2012 4:03 PM
Heptane	2,400	400		ppbv	400	7/12/2012 5:53 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	7/12/2012 4:03 PM
m,p-Xylene	170	80		ppbv	40	7/12/2012 4:03 PM
Methylene chloride	ND	200	U	ppbv	40	7/12/2012 4:03 PM
n-Hexane	5,900	800		ppbv	400	7/12/2012 5:53 PM
Naphthalene	ND	40	U	ppbv	40	7/12/2012 4:03 PM
o-Xylene	49	40		ppbv	40	7/12/2012 4:03 PM
Propylene	14,000	400		ppbv	400	7/12/2012 5:53 PM
Styrene	95	40		ppbv	40	7/12/2012 4:03 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	7/12/2012 4:03 PM
Tetrachloroethene	ND	40	U	ppbv	40	7/12/2012 4:03 PM
Tetrahydrofuran	ND	40	U	ppbv	40	7/12/2012 4:03 PM
Toluene	2,300	400		ppbv	400	7/12/2012 5:53 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	7/12/2012 4:03 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	7/12/2012 4:03 PM
Trichloroethene	ND	40	U	ppbv	40	7/12/2012 4:03 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	7/12/2012 4:03 PM
Vinyl acetate	ND	40	U	ppbv	40	7/12/2012 4:03 PM
Vinyl chloride	ND	40	U	ppbv	40	7/12/2012 4:03 PM
Xylenes, Total	210	120		ppbv	40	7/12/2012 4:03 PM
Surr: 4-Bromofluorobenzene	95.9	70-130		%REC	40	7/12/2012 4:03 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	250,000	47,000		µg/m³	400	7/13/2012 8:45 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	7/13/2012 8:45 PM
C9-C12 Aliphatic Hydrocarbons	43,000	76,000	J	µg/m³	400	7/13/2012 8:45 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	400	7/13/2012 8:45 PM

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R49765**

Sample ID: **MBLK-062912 TCD** Samp Type: **MBLK** Test Code: **ASTM-D2504** Units: **%** Prep Date: RunNo: **49765**

Client ID: **PBW** Batch ID: **R49765** TestNo: **ASTM-D2504** Analysis Date: **6/29/2012** SeqNo: **972783**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	ND	0.10									U
Carbon Monoxide	ND	0.10									U
Methane	ND	0.50									U
Nitrogen	ND	0.10									U
Oxygen	ND	0.10									U

Sample ID: **LCS-062912 TCD-A** Samp Type: **LCS** Test Code: **ASTM-D2504** Units: **%** Prep Date: RunNo: **49765**

Client ID: **LCSW** Batch ID: **R49765** TestNo: **ASTM-D2504** Analysis Date: **6/29/2012** SeqNo: **972786**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.5	0.10	2.500	0	102	70	130	2.465	3.00	20	
Carbon Monoxide	2.6	0.10	2.500	0	105	70	130	2.571	1.96	20	
Methane	2.0	0.50	2.000	0	98.2	70	130	2.073	5.35	20	
Nitrogen	2.7	0.10	2.500	0	107	70	130	2.714	1.15	20	
Oxygen	2.6	0.10	2.500	0	102	70	130	2.566	0.195	20	

Sample ID: **1206785-010BDUP** Samp Type: **DUP** Test Code: **ASTM-D2504** Units: **%** Prep Date: RunNo: **49765**

Client ID: **VA1384** Batch ID: **R49765** TestNo: **ASTM-D2504** Analysis Date: **6/29/2012** SeqNo: **972807**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	3.1	0.10						3.108	0.0644	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	81	0.10						80.42	0.243	20	
Oxygen	14	0.10						13.96	0.208	20	

Sample ID: **1206785-020BDUP** Samp Type: **DUP** Test Code: **ASTM-D2504** Units: **%** Prep Date: RunNo: **49765**

Client ID: **VA1418** Batch ID: **R49765** TestNo: **ASTM-D2504** Analysis Date: **6/29/2012** SeqNo: **972859**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.37	0.10						0.3670	0.272	20	
Carbon Monoxide	ND	0.10						0	0	20	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID: R49765**

Sample ID:	**1206785-020BDUP**	Samp Type:	**DUP**	Test Code:	**ASTM-D2504**	Units:	**%**	Prep Date:		RunNo:	**49765**
Client ID:	**VA1418**	Batch ID:	**R49765**	TestNo:	**ASTM-D2504**			Analysis Date:	**6/29/2012**	SeqNo:	**972859**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Methane	ND	0.50						0	0	20	U
Nitrogen	77	0.10						79.20	2.62	20	
Oxygen	21	0.10						20.96	0.0620	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R49810**

Sample ID: **MBLK-070212 TCD** Samp Type: **MBLK** Test Code: **ASTM-D2504** Units: **%** Prep Date: RunNo: **49810**

Client ID: **PBW** Batch ID: **R49810** TestNo: **ASTM-D2504** Analysis Date: **7/2/2012** SeqNo: **973840**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	ND	0.10									U
Carbon Monoxide	ND	0.10									U
Methane	ND	0.50									U
Nitrogen	ND	0.10									U
Oxygen	ND	0.10									U

Sample ID: **LCS-070212 TCD-A** Samp Type: **LCS** Test Code: **ASTM-D2504** Units: **%** Prep Date: RunNo: **49810**

Client ID: **LCSW** Batch ID: **R49810** TestNo: **ASTM-D2504** Analysis Date: **7/2/2012** SeqNo: **973842**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.5	0.10	2.500	0	101	70	130	2.533	0.634	20	
Carbon Monoxide	2.6	0.10	2.500	0	105	70	130	2.629	0.190	20	
Methane	2.0	0.50	2.000	0	98.3	70	130	2.027	3.06	20	
Nitrogen	2.7	0.10	2.500	0	108	70	130	2.728	0.662	20	
Oxygen	2.6	0.10	2.500	0	103	70	130	2.573	0.350	20	

Sample ID: **1206785-030BDUP** Samp Type: **DUP** Test Code: **ASTM-D2504** Units: **%** Prep Date: RunNo: **49810**

Client ID: **VA1493** Batch ID: **R49810** TestNo: **ASTM-D2504** Analysis Date: **7/2/2012** SeqNo: **973854**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.23	0.10						0.2360	0.851	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	78	0.10						77.61	0.282	20	
Oxygen	20	0.10						20.03	0.209	20	

Sample ID: **1206785-041BDUP** Samp Type: **DUP** Test Code: **ASTM-D2504** Units: **%** Prep Date: RunNo: **49810**

Client ID: **VA9062** Batch ID: **R49810** TestNo: **ASTM-D2504** Analysis Date: **7/2/2012** SeqNo: **973866**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	7.7	0.10						7.720	0.885	20	
Carbon Monoxide	0.40	0.10						0.4080	1.23	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R49810**

Sample ID:	**1206785-041BDUP**	Samp Type:	**DUP**	Test Code:	**ASTM-D2504**	Units:	**%**	Prep Date:		RunNo:	**49810**
Client ID:	**VA9062**	Batch ID:	**R49810**	TestNo:	**ASTM-D2504**			Analysis Date:	**7/2/2012**	SeqNo:	**973866**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Methane	ND	0.50						0	0	20	U
Nitrogen	84	0.10						84.01	0.410	20	
Oxygen	4.6	0.10						4.552	1.63	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R49857**

Sample ID: **MBLK-070312 TCD** Samp Type: **MBLK** Test Code: **ASTM-D2504** Units: **%** Prep Date: RunNo: **49857**

Client ID: **PBW** Batch ID: **R49857** TestNo: **ASTM-D2504** Analysis Date: **7/3/2012** SeqNo: **974718**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	ND	0.10									U
Carbon Monoxide	ND	0.10									U
Methane	ND	0.50									U
Nitrogen	ND	0.10									U
Oxygen	ND	0.10									U

Sample ID: **LCS-070312 TCD-A** Samp Type: **LCS** Test Code: **ASTM-D2504** Units: **%** Prep Date: RunNo: **49857**

Client ID: **LCSW** Batch ID: **R49857** TestNo: **ASTM-D2504** Analysis Date: **7/3/2012** SeqNo: **974720**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.5	0.10	2.500	0	101	70	130	2.537	0	20	
Carbon Monoxide	2.6	0.10	2.500	0	105	70	130	2.637	0.0759	20	
Methane	2.0	0.50	2.000	0	98.7	70	130	2.035	3.04	20	
Nitrogen	2.7	0.10	2.500	0	108	70	130	2.701	0.445	20	
Oxygen	2.6	0.10	2.500	0	103	70	130	2.574	0.233	20	

Sample ID: **1206952-005BDUP** Samp Type: **DUP** Test Code: **ASTM-D2504** Units: **%** Prep Date: RunNo: **49857**

Client ID: **ZZZZZZ** Batch ID: **R49857** TestNo: **ASTM-D2504** Analysis Date: **7/3/2012** SeqNo: **974732**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.30	0.10						0.3000	0.334	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	79	0.10						77.86	1.12	20	
Oxygen	20	0.10						19.35	1.16	20	

Sample ID: **1206952-010BDUP** Samp Type: **DUP** Test Code: **ASTM-D2504** Units: **%** Prep Date: RunNo: **49857**

Client ID: **ZZZZZZ** Batch ID: **R49857** TestNo: **ASTM-D2504** Analysis Date: **7/3/2012** SeqNo: **974739**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.26	0.10						0.2670	0.752	20	
Carbon Monoxide	ND	0.10						0	0	20	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R49857**

Sample ID:	**1206952-010BDUP**	Samp Type:	**DUP**	Test Code:	**ASTM-D2504**	Units:	**%**	Prep Date:		RunNo:	**49857**
Client ID:	**ZZZZZZ**	Batch ID:	**R49857**	TestNo:	**ASTM-D2504**			Analysis Date:	**7/3/2012**	SeqNo:	**974739**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Methane	ND	0.50						0	0	20	U
Nitrogen	78	0.10						78.29	0.137	20	
Oxygen	19	0.10						19.03	0.195	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R49973**

Sample ID:	**MBLK VOA1 070512**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49973**
Client ID:	**PBW**	Batch ID:	**R49973**	TestNo:	**TO-15**			Analysis Date:	**7/5/2012**	SeqNo:	**977440**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	1.0									U
1,1,2,2-Tetrachloroethane	ND	1.0									U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0									U
1,1,2-Trichloroethane	ND	1.0									U
1,1-Dichloroethane	ND	1.0									U
1,1-Dichloroethene	ND	1.0									U
1,2,4-Trichlorobenzene	ND	1.0									U
1,2,4-Trimethylbenzene	ND	1.0									U
1,2-Dibromoethane	ND	1.0									U
1,2-Dichlorobenzene	ND	1.0									U
1,2-Dichloroethane	ND	1.0									U
1,2-Dichloropropane	ND	1.0									U
1,3,5-Trimethylbenzene	ND	1.0									U
1,3-Butadiene	ND	1.0									U
1,3-Dichlorobenzene	ND	1.0									U
1,4-Dichlorobenzene	ND	1.0									U
2-Butanone	ND	1.0									U
2-Hexanone	ND	1.0									U
4-Methyl-2-pentanone	ND	1.0									U
Acetone	ND	1.0									U
Benzene	ND	1.0									U
Benzyl chloride	ND	1.0									U
Bromodichloromethane	ND	1.0									U
Bromoform	ND	1.0									U
Bromomethane	ND	1.0									U
Carbon disulfide	ND	1.0									U
Carbon tetrachloride	ND	1.0									U
Chlorobenzene	ND	1.0									U
Chlorodibromomethane	ND	1.0									U
Chloroethane	ND	1.0									U
Chloroform	ND	1.0									U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R49973**

Sample ID:	**MBLK VOA1 070512**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49973**
Client ID:	**PBW**	Batch ID:	**R49973**	TestNo:	**TO-15**			Analysis Date:	**7/5/2012**	SeqNo:	**977440**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	12		12.50		95.9	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R49973**

Sample ID:	**1206785-010Adup**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49973**
Client ID:	**VA1384**	Batch ID:	**R49973**	TestNo:	**TO-15**			Analysis Date:	**7/6/2012**	SeqNo:	**977455**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	40,000						0	0	25	
1,1,2,2-Tetrachloroethane	ND	40,000						0	0	25	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40,000						0	0	25	
1,1,2-Trichloroethane	ND	40,000						0	0	25	
1,1-Dichloroethane	ND	40,000						0	0	25	
1,1-Dichloroethene	ND	40,000						0	0	25	
1,2,4-Trichlorobenzene	ND	40,000						0	0	25	
1,2,4-Trimethylbenzene	ND	40,000						0	0	25	
1,2-Dibromoethane	ND	40,000						0	0	25	
1,2-Dichlorobenzene	ND	40,000						0	0	25	
1,2-Dichloroethane	ND	40,000						0	0	25	
1,2-Dichloropropane	ND	40,000						0	0	25	
1,3,5-Trimethylbenzene	ND	40,000						0	0	25	
1,3-Butadiene	ND	40,000						0	0	25	
1,3-Dichlorobenzene	ND	40,000						0	0	25	
1,4-Dichlorobenzene	ND	40,000						0	0	25	
2-Butanone	83,000	40,000						120,400	36.5	25	R
2-Hexanone	ND	40,000						0	0	25	
4-Methyl-2-pentanone	ND	40,000						0	0	25	
Acetone	740,000	40,000						919,600	21.8	25	
Benzene	210,000	40,000						200,400	4.30	25	
Benzyl chloride	ND	40,000						0	0	25	
Bromodichloromethane	ND	40,000						0	0	25	
Bromoform	ND	40,000						0	0	25	
Bromomethane	ND	40,000						0	0	25	
Carbon disulfide	ND	40,000						0	0	25	
Carbon tetrachloride	ND	40,000						0	0	25	
Chlorobenzene	ND	40,000						0	0	25	
Chlorodibromomethane	ND	40,000						0	0	25	
Chloroethane	ND	40,000						0	0	25	
Chloroform	ND	40,000						0	0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R49973**

Sample ID:	**1206785-010Adup**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49973**
Client ID:	**VA1384**	Batch ID:	**R49973**	TestNo:	**TO-15**			Analysis Date:	**7/6/2012**	SeqNo:	**977455**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	40,000						0	0	25	
cis-1,2-Dichloroethene	ND	40,000						0	0	25	
cis-1,3-dichloropropene	ND	40,000						0	0	25	
Cyclohexane	900,000	80,000						952,800	5.48	25	
Dichlorodifluoromethane	ND	40,000						0	0	25	
Ethyl acetate	ND	40,000						0	0	25	
Ethylbenzene	ND	80,000						0	0	25	
Heptane	730,000	40,000						836,400	13.5	25	
Hexachlorobutadiene	ND	80,000						0	0	25	
m,p-Xylene	ND	80,000						0	0	25	
Methylene chloride	ND	200,000						0	0	25	
n-Hexane	650,000	80,000						658,000	1.72	25	
Naphthalene	ND	40,000						0	0	25	
o-Xylene	ND	40,000						0	0	25	
Propylene	ND	40,000						0	0	25	
Styrene	ND	40,000						0	0	25	
tert-Butyl Methyl Ether	ND	40,000						0	0	25	
Tetrachloroethene	ND	40,000						0	0	25	
Tetrahydrofuran	ND	40,000						0	0	25	
Toluene	330,000	40,000						400,800	18.7	25	
trans-1,2-Dichloroethene	ND	40,000						0	0	25	
trans-1,3-dichloropropene	ND	40,000						0	0	25	
Trichloroethene	ND	40,000						0	0	25	
Trichlorofluoromethane	ND	40,000						0	0	25	
Vinyl acetate	ND	40,000						0	0	25	
Vinyl chloride	ND	40,000						0	0	25	
Xylenes, Total	ND	120,000						0	0	25	
Surr: 4-Bromofluorobenzene	500,000		500,000		101	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R49985**

Sample ID:	**MBLK VOA1 070912**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49985**
Client ID:	**PBW**	Batch ID:	**R49985**	TestNo:	**TO-15**			Analysis Date:	**7/9/2012**	SeqNo:	**977794**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	1.0									U
1,1,2,2-Tetrachloroethane	ND	1.0									U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0									U
1,1,2-Trichloroethane	ND	1.0									U
1,1-Dichloroethane	ND	1.0									U
1,1-Dichloroethene	ND	1.0									U
1,2,4-Trichlorobenzene	ND	1.0									U
1,2,4-Trimethylbenzene	ND	1.0									U
1,2-Dibromoethane	ND	1.0									U
1,2-Dichlorobenzene	ND	1.0									U
1,2-Dichloroethane	ND	1.0									U
1,2-Dichloropropane	ND	1.0									U
1,3,5-Trimethylbenzene	ND	1.0									U
1,3-Butadiene	ND	1.0									U
1,3-Dichlorobenzene	ND	1.0									U
1,4-Dichlorobenzene	ND	1.0									U
2-Butanone	ND	1.0									U
2-Hexanone	ND	1.0									U
4-Methyl-2-pentanone	ND	1.0									U
Acetone	ND	1.0									U
Benzene	ND	1.0									U
Benzyl chloride	ND	1.0									U
Bromodichloromethane	ND	1.0									U
Bromoform	ND	1.0									U
Bromomethane	ND	1.0									U
Carbon disulfide	ND	1.0									U
Carbon tetrachloride	ND	1.0									U
Chlorobenzene	ND	1.0									U
Chlorodibromomethane	ND	1.0									U
Chloroethane	ND	1.0									U
Chloroform	ND	1.0									U

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WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R49985**

Sample ID:	**MBLK VOA1 070912**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49985**
Client ID:	**PBW**	Batch ID:	**R49985**	TestNo:	**TO-15**			Analysis Date:	**7/9/2012**	SeqNo:	**977794**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	12		12.50		95.3	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R49985**

Sample ID:	**1206785-033Adup**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49985**
Client ID:	**VA1496**	Batch ID:	**R49985**	TestNo:	**TO-15**			Analysis Date:	**7/9/2012**	SeqNo:	**977802**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	2,000						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	2,000						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2,000						0	0	25	U
1,1,2-Trichloroethane	ND	2,000						0	0	25	U
1,1-Dichloroethane	ND	2,000						0	0	25	U
1,1-Dichloroethene	ND	2,000						0	0	25	U
1,2,4-Trichlorobenzene	ND	2,000						0	0	25	U
1,2,4-Trimethylbenzene	ND	2,000						0	0	25	U
1,2-Dibromoethane	ND	2,000						0	0	25	U
1,2-Dichlorobenzene	ND	2,000						0	0	25	U
1,2-Dichloroethane	ND	2,000						0	0	25	U
1,2-Dichloropropane	ND	2,000						0	0	25	U
1,3,5-Trimethylbenzene	ND	2,000						0	0	25	U
1,3-Butadiene	ND	2,000						0	0	25	U
1,3-Dichlorobenzene	ND	2,000						0	0	25	U
1,4-Dichlorobenzene	ND	2,000						0	0	25	U
2-Butanone	ND	2,000						0	0	25	U
2-Hexanone	ND	2,000						0	0	25	U
4-Methyl-2-pentanone	ND	2,000						0	0	25	U
Acetone	3,600	2,000						3,080	15.6	25	
Benzene	14,000	2,000						11,980	12.5	25	
Benzyl chloride	ND	2,000						0	0	25	U
Bromodichloromethane	ND	2,000						0	0	25	U
Bromoform	ND	2,000						0	0	25	U
Bromomethane	ND	2,000						0	0	25	U
Carbon disulfide	ND	2,000						0	0	25	U
Carbon tetrachloride	ND	2,000						0	0	25	U
Chlorobenzene	ND	2,000						0	0	25	U
Chlorodibromomethane	ND	2,000						0	0	25	U
Chloroethane	ND	2,000						0	0	25	U
Chloroform	ND	2,000						0	0	25	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R49985**

Sample ID:	**1206785-033Adup**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49985**
Client ID:	**VA1496**	Batch ID:	**R49985**	TestNo:	**TO-15**			Analysis Date:	**7/9/2012**	SeqNo:	**977802**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	2,000						0	0	25	U
cis-1,2-Dichloroethene	ND	2,000						0	0	25	U
cis-1,3-dichloropropene	ND	2,000						0	0	25	U
Cyclohexane	37,000	4,000						32,980	11.9	25	
Dichlorodifluoromethane	ND	2,000						0	0	25	U
Ethyl acetate	ND	2,000						0	0	25	U
Ethylbenzene	2,200	4,000						0	200	25	JR
Heptane	15,000	2,000						12,700	14.9	25	
Hexachlorobutadiene	ND	4,000						0	0	25	U
m,p-Xylene	4,600	4,000						3,940	15.5	25	
Methylene chloride	100,000	10,000						91,780	11.3	25	E
n-Hexane	36,000	4,000						31,180	14.0	25	
Naphthalene	ND	2,000						0	0	25	U
o-Xylene	ND	2,000						0	0	25	U
Propylene	ND	2,000						0	0	25	U
Styrene	ND	2,000						0	0	25	U
tert-Butyl Methyl Ether	ND	2,000						0	0	25	U
Tetrachloroethene	ND	2,000						0	0	25	U
Tetrahydrofuran	ND	2,000						0	0	25	U
Toluene	34,000	2,000						28,200	18.2	25	
trans-1,2-Dichloroethene	ND	2,000						0	0	25	U
trans-1,3-dichloropropene	ND	2,000						0	0	25	U
Trichloroethene	ND	2,000						0	0	25	U
Trichlorofluoromethane	ND	2,000						0	0	25	U
Vinyl acetate	ND	2,000						0	0	25	U
Vinyl chloride	ND	2,000						0	0	25	U
Xylenes, Total	4,600	6,000						3,940	15.5	25	J
Surr: 4-Bromofluorobenzene	24,000		25,000		94.6	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R49993**

Sample ID:	**MBLK/CC-751 VOA1**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49993**
Client ID:	**PBW**	Batch ID:	**R49993**	TestNo:	**TO-15**			Analysis Date:	**7/10/2012**	SeqNo:	**977864**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	1.0									U
1,1,2,2-Tetrachloroethane	ND	1.0									U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0									U
1,1,2-Trichloroethane	ND	1.0									U
1,1-Dichloroethane	ND	1.0									U
1,1-Dichloroethene	ND	1.0									U
1,2,4-Trichlorobenzene	ND	1.0									U
1,2,4-Trimethylbenzene	ND	1.0									U
1,2-Dibromoethane	ND	1.0									U
1,2-Dichlorobenzene	ND	1.0									U
1,2-Dichloroethane	ND	1.0									U
1,2-Dichloropropane	ND	1.0									U
1,3,5-Trimethylbenzene	ND	1.0									U
1,3-Butadiene	ND	1.0									U
1,3-Dichlorobenzene	ND	1.0									U
1,4-Dichlorobenzene	ND	1.0									U
2-Butanone	ND	1.0									U
2-Hexanone	ND	1.0									U
4-Methyl-2-pentanone	ND	1.0									U
Acetone	ND	1.0									U
Benzene	ND	1.0									U
Benzyl chloride	ND	1.0									U
Bromodichloromethane	ND	1.0									U
Bromoform	ND	1.0									U
Bromomethane	ND	1.0									U
Carbon disulfide	ND	1.0									U
Carbon tetrachloride	ND	1.0									U
Chlorobenzene	ND	1.0									U
Chlorodibromomethane	ND	1.0									U
Chloroethane	ND	1.0									U
Chloroform	ND	1.0									U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R49993**

Sample ID:	**MBLK/CC-751 VOA1**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49993**
Client ID:	**PBW**	Batch ID:	**R49993**	TestNo:	**TO-15**			Analysis Date:	**7/10/2012**	SeqNo:	**977864**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	12		12.50		93.9	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R49993**

Sample ID:	**1206785-029Adup**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49993**
Client ID:	**VA1492**	Batch ID:	**R49993**	TestNo:	**TO-15**			Analysis Date:	**7/10/2012**	SeqNo:	**978259**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	800						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	800						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800						0	0	25	U
1,1,2-Trichloroethane	ND	800						0	0	25	U
1,1-Dichloroethane	ND	800						0	0	25	U
1,1-Dichloroethene	ND	800						0	0	25	U
1,2,4-Trichlorobenzene	ND	800						0	0	25	U
1,2,4-Trimethylbenzene	ND	800						0	0	25	U
1,2-Dibromoethane	ND	800						0	0	25	U
1,2-Dichlorobenzene	ND	800						0	0	25	U
1,2-Dichloroethane	ND	800						0	0	25	U
1,2-Dichloropropane	ND	800						0	0	25	U
1,3,5-Trimethylbenzene	ND	800						0	0	25	U
1,3-Butadiene	ND	800						0	0	25	U
1,3-Dichlorobenzene	ND	800						0	0	25	U
1,4-Dichlorobenzene	ND	800						0	0	25	U
2-Butanone	ND	800						0	0	25	U
2-Hexanone	ND	800						0	0	25	U
4-Methyl-2-pentanone	ND	800						0	0	25	U
Acetone	900	800						1,200	29.0	25	R
Benzene	19,000	800						17,720	5.74	25	
Benzyl chloride	ND	800						0	0	25	U
Bromodichloromethane	ND	800						0	0	25	U
Bromoform	ND	800						0	0	25	U
Bromomethane	ND	800						0	0	25	U
Carbon disulfide	ND	800						0	0	25	U
Carbon tetrachloride	ND	800						0	0	25	U
Chlorobenzene	ND	800						0	0	25	U
Chlorodibromomethane	ND	800						0	0	25	U
Chloroethane	ND	800						0	0	25	U
Chloroform	ND	800						0	0	25	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R49993**

Sample ID:	**1206785-029Adup**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49993**
Client ID:	**VA1492**	Batch ID:	**R49993**	TestNo:	**TO-15**			Analysis Date:	**7/10/2012**	SeqNo:	**978259**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	800						0	0	25	U
cis-1,2-Dichloroethene	ND	800						0	0	25	U
cis-1,3-dichloropropene	ND	800						0	0	25	U
Cyclohexane	36,000	1,600						33,120	7.87	25	
Dichlorodifluoromethane	ND	800						0	0	25	U
Ethyl acetate	ND	800						0	0	25	U
Ethylbenzene	3,800	1,600						3,240	15.5	25	
Heptane	28,000	800						25,300	8.65	25	
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	7,700	1,600						6,632	15.3	25	
Methylene chloride	1,700	4,000						0	200	25	JR
n-Hexane	19,000	1,600						18,580	4.75	25	
Naphthalene	ND	800						0	0	25	U
o-Xylene	2,400	800						2,032	16.3	25	
Propylene	ND	800						0	0	25	U
Styrene	ND	800						0	0	25	U
tert-Butyl Methyl Ether	ND	800						0	0	25	U
Tetrachloroethene	ND	800						0	0	25	U
Tetrahydrofuran	ND	800						0	0	25	U
Toluene	52,000	800						43,940	16.0	25	E
trans-1,2-Dichloroethene	ND	800						0	0	25	U
trans-1,3-dichloropropene	ND	800						0	0	25	U
Trichloroethene	ND	800						0	0	25	U
Trichlorofluoromethane	ND	800						0	0	25	U
Vinyl acetate	ND	800						0	0	25	U
Vinyl chloride	ND	800						0	0	25	U
Xylenes, Total	10,000	2,400						8,664	15.5	25	
Surr: 4-Bromofluorobenzene	9,800		10,000		97.8	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R50001**

Sample ID:	**MBLK VOA9 070612**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**50001**
Client ID:	**PBW**	Batch ID:	**R50001**	TestNo:	**MA_APH**			Analysis Date:	**7/6/2012**	SeqNo:	**978046**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	92		89.50		103	70	130				

Sample ID:	**1206517-035Adup**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**50001**
Client ID:	**ZZZZZZ**	Batch ID:	**R50001**	TestNo:	**MA_APH**			Analysis Date:	**7/6/2012**	SeqNo:	**978048**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	1,000,000	190,000						1,026,000	0.274	30	
C9-C10 Aromatic Hydrocarbons	ND	210,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	80,000	300,000						87,580	8.61	30	J
Surr: 4-Bromofluorobenzene	140,000		143,200		97.4	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R50059**

Sample ID:	**1206785-021Adup**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**50059**
Client ID:	**VA1419**	Batch ID:	**R50059**	TestNo:	**TO-15**			Analysis Date:	**7/11/2012**	SeqNo:	**979008**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	800						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	800						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800						0	0	25	U
1,1,2-Trichloroethane	ND	800						0	0	25	U
1,1-Dichloroethane	ND	800						0	0	25	U
1,1-Dichloroethene	ND	800						0	0	25	U
1,2,4-Trichlorobenzene	ND	800						0	0	25	U
1,2,4-Trimethylbenzene	ND	800						0	0	25	U
1,2-Dibromoethane	ND	800						0	0	25	U
1,2-Dichlorobenzene	ND	800						0	0	25	U
1,2-Dichloroethane	ND	800						0	0	25	U
1,2-Dichloropropane	ND	800						0	0	25	U
1,3,5-Trimethylbenzene	ND	800						0	0	25	U
1,3-Butadiene	ND	800						0	0	25	U
1,3-Dichlorobenzene	ND	800						0	0	25	U
1,4-Dichlorobenzene	ND	800						0	0	25	U
2-Butanone	3,500	800						3,216	8.57	25	
2-Hexanone	ND	800						0	0	25	U
4-Methyl-2-pentanone	ND	800						0	0	25	U
Acetone	7,000	800						7,312	4.25	25	
Benzene	18,000	800						16,140	9.99	25	
Benzyl chloride	ND	800						0	0	25	U
Bromodichloromethane	ND	800						0	0	25	U
Bromoform	ND	800						0	0	25	U
Bromomethane	ND	800						0	0	25	U
Carbon disulfide	ND	800						0	0	25	U
Carbon tetrachloride	ND	800						0	0	25	U
Chlorobenzene	ND	800						0	0	25	U
Chlorodibromomethane	ND	800						0	0	25	U
Chloroethane	ND	800						0	0	25	U
Chloroform	ND	800						0	0	25	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R50059**

Sample ID:	**1206785-021Adup**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**50059**
Client ID:	**VA1419**	Batch ID:	**R50059**	TestNo:	**TO-15**			Analysis Date:	**7/11/2012**	SeqNo:	**979008**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	800						0	0	25	U
cis-1,2-Dichloroethene	ND	800						0	0	25	U
cis-1,3-dichloropropene	ND	800						0	0	25	U
Cyclohexane	44,000	1,600						41,440	6.75	25	E
Dichlorodifluoromethane	ND	800						0	0	25	U
Ethyl acetate	ND	800						0	0	25	U
Ethylbenzene	4,000	1,600						3,528	12.1	25	
Heptane	41,000	800						38,330	5.88	25	E
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	11,000	1,600						10,220	11.0	25	
Methylene chloride	3,100	4,000						3,024	3.64	25	J
n-Hexane	34,000	1,600						32,290	5.82	25	
Naphthalene	ND	800						0	0	25	U
o-Xylene	3,100	800						2,768	11.7	25	
Propylene	ND	800						0	0	25	U
Styrene	ND	800						0	0	25	U
tert-Butyl Methyl Ether	ND	800						0	0	25	U
Tetrachloroethene	ND	800						0	0	25	U
Tetrahydrofuran	ND	800						0	0	25	U
Toluene	63,000	800						58,200	7.82	25	E
trans-1,2-Dichloroethene	ND	800						0	0	25	U
trans-1,3-dichloropropene	ND	800						0	0	25	U
Trichloroethene	ND	800						0	0	25	U
Trichlorofluoromethane	ND	800						0	0	25	U
Vinyl acetate	ND	800						0	0	25	U
Vinyl chloride	ND	800						0	0	25	U
Xylenes, Total	15,000	2,400						12,990	11.2	25	
Surr: 4-Bromofluorobenzene	9,400		10,000		94.4	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R50059**

Sample ID:	**MBLK VOA1 071112**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**50059**
Client ID:	**PBW**	Batch ID:	**R50059**	TestNo:	**TO-15**			Analysis Date:	**7/11/2012**	SeqNo:	**979018**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	1.0									U
1,1,2,2-Tetrachloroethane	ND	1.0									U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0									U
1,1,2-Trichloroethane	ND	1.0									U
1,1-Dichloroethane	ND	1.0									U
1,1-Dichloroethene	ND	1.0									U
1,2,4-Trichlorobenzene	ND	1.0									U
1,2,4-Trimethylbenzene	ND	1.0									U
1,2-Dibromoethane	ND	1.0									U
1,2-Dichlorobenzene	ND	1.0									U
1,2-Dichloroethane	ND	1.0									U
1,2-Dichloropropane	ND	1.0									U
1,3,5-Trimethylbenzene	ND	1.0									U
1,3-Butadiene	ND	1.0									U
1,3-Dichlorobenzene	ND	1.0									U
1,4-Dichlorobenzene	ND	1.0									U
2-Butanone	ND	1.0									U
2-Hexanone	ND	1.0									U
4-Methyl-2-pentanone	ND	1.0									U
Acetone	ND	1.0									U
Benzene	ND	1.0									U
Benzyl chloride	ND	1.0									U
Bromodichloromethane	ND	1.0									U
Bromoform	ND	1.0									U
Bromomethane	ND	1.0									U
Carbon disulfide	ND	1.0									U
Carbon tetrachloride	ND	1.0									U
Chlorobenzene	ND	1.0									U
Chlorodibromomethane	ND	1.0									U
Chloroethane	ND	1.0									U
Chloroform	ND	1.0									U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R50059**

Sample ID:	**MBLK VOA1 071112**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**50059**
Client ID:	**PBW**	Batch ID:	**R50059**	TestNo:	**TO-15**			Analysis Date:	**7/11/2012**	SeqNo:	**979018**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	12		12.50		93.2	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R50099**

Sample ID:	**MBLK VOA1 071212**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**50099**
Client ID:	**PBW**	Batch ID:	**R50099**	TestNo:	**TO-15**			Analysis Date:	**7/12/2012**	SeqNo:	**979940**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	1.0									U
1,1,2,2-Tetrachloroethane	ND	1.0									U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0									U
1,1,2-Trichloroethane	ND	1.0									U
1,1-Dichloroethane	ND	1.0									U
1,1-Dichloroethene	ND	1.0									U
1,2,4-Trichlorobenzene	ND	1.0									U
1,2,4-Trimethylbenzene	ND	1.0									U
1,2-Dibromoethane	ND	1.0									U
1,2-Dichlorobenzene	ND	1.0									U
1,2-Dichloroethane	ND	1.0									U
1,2-Dichloropropane	ND	1.0									U
1,3,5-Trimethylbenzene	ND	1.0									U
1,3-Butadiene	ND	1.0									U
1,3-Dichlorobenzene	ND	1.0									U
1,4-Dichlorobenzene	ND	1.0									U
2-Butanone	ND	1.0									U
2-Hexanone	ND	1.0									U
4-Methyl-2-pentanone	ND	1.0									U
Acetone	ND	1.0									U
Benzene	ND	1.0									U
Benzyl chloride	ND	1.0									U
Bromodichloromethane	ND	1.0									U
Bromoform	ND	1.0									U
Bromomethane	ND	1.0									U
Carbon disulfide	ND	1.0									U
Carbon tetrachloride	ND	1.0									U
Chlorobenzene	ND	1.0									U
Chlorodibromomethane	ND	1.0									U
Chloroethane	ND	1.0									U
Chloroform	ND	1.0									U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R50099**

Sample ID:	**MBLK VOA1 071212**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**50099**
Client ID:	**PBW**	Batch ID:	**R50099**	TestNo:	**TO-15**			Analysis Date:	**7/12/2012**	SeqNo:	**979940**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	12		12.50		95.0	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R50099**

Sample ID:	**1206785-006ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**50099**
Client ID:	**VA1362**	Batch ID:	**R50099**	TestNo:	**TO-15**			Analysis Date:	**7/12/2012**	SeqNo:	**979948**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	800						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	800						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800						0	0	25	U
1,1,2-Trichloroethane	ND	800						0	0	25	U
1,1-Dichloroethane	ND	800						0	0	25	U
1,1-Dichloroethene	ND	800						0	0	25	U
1,2,4-Trichlorobenzene	ND	800						0	0	25	U
1,2,4-Trimethylbenzene	ND	800						0	0	25	U
1,2-Dibromoethane	ND	800						0	0	25	U
1,2-Dichlorobenzene	ND	800						0	0	25	U
1,2-Dichloroethane	ND	800						0	0	25	U
1,2-Dichloropropane	ND	800						0	0	25	U
1,3,5-Trimethylbenzene	ND	800						0	0	25	U
1,3-Butadiene	ND	800						0	0	25	U
1,3-Dichlorobenzene	ND	800						0	0	25	U
1,4-Dichlorobenzene	ND	800						0	0	25	U
2-Butanone	1,100	800						936.0	12.0	25	
2-Hexanone	ND	800						0	0	25	U
4-Methyl-2-pentanone	ND	800						0	0	25	U
Acetone	2,500	800						2,080	16.6	25	
Benzene	8,900	800						7,816	13.5	25	
Benzyl chloride	ND	800						0	0	25	U
Bromodichloromethane	ND	800						0	0	25	U
Bromoform	ND	800						0	0	25	U
Bromomethane	ND	800						0	0	25	U
Carbon disulfide	ND	800						0	0	25	U
Carbon tetrachloride	ND	800						0	0	25	U
Chlorobenzene	ND	800						0	0	25	U
Chlorodibromomethane	ND	800						0	0	25	U
Chloroethane	ND	800						0	0	25	U
Chloroform	ND	800						0	0	25	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R50099**

Sample ID:	**1206785-006ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**50099**
Client ID:	**VA1362**	Batch ID:	**R50099**	TestNo:	**TO-15**			Analysis Date:	**7/12/2012**	SeqNo:	**979948**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	800						0	0	25	U
cis-1,2-Dichloroethene	ND	800						0	0	25	U
cis-1,3-dichloropropene	ND	800						0	0	25	U
Cyclohexane	18,000	1,600						16,620	8.04	25	
Dichlorodifluoromethane	ND	800						0	0	25	U
Ethyl acetate	ND	800						0	0	25	U
Ethylbenzene	1,700	1,600						1,448	18.5	25	
Heptane	15,000	800						13,540	12.6	25	
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	5,000	1,600						4,128	18.3	25	
Methylene chloride	ND	4,000						0	0	25	U
n-Hexane	13,000	1,600						11,650	7.15	25	
Naphthalene	ND	800						0	0	25	U
o-Xylene	1,400	800						1,152	17.7	25	
Propylene	ND	800						0	0	25	U
Styrene	ND	800						0	0	25	U
tert-Butyl Methyl Ether	ND	800						0	0	25	U
Tetrachloroethene	ND	800						0	0	25	U
Tetrahydrofuran	ND	800						0	0	25	U
Toluene	31,000	800						25,760	19.8	25	
trans-1,2-Dichloroethene	ND	800						0	0	25	U
trans-1,3-dichloropropene	ND	800						0	0	25	U
Trichloroethene	ND	800						0	0	25	U
Trichlorofluoromethane	ND	800						0	0	25	U
Vinyl acetate	ND	800						0	0	25	U
Vinyl chloride	ND	800						0	0	25	U
Xylenes, Total	6,300	2,400						5,280	18.2	25	
Surr: 4-Bromofluorobenzene	9,800		10,000		97.8	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R50115**

Sample ID:	**MBLK VOA9 071112**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**50115**
Client ID:	**PBW**	Batch ID:	**R50115**	TestNo:	**MA_APH**			Analysis Date:	**7/12/2012**	SeqNo:	**980213**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	60	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	85		89.50		95.1	70	130				

Sample ID:	**1206785-032Adup**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**50115**
Client ID:	**VA1495**	Batch ID:	**R50115**	TestNo:	**MA_APH**			Analysis Date:	**7/12/2012**	SeqNo:	**980218**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	960,000	94,000						911,200	4.90	30	E
C9-C10 Aromatic Hydrocarbons	ND	110,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	210,000	150,000						196,300	4.65	30	
Surr: 4-Bromofluorobenzene	72,000		71,600		101	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R50118**

Sample ID:	**1206785-041Adup**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**50118**
Client ID:	**VA9062**	Batch ID:	**R50118**	TestNo:	**MA_APH**			Analysis Date:	**7/13/2012**	SeqNo:	**980256**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	910,000	190,000						867,900	4.61	30	
C9-C10 Aromatic Hydrocarbons	ND	210,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	110,000	300,000						94,700	19.2	30	J
Surr: 4-Bromofluorobenzene	140,000		143,200		101	70	130		0	30	

Sample ID:	**MBLK VOA9 071312**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**50118**
Client ID:	**PBW**	Batch ID:	**R50118**	TestNo:	**MA_APH**			Analysis Date:	**7/13/2012**	SeqNo:	**980269**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	50	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	85		89.50		95.1	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R50123**

Sample ID:	**MBLK/CC105 VOA1**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**50123**
Client ID:	**PBW**	Batch ID:	**R50123**	TestNo:	**TO-15**			Analysis Date:	**7/13/2012**	SeqNo:	**980347**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	1.0									U
1,1,2,2-Tetrachloroethane	ND	1.0									U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0									U
1,1,2-Trichloroethane	ND	1.0									U
1,1-Dichloroethane	ND	1.0									U
1,1-Dichloroethene	ND	1.0									U
1,2,4-Trichlorobenzene	ND	1.0									U
1,2,4-Trimethylbenzene	ND	1.0									U
1,2-Dibromoethane	ND	1.0									U
1,2-Dichlorobenzene	ND	1.0									U
1,2-Dichloroethane	ND	1.0									U
1,2-Dichloropropane	ND	1.0									U
1,3,5-Trimethylbenzene	ND	1.0									U
1,3-Butadiene	ND	1.0									U
1,3-Dichlorobenzene	ND	1.0									U
1,4-Dichlorobenzene	ND	1.0									U
2-Butanone	ND	1.0									U
2-Hexanone	ND	1.0									U
4-Methyl-2-pentanone	ND	1.0									U
Acetone	ND	1.0									U
Benzene	ND	1.0									U
Benzyl chloride	ND	1.0									U
Bromodichloromethane	ND	1.0									U
Bromoform	ND	1.0									U
Bromomethane	ND	1.0									U
Carbon disulfide	ND	1.0									U
Carbon tetrachloride	ND	1.0									U
Chlorobenzene	ND	1.0									U
Chlorodibromomethane	ND	1.0									U
Chloroethane	ND	1.0									U
Chloroform	ND	1.0									U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R50123**

Sample ID:	**MBLK/CC105 VOA1**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**50123**
Client ID:	**PBW**	Batch ID:	**R50123**	TestNo:	**TO-15**			Analysis Date:	**7/13/2012**	SeqNo:	**980347**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	12		12.50		94.9	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R50123**

Sample ID:	**1206952-004Adup**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**50123**
Client ID:	**ZZZZZZ**	Batch ID:	**R50123**	TestNo:	**TO-15**			Analysis Date:	**7/13/2012**	SeqNo:	**980352**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	800						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	800						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800						0	0	25	U
1,1,2-Trichloroethane	ND	800						0	0	25	U
1,1-Dichloroethane	ND	800						0	0	25	U
1,1-Dichloroethene	ND	800						0	0	25	U
1,2,4-Trichlorobenzene	ND	800						0	0	25	U
1,2,4-Trimethylbenzene	ND	800						0	0	25	U
1,2-Dibromoethane	ND	800						0	0	25	U
1,2-Dichlorobenzene	ND	800						0	0	25	U
1,2-Dichloroethane	ND	800						0	0	25	U
1,2-Dichloropropane	ND	800						0	0	25	U
1,3,5-Trimethylbenzene	ND	800						0	0	25	U
1,3-Butadiene	ND	800						0	0	25	U
1,3-Dichlorobenzene	ND	800						0	0	25	U
1,4-Dichlorobenzene	ND	800						0	0	25	U
2-Butanone	ND	800						0	0	25	U
2-Hexanone	ND	800						0	0	25	U
4-Methyl-2-pentanone	ND	800						0	0	25	U
Acetone	820	800						0	200	25	R
Benzene	1,000	800						1,008	1.57	25	
Benzyl chloride	ND	800						0	0	25	U
Bromodichloromethane	ND	800						0	0	25	U
Bromoform	ND	800						0	0	25	U
Bromomethane	ND	800						0	0	25	U
Carbon disulfide	ND	800						0	0	25	U
Carbon tetrachloride	ND	800						0	0	25	U
Chlorobenzene	ND	800						0	0	25	U
Chlorodibromomethane	ND	800						0	0	25	U
Chloroethane	ND	800						0	0	25	U
Chloroform	ND	800						0	0	25	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R50123**

Sample ID:	**1206952-004Adup**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**50123**
Client ID:	**ZZZZZZ**	Batch ID:	**R50123**	TestNo:	**TO-15**			Analysis Date:	**7/13/2012**	SeqNo:	**980352**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	800						0	0	25	U
cis-1,2-Dichloroethene	ND	800						0	0	25	U
cis-1,3-dichloropropene	ND	800						0	0	25	U
Cyclohexane	5,300	1,600						4,976	6.98	25	
Dichlorodifluoromethane	ND	800						0	0	25	U
Ethyl acetate	ND	800						0	0	25	U
Ethylbenzene	ND	1,600						0	0	25	U
Heptane	1,800	800						1,568	11.1	25	
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	950	1,600						808.0	16.4	25	J
Methylene chloride	ND	4,000						0	0	25	U
n-Hexane	1,900	1,600						1,848	5.06	25	
Naphthalene	ND	800						0	0	25	U
o-Xylene	ND	800						0	0	25	U
Propylene	ND	800						0	0	25	U
Styrene	ND	800						0	0	25	U
tert-Butyl Methyl Ether	ND	800						0	0	25	U
Tetrachloroethene	ND	800						0	0	25	U
Tetrahydrofuran	ND	800						0	0	25	U
Toluene	3,900	800						3,288	18.1	25	
trans-1,2-Dichloroethene	ND	800						0	0	25	U
trans-1,3-dichloropropene	ND	800						0	0	25	U
Trichloroethene	ND	800						0	0	25	U
Trichlorofluoromethane	ND	800						0	0	25	U
Vinyl acetate	ND	800						0	0	25	U
Vinyl chloride	ND	800						0	0	25	U
Xylenes, Total	950	2,400						808.0	16.4	25	J
Surr: 4-Bromofluorobenzene	10,000		10,000		100	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R50250**

Sample ID:	**MBLK VOA9 071712**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**50250**
Client ID:	**PBW**	Batch ID:	**R50250**	TestNo:	**MA_APH**			Analysis Date:	**7/17/2012**	SeqNo:	**982246**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	85		89.50		95.5	70	130				

Sample ID:	**1206785-020Adup**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**50250**
Client ID:	**VA1418**	Batch ID:	**R50250**	TestNo:	**MA_APH**			Analysis Date:	**7/17/2012**	SeqNo:	**982248**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	1,800,000	190,000						1,767,000	0.837	30	H
C9-C10 Aromatic Hydrocarbons	ND	210,000						0	0	30	UH
C9-C12 Aliphatic Hydrocarbons	260,000	300,000						201,800	23.8	30	JH
Surr: 4-Bromofluorobenzene	150,000		143,200		102	70	130		0	30	H

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206785

Date Reported: 7/26/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705 **Batch ID:** **R50271**

Sample ID:	**MBLK VOA9 071812**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**50271**
Client ID:	**PBW**	Batch ID:	**R50271**	TestNo:	**MA_APH**			Analysis Date:	**7/18/2012**	SeqNo:	**982790**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	85		89.50		95.4	70	130				

Sample ID:	**1206785-023Adup**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**50271**
Client ID:	**VA1421**	Batch ID:	**R50271**	TestNo:	**MA_APH**			Analysis Date:	**7/18/2012**	SeqNo:	**982866**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	1,300,000	94,000						1,338,000	1.71	30	EH
C9-C10 Aromatic Hydrocarbons	ND	110,000						0	0	30	UH
C9-C12 Aliphatic Hydrocarbons	220,000	150,000						220,800	1.81	30	H
Surr: 4-Bromofluorobenzene	73,000		71,600		102	70	130		0	30	H

RTI Laboratories

Run ID: **VOA1_120705A** **Run No.:** 49973

Analytical Run Date: 7/5/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 49025 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: PR by RD2 on 12jul12

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 070512	BFB_TUNE	TUNE	R49973	7/5/2012 12:15:00 PM	Robert Lynch		
CCV VOA1 070512	EPA_TO15	CCV	R49973	7/5/2012 12:57:00 PM	Robert Lynch		
RLVS VOA1 070512	EPA_TO15	RLVS	R49973	7/5/2012 2:11:00 PM	Robert Lynch		
MBLK VOA1 070512	EPA_TO15	MBLK	R49973	7/5/2012 3:24:00 PM	Robert Lynch		
1206898-036A	EPA_TO15	SAMP	R49973	7/5/2012 4:13:00 PM	Robert Lynch		
1206898-037A	EPA_TO15	SAMP	R49973	7/5/2012 5:01:00 PM	Robert Lynch		
1206898-038A	EPA_TO15	SAMP	R49973	7/5/2012 5:49:00 PM	Robert Lynch		
1206785-010A	EPA_TO15	SAMP	R49973	7/5/2012 6:35:00 PM	Robert Lynch		
1206785-011A	EPA_TO15	SAMP	R49973	7/5/2012 8:02:00 PM	Robert Lynch		
1206785-027A	EPA_TO15	SAMP	R49973	7/5/2012 8:44:00 PM	Robert Lynch		
1206898-018A	EPA_TO15	SAMP	R49973	7/5/2012 10:55:00 PM	Robert Lynch		
1206898-019A	EPA_TO15	SAMP	R49973	7/5/2012 11:38:00 PM	Robert Lynch		
1206898-020A	EPA_TO15	SAMP	R49973	7/6/2012 12:20:00 AM	Robert Lynch		
1206898-021A	EPA_TO15	SAMP	R49973	7/6/2012 1:01:00 AM	Robert Lynch		
1206898-022A	EPA_TO15	SAMP	R49973	7/6/2012 1:50:00 AM	Robert Lynch		
1206898-023A	EPA_TO15	SAMP	R49973	7/6/2012 2:38:00 AM	Robert Lynch		
1206898-024A	EPA_TO15	SAMP	R49973	7/6/2012 3:26:00 AM	Robert Lynch		
1206898-025A	EPA_TO15	SAMP	R49973	7/6/2012 4:08:00 AM	Robert Lynch		
1206898-025A	EPA_TO15	SAMP	R49973	7/6/2012 4:56:00 AM	Robert Lynch		
1206785-010Adup	EPA_TO15	DUP	R49973	7/6/2012 10:53:00 AM	Robert Lynch		
RLVS2 VOA1 07051	EPA_TO15	RLVS	R49973	7/6/2012 11:37:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

26-Jul-12

RunNo 49973

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
977437	BFB VOA1 070512	BFB_TUNE	TUNE	.\1\DATA\070512	7/5/2012 12:15:0	1	R49973		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		100	0	0	0	0	0	1%	0	2	0%	
174	M		89.6	89.6		100	0	0	0	0	0	90%	50	120	0%	
175	M		7	7		100	0	0	0	0	0	7%	4	9	0%	
176	M		96.3	96.3		100	0	0	0	0	0	96%	93	101	0%	
177	M		6.6	6.6		100	0	0	0	0	0	7%	5	9	0%	
50	M		16.6	16.6		100	0	0	0	0	0	17%	8	40	0%	
75	M		46.4	46.4		100	0	0	0	0	0	46%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.8	6.8		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
977438	CCV VOA1 070512	EPA_TO15	CCV	.\1\DATA\070512	7/5/2012 12:57:0	1	R49973		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	11.22	11.22		9.6	0	0	0.107	1	50	117%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.87	10.87		10	0	0	0.211	1	50	109%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.49	11.49		9.8	0	0	0.108	1	50	117%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	11.3	11.3		9.8	0	0	0.2	1	50	115%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.98	10.98		9.7	0	0	0.111	1	50	113%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.2	11.2		9.9	0	0	0.097	1	50	113%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	7.01	7.01		9.1	0	0	0.271	1	50	77%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	11.13	11.13		9.8	0	0	0.245	1	50	114%	70	130	0%	
1,2-Dibromoethane	A	ppbv	11.05	11.05		9.6	0	0	0.186	1	50	115%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.39	10.39		9.7	0	0	0.208	1	50	107%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.29	11.29		9.7	0	0	0.196	1	50	116%	70	130	0%	
1,2-Dichloropropane	A	ppbv	11.25	11.25		9.8	0	0	0.224	1	50	115%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.92	10.92		9.7	0	0	0.24	1	50	113%	70	130	0%	
1,3-Butadiene	A	ppbv	10.29	10.29		9.8	0	0	0.152	1	50	105%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.57	10.57		9.7	0	0	0.202	1	50	109%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
977438	CCV VOA1 070512	EPA_TO15	CCV	.\1\DATA\070512	7/5/2012 12:57:0	1	R49973		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.44	10.44		9.6	0	0	0.194	1	50	109%	70	130	0%	
1,4-Dioxane	A	ppbv	10.25	10.25		9.6	0	0	0.128	1	50	107%	70	130	0%	
2-Butanone	A	ppbv	11.59	11.59		9.9	0	0	0.287	1	50	117%	70	130	0%	
2-Hexanone	A	ppbv	10.93	10.93		9.8	0	0	0.135	1	50	112%	70	130	0%	
2-Propanol	A	ppbv	11.3	11.3		10.1	0	0	0.329	1	50	112%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.8	10.8		10	0	0	0.157	1	50	108%	70	130	0%	
Acetone	A	ppbv	11.43	11.43		10	0	0	0.43	1	50	114%	70	130	0%	
Benzene	A	ppbv	11.35	11.35		9.6	0	0	0.126	1	50	118%	70	130	0%	
Benzyl chloride	A	ppbv	10.02	10.02		9.7	0	0	0.155	1	50	103%	70	130	0%	
Bromodichloromethane	A	ppbv	10.53	10.53		9.6	0	0	0.156	1	50	110%	70	130	0%	
Bromoform	A	ppbv	10.78	10.78		9.6	0	0	0.197	1	50	112%	70	130	0%	
Bromomethane	A	ppbv	10.46	10.46		9.3	0	0	0.075	1	50	112%	70	130	0%	
Carbon disulfide	A	ppbv	10.88	10.88		9.7	0	0	0.093	1	50	112%	70	130	0%	
Carbon tetrachloride	A	ppbv	11.12	11.12		9.5	0	0	0.114	1	50	117%	70	130	0%	
Chlorobenzene	A	ppbv	11.24	11.24		9.9	0	0	0.275	1	50	114%	70	130	0%	
Chlorodibromomethane	A	ppbv	11.22	11.22		9.2	0	0	0.165	1	50	122%	70	130	0%	
Chloroethane	A	ppbv	9.97	9.97		9.8	0	0	0.063	1	50	102%	70	130	0%	
Chloroform	A	ppbv	11.28	11.28		9.4	0	0	0.126	1	50	120%	70	130	0%	
Chloromethane	A	ppbv	10.39	10.39		9.8	0	0	0.104	1	50	106%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	11.4	11.4		9.8	0	0	0.107	1	50	116%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.81	10.81		9.5	0	0	0.166	1	50	114%	70	130	0%	
Cyclohexane	A	ppbv	11.35	11.35		9.8	0	0	0.684	2	50	116%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	10.09	10.09		9.2	0	0	0.086	1	50	110%	70	130	0%	
Ethanol	A	ppbv	9.57	9.57		9.2	0	0	1.962	5	50	104%	70	130	0%	
Ethyl acetate	A	ppbv	11.69	11.69		9.8	0	0	0.157	1	50	119%	70	130	0%	
Ethylbenzene	A	ppbv	11.14	11.14		9.8	0	0	0.737	2	50	114%	70	130	0%	
Heptane	A	ppbv	11.15	11.15		9.9	0	0	0.249	1	50	113%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.18	9.18		9.4	0	0	0.374	2	50	98%	70	130	0%	
m,p-Xylene	A	ppbv	22.4	22.4		19.2	0	0	0.524	2	100	117%	70	130	0%	
Methylene chloride	A	ppbv	10.92	10.92		10	0	0	2.077	5	50	109%	70	130	0%	
n-Hexane	A	ppbv	11.41	11.41		10.1	0	0	0.692	2	50	113%	70	130	0%	
Naphthalene	A	ppbv	6.55	6.55		9.2	0	0	0.247	1	50	71%	70	130	0%	
o-Xylene	A	ppbv	11.37	11.37		10	0	0	0.258	1	50	114%	70	130	0%	
Propylene	A	ppbv	11.48	11.48		10.2	0	0	0.075	1	50	113%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
977438	CCV VOA1 070512	EPA_TO15	CCV	.\1\DATA\070512	7/5/2012 12:57:0	1	R49973		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	11.27	11.27		9.8	0	0	0.263	1	50	115%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	12.05	12.05		9.9	0	0	0.228	1	50	122%	70	130	0%	
Tetrachloroethene	A	ppbv	11	11		9.6	0	0	0.148	1	50	115%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.4	11.4		10	0	0	0.201	1	50	114%	70	130	0%	
Toluene	A	ppbv	11.48	11.48		9.8	0	0	0.158	1	50	117%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.23	11.23		9.8	0	0	0.117	1	50	115%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.3	10.3		9.1	0	0	0.171	1	50	113%	70	130	0%	
Trichloroethene	A	ppbv	10.98	10.98		9.6	0	0	0.119	1	50	114%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.95	10.95		9.6	0	0	0.148	1	50	114%	70	130	0%	
Vinyl acetate	A	ppbv	12.25	12.25		9.9	0	0	0.266	1	50	124%	70	130	0%	
Vinyl chloride	A	ppbv	9.76	9.76		9.4	0	0	0.072	1	50	104%	70	130	0%	
Xylenes, Total	C	ppbv	33.77	33.77		29.2	0	0	0.782	3	150	116%	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		12.5	0	0	0	0	0	100%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.34	12.34		12.5	0	0	0	0	0	99%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
977439	RLVS VOA1 070512	EPA_TO15	RLVS	.\1\DATA\070512	7/5/2012 2:11:00	1	R49973		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	1.03	1.03		0.996	0	0	0.107	1	50	103%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.14	1.14		1	0	0	0.211	1	50	114%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.13	1.13		0.98	0	0	0.108	1	50	115%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.99	0.99		0.98	0	0	0.2	1	50	101%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.05	1.05		0.97	0	0	0.111	1	50	108%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.11	1.11		0.99	0	0	0.097	1	50	112%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	0.81	0.81		0.91	0	0	0.271	1	50	89%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	1.07	1.07		0.98	0	0	0.245	1	50	109%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.93	0.93		0.96	0	0	0.186	1	50	97%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.1	1.1		0.97	0	0	0.208	1	50	113%	70	130	0%	
1,2-Dichloroethane	A	ppbv	1.03	1.03		0.97	0	0	0.196	1	50	106%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.97	0.97		0.98	0	0	0.224	1	50	99%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\070512\07051205.D Vial: 2
Acq On : 5 Jul 2012 12:57 pm Operator: RACHEL HILL
Sample : CCV VOA1 070512 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
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	104	0.00
2	T	Propylene	0.813	0.915	-12.5	108	0.00
3	T	Dichlorodifluoromethane	3.079	3.378	-9.7	104	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.303	2.597	-12.8	108	0.00
5	T	Chloromethane	0.928	1.015	-9.4	100	0.00
6	T	Vinyl chloride	1.049	1.089	-3.8	93	0.00
7	T	1,3-Butadiene	0.727	0.764	-5.1	92	0.00
8	T	Bromomethane	1.112	1.250	-12.4	106	0.00
9	T	Chloroethane	0.591	0.641	-8.5	99	0.00
10	T	Trichlorofluoromethane	2.936	3.348	-14.0	104	0.00
11	T	Ethanol	0.315	0.327	-3.8	92	0.00
12	T	Freon113	1.993	2.337	-17.3	103	0.00
13	T	1,1-Dichloroethene	1.379	1.560	-13.1	99	0.00
14	T	Acetone	1.332	1.523	-14.3	94	0.00
15	T	Carbon disulfide	2.400	2.693	-12.2	101	0.00
16	T	2-Propanol	1.279	1.431	-11.9	98	0.00
17	T	Methylene chloride	1.022	1.116	-9.2	98	0.00
18	T	tert-Butyl Methyl Ether	2.198	2.677	-21.8	98	0.00
19	T	trans-1,2-Dichloroethene	1.262	1.446	-14.6	99	0.00
20	T	n-Hexane	1.399	1.581	-13.0	98	0.00
21	T	1,1-Dichloroethane	1.713	1.940	-13.3	98	0.00
22	T	Vinyl acetate	2.035	2.518	-23.7	94	0.00
23	T	cis-1,2-Dichloroethene	1.036	1.206	-16.4	100	0.00
24	T	2-Butanone	1.404	1.644	-17.1	92	0.00
25	T	Ethyl acetate	1.735	2.070	-19.3	95	0.00
26	T	Tetrahydrofuran	0.898	1.023	-13.9	92	0.00
27	T	Chloroform	1.950	2.245	-15.1	98	0.00
28	T	1,1,1-Trichloroethane	2.105	2.460	-16.9	100	0.00
29	T	Cyclohexane	1.419	1.644	-15.9	98	0.00
30	T	Carbon tetrachloride	2.325	2.722	-17.1	100	0.00
31	T	Benzene	2.740	3.238	-18.2	97	0.00
32	T	1,2-Dichloroethane	1.133	1.319	-16.4	95	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	106	0.00
34	T	Heptane	0.486	0.548	-12.8	96	0.00
35	T	Trichloroethene	0.444	0.507	-14.2	102	0.00
36	T	1,2-Dichloropropane	0.304	0.349	-14.8	95	0.00
37	T	1,4-Dioxane	0.175	0.187	-6.9	93	0.00
38	T	Bromodichloromethane	0.631	0.693	-9.8	95	0.00
39	T	cis-1,3-Dichloropropene	0.487	0.554	-13.8	94	0.00
40	T	4-Methyl-2-pentanone	0.208	0.225	-8.2	91	0.00
41	T	Toluene	1.030	1.207	-17.2	97	0.00
42	T	trans-1,3-Dichloropropene	0.451	0.510	-13.1	94	0.00
43	T	1,1,2-Trichloroethane	0.358	0.412	-15.1	98	0.00
44	T	Tetrachloroethene	0.582	0.667	-14.6	103	0.00
45	T	2-Hexanone	0.404	0.451	-11.6	91	0.00
46	T	Chlorodibromomethane	0.660	0.755	-14.4	98	0.00
47	T	1,2-Dibromoethane	0.559	0.644	-15.2	97	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	108	0.00
49	T	Chlorobenzene	0.880	1.000	-13.6	99	0.00
50	T	Ethylbenzene	1.411	1.603	-13.6	97	0.00
51	T	m,p-Xylene	1.097	1.279	-16.6	97	0.00
52	T	o-Xylene	1.117	1.270	-13.7	98	0.00
53	T	Styrene	0.860	0.989	-15.0	99	0.00
54	T	Bromoform	0.634	0.712	-12.3	99	0.00
55	S	4-Bromofluorobenzene	0.581	0.574	1.2	106	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\070512\07051205.D Vial: 2
Acq On : 5 Jul 2012 12:57 pm Operator: RACHEL HILL
Sample : CCV VOA1 070512 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
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)
56	T	1,1,2,2-Tetrachloroethane	0.697	0.758	-8.8	95	0.00
57	T	4-Ethyltoluene	1.452	1.639	-12.9	99	0.00
58	T	1,3,5-Trimethylbenzene	1.242	1.398	-12.6	99	0.00
59	T	1,2,4-Trimethylbenzene	1.162	1.320	-13.6	99	0.00
60	T	1,3-Dichlorobenzene	0.763	0.831	-8.9	98	0.00
61	T	1,4-Dichlorobenzene	0.736	0.801	-8.8	98	0.00
62	T	Benzyl chloride	0.809	0.836	-3.3	92	0.00
63	T	1,2-Dichlorobenzene	0.669	0.717	-7.2	97	0.00
64	T	1,2,4-Trichlorobenzene	0.243	0.187	23.0	72	0.00
65	T	Hexachlorobutadiene	0.327	0.319	2.4	86	-0.01
66		Naphthalene	0.481	0.343	28.7	67	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\070512\07051205.D Vial: 2
Acq On : 5 Jul 2012 12:57 pm Operator: RACHEL HILL
Sample : CCV VOA1 070512 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jul 5 13:22 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.58	130	377814	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.68	114	1256418	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.53	117	1136783	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.18	95	651980	12.34	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 98.72%

Target Compounds						Qvalue
2) Propylene	5.50	41	282083	11.48	ppbv	97
3) Dichlorodifluoromethane	5.58	85	939247	10.09	ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.83	135	745689	10.71	ppbv #	88
5) Chloromethane	6.00	50	291572	10.39	ppbv	99
6) Vinyl chloride	6.21	62	309356	9.76	ppbv #	100
7) 1,3-Butadiene	6.25	39	226262	10.29	ppbv	96
8) Bromomethane	6.84	94	351504	10.46	ppbv	99
9) Chloroethane	6.99	64	178143	9.97	ppbv	100
10) Trichlorofluoromethane	7.32	101	971548	10.95	ppbv	98
11) Ethanol	7.55	45	90967	9.57	ppbv	99
12) Freon113	7.98	101	692308	11.49	ppbv	96
13) 1,1-Dichloroethene	8.09	61	466654	11.20	ppbv	99
14) Acetone	8.18	43	460237	11.43	ppbv #	96
15) Carbon disulfide	8.45	76	789519	10.88	ppbv #	99
16) 2-Propanol	8.23	45	436783	11.30	ppbv #	1
17) Methylene chloride	8.75	49	337376	10.92	ppbv	97
18) tert-Butyl Methyl Ether	8.95	73	800951	12.05	ppbv	97
19) trans-1,2-Dichloroethene	9.03	61	428387	11.23	ppbv	99
20) n-Hexane	9.21	57	482579	11.41	ppbv	98
21) 1,1-Dichloroethane	9.59	63	568698	10.98	ppbv	99
22) Vinyl acetate	9.52	43	753465	12.25	ppbv	99
23) cis-1,2-Dichloroethene	10.27	96	357140	11.40	ppbv	98
24) 2-Butanone	10.24	43	491936	11.59	ppbv	99
25) Ethyl acetate	10.19	43	613193	11.69	ppbv #	100
26) Tetrahydrofuran	10.58	42	309331	11.40	ppbv	94
27) Chloroform	10.60	83	664928	11.28	ppbv	97
28) 1,1,1-Trichloroethane	10.84	97	713844	11.22	ppbv	99
29) Cyclohexane	10.85	56	486941	11.35	ppbv	100
30) Carbon tetrachloride	11.01	117	781499	11.12	ppbv	98
31) Benzene	11.29	78	939671	11.35	ppbv	100
32) 1,2-Dichloroethane	11.37	62	386655	11.29	ppbv	99
34) Heptane	11.34	43	544828	11.15	ppbv	97
35) Trichloroethene	12.02	130	489540	10.98	ppbv	97
36) 1,2-Dichloropropane	12.38	63	343684	11.25	ppbv	99
37) 1,4-Dioxane	12.45	88	180637	10.25	ppbv	94
38) Bromodichloromethane	12.66	83	668470	10.53	ppbv	98
39) cis-1,3-Dichloropropene	13.21	75	528999	10.81	ppbv	99
40) 4-Methyl-2-pentanone	13.32	58	225654	10.80	ppbv	98
41) Toluene	13.62	91	1188581	11.48	ppbv	98
42) trans-1,3-Dichloropropene	13.92	75	466551	10.30	ppbv	99
43) 1,1,2-Trichloroethane	14.20	97	406112	11.30	ppbv	99
44) Tetrachloroethene	14.32	166	643196	11.00	ppbv	97
45) 2-Hexanone	14.40	43	443979	10.93	ppbv	97
46) Chlorodibromomethane	14.74	129	744008	11.22	ppbv	99
47) 1,2-Dibromoethane	14.98	107	621405	11.05	ppbv	100
49) Chlorobenzene	15.57	112	900240	11.24	ppbv	99
50) Ethylbenzene	15.61	91	1428965	11.14	ppbv	98
51) m,p-Xylene	15.77	91	2233777	22.40	ppbv	97
52) o-Xylene	16.36	91	1155099	11.37	ppbv	98

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\070512\07051205.D Vial: 2
Acq On : 5 Jul 2012 12:57 pm Operator: RACHEL HILL
Sample : CCV VOA1 070512 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jul 5 13:22 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

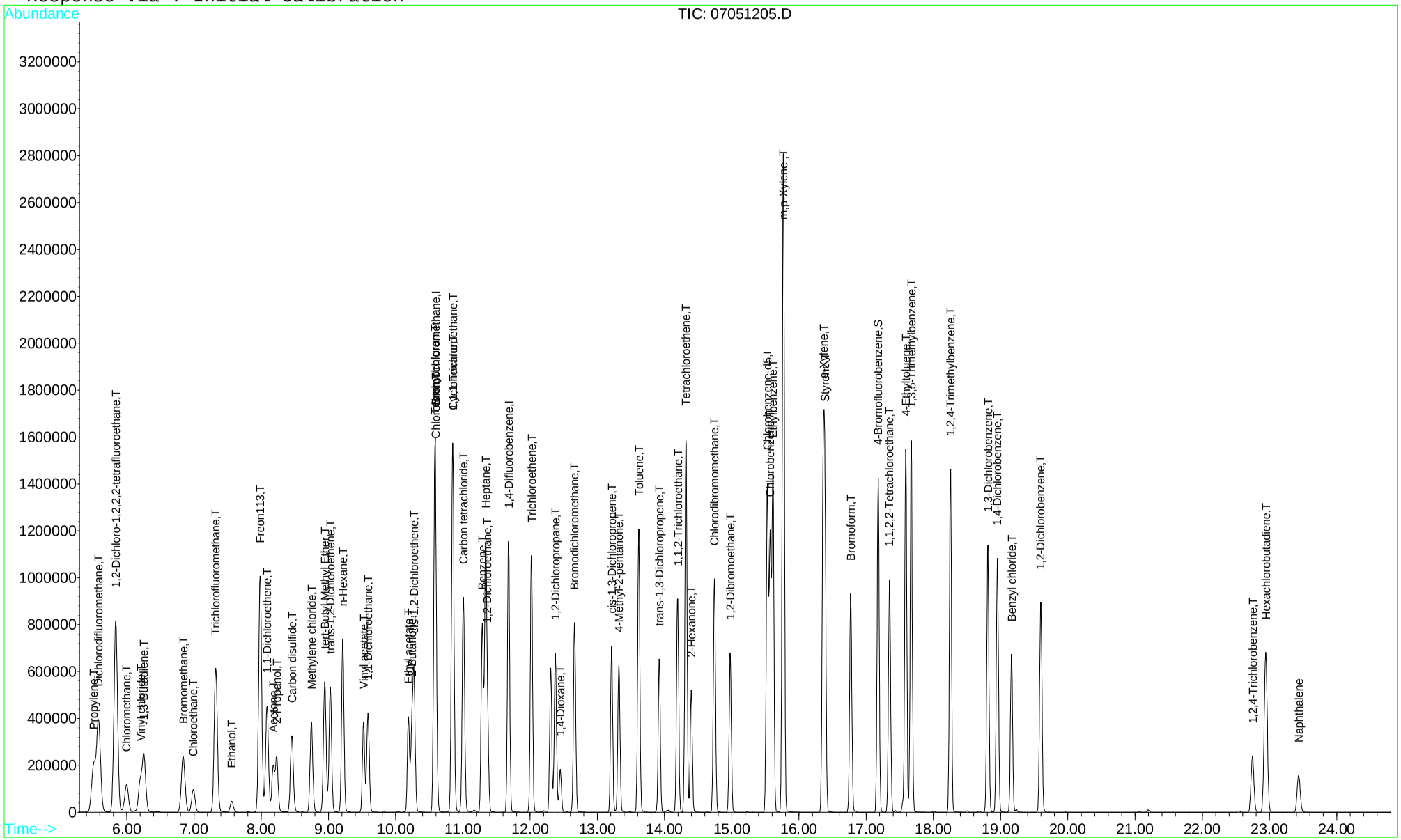
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.39	104	881325	11.27	ppbv	99
54)	Bromoform	16.77	173	621536	10.78	ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.35	83	689094	10.87	ppbv	98
57)	4-Ethyltoluene	17.59	105	1460751	11.06	ppbv	98
58)	1,3,5-Trimethylbenzene	17.67	105	1233627	10.92	ppbv	99
59)	1,2,4-Trimethylbenzene	18.26	105	1176611	11.13	ppbv	99
60)	1,3-Dichlorobenzene	18.81	146	733308	10.57	ppbv	97
61)	1,4-Dichlorobenzene	18.95	146	699220	10.44	ppbv	97
62)	Benzyl chloride	19.16	91	737317	10.02	ppbv	99
63)	1,2-Dichlorobenzene	19.60	146	632383	10.39	ppbv	97
64)	1,2,4-Trichlorobenzene	22.75	180	154862	7.01	ppbv	97
65)	Hexachlorobutadiene	22.94	225	273083	9.18	ppbv	99
66)	Naphthalene	23.43	128	286871	6.55	ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\070512\07051205.D Vial: 2
Acq On : 5 Jul 2012 12:57 pm Operator: RACHEL HILL
Sample : CCV VOA1 070512 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jul 5 13:22 2012 Quant Results File: 053112V1.RES

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA1_120709A** **Run No.:** 49985

Analytical Run Date: 7/9/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 49025 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: PR RD2 7.13.12. Preliminary data requested for project 1206824 by CO.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 070912	BFB_TUNE	TUNE	R49985	7/9/2012 10:16:00 AM	Robert Lynch		
CCV VOA1 070912	EPA_TO15	CCV	R49985	7/9/2012 11:44:00 AM	Robert Lynch		
RLVS VOA1 070912	EPA_TO15	RLVS	R49985	7/9/2012 12:28:00 PM	Robert Lynch		
MBLK VOA1 070912	EPA_TO15	MBLK	R49985	7/9/2012 3:48:00 PM	Charles O`Bryan		
1206824-001A	EPA_TO15	SAMP	R49985	7/9/2012 4:33:00 PM	Charles O`Bryan		
1206824-002A	EPA_TO15	SAMP	R49985	7/9/2012 5:19:00 PM	Charles O`Bryan		
1206824-003A	EPA_TO15	SAMP	R49985	7/9/2012 6:04:00 PM	Charles O`Bryan		
1206824-001A	EPA_TO15	SAMP	R49985	7/9/2012 6:46:00 PM	Charles O`Bryan		
1206785-028A	EPA_TO15	SAMP	R49985	7/9/2012 7:27:00 PM	Robert Lynch		
1206785-030A	EPA_TO15	SAMP	R49985	7/9/2012 8:50:00 PM	Robert Lynch		
1206785-033A	EPA_TO15	SAMP	R49985	7/9/2012 10:16:00 PM	Robert Lynch		
1206785-033Adup	EPA_TO15	DUP	R49985	7/9/2012 11:01:00 PM	Robert Lynch		
1206785-034A	EPA_TO15	SAMP	R49985	7/10/2012 12:26:00 AM	Robert Lynch		
1206785-001A	EPA_TO15	SAMP	R49985	7/10/2012 1:08:00 AM	Robert Lynch		
1206785-012A	EPA_TO15	SAMP	R49985	7/10/2012 1:49:00 AM	Robert Lynch		
1206785-013A	EPA_TO15	SAMP	R49985	7/10/2012 2:31:00 AM	Robert Lynch		
1206785-002A	EPA_TO15	SAMP	R49985	7/10/2012 3:13:00 AM	Robert Lynch		
1206785-015A	EPA_TO15	SAMP	R49985	7/10/2012 3:54:00 AM	Robert Lynch		
RLVS2 VOA1 07091	EPA_TO15	RLVS	R49985	7/10/2012 4:37:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

26-Jul-12

RunNo 49985

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
977791	BFB VOA1 070912	BFB_TUNE	TUNE	.\1\DATA\070912	7/9/2012 10:16:0	1	R49985		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0.4	0.4		100	0	0	0	0	0	0%	0	2	0%	
174	M		94	94		100	0	0	0	0	0	94%	50	120	0%	
175	M		7.4	7.4		100	0	0	0	0	0	7%	4	9	0%	
176	M		97.2	97.2		100	0	0	0	0	0	97%	93	101	0%	
177	M		6.6	6.6		100	0	0	0	0	0	7%	5	9	0%	
50	M		16.5	16.5		100	0	0	0	0	0	17%	8	40	0%	
75	M		46.9	46.9		100	0	0	0	0	0	47%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.8	6.8		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
977792	CCV VOA1 070912	EPA_TO15	CCV	.\1\DATA\070912	7/9/2012 11:44:0	1	R49985		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	9.61	9.61		9.6	0	0	0.107	1	50	100%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	9.01	9.01		10	0	0	0.211	1	50	90%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	9.69	9.69		9.8	0	0	0.108	1	50	99%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.31	9.31		9.8	0	0	0.2	1	50	95%	70	130	0%	
1,1-Dichloroethane	A	ppbv	9.51	9.51		9.7	0	0	0.111	1	50	98%	70	130	0%	
1,1-Dichloroethene	A	ppbv	9.43	9.43		9.9	0	0	0.097	1	50	95%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	7.09	7.09		9.1	0	0	0.271	1	50	78%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	8.99	8.99		9.8	0	0	0.245	1	50	92%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.3	9.3		9.6	0	0	0.186	1	50	97%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	8.73	8.73		9.7	0	0	0.208	1	50	90%	70	130	0%	
1,2-Dichloroethane	A	ppbv	9.57	9.57		9.7	0	0	0.196	1	50	99%	70	130	0%	
1,2-Dichloropropane	A	ppbv	9.32	9.32		9.8	0	0	0.224	1	50	95%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	8.77	8.77		9.7	0	0	0.24	1	50	90%	70	130	0%	
1,3-Butadiene	A	ppbv	9.19	9.19		9.8	0	0	0.152	1	50	94%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	8.8	8.8		9.7	0	0	0.202	1	50	91%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
977792	CCV VOA1 070912	EPA_TO15	CCV	.\1\DATA\070912	7/9/2012 11:44:0	1	R49985		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	8.69	8.69		9.6	0	0	0.194	1	50	91%	70	130	0%	
1,4-Dioxane	A	ppbv	8.68	8.68		9.6	0	0	0.128	1	50	90%	70	130	0%	
2-Butanone	A	ppbv	9.07	9.07		9.9	0	0	0.287	1	50	92%	70	130	0%	
2-Hexanone	A	ppbv	8.88	8.88		9.8	0	0	0.135	1	50	91%	70	130	0%	
2-Propanol	A	ppbv	9.33	9.33		10.1	0	0	0.329	1	50	92%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	8.79	8.79		10	0	0	0.157	1	50	88%	70	130	0%	
Acetone	A	ppbv	9.6	9.6		10	0	0	0.43	1	50	96%	70	130	0%	
Benzene	A	ppbv	9.8	9.8		9.6	0	0	0.126	1	50	102%	70	130	0%	
Benzyl chloride	A	ppbv	8.73	8.73		9.7	0	0	0.155	1	50	90%	70	130	0%	
Bromodichloromethane	A	ppbv	8.93	8.93		9.6	0	0	0.156	1	50	93%	70	130	0%	
Bromoform	A	ppbv	9.09	9.09		9.6	0	0	0.197	1	50	95%	70	130	0%	
Bromomethane	A	ppbv	8.67	8.67		9.3	0	0	0.075	1	50	93%	70	130	0%	
Carbon disulfide	A	ppbv	9.23	9.23		9.7	0	0	0.093	1	50	95%	70	130	0%	
Carbon tetrachloride	A	ppbv	9.61	9.61		9.5	0	0	0.114	1	50	101%	70	130	0%	
Chlorobenzene	A	ppbv	9.23	9.23		9.9	0	0	0.275	1	50	93%	70	130	0%	
Chlorodibromomethane	A	ppbv	9.4	9.4		9.2	0	0	0.165	1	50	102%	70	130	0%	
Chloroethane	A	ppbv	8.35	8.35		9.8	0	0	0.063	1	50	85%	70	130	0%	
Chloroform	A	ppbv	9.68	9.68		9.4	0	0	0.126	1	50	103%	70	130	0%	
Chloromethane	A	ppbv	8.48	8.48		9.8	0	0	0.104	1	50	87%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	9.91	9.91		9.8	0	0	0.107	1	50	101%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.07	9.07		9.5	0	0	0.166	1	50	95%	70	130	0%	
Cyclohexane	A	ppbv	9.56	9.56		9.8	0	0	0.684	2	50	98%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	8.51	8.51		9.2	0	0	0.086	1	50	93%	70	130	0%	
Ethanol	A	ppbv	8.09	8.09		9.2	0	0	1.962	5	50	88%	70	130	0%	
Ethyl acetate	A	ppbv	9.66	9.66		9.8	0	0	0.157	1	50	99%	70	130	0%	
Ethylbenzene	A	ppbv	9.15	9.15		9.8	0	0	0.737	2	50	93%	70	130	0%	
Heptane	A	ppbv	9.26	9.26		9.9	0	0	0.249	1	50	94%	70	130	0%	
Hexachlorobutadiene	A	ppbv	8.16	8.16		9.4	0	0	0.374	2	50	87%	70	130	0%	
m,p-Xylene	A	ppbv	18.38	18.38		19.2	0	0	0.524	2	100	96%	70	130	0%	
Methylene chloride	A	ppbv	9.31	9.31		10	0	0	2.077	5	50	93%	70	130	0%	
n-Hexane	A	ppbv	9.83	9.83		10.1	0	0	0.692	2	50	97%	70	130	0%	
Naphthalene	A	ppbv	7.14	7.14		9.2	0	0	0.247	1	50	78%	70	130	0%	
o-Xylene	A	ppbv	9.27	9.27		10	0	0	0.258	1	50	93%	70	130	0%	
Propylene	A	ppbv	9.55	9.55		10.2	0	0	0.075	1	50	94%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
977792	CCV VOA1 070912	EPA_TO15	CCV	.\1\DATA\070912	7/9/2012 11:44:0	1	R49985		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	9.23	9.23		9.8	0	0	0.263	1	50	94%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.23	10.23		9.9	0	0	0.228	1	50	103%	70	130	0%	
Tetrachloroethene	A	ppbv	8.99	8.99		9.6	0	0	0.148	1	50	94%	70	130	0%	
Tetrahydrofuran	A	ppbv	9.69	9.69		10	0	0	0.201	1	50	97%	70	130	0%	
Toluene	A	ppbv	9.49	9.49		9.8	0	0	0.158	1	50	97%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	9.59	9.59		9.8	0	0	0.117	1	50	98%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	8.69	8.69		9.1	0	0	0.171	1	50	95%	70	130	0%	
Trichloroethene	A	ppbv	9.35	9.35		9.6	0	0	0.119	1	50	97%	70	130	0%	
Trichlorofluoromethane	A	ppbv	9.14	9.14		9.6	0	0	0.148	1	50	95%	70	130	0%	
Vinyl acetate	A	ppbv	10.42	10.42		9.9	0	0	0.266	1	50	105%	70	130	0%	
Vinyl chloride	A	ppbv	8.67	8.67		9.4	0	0	0.072	1	50	92%	70	130	0%	
Xylenes, Total	C	ppbv	27.65	27.65		29.2	0	0	0.782	3	150	95%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.31	12.31		12.5	0	0	0	0	0	98%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
977793	RLVS VOA1 070912	EPA_TO15	RLVS	.\1\DATA\070912	7/9/2012 12:28:0	1	R49985		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	1.04	1.04		0.996	0	0	0.107	1	50	104%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.13	1.13		1	0	0	0.211	1	50	113%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.1	1.1		0.98	0	0	0.108	1	50	112%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	1	1		0.98	0	0	0.2	1	50	102%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.05	1.05		0.97	0	0	0.111	1	50	108%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.08	1.08		0.99	0	0	0.097	1	50	109%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	0.83	0.83		0.91	0	0	0.271	1	50	91%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	1.09	1.09		0.98	0	0	0.245	1	50	111%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.95	0.95		0.96	0	0	0.186	1	50	99%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.13	1.13		0.97	0	0	0.208	1	50	116%	70	130	0%	
1,2-Dichloroethane	A	ppbv	1.08	1.08		0.97	0	0	0.196	1	50	111%	70	130	0%	
1,2-Dichloropropane	A	ppbv	1.02	1.02		0.98	0	0	0.224	1	50	104%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\070912\07091203.D Vial: 3
Acq On : 9 Jul 2012 11:44 am Operator: RACHEL HILL
Sample : CCV VOA1 070912 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
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	117	0.00
2	T	Propylene	0.813	0.761	6.4	101	0.00
3	T	Dichlorodifluoromethane	3.079	2.847	7.5	98	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.303	2.190	4.9	102	0.00
5	T	Chloromethane	0.928	0.829	10.7	92	0.00
6	T	Vinyl chloride	1.049	0.967	7.8	93	0.00
7	T	1,3-Butadiene	0.727	0.682	6.2	92	0.00
8	T	Bromomethane	1.112	1.037	6.7	98	0.00
9	T	Chloroethane	0.591	0.537	9.1	93	0.00
10	T	Trichlorofluoromethane	2.936	2.794	4.8	97	0.00
11	T	Ethanol	0.315	0.277	12.1	87	0.00
12	T	Freon113	1.993	1.970	1.2	97	0.00
13	T	1,1-Dichloroethene	1.379	1.313	4.8	94	0.00
14	T	Acetone	1.332	1.279	4.0	88	0.00
15	T	Carbon disulfide	2.400	2.283	4.9	95	0.00
16	T	2-Propanol	1.279	1.182	7.6	91	0.00
17	T	Methylene chloride	1.022	0.951	6.9	93	0.00
18	T	tert-Butyl Methyl Ether	2.198	2.272	-3.4	93	0.00
19	T	trans-1,2-Dichloroethene	1.262	1.235	2.1	95	0.00
20	T	n-Hexane	1.399	1.362	2.6	94	0.00
21	T	1,1-Dichloroethane	1.713	1.680	1.9	95	0.00
22	T	Vinyl acetate	2.035	2.142	-5.3	90	0.00
23	T	cis-1,2-Dichloroethene	1.036	1.048	-1.2	97	0.00
24	T	2-Butanone	1.404	1.286	8.4	81	0.00
25	T	Ethyl acetate	1.735	1.711	1.4	88	0.00
26	T	Tetrahydrofuran	0.898	0.870	3.1	87	0.00
27	T	Chloroform	1.950	1.926	1.2	94	0.00
28	T	1,1,1-Trichloroethane	2.105	2.106	-0.0	96	0.00
29	T	Cyclohexane	1.419	1.385	2.4	93	0.00
30	T	Carbon tetrachloride	2.325	2.352	-1.2	96	0.00
31	T	Benzene	2.740	2.798	-2.1	93	0.00
32	T	1,2-Dichloroethane	1.133	1.118	1.3	90	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	121	0.00
34	T	Heptane	0.486	0.455	6.4	91	0.00
35	T	Trichloroethene	0.444	0.432	2.7	100	0.00
36	T	1,2-Dichloropropane	0.304	0.289	4.9	90	0.00
37	T	1,4-Dioxane	0.175	0.158	9.7	90	0.00
38	T	Bromodichloromethane	0.631	0.587	7.0	92	0.00
39	T	cis-1,3-Dichloropropene	0.487	0.465	4.5	90	0.00
40	T	4-Methyl-2-pentanone	0.208	0.183	12.0	84	0.00
41	T	Toluene	1.030	0.997	3.2	92	0.00
42	T	trans-1,3-Dichloropropene	0.451	0.430	4.7	91	0.00
43	T	1,1,2-Trichloroethane	0.358	0.340	5.0	93	0.00
44	T	Tetrachloroethene	0.582	0.544	6.5	96	0.00
45	T	2-Hexanone	0.404	0.366	9.4	84	0.00
46	T	Chlorodibromomethane	0.660	0.633	4.1	94	0.00
47	T	1,2-Dibromoethane	0.559	0.542	3.0	93	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	123	0.00
49	T	Chlorobenzene	0.880	0.821	6.7	93	0.00
50	T	Ethylbenzene	1.411	1.317	6.7	91	0.00
51	T	m,p-Xylene	1.097	1.050	4.3	91	0.00
52	T	o-Xylene	1.117	1.036	7.3	91	0.00
53	T	Styrene	0.860	0.810	5.8	93	0.00
54	T	Bromoform	0.634	0.600	5.4	96	0.00
55	S	4-Bromofluorobenzene	0.581	0.572	1.5	121	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\070912\07091203.D Vial: 3
Acq On : 9 Jul 2012 11:44 am Operator: RACHEL HILL
Sample : CCV VOA1 070912 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
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)
56	T	1,1,2,2-Tetrachloroethane	0.697	0.628	9.9	90	0.00
57	T	4-Ethyltoluene	1.452	1.342	7.6	93	0.00
58	T	1,3,5-Trimethylbenzene	1.242	1.122	9.7	91	0.00
59	T	1,2,4-Trimethylbenzene	1.162	1.066	8.3	92	0.00
60	T	1,3-Dichlorobenzene	0.763	0.692	9.3	94	0.00
61	T	1,4-Dichlorobenzene	0.736	0.666	9.5	94	0.00
62	T	Benzyl chloride	0.809	0.728	10.0	92	0.00
63	T	1,2-Dichlorobenzene	0.669	0.602	10.0	94	0.00
64	T	1,2,4-Trichlorobenzene	0.243	0.189	22.2	84	0.00
65	T	Hexachlorobutadiene	0.327	0.284	13.1	87	0.00
66		Naphthalene	0.481	0.374	22.2	84	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\070912\07091203.D Vial: 3
Acq On : 9 Jul 2012 11:44 am Operator: RACHEL HILL
Sample : CCV VOA1 070912 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jul 9 12:08 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.58	130	422509	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.68	114	1436346	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.53	117	1303441	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.18	95	745567	12.31	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 98.48%

Target Compounds						Qvalue
2) Propylene	5.51	41	262477	9.55	ppbv	97
3) Dichlorodifluoromethane	5.58	85	885323	8.51	ppbv	100
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	703116	9.03	ppbv #	88
5) Chloromethane	6.00	50	266071	8.48	ppbv	100
6) Vinyl chloride	6.21	62	307385	8.67	ppbv	99
7) 1,3-Butadiene	6.26	39	226000	9.19	ppbv	97
8) Bromomethane	6.85	94	325909	8.67	ppbv	99
9) Chloroethane	6.99	64	166884	8.35	ppbv	99
10) Trichlorofluoromethane	7.33	101	906468	9.14	ppbv	99
11) Ethanol	7.56	45	86035	8.09	ppbv	99
12) Freon113	7.99	101	652444	9.69	ppbv	96
13) 1,1-Dichloroethene	8.09	61	439441	9.43	ppbv	99
14) Acetone	8.18	43	432202	9.60	ppbv	100
15) Carbon disulfide	8.46	76	748552	9.23	ppbv #	100
16) 2-Propanol	8.23	45	403530	9.33	ppbv #	1
17) Methylene chloride	8.74	49	321518	9.31	ppbv	97
18) tert-Butyl Methyl Ether	8.94	73	760292	10.23	ppbv	97
19) trans-1,2-Dichloroethene	9.03	61	409005	9.59	ppbv	98
20) n-Hexane	9.22	57	464960	9.83	ppbv	97
21) 1,1-Dichloroethane	9.59	63	550702	9.51	ppbv	99
22) Vinyl acetate	9.52	43	716872	10.42	ppbv	99
23) cis-1,2-Dichloroethene	10.27	96	347235	9.91	ppbv	98
24) 2-Butanone	10.24	43	430253	9.07	ppbv	98
25) Ethyl acetate	10.19	43	566843	9.66	ppbv #	100
26) Tetrahydrofuran	10.58	42	294113	9.69	ppbv	95
27) Chloroform	10.60	83	637872	9.68	ppbv	98
28) 1,1,1-Trichloroethane	10.85	97	683462	9.61	ppbv	99
29) Cyclohexane	10.85	56	458700	9.56	ppbv	100
30) Carbon tetrachloride	11.01	117	755154	9.61	ppbv	98
31) Benzene	11.29	78	908026	9.80	ppbv	100
32) 1,2-Dichloroethane	11.36	62	366539	9.57	ppbv	99
34) Heptane	11.34	43	517166	9.26	ppbv	97
35) Trichloroethene	12.02	130	476753	9.35	ppbv	97
36) 1,2-Dichloropropane	12.37	63	325421	9.32	ppbv	99
37) 1,4-Dioxane	12.45	88	174748	8.68	ppbv	93
38) Bromodichloromethane	12.66	83	647789	8.93	ppbv	98
39) cis-1,3-Dichloropropene	13.21	75	507420	9.07	ppbv	99
40) 4-Methyl-2-pentanone	13.32	58	210083	8.79	ppbv	98
41) Toluene	13.61	91	1123107	9.49	ppbv	98
42) trans-1,3-Dichloropropene	13.92	75	450048	8.69	ppbv	99
43) 1,1,2-Trichloroethane	14.19	97	382483	9.31	ppbv	99
44) Tetrachloroethene	14.32	166	600463	8.99	ppbv	96
45) 2-Hexanone	14.40	43	412408	8.88	ppbv	98
46) Chlorodibromomethane	14.74	129	712292	9.40	ppbv	99
47) 1,2-Dibromoethane	14.98	107	597904	9.30	ppbv	100
49) Chlorobenzene	15.57	112	847189	9.23	ppbv	99
50) Ethylbenzene	15.61	91	1346136	9.15	ppbv	98
51) m,p-Xylene	15.77	91	2101852	18.38	ppbv	97
52) o-Xylene	16.36	91	1080397	9.27	ppbv	99

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\070912\07091203.D Vial: 3
Acq On : 9 Jul 2012 11:44 am Operator: RACHEL HILL
Sample : CCV VOA1 070912 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jul 9 12:08 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

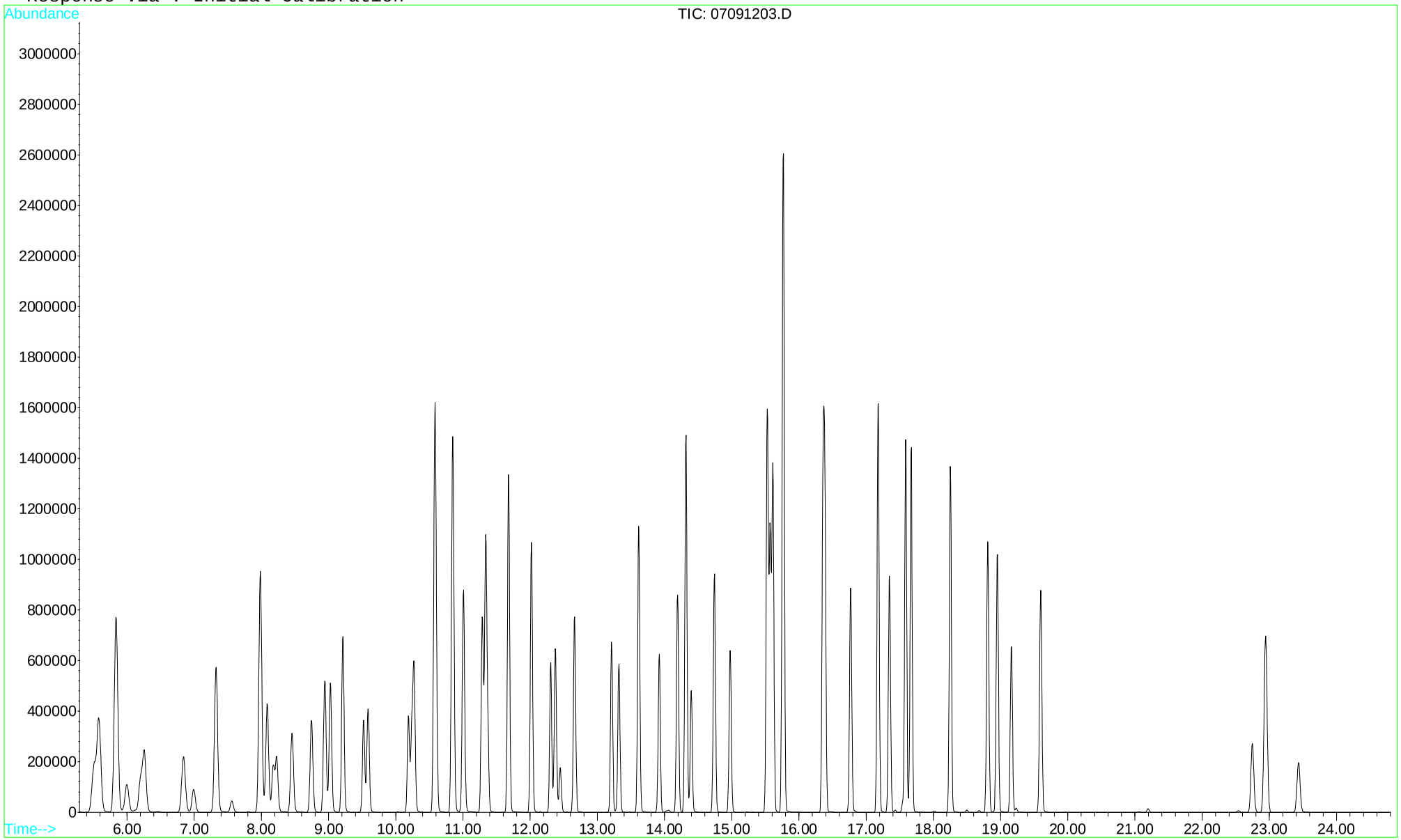
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.39	104	827492	9.23	ppbv	98
54)	Bromoform	16.77	173	600535	9.09	ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.35	83	655117	9.01	ppbv	98
57)	4-Ethyltoluene	17.59	105	1371779	9.06	ppbv	98
58)	1,3,5-Trimethylbenzene	17.67	105	1135292	8.77	ppbv	99
59)	1,2,4-Trimethylbenzene	18.25	105	1088977	8.99	ppbv	98
60)	1,3-Dichlorobenzene	18.81	146	700352	8.80	ppbv	97
61)	1,4-Dichlorobenzene	18.95	146	666940	8.69	ppbv	98
62)	Benzyl chloride	19.16	91	736840	8.73	ppbv	99
63)	1,2-Dichlorobenzene	19.60	146	609399	8.73	ppbv	97
64)	1,2,4-Trichlorobenzene	22.75	180	179565	7.09	ppbv	96
65)	Hexachlorobutadiene	22.94	225	278339	8.16	ppbv	98
66)	Naphthalene	23.43	128	358398	7.14	ppbv	99

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\070912\07091203.D Vial: 3
Acq On : 9 Jul 2012 11:44 am Operator: RACHEL HILL
Sample : CCV VOA1 070912 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jul 9 12:08 2012 Quant Results File: 053112V1.RES

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_120710A **Run No.:** 49993

Analytical Run Date: 7/10/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 49025 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: PR by RD2 on 11july12. Preliminary data requested for project 1206824 by CO.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 071012	BFB_TUNE	TUNE	R49993	7/10/2012 8:51:00 AM	Celeste Hoitash		
CCV VOA1 071012	EPA_TO15	CCV	R49993	7/10/2012 9:33:00 AM	Celeste Hoitash		
RLVS VOA1 071012	EPA_TO15	RLVS	R49993	7/10/2012 10:17:00 AM	Celeste Hoitash		
MBLK/CC-751 VOA1	EPA_TO15	MBLK	R49993	7/10/2012 11:38:00 AM	Celeste Hoitash		
~~1206824-003A~~	EPA_TO15	SAMP	R49993	7/10/2012 12:21:00 PM	Celeste Hoitash		
1206785-003A	EPA_TO15	SAMP	R49993	7/10/2012 1:02:00 PM	Celeste Hoitash		
1206785-004A	EPA_TO15	SAMP	R49993	7/10/2012 1:44:00 PM	Celeste Hoitash		
1206785-030A	EPA_TO15	SAMP	R49993	7/10/2012 2:30:00 PM	Celeste Hoitash		
1206785-031A	EPA_TO15	SAMP	R49993	7/10/2012 3:15:00 PM	Celeste Hoitash		
1206785-032A	EPA_TO15	SAMP	R49993	7/10/2012 4:00:00 PM	Celeste Hoitash		
1206785-029A	EPA_TO15	SAMP	R49993	7/10/2012 4:45:00 PM	Celeste Hoitash		
1206785-029Adup	EPA_TO15	DUP	R49993	7/10/2012 5:30:00 PM	Celeste Hoitash		
1206785-014A	EPA_TO15	SAMP	R49993	7/10/2012 6:11:00 PM	Celeste Hoitash		
1206785-005A	EPA_TO15	SAMP	R49993	7/10/2012 6:55:00 PM	Celeste Hoitash		
1206785-017A	EPA_TO15	SAMP	R49993	7/10/2012 7:36:00 PM	Celeste Hoitash		
1206785-016A	EPA_TO15	SAMP	R49993	7/10/2012 8:17:00 PM	Celeste Hoitash		
1206785-020A	EPA_TO15	SAMP	R49993	7/10/2012 9:02:00 PM	Celeste Hoitash		
1206785-018A	EPA_TO15	SAMP	R49993	7/10/2012 9:46:00 PM	Celeste Hoitash		
1206785-019A	EPA_TO15	SAMP	R49993	7/10/2012 10:31:00 PM	Celeste Hoitash		
1206785-004A	EPA_TO15	SAMP	R49993	7/11/2012 2:38:00 AM	Celeste Hoitash		
1206785-023A	EPA_TO15	SAMP	R49993	7/11/2012 3:22:00 AM	Celeste Hoitash		
1206785-022A	EPA_TO15	SAMP	R49993	7/11/2012 6:12:00 AM	Celeste Hoitash		
1206785-018A	EPA_TO15	SAMP	R49993	7/11/2012 6:53:00 AM	Celeste Hoitash		
RLVS2 VOA1 07101	EPA_TO15	RLVS	R49993	7/11/2012 7:35:00 AM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

26-Jul-12

RunNo 49993

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
977861	BFB VOA1 071012	BFB_TUNE	TUNE	.\1\DATA\071012	7/10/2012 8:51:0	1	R49993		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0.7	0.7		100	0	0	0	0	0	1%	0	2	0%	
174	M		91.7	91.7		100	0	0	0	0	0	92%	50	120	0%	
175	M		7.2	7.2		100	0	0	0	0	0	7%	4	9	0%	
176	M		95.9	95.9		100	0	0	0	0	0	96%	93	101	0%	
177	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	
50	M		17	17		100	0	0	0	0	0	17%	8	40	0%	
75	M		47.1	47.1		100	0	0	0	0	0	47%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.9	6.9		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
977862	CCV VOA1 071012	EPA_TO15	CCV	.\1\DATA\071012	7/10/2012 9:33:0	1	R49993		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	10.95	10.95		9.6	0	0	0.107	1	50	114%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.08	10.08		10	0	0	0.211	1	50	101%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.09	11.09		9.8	0	0	0.108	1	50	113%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.35	10.35		9.8	0	0	0.2	1	50	106%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.87	10.87		9.7	0	0	0.111	1	50	112%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.91	10.91		9.9	0	0	0.097	1	50	110%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	6.99	6.99		9.1	0	0	0.271	1	50	77%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.89	9.89		9.8	0	0	0.245	1	50	101%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.18	10.18		9.6	0	0	0.186	1	50	106%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.44	9.44		9.7	0	0	0.208	1	50	97%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.96	10.96		9.7	0	0	0.196	1	50	113%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.46	10.46		9.8	0	0	0.224	1	50	107%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.77	9.77		9.7	0	0	0.24	1	50	101%	70	130	0%	
1,3-Butadiene	A	ppbv	11.37	11.37		9.8	0	0	0.152	1	50	116%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.48	9.48		9.7	0	0	0.202	1	50	98%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
977862	CCV VOA1 071012	EPA_TO15	CCV	\1\DATA\071012	7/10/2012 9:33:0	1	R49993		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	9.29	9.29		9.6	0	0	0.194	1	50	97%	70	130	0%	
1,4-Dioxane	A	ppbv	9.42	9.42		9.6	0	0	0.128	1	50	98%	70	130	0%	
2-Butanone	A	ppbv	10.67	10.67		9.9	0	0	0.287	1	50	108%	70	130	0%	
2-Hexanone	A	ppbv	9.97	9.97		9.8	0	0	0.135	1	50	102%	70	130	0%	
2-Propanol	A	ppbv	10.39	10.39		10.1	0	0	0.329	1	50	103%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	9.91	9.91		10	0	0	0.157	1	50	99%	70	130	0%	
Acetone	A	ppbv	11.06	11.06		10	0	0	0.43	1	50	111%	70	130	0%	
Benzene	A	ppbv	11.04	11.04		9.6	0	0	0.126	1	50	115%	70	130	0%	
Benzyl chloride	A	ppbv	9.12	9.12		9.7	0	0	0.155	1	50	94%	70	130	0%	
Bromodichloromethane	A	ppbv	9.9	9.9		9.6	0	0	0.156	1	50	103%	70	130	0%	
Bromoform	A	ppbv	9.53	9.53		9.6	0	0	0.197	1	50	99%	70	130	0%	
Bromomethane	A	ppbv	9.69	9.69		9.3	0	0	0.075	1	50	104%	70	130	0%	
Carbon disulfide	A	ppbv	10.39	10.39		9.7	0	0	0.093	1	50	107%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.76	10.76		9.5	0	0	0.114	1	50	113%	70	130	0%	
Chlorobenzene	A	ppbv	10.17	10.17		9.9	0	0	0.275	1	50	103%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.28	10.28		9.2	0	0	0.165	1	50	112%	70	130	0%	
Chloroethane	A	ppbv	9.48	9.48		9.8	0	0	0.063	1	50	97%	70	130	0%	
Chloroform	A	ppbv	11.17	11.17		9.4	0	0	0.126	1	50	119%	70	130	0%	
Chloromethane	A	ppbv	10.18	10.18		9.8	0	0	0.104	1	50	104%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	11.15	11.15		9.8	0	0	0.107	1	50	114%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.91	9.91		9.5	0	0	0.166	1	50	104%	70	130	0%	
Cyclohexane	A	ppbv	11.13	11.13		9.8	0	0	0.684	2	50	114%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.87	9.87		9.2	0	0	0.086	1	50	107%	70	130	0%	
Ethanol	A	ppbv	8.92	8.92		9.2	0	0	1.962	5	50	97%	70	130	0%	
Ethyl acetate	A	ppbv	10.91	10.91		9.8	0	0	0.157	1	50	111%	70	130	0%	
Ethylbenzene	A	ppbv	10.26	10.26		9.8	0	0	0.737	2	50	105%	70	130	0%	
Heptane	A	ppbv	10.37	10.37		9.9	0	0	0.249	1	50	105%	70	130	0%	
Hexachlorobutadiene	A	ppbv	8.52	8.52		9.4	0	0	0.374	2	50	91%	70	130	0%	
m,p-Xylene	A	ppbv	20.75	20.75		19.2	0	0	0.524	2	100	108%	70	130	0%	
Methylene chloride	A	ppbv	10.69	10.69		10	0	0	2.077	5	50	107%	70	130	0%	
n-Hexane	A	ppbv	11.09	11.09		10.1	0	0	0.692	2	50	110%	70	130	0%	
Naphthalene	A	ppbv	6.77	6.77		9.2	0	0	0.247	1	50	74%	70	130	0%	
o-Xylene	A	ppbv	10.3	10.3		10	0	0	0.258	1	50	103%	70	130	0%	
Propylene	A	ppbv	10.9	10.9		10.2	0	0	0.075	1	50	107%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
977862	CCV VOA1 071012	EPA_TO15	CCV	.\1\DATA\071012	7/10/2012 9:33:0	1	R49993		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	10.08	10.08		9.8	0	0	0.263	1	50	103%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	11.16	11.16		9.9	0	0	0.228	1	50	113%	70	130	0%	
Tetrachloroethene	A	ppbv	9.89	9.89		9.6	0	0	0.148	1	50	103%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.11	11.11		10	0	0	0.201	1	50	111%	70	130	0%	
Toluene	A	ppbv	10.54	10.54		9.8	0	0	0.158	1	50	108%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.94	10.94		9.8	0	0	0.117	1	50	112%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.58	9.58		9.1	0	0	0.171	1	50	105%	70	130	0%	
Trichloroethene	A	ppbv	10.03	10.03		9.6	0	0	0.119	1	50	104%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.35	10.35		9.6	0	0	0.148	1	50	108%	70	130	0%	
Vinyl acetate	A	ppbv	11.78	11.78		9.9	0	0	0.266	1	50	119%	70	130	0%	
Vinyl chloride	A	ppbv	10.71	10.71		9.4	0	0	0.072	1	50	114%	70	130	0%	
Xylenes, Total	C	ppbv	31.05	31.05		29.2	0	0	0.782	3	150	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		12.5	0	0	0	0	0	100%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.17	12.17		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
977863	RLVS VOA1 071012	EPA_TO15	RLVS	.\1\DATA\071012	7/10/2012 10:17:	1	R49993		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	0.95	0.95		0.996	0	0	0.107	1	50	95%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1	1		1	0	0	0.211	1	50	100%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.06	1.06		0.98	0	0	0.108	1	50	108%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.85	0.85		0.98	0	0	0.2	1	50	87%	70	130	0%	
1,1-Dichloroethane	A	ppbv	0.99	0.99		0.97	0	0	0.111	1	50	102%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.02	1.02		0.99	0	0	0.097	1	50	103%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	0.55	0.55		0.91	0	0	0.271	1	50	60%	70	130	0%	S
1,2,4-Trimethylbenzene	A	ppbv	0.89	0.89		0.98	0	0	0.245	1	50	91%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.8	0.8		0.96	0	0	0.186	1	50	83%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	0.91	0.91		0.97	0	0	0.208	1	50	94%	70	130	0%	
1,2-Dichloroethane	A	ppbv	0.98	0.98		0.97	0	0	0.196	1	50	101%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.89	0.89		0.98	0	0	0.224	1	50	91%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\071012\07101202.D Vial: 2
Acq On : 10 Jul 2012 9:33 am Operator: RACHEL HILL
Sample : CCV VOA1 071012 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	84	0.00
2	T	Propylene	0.813	0.869	-6.9	82	0.00
3	T	Dichlorodifluoromethane	3.079	3.303	-7.3	81	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.303	2.430	-5.5	81	0.00
5	T	Chloromethane	0.928	0.995	-7.2	79	0.00
6	T	Vinyl chloride	1.049	1.195	-13.9	82	0.00
7	T	1,3-Butadiene	0.727	0.844	-16.1	81	0.00
8	T	Bromomethane	1.112	1.158	-4.1	78	0.00
9	T	Chloroethane	0.591	0.609	-3.0	75	0.00
10	T	Trichlorofluoromethane	2.936	3.165	-7.8	79	0.00
11	T	Ethanol	0.315	0.305	3.2	68	0.00
12	T	Freon113	1.993	2.255	-13.1	80	0.00
13	T	1,1-Dichloroethene	1.379	1.520	-10.2	77	0.00
14	T	Acetone	1.332	1.474	-10.7	73	0.00
15	T	Carbon disulfide	2.400	2.570	-7.1	77	0.00
16	T	2-Propanol	1.279	1.316	-2.9	72	0.00
17	T	Methylene chloride	1.022	1.092	-6.8	77	0.00
18	T	tert-Butyl Methyl Ether	2.198	2.478	-12.7	72	0.00
19	T	trans-1,2-Dichloroethene	1.262	1.409	-11.6	77	0.00
20	T	n-Hexane	1.399	1.536	-9.8	76	0.00
21	T	1,1-Dichloroethane	1.713	1.920	-12.1	77	0.00
22	T	Vinyl acetate	2.035	2.421	-19.0	73	0.00
23	T	cis-1,2-Dichloroethene	1.036	1.179	-13.8	78	0.00
24	T	2-Butanone	1.404	1.513	-7.8	68	0.00
25	T	Ethyl acetate	1.735	1.931	-11.3	71	0.00
26	T	Tetrahydrofuran	0.898	0.998	-11.1	71	0.00
27	T	Chloroform	1.950	2.222	-13.9	78	0.00
28	T	1,1,1-Trichloroethane	2.105	2.400	-14.0	78	0.00
29	T	Cyclohexane	1.419	1.612	-13.6	77	0.00
30	T	Carbon tetrachloride	2.325	2.633	-13.2	77	0.00
31	T	Benzene	2.740	3.151	-15.0	75	0.00
32	T	1,2-Dichloroethane	1.133	1.280	-13.0	74	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	88	0.00
34	T	Heptane	0.486	0.509	-4.7	74	0.00
35	T	Trichloroethene	0.444	0.463	-4.3	78	0.00
36	T	1,2-Dichloropropane	0.304	0.324	-6.6	73	0.00
37	T	1,4-Dioxane	0.175	0.172	1.7	71	0.00
38	T	Bromodichloromethane	0.631	0.651	-3.2	75	0.00
39	T	cis-1,3-Dichloropropene	0.487	0.508	-4.3	72	0.00
40	T	4-Methyl-2-pentanone	0.208	0.206	1.0	69	0.00
41	T	Toluene	1.030	1.108	-7.6	74	0.00
42	T	trans-1,3-Dichloropropene	0.451	0.475	-5.3	73	0.00
43	T	1,1,2-Trichloroethane	0.358	0.377	-5.3	75	0.00
44	T	Tetrachloroethene	0.582	0.599	-2.9	77	0.00
45	T	2-Hexanone	0.404	0.411	-1.7	69	0.00
46	T	Chlorodibromomethane	0.660	0.692	-4.8	75	0.00
47	T	1,2-Dibromoethane	0.559	0.593	-6.1	74	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	91	0.00
49	T	Chlorobenzene	0.880	0.905	-2.8	75	0.00
50	T	Ethylbenzene	1.411	1.477	-4.7	75	0.00
51	T	m,p-Xylene	1.097	1.185	-8.0	75	0.00
52	T	o-Xylene	1.117	1.151	-3.0	74	0.00
53	T	Styrene	0.860	0.884	-2.8	74	0.00
54	T	Bromoform	0.634	0.629	0.8	74	0.00
55	S	4-Bromofluorobenzene	0.581	0.566	2.6	88	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\071012\07101202.D Vial: 2
Acq On : 10 Jul 2012 9:33 am Operator: RACHEL HILL
Sample : CCV VOA1 071012 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
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)
56	T	1,1,2,2-Tetrachloroethane	0.697	0.703	-0.9	74	0.00
57	T	4-Ethyltoluene	1.452	1.478	-1.8	75	0.00
58	T	1,3,5-Trimethylbenzene	1.242	1.251	-0.7	75	0.00
59	T	1,2,4-Trimethylbenzene	1.162	1.173	-0.9	74	0.00
60	T	1,3-Dichlorobenzene	0.763	0.746	2.2	74	0.00
61	T	1,4-Dichlorobenzene	0.736	0.713	3.1	73	0.00
62	T	Benzyl chloride	0.809	0.761	5.9	70	0.00
63	T	1,2-Dichlorobenzene	0.669	0.651	2.7	74	0.00
64	T	1,2,4-Trichlorobenzene	0.243	0.187	23.0	60	0.00
65	T	Hexachlorobutadiene	0.327	0.296	9.5	67	0.00
66		Naphthalene	0.481	0.354	26.4	58	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\071012\07101202.D Vial: 2
Acq On : 10 Jul 2012 9:33 am Operator: RACHEL HILL
Sample : CCV VOA1 071012 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jul 10 9:58 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.58	130	302047	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.68	114	1044836	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.53	117	955800	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.18	95	540640	12.17	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 97.36%

Target Compounds						Qvalue
2) Propylene	5.51	41	214183	10.90	ppbv	97
3) Dichlorodifluoromethane	5.59	85	734354	9.87	ppbv	100
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	557881	10.03	ppbv #	84
5) Chloromethane	6.01	50	228338	10.18	ppbv #	96
6) Vinyl chloride	6.20	62	271431	10.71	ppbv #	99
7) 1,3-Butadiene	6.26	39	199753	11.37	ppbv	98
8) Bromomethane	6.84	94	260295	9.69	ppbv #	98
9) Chloroethane	6.99	64	135424	9.48	ppbv	99
10) Trichlorofluoromethane	7.33	101	734133	10.35	ppbv	98
11) Ethanol	7.56	45	67826	8.92	ppbv	99
12) Freon113	7.99	101	533968	11.09	ppbv	93
13) 1,1-Dichloroethene	8.09	61	363576	10.91	ppbv	97
14) Acetone	8.18	43	356065	11.06	ppbv	99
15) Carbon disulfide	8.46	76	602326	10.39	ppbv #	99
16) 2-Propanol	8.23	45	321284	10.39	ppbv #	1
17) Methylene chloride	8.75	49	263945	10.69	ppbv	99
18) tert-Butyl Methyl Ether	8.95	73	592680	11.16	ppbv	99
19) trans-1,2-Dichloroethene	9.03	61	333708	10.94	ppbv	99
20) n-Hexane	9.22	57	374749	11.09	ppbv	98
21) 1,1-Dichloroethane	9.59	63	449963	10.87	ppbv	99
22) Vinyl acetate	9.53	43	579143	11.78	ppbv	99
23) cis-1,2-Dichloroethene	10.27	96	279225	11.15	ppbv	99
24) 2-Butanone	10.24	43	361929	10.67	ppbv	100
25) Ethyl acetate	10.19	43	457276	10.91	ppbv #	99
26) Tetrahydrofuran	10.58	42	241097	11.11	ppbv	95
27) Chloroform	10.60	83	526224	11.17	ppbv	98
28) 1,1,1-Trichloroethane	10.84	97	556692	10.95	ppbv	99
29) Cyclohexane	10.85	56	381692	11.13	ppbv	100
30) Carbon tetrachloride	11.01	117	604487	10.76	ppbv	98
31) Benzene	11.29	78	730904	11.04	ppbv	100
32) 1,2-Dichloroethane	11.37	62	300075	10.96	ppbv	99
34) Heptane	11.34	43	421258	10.37	ppbv	97
35) Trichloroethene	12.02	130	371731	10.03	ppbv	96
36) 1,2-Dichloropropane	12.38	63	265754	10.46	ppbv	99
37) 1,4-Dioxane	12.45	88	138042	9.42	ppbv	95
38) Bromodichloromethane	12.66	83	522458	9.90	ppbv	98
39) cis-1,3-Dichloropropene	13.21	75	403285	9.91	ppbv	99
40) 4-Methyl-2-pentanone	13.32	58	172184	9.91	ppbv	98
41) Toluene	13.61	91	907678	10.54	ppbv	97
42) trans-1,3-Dichloropropene	13.92	75	360940	9.58	ppbv	99
43) 1,1,2-Trichloroethane	14.20	97	309224	10.35	ppbv	99
44) Tetrachloroethene	14.32	166	480681	9.89	ppbv	96
45) 2-Hexanone	14.40	43	336788	9.97	ppbv	97
46) Chlorodibromomethane	14.74	129	566995	10.28	ppbv	99
47) 1,2-Dibromoethane	14.97	107	475933	10.18	ppbv	100
49) Chlorobenzene	15.57	112	684849	10.17	ppbv	99
50) Ethylbenzene	15.61	91	1106752	10.26	ppbv	97
51) m,p-Xylene	15.76	91	1740300	20.75	ppbv	97
52) o-Xylene	16.36	91	880275	10.30	ppbv	98

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\071012\07101202.D Vial: 2
Acq On : 10 Jul 2012 9:33 am Operator: RACHEL HILL
Sample : CCV VOA1 071012 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jul 10 9:58 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

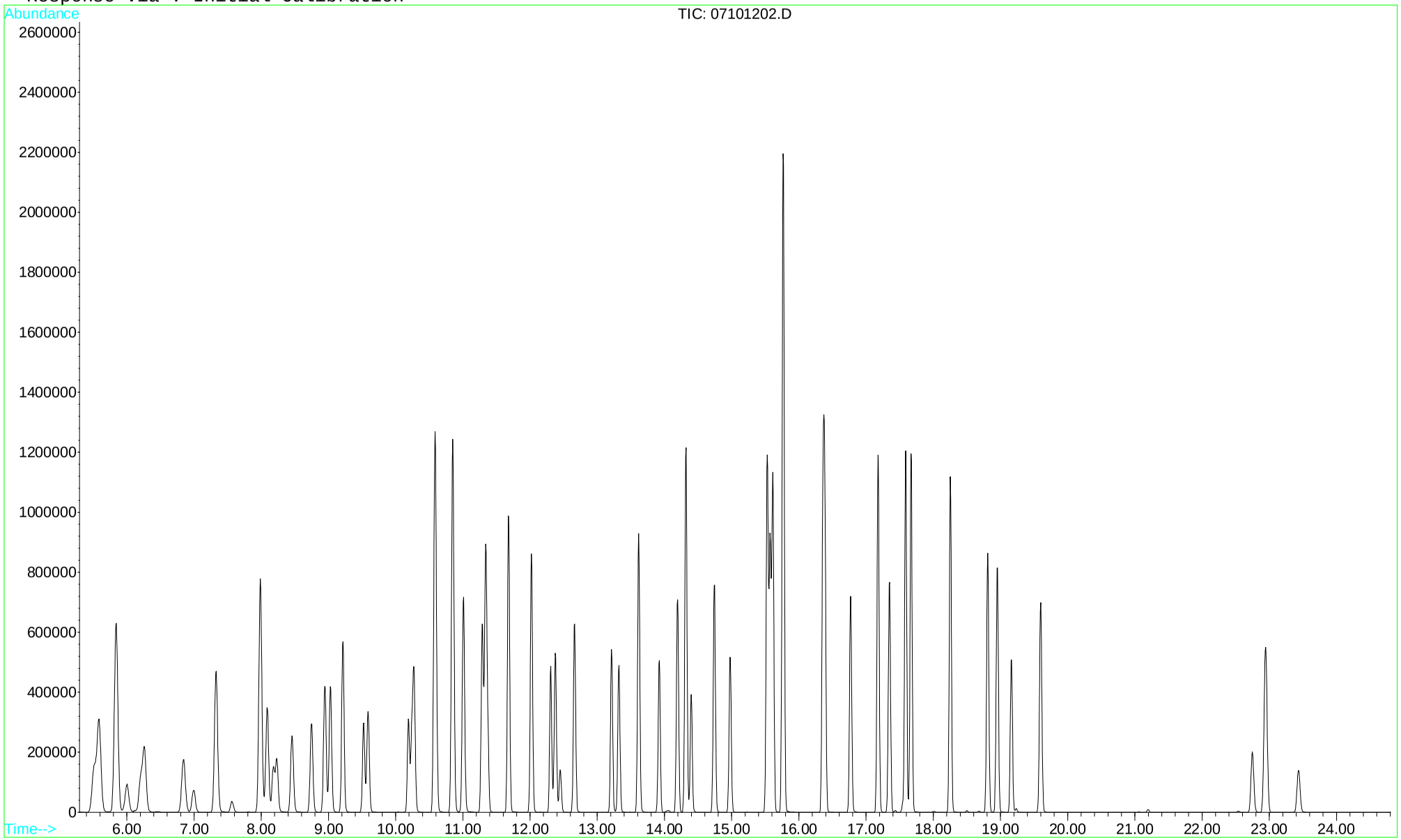
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.39	104	662392	10.08	ppbv	98
54)	Bromoform	16.77	173	461978	9.53	ppbv	98
56)	1,1,2,2-Tetrachloroethane	17.34	83	537335	10.08	ppbv	98
57)	4-Ethyltoluene	17.59	105	1107695	9.97	ppbv	98
58)	1,3,5-Trimethylbenzene	17.67	105	927799	9.77	ppbv	98
59)	1,2,4-Trimethylbenzene	18.25	105	878676	9.89	ppbv	98
60)	1,3-Dichlorobenzene	18.81	146	553242	9.48	ppbv	98
61)	1,4-Dichlorobenzene	18.95	146	523056	9.29	ppbv	98
62)	Benzyl chloride	19.16	91	564567	9.12	ppbv	99
63)	1,2-Dichlorobenzene	19.60	146	482956	9.44	ppbv	97
64)	1,2,4-Trichlorobenzene	22.75	180	129845	6.99	ppbv	97
65)	Hexachlorobutadiene	22.95	225	212964	8.52	ppbv	99
66)	Naphthalene	23.44	128	249068	6.77	ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071012\07101202.D Vial: 2
Acq On : 10 Jul 2012 9:33 am Operator: RACHEL HILL
Sample : CCV VOA1 071012 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jul 10 9:58 2012 Quant Results File: 053112V1.RES

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA1_120711A** **Run No.:** 50059

Analytical Run Date: 7/11/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 49025 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: PR by RD2 on 12july12

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 071112	BFB_TUNE	TUNE	R50059	7/11/2012 8:30:00 AM	Robert Lynch		
CCV VOA1 071112	EPA_TO15	CCV	R50059	7/11/2012 11:38:00 AM	Robert Lynch		
RLVS VOA1 071112	EPA_TO15	RLVS	R50059	7/11/2012 12:21:00 PM	Robert Lynch		
MBLK VOA1 071112	EPA_TO15	MBLK	R50059	7/11/2012 1:24:00 PM	Robert Lynch		
1206785-029A	EPA_TO15	SAMP	R50059	7/11/2012 2:05:00 PM	Robert Lynch		
1206785-001A	EPA_TO15	SAMP	R50059	7/11/2012 2:46:00 PM	Robert Lynch		
1206785-012A	EPA_TO15	SAMP	R50059	7/11/2012 3:28:00 PM	Robert Lynch		
1206785-013A	EPA_TO15	SAMP	R50059	7/11/2012 4:09:00 PM	Robert Lynch		
1206785-014A	EPA_TO15	SAMP	R50059	7/11/2012 4:51:00 PM	Robert Lynch		
1206785-019A	EPA_TO15	SAMP	R50059	7/11/2012 6:15:00 PM	Robert Lynch		
1206785-021A	EPA_TO15	SAMP	R50059	7/11/2012 7:00:00 PM	Robert Lynch		
1206785-021Adup	EPA_TO15	DUP	R50059	7/11/2012 7:44:00 PM	Robert Lynch		
1206785-024A	EPA_TO15	SAMP	R50059	7/11/2012 10:40:00 PM	Robert Lynch		
1206785-040A	EPA_TO15	SAMP	R50059	7/11/2012 11:21:00 PM	Robert Lynch		
1206785-041A	EPA_TO15	SAMP	R50059	7/12/2012 12:02:00 AM	Robert Lynch		
1206785-026A	EPA_TO15	SAMP	R50059	7/12/2012 2:07:00 AM	Robert Lynch		
1206785-021A	EPA_TO15	SAMP	R50059	7/12/2012 3:29:00 AM	Robert Lynch		
1206785-037A	EPA_TO15	SAMP	R50059	7/12/2012 4:17:00 AM	Robert Lynch		
1206785-041A	EPA_TO15	SAMP	R50059	7/12/2012 5:02:00 AM	Robert Lynch		
RLVS2 VOA1 07111	EPA_TO15	RLVS	R50059	7/12/2012 5:44:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

26-Jul-12

RunNo 50059

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
978998	BFB VOA1 071112	BFB_TUNE	TUNE	.\1\DATA\071112	7/11/2012 8:30:0	1	R50059		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		100	0	0	0	0	0	1%	0	2	0%	
174	M		88.7	88.7		100	0	0	0	0	0	89%	50	120	0%	
175	M		7.1	7.1		100	0	0	0	0	0	7%	4	9	0%	
176	M		96.8	96.8		100	0	0	0	0	0	97%	93	101	0%	
177	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	
50	M		17.5	17.5		100	0	0	0	0	0	18%	8	40	0%	
75	M		47.4	47.4		100	0	0	0	0	0	47%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		7.1	7.1		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
978999	CCV VOA1 071112	EPA_TO15	CCV	.\1\DATA\071112	7/11/2012 11:38:	1	R50059		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	10.96	10.96		9.6	0	0	0.107	1	50	114%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.63	10.63		10	0	0	0.211	1	50	106%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.94	10.94		9.8	0	0	0.108	1	50	112%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	11	11		9.8	0	0	0.2	1	50	112%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.8	10.8		9.7	0	0	0.111	1	50	111%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.88	10.88		9.9	0	0	0.097	1	50	110%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	7.68	7.68		9.1	0	0	0.271	1	50	84%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	10.47	10.47		9.8	0	0	0.245	1	50	107%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.9	10.9		9.6	0	0	0.186	1	50	114%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.14	10.14		9.7	0	0	0.208	1	50	105%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.09	11.09		9.7	0	0	0.196	1	50	114%	70	130	0%	
1,2-Dichloropropane	A	ppbv	11.02	11.02		9.8	0	0	0.224	1	50	112%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.36	10.36		9.7	0	0	0.24	1	50	107%	70	130	0%	
1,3-Butadiene	A	ppbv	10.82	10.82		9.8	0	0	0.152	1	50	110%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.26	10.26		9.7	0	0	0.202	1	50	106%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
978999	CCV VOA1 071112	EPA_TO15	CCV	.\1\DATA\071112	7/11/2012 11:38:	1	R50059		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.22	10.22		9.6	0	0	0.194	1	50	106%	70	130	0%	
1,4-Dioxane	A	ppbv	9.61	9.61		9.6	0	0	0.128	1	50	100%	70	130	0%	
2-Butanone	A	ppbv	10.69	10.69		9.9	0	0	0.287	1	50	108%	70	130	0%	
2-Hexanone	A	ppbv	10.62	10.62		9.8	0	0	0.135	1	50	108%	70	130	0%	
2-Propanol	A	ppbv	10.69	10.69		10.1	0	0	0.329	1	50	106%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.75	10.75		10	0	0	0.157	1	50	108%	70	130	0%	
Acetone	A	ppbv	10.92	10.92		10	0	0	0.43	1	50	109%	70	130	0%	
Benzene	A	ppbv	11.27	11.27		9.6	0	0	0.126	1	50	117%	70	130	0%	
Benzyl chloride	A	ppbv	10.07	10.07		9.7	0	0	0.155	1	50	104%	70	130	0%	
Bromodichloromethane	A	ppbv	10.45	10.45		9.6	0	0	0.156	1	50	109%	70	130	0%	
Bromoform	A	ppbv	10.52	10.52		9.6	0	0	0.197	1	50	110%	70	130	0%	
Bromomethane	A	ppbv	9.91	9.91		9.3	0	0	0.075	1	50	107%	70	130	0%	
Carbon disulfide	A	ppbv	10.56	10.56		9.7	0	0	0.093	1	50	109%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.78	10.78		9.5	0	0	0.114	1	50	113%	70	130	0%	
Chlorobenzene	A	ppbv	10.9	10.9		9.9	0	0	0.275	1	50	110%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.96	10.96		9.2	0	0	0.165	1	50	119%	70	130	0%	
Chloroethane	A	ppbv	9.64	9.64		9.8	0	0	0.063	1	50	98%	70	130	0%	
Chloroform	A	ppbv	11.13	11.13		9.4	0	0	0.126	1	50	118%	70	130	0%	
Chloromethane	A	ppbv	10.07	10.07		9.8	0	0	0.104	1	50	103%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	11.11	11.11		9.8	0	0	0.107	1	50	113%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.7	10.7		9.5	0	0	0.166	1	50	113%	70	130	0%	
Cyclohexane	A	ppbv	10.97	10.97		9.8	0	0	0.684	2	50	112%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.78	9.78		9.2	0	0	0.086	1	50	106%	70	130	0%	
Ethanol	A	ppbv	8.7	8.7		9.2	0	0	1.962	5	50	95%	70	130	0%	
Ethyl acetate	A	ppbv	11.09	11.09		9.8	0	0	0.157	1	50	113%	70	130	0%	
Ethylbenzene	A	ppbv	10.91	10.91		9.8	0	0	0.737	2	50	111%	70	130	0%	
Heptane	A	ppbv	10.85	10.85		9.9	0	0	0.249	1	50	110%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.1	9.1		9.4	0	0	0.374	2	50	97%	70	130	0%	
m,p-Xylene	A	ppbv	22.05	22.05		19.2	0	0	0.524	2	100	115%	70	130	0%	
Methylene chloride	A	ppbv	10.76	10.76		10	0	0	2.077	5	50	108%	70	130	0%	
n-Hexane	A	ppbv	11.27	11.27		10.1	0	0	0.692	2	50	112%	70	130	0%	
Naphthalene	A	ppbv	7.64	7.64		9.2	0	0	0.247	1	50	83%	70	130	0%	
o-Xylene	A	ppbv	10.97	10.97		10	0	0	0.258	1	50	110%	70	130	0%	
Propylene	A	ppbv	10.79	10.79		10.2	0	0	0.075	1	50	106%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
978999	CCV VOA1 071112	EPA_TO15	CCV	.\1\DATA\071112	7/11/2012 11:38:	1	R50059		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	10.92	10.92		9.8	0	0	0.263	1	50	111%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	11.6	11.6		9.9	0	0	0.228	1	50	117%	70	130	0%	
Tetrachloroethene	A	ppbv	10.47	10.47		9.6	0	0	0.148	1	50	109%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.21	11.21		10	0	0	0.201	1	50	112%	70	130	0%	
Toluene	A	ppbv	11.25	11.25		9.8	0	0	0.158	1	50	115%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.89	10.89		9.8	0	0	0.117	1	50	111%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.17	10.17		9.1	0	0	0.171	1	50	112%	70	130	0%	
Trichloroethene	A	ppbv	10.77	10.77		9.6	0	0	0.119	1	50	112%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.46	10.46		9.6	0	0	0.148	1	50	109%	70	130	0%	
Vinyl acetate	A	ppbv	11.89	11.89		9.9	0	0	0.266	1	50	120%	70	130	0%	
Vinyl chloride	A	ppbv	10.32	10.32		9.4	0	0	0.072	1	50	110%	70	130	0%	
Xylenes, Total	C	ppbv	33.02	33.02		29.2	0	0	0.782	3	150	113%	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		12.5	0	0	0	0	0	100%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.28	12.28		12.5	0	0	0	0	0	98%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
979000	RLVS VOA1 071112	EPA_TO15	RLVS	.\1\DATA\071112	7/11/2012 12:21:	1	R50059		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	1.02	1.02		0.996	0	0	0.107	1	50	102%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.09	1.09		1	0	0	0.211	1	50	109%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.1	1.1		0.98	0	0	0.108	1	50	112%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.98	0.98		0.98	0	0	0.2	1	50	100%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.06	1.06		0.97	0	0	0.111	1	50	109%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.08	1.08		0.99	0	0	0.097	1	50	109%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	0.66	0.66		0.91	0	0	0.271	1	50	73%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	1	1		0.98	0	0	0.245	1	50	102%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.91	0.91		0.96	0	0	0.186	1	50	95%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.02	1.02		0.97	0	0	0.208	1	50	105%	70	130	0%	
1,2-Dichloroethane	A	ppbv	1.07	1.07		0.97	0	0	0.196	1	50	110%	70	130	0%	
1,2-Dichloropropane	A	ppbv	1	1		0.98	0	0	0.224	1	50	102%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\071112\07111203.D Vial: 3
Acq On : 11 Jul 2012 11:38 am Operator: RACHEL HILL
Sample : CCV VOA1 071112 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
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	94	0.00
2	T	Propylene	0.813	0.861	-5.9	92	0.00
3	T	Dichlorodifluoromethane	3.079	3.274	-6.3	91	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.303	2.453	-6.5	93	0.00
5	T	Chloromethane	0.928	0.984	-6.0	88	0.00
6	T	Vinyl chloride	1.049	1.151	-9.7	89	0.00
7	T	1,3-Butadiene	0.727	0.803	-10.5	87	0.00
8	T	Bromomethane	1.112	1.185	-6.6	91	0.00
9	T	Chloroethane	0.591	0.619	-4.7	86	0.00
10	T	Trichlorofluoromethane	2.936	3.200	-9.0	90	0.00
11	T	Ethanol	0.315	0.298	5.4	75	0.00
12	T	Freon113	1.993	2.224	-11.6	89	0.00
13	T	1,1-Dichloroethene	1.379	1.516	-9.9	87	0.00
14	T	Acetone	1.332	1.454	-9.2	81	0.00
15	T	Carbon disulfide	2.400	2.613	-8.9	88	0.00
16	T	2-Propanol	1.279	1.355	-5.9	84	0.00
17	T	Methylene chloride	1.022	1.100	-7.6	87	0.00
18	T	tert-Butyl Methyl Ether	2.198	2.577	-17.2	85	0.00
19	T	trans-1,2-Dichloroethene	1.262	1.402	-11.1	87	0.00
20	T	n-Hexane	1.399	1.560	-11.5	87	0.00
21	T	1,1-Dichloroethane	1.713	1.907	-11.3	87	0.00
22	T	Vinyl acetate	2.035	2.445	-20.1	83	0.00
23	T	cis-1,2-Dichloroethene	1.036	1.175	-13.4	88	0.00
24	T	2-Butanone	1.404	1.516	-8.0	77	0.00
25	T	Ethyl acetate	1.735	1.963	-13.1	81	0.00
26	T	Tetrahydrofuran	0.898	1.007	-12.1	82	0.00
27	T	Chloroform	1.950	2.215	-13.6	88	0.00
28	T	1,1,1-Trichloroethane	2.105	2.403	-14.2	89	0.00
29	T	Cyclohexane	1.419	1.588	-11.9	86	0.00
30	T	Carbon tetrachloride	2.325	2.637	-13.4	87	0.00
31	T	Benzene	2.740	3.216	-17.4	87	0.00
32	T	1,2-Dichloroethane	1.133	1.295	-14.3	84	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	96	0.00
34	T	Heptane	0.486	0.533	-9.7	85	0.00
35	T	Trichloroethene	0.444	0.498	-12.2	91	0.00
36	T	1,2-Dichloropropane	0.304	0.342	-12.5	84	0.00
37	T	1,4-Dioxane	0.175	0.176	-0.6	79	0.00
38	T	Bromodichloromethane	0.631	0.687	-8.9	86	0.00
39	T	cis-1,3-Dichloropropene	0.487	0.548	-12.5	85	0.00
40	T	4-Methyl-2-pentanone	0.208	0.224	-7.7	82	0.00
41	T	Toluene	1.030	1.182	-14.8	86	0.00
42	T	trans-1,3-Dichloropropene	0.451	0.503	-11.5	84	0.00
43	T	1,1,2-Trichloroethane	0.358	0.401	-12.0	87	0.00
44	T	Tetrachloroethene	0.582	0.634	-8.9	89	0.00
45	T	2-Hexanone	0.404	0.438	-8.4	80	0.00
46	T	Chlorodibromomethane	0.660	0.738	-11.8	87	0.00
47	T	1,2-Dibromoethane	0.559	0.635	-13.6	87	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	98	0.00
49	T	Chlorobenzene	0.880	0.970	-10.2	87	0.00
50	T	Ethylbenzene	1.411	1.571	-11.3	86	0.00
51	T	m,p-Xylene	1.097	1.259	-14.8	86	0.00
52	T	o-Xylene	1.117	1.226	-9.8	86	0.00
53	T	Styrene	0.860	0.958	-11.4	87	0.00
54	T	Bromoform	0.634	0.694	-9.5	88	0.00
55	S	4-Bromofluorobenzene	0.581	0.571	1.7	95	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\071112\07111203.D Vial: 3
Acq On : 11 Jul 2012 11:38 am Operator: RACHEL HILL
Sample : CCV VOA1 071112 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
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)
56	T	1,1,2,2-Tetrachloroethane	0.697	0.741	-6.3	85	0.00
57	T	4-Ethyltoluene	1.452	1.583	-9.0	87	0.00
58	T	1,3,5-Trimethylbenzene	1.242	1.327	-6.8	86	0.00
59	T	1,2,4-Trimethylbenzene	1.162	1.241	-6.8	85	0.00
60	T	1,3-Dichlorobenzene	0.763	0.808	-5.9	87	0.00
61	T	1,4-Dichlorobenzene	0.736	0.784	-6.5	87	0.00
62	T	Benzyl chloride	0.809	0.840	-3.8	84	0.00
63	T	1,2-Dichlorobenzene	0.669	0.699	-4.5	86	0.00
64	T	1,2,4-Trichlorobenzene	0.243	0.205	15.6	72	0.00
65	T	Hexachlorobutadiene	0.327	0.316	3.4	77	0.00
66		Naphthalene	0.481	0.400	16.8	71	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\071112\07111203.D Vial: 3
Acq On : 11 Jul 2012 11:38 am Operator: RACHEL HILL
Sample : CCV VOA1 071112 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jul 11 12:03 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.58	130	341781	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.68	114	1140567	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.53	117	1033077	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.18	95	589430	12.28	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 98.24%

Target Compounds						Qvalue
2) Propylene	5.50	41	240047	10.79	ppbv	98
3) Dichlorodifluoromethane	5.58	85	823523	9.78	ppbv	100
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	637111	10.12	ppbv #	86
5) Chloromethane	6.00	50	255590	10.07	ppbv	98
6) Vinyl chloride	6.20	62	295888	10.32	ppbv #	99
7) 1,3-Butadiene	6.26	39	215145	10.82	ppbv	98
8) Bromomethane	6.84	94	301441	9.91	ppbv #	98
9) Chloroethane	6.99	64	155819	9.64	ppbv	100
10) Trichlorofluoromethane	7.32	101	840016	10.46	ppbv	98
11) Ethanol	7.56	45	74854	8.70	ppbv	98
12) Freon113	7.98	101	595871	10.94	ppbv	94
13) 1,1-Dichloroethene	8.09	61	410324	10.88	ppbv	99
14) Acetone	8.18	43	397658	10.92	ppbv	99
15) Carbon disulfide	8.46	76	693018	10.56	ppbv #	100
16) 2-Propanol	8.23	45	374111	10.69	ppbv #	1
17) Methylene chloride	8.75	49	300737	10.76	ppbv	98
18) tert-Butyl Methyl Ether	8.94	73	697537	11.60	ppbv	98
19) trans-1,2-Dichloroethene	9.03	61	375677	10.89	ppbv	99
20) n-Hexane	9.22	57	430927	11.27	ppbv	97
21) 1,1-Dichloroethane	9.59	63	505802	10.80	ppbv	99
22) Vinyl acetate	9.52	43	661875	11.89	ppbv	99
23) cis-1,2-Dichloroethene	10.27	96	314778	11.11	ppbv	99
24) 2-Butanone	10.24	43	410352	10.69	ppbv	99
25) Ethyl acetate	10.19	43	526051	11.09	ppbv #	99
26) Tetrahydrofuran	10.58	42	275214	11.21	ppbv	94
27) Chloroform	10.60	83	593547	11.13	ppbv	98
28) 1,1,1-Trichloroethane	10.85	97	630656	10.96	ppbv	98
29) Cyclohexane	10.85	56	425614	10.97	ppbv	99
30) Carbon tetrachloride	11.01	117	685003	10.78	ppbv	98
31) Benzene	11.29	78	844092	11.27	ppbv	99
32) 1,2-Dichloroethane	11.37	62	343581	11.09	ppbv	99
34) Heptane	11.34	43	481240	10.85	ppbv	97
35) Trichloroethene	12.02	130	435870	10.77	ppbv	98
36) 1,2-Dichloropropane	12.37	63	305745	11.02	ppbv	100
37) 1,4-Dioxane	12.45	88	153746	9.61	ppbv	94
38) Bromodichloromethane	12.66	83	601925	10.45	ppbv	99
39) cis-1,3-Dichloropropene	13.21	75	475259	10.70	ppbv	100
40) 4-Methyl-2-pentanone	13.32	58	203938	10.75	ppbv	97
41) Toluene	13.61	91	1057083	11.25	ppbv	98
42) trans-1,3-Dichloropropene	13.92	75	417876	10.17	ppbv	99
43) 1,1,2-Trichloroethane	14.20	97	358806	11.00	ppbv	99
44) Tetrachloroethene	14.32	166	555683	10.47	ppbv	96
45) 2-Hexanone	14.40	43	391331	10.62	ppbv	97
46) Chlorodibromomethane	14.74	129	659965	10.96	ppbv	99
47) 1,2-Dibromoethane	14.97	107	556170	10.90	ppbv	100
49) Chlorobenzene	15.57	112	793360	10.90	ppbv	99
50) Ethylbenzene	15.61	91	1272806	10.91	ppbv	97
51) m,p-Xylene	15.77	91	1998540	22.05	ppbv	97
52) o-Xylene	16.36	91	1013196	10.97	ppbv	98

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\071112\07111203.D Vial: 3
Acq On : 11 Jul 2012 11:38 am Operator: RACHEL HILL
Sample : CCV VOA1 071112 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jul 11 12:03 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

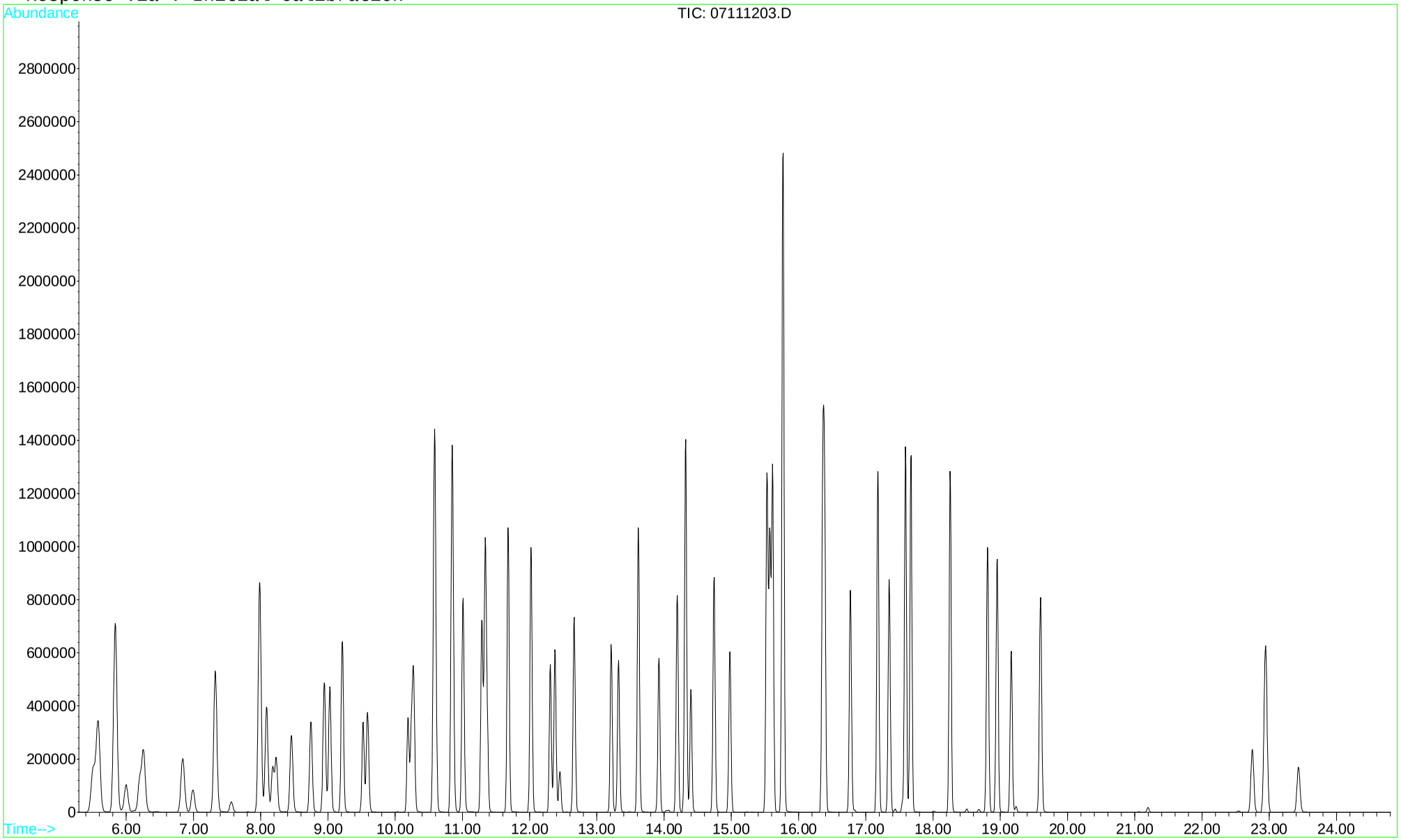
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.39	104	776089	10.92	ppbv	98
54)	Bromoform	16.77	173	550895	10.52	ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.35	83	612791	10.63	ppbv	98
57)	4-Ethyltoluene	17.59	105	1281984	10.68	ppbv	98
58)	1,3,5-Trimethylbenzene	17.67	105	1063548	10.36	ppbv	98
59)	1,2,4-Trimethylbenzene	18.25	105	1005339	10.47	ppbv	99
60)	1,3-Dichlorobenzene	18.81	146	647370	10.26	ppbv	97
61)	1,4-Dichlorobenzene	18.95	146	621678	10.22	ppbv	97
62)	Benzyl chloride	19.16	91	673692	10.07	ppbv	99
63)	1,2-Dichlorobenzene	19.60	146	560740	10.14	ppbv	97
64)	1,2,4-Trichlorobenzene	22.75	180	154236	7.68	ppbv	97
65)	Hexachlorobutadiene	22.95	225	245764	9.10	ppbv	99
66)	Naphthalene	23.44	128	303878	7.64	ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071112\07111203.D Vial: 3
Acq On : 11 Jul 2012 11:38 am Operator: RACHEL HILL
Sample : CCV VOA1 071112 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jul 11 12:03 2012 Quant Results File: 053112V1.RES

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA1_120712A** **Run No.:** 50099

Analytical Run Date: 7/12/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 49025 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: ch rev 7/16/12/PR by RD2 on 16jul12

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 071212	BFB_TUNE	TUNE	R50099	7/12/2012 9:26:00 AM	Celeste Hoitash		
CCV VOA1 071212	EPA_TO15	CCV	R50099	7/12/2012 10:08:00 AM	Celeste Hoitash		
RLVS VOA1 071212	EPA_TO15	RLVS	R50099	7/12/2012 10:56:00 AM	Celeste Hoitash		
MBLK VOA1 071212	EPA_TO15	MBLK	R50099	7/12/2012 11:54:00 AM	Celeste Hoitash		
1206785-044A	EPA_TO15	SAMP	R50099	7/12/2012 12:36:00 PM	Celeste Hoitash		
1206785-045A	EPA_TO15	SAMP	R50099	7/12/2012 1:17:00 PM	Celeste Hoitash		
1206785-043A	EPA_TO15	SAMP	R50099	7/12/2012 1:58:00 PM	Celeste Hoitash		
1206785-042A	EPA_TO15	SAMP	R50099	7/12/2012 2:40:00 PM	Celeste Hoitash		
1206785-046A	EPA_TO15	SAMP	R50099	7/12/2012 4:03:00 PM	Celeste Hoitash		
1206785-046A	EPA_TO15	SAMP	R50099	7/12/2012 5:53:00 PM	Celeste Hoitash		
1206785-006A	EPA_TO15	SAMP	R50099	7/12/2012 6:38:00 PM	Celeste Hoitash		
1206785-006ADUP	EPA_TO15	DUP	R50099	7/12/2012 7:23:00 PM	Celeste Hoitash		
1206785-007A	EPA_TO15	SAMP	R50099	7/12/2012 8:07:00 PM	Celeste Hoitash		
1206785-008A	EPA_TO15	SAMP	R50099	7/12/2012 8:52:00 PM	Celeste Hoitash		
1206785-009A	EPA_TO15	SAMP	R50099	7/12/2012 9:37:00 PM	Celeste Hoitash		
1206785-005A	EPA_TO15	SAMP	R50099	7/12/2012 10:19:00 PM	Celeste Hoitash		
1206785-040A	EPA_TO15	SAMP	R50099	7/12/2012 11:49:00 PM	Celeste Hoitash		
1206785-025A	EPA_TO15	SAMP	R50099	7/13/2012 12:37:00 AM	Celeste Hoitash		
1206785-039A	EPA_TO15	SAMP	R50099	7/13/2012 1:25:00 AM	Celeste Hoitash		
1206785-044A	EPA_TO15	SAMP	R50099	7/13/2012 2:07:00 AM	Celeste Hoitash		
1206785-045A	EPA_TO15	SAMP	R50099	7/13/2012 2:48:00 AM	Celeste Hoitash		
1206785-043A	EPA_TO15	SAMP	R50099	7/13/2012 3:37:00 AM	Celeste Hoitash		
1206785-038A	EPA_TO15	SAMP	R50099	7/13/2012 4:18:00 AM	Celeste Hoitash		
RLVS2 VOA1 07121	EPA_TO15	RLVS	R50099	7/13/2012 5:01:00 AM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

26-Jul-12

RunNo 50099

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
979936	BFB VOA1 071212	BFB_TUNE	TUNE	.\1\DATA\071212	7/12/2012 9:26:0	1	R50099		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0.7	0.7		100	0	0	0	0	0	1%	0	2	0%	
174	M		88.7	88.7		100	0	0	0	0	0	89%	50	120	0%	
175	M		7.3	7.3		100	0	0	0	0	0	7%	4	9	0%	
176	M		96.5	96.5		100	0	0	0	0	0	97%	93	101	0%	
177	M		6.6	6.6		100	0	0	0	0	0	7%	5	9	0%	
50	M		17.1	17.1		100	0	0	0	0	0	17%	8	40	0%	
75	M		47.5	47.5		100	0	0	0	0	0	48%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.9	6.9		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
979938	CCV VOA1 071212	EPA_TO15	CCV	.\1\DATA\071212	7/12/2012 10:08:	1	R50099		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	11.9	11.9		9.6	0	0	0.107	1	50	124%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	11.29	11.29		10	0	0	0.211	1	50	113%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	12.2	12.2		9.8	0	0	0.108	1	50	124%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	11.22	11.22		9.8	0	0	0.2	1	50	114%	70	130	0%	
1,1-Dichloroethane	A	ppbv	11.84	11.84		9.7	0	0	0.111	1	50	122%	70	130	0%	
1,1-Dichloroethene	A	ppbv	12.13	12.13		9.9	0	0	0.097	1	50	123%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	7.38	7.38		9.1	0	0	0.271	1	50	81%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	11.05	11.05		9.8	0	0	0.245	1	50	113%	70	130	0%	
1,2-Dibromoethane	A	ppbv	11.1	11.1		9.6	0	0	0.186	1	50	116%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.36	10.36		9.7	0	0	0.208	1	50	107%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.85	11.85		9.7	0	0	0.196	1	50	122%	70	130	0%	
1,2-Dichloropropane	A	ppbv	11.3	11.3		9.8	0	0	0.224	1	50	115%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	11.06	11.06		9.7	0	0	0.24	1	50	114%	70	130	0%	
1,3-Butadiene	A	ppbv	12.71	12.71		9.8	0	0	0.152	1	50	130%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.37	10.37		9.7	0	0	0.202	1	50	107%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
979938	CCV VOA1 071212	EPA_TO15	CCV	.\1\DATA\071212	7/12/2012 10:08:	1	R50099		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.31	10.31		9.6	0	0	0.194	1	50	107%	70	130	0%	
1,4-Dioxane	A	ppbv	10.45	10.45		9.6	0	0	0.128	1	50	109%	70	130	0%	
2-Butanone	A	ppbv	11.89	11.89		9.9	0	0	0.287	1	50	120%	70	130	0%	
2-Hexanone	A	ppbv	10.71	10.71		9.8	0	0	0.135	1	50	109%	70	130	0%	
2-Propanol	A	ppbv	11.59	11.59		10.1	0	0	0.329	1	50	115%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.9	10.9		10	0	0	0.157	1	50	109%	70	130	0%	
Acetone	A	ppbv	11.94	11.94		10	0	0	0.43	1	50	119%	70	130	0%	
Benzene	A	ppbv	11.93	11.93		9.6	0	0	0.126	1	50	124%	70	130	0%	
Benzyl chloride	A	ppbv	10	10		9.7	0	0	0.155	1	50	103%	70	130	0%	
Bromodichloromethane	A	ppbv	10.79	10.79		9.6	0	0	0.156	1	50	112%	70	130	0%	
Bromoform	A	ppbv	10.58	10.58		9.6	0	0	0.197	1	50	110%	70	130	0%	
Bromomethane	A	ppbv	10.81	10.81		9.3	0	0	0.075	1	50	116%	70	130	0%	
Carbon disulfide	A	ppbv	11.65	11.65		9.7	0	0	0.093	1	50	120%	70	130	0%	
Carbon tetrachloride	A	ppbv	11.7	11.7		9.5	0	0	0.114	1	50	123%	70	130	0%	
Chlorobenzene	A	ppbv	11.19	11.19		9.9	0	0	0.275	1	50	113%	70	130	0%	
Chlorodibromomethane	A	ppbv	11.19	11.19		9.2	0	0	0.165	1	50	122%	70	130	0%	
Chloroethane	A	ppbv	10.67	10.67		9.8	0	0	0.063	1	50	109%	70	130	0%	
Chloroform	A	ppbv	12.26	12.26		9.8	0	0	0.126	1	50	125%	70	130	0%	
Chloromethane	A	ppbv	11.51	11.51		9.8	0	0	0.104	1	50	117%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	12.07	12.07		9.8	0	0	0.107	1	50	123%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.75	10.75		9.5	0	0	0.166	1	50	113%	70	130	0%	
Cyclohexane	A	ppbv	12.13	12.13		9.8	0	0	0.684	2	50	124%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	10.98	10.98		9.2	0	0	0.086	1	50	119%	70	130	0%	
Ethanol	A	ppbv	9.73	9.73		9.2	0	0	1.962	5	50	106%	70	130	0%	
Ethyl acetate	A	ppbv	11.68	11.68		9.8	0	0	0.157	1	50	119%	70	130	0%	
Ethylbenzene	A	ppbv	11.34	11.34		9.8	0	0	0.737	2	50	116%	70	130	0%	
Heptane	A	ppbv	11.41	11.41		9.9	0	0	0.249	1	50	115%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.3	9.3		9.4	0	0	0.374	2	50	99%	70	130	0%	
m,p-Xylene	A	ppbv	23.03	23.03		19.2	0	0	0.524	2	100	120%	70	130	0%	
Methylene chloride	A	ppbv	11.79	11.79		10	0	0	2.077	5	50	118%	70	130	0%	
n-Hexane	A	ppbv	12.16	12.16		10.1	0	0	0.692	2	50	120%	70	130	0%	
Naphthalene	A	ppbv	7.06	7.06		9.2	0	0	0.247	1	50	77%	70	130	0%	
o-Xylene	A	ppbv	11.47	11.47		10	0	0	0.258	1	50	115%	70	130	0%	
Propylene	A	ppbv	12.14	12.14		10.2	0	0	0.075	1	50	119%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
979938	CCV VOA1 071212	EPA_TO15	CCV	.\1\DATA\071212	7/12/2012 10:08:	1	R50099		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	11.26	11.26		9.8	0	0	0.263	1	50	115%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	11.9	11.9		9.9	0	0	0.228	1	50	120%	70	130	0%	
Tetrachloroethene	A	ppbv	10.95	10.95		9.6	0	0	0.148	1	50	114%	70	130	0%	
Tetrahydrofuran	A	ppbv	12.08	12.08		10	0	0	0.201	1	50	121%	70	130	0%	
Toluene	A	ppbv	11.48	11.48		9.8	0	0	0.158	1	50	117%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.97	11.97		9.8	0	0	0.117	1	50	122%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.27	10.27		9.1	0	0	0.171	1	50	113%	70	130	0%	
Trichloroethene	A	ppbv	10.94	10.94		9.6	0	0	0.119	1	50	114%	70	130	0%	
Trichlorofluoromethane	A	ppbv	11.46	11.46		9.6	0	0	0.148	1	50	119%	70	130	0%	
Vinyl acetate	A	ppbv	12.45	12.45		9.9	0	0	0.266	1	50	126%	70	130	0%	
Vinyl chloride	A	ppbv	12.1	12.1		9.4	0	0	0.072	1	50	129%	70	130	0%	
Xylenes, Total	C	ppbv	34.5	34.5		29.2	0	0	0.782	3	150	118%	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		12.5	0	0	0	0	0	100%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.25	12.25		12.5	0	0	0	0	0	98%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
979939	RLVS VOA1 071212	EPA_TO15	RLVS	.\1\DATA\071212	7/12/2012 10:56:	1	R50099		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	1.09	1.09		0.996	0	0	0.107	1	50	109%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.18	1.18		1	0	0	0.211	1	50	118%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.17	1.17		0.98	0	0	0.108	1	50	119%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.99	0.99		0.98	0	0	0.2	1	50	101%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.12	1.12		0.97	0	0	0.111	1	50	115%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.13	1.13		0.99	0	0	0.097	1	50	114%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	0.73	0.73		0.91	0	0	0.271	1	50	80%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	1.06	1.06		0.98	0	0	0.245	1	50	108%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.93	0.93		0.96	0	0	0.186	1	50	97%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.11	1.11		0.97	0	0	0.208	1	50	114%	70	130	0%	
1,2-Dichloroethane	A	ppbv	1.14	1.14		0.97	0	0	0.196	1	50	118%	70	130	0%	
1,2-Dichloropropane	A	ppbv	1.05	1.05		0.98	0	0	0.224	1	50	107%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\071212\07121202.D Vial: 2
Acq On : 12 Jul 2012 10:08 am Operator: RACHEL HILL
Sample : CCV VOA1 071212 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
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	74	0.00
2	T	Propylene	0.813	0.968	-19.1	81	0.00
3	T	Dichlorodifluoromethane	3.079	3.675	-19.4	80	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.303	2.728	-18.5	80	0.00
5	T	Chloromethane	0.928	1.125	-21.2	79	0.00
6	T	Vinyl chloride	1.049	1.350	-28.7	82	0.00
7	T	1,3-Butadiene	0.727	0.943	-29.7	80	0.00
8	T	Bromomethane	1.112	1.293	-16.3	77	0.00
9	T	Chloroethane	0.591	0.686	-16.1	75	0.00
10	T	Trichlorofluoromethane	2.936	3.505	-19.4	77	0.00
11	T	Ethanol	0.315	0.333	-5.7	66	0.00
12	T	Freon113	1.993	2.481	-24.5	77	0.00
13	T	1,1-Dichloroethene	1.379	1.689	-22.5	76	0.00
14	T	Acetone	1.332	1.590	-19.4	69	0.00
15	T	Carbon disulfide	2.400	2.881	-20.0	76	0.00
16	T	2-Propanol	1.279	1.468	-14.8	71	0.00
17	T	Methylene chloride	1.022	1.205	-17.9	75	0.00
18	T	tert-Butyl Methyl Ether	2.198	2.644	-20.3	68	0.00
19	T	trans-1,2-Dichloroethene	1.262	1.541	-22.1	75	0.00
20	T	n-Hexane	1.399	1.684	-20.4	74	0.00
21	T	1,1-Dichloroethane	1.713	2.090	-22.0	74	0.00
22	T	Vinyl acetate	2.035	2.560	-25.8	68	0.00
23	T	cis-1,2-Dichloroethene	1.036	1.276	-23.2	75	0.00
24	T	2-Butanone	1.404	1.686	-20.1	67	0.00
25	T	Ethyl acetate	1.735	2.068	-19.2	67	0.00
26	T	Tetrahydrofuran	0.898	1.085	-20.8	69	0.00
27	T	Chloroform	1.950	2.440	-25.1	75	0.00
28	T	1,1,1-Trichloroethane	2.105	2.608	-23.9	75	0.00
29	T	Cyclohexane	1.419	1.756	-23.7	74	0.00
30	T	Carbon tetrachloride	2.325	2.863	-23.1	74	0.00
31	T	Benzene	2.740	3.406	-24.3	72	0.00
32	T	1,2-Dichloroethane	1.133	1.384	-22.2	70	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	79	0.00
34	T	Heptane	0.486	0.560	-15.2	73	0.00
35	T	Trichloroethene	0.444	0.505	-13.7	76	0.00
36	T	1,2-Dichloropropane	0.304	0.351	-15.5	71	0.00
37	T	1,4-Dioxane	0.175	0.191	-9.1	70	0.00
38	T	Bromodichloromethane	0.631	0.710	-12.5	73	0.00
39	T	cis-1,3-Dichloropropene	0.487	0.551	-13.1	70	0.00
40	T	4-Methyl-2-pentanone	0.208	0.227	-9.1	68	0.00
41	T	Toluene	1.030	1.207	-17.2	73	0.00
42	T	trans-1,3-Dichloropropene	0.451	0.509	-12.9	70	0.00
43	T	1,1,2-Trichloroethane	0.358	0.409	-14.2	73	0.00
44	T	Tetrachloroethene	0.582	0.663	-13.9	76	0.00
45	T	2-Hexanone	0.404	0.441	-9.2	66	0.00
46	T	Chlorodibromomethane	0.660	0.753	-14.1	73	0.00
47	T	1,2-Dibromoethane	0.559	0.647	-15.7	73	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	80	0.00
49	T	Chlorobenzene	0.880	0.995	-13.1	73	0.00
50	T	Ethylbenzene	1.411	1.633	-15.7	74	0.00
51	T	m,p-Xylene	1.097	1.316	-20.0	74	0.00
52	T	o-Xylene	1.117	1.282	-14.8	74	0.00
53	T	Styrene	0.860	0.988	-14.9	74	0.00
54	T	Bromoform	0.634	0.699	-10.3	73	0.00
55	S	4-Bromofluorobenzene	0.581	0.569	2.1	78	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\071212\07121202.D Vial: 2
Acq On : 12 Jul 2012 10:08 am Operator: RACHEL HILL
Sample : CCV VOA1 071212 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
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)
56	T	1,1,2,2-Tetrachloroethane	0.697	0.787	-12.9	74	0.00
57	T	4-Ethyltoluene	1.452	1.660	-14.3	75	0.00
58	T	1,3,5-Trimethylbenzene	1.242	1.416	-14.0	75	0.00
59	T	1,2,4-Trimethylbenzene	1.162	1.310	-12.7	74	0.00
60	T	1,3-Dichlorobenzene	0.763	0.816	-6.9	72	0.00
61	T	1,4-Dichlorobenzene	0.736	0.791	-7.5	72	0.00
62	T	Benzyl chloride	0.809	0.835	-3.2	69	0.00
63	T	1,2-Dichlorobenzene	0.669	0.715	-6.9	72	0.00
64	T	1,2,4-Trichlorobenzene	0.243	0.197	18.9	57	0.00
65	T	Hexachlorobutadiene	0.327	0.323	1.2	65	0.00
66		Naphthalene	0.481	0.369	23.3	54	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\071212\07121202.D Vial: 2
Acq On : 12 Jul 2012 10:08 am Operator: RACHEL HILL
Sample : CCV VOA1 071212 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jul 12 10:32 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.59	130	266890	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.68	114	938247	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.53	117	849988	12.50	ppbv	0.00
System Monitoring Compounds						
55) 4-Bromofluorobenzene	17.18	95	484004	12.25	ppbv	0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 98.00%			
Target Compounds						Qvalue
2) Propylene	5.51	41	210734	12.14	ppbv	98
3) Dichlorodifluoromethane	5.59	85	721915	10.98	ppbv	100
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	553373	11.25	ppbv #	83
5) Chloromethane	6.00	50	228248	11.51	ppbv	98
6) Vinyl chloride	6.20	62	270972	12.10	ppbv #	99
7) 1,3-Butadiene	6.26	39	197332	12.71	ppbv	97
8) Bromomethane	6.85	94	256652	10.81	ppbv #	98
9) Chloroethane	6.99	64	134654	10.67	ppbv	100
10) Trichlorofluoromethane	7.33	101	718391	11.46	ppbv	98
11) Ethanol	7.56	45	65360	9.73	ppbv	99
12) Freon113	7.99	101	519209	12.20	ppbv	93
13) 1,1-Dichloroethene	8.09	61	356964	12.13	ppbv	97
14) Acetone	8.18	43	339512	11.94	ppbv #	95
15) Carbon disulfide	8.46	76	596751	11.65	ppbv #	99
16) 2-Propanol	8.23	45	316619	11.59	ppbv #	1
17) Methylene chloride	8.75	49	257281	11.79	ppbv	99
18) tert-Butyl Methyl Ether	8.95	73	558806	11.90	ppbv	98
19) trans-1,2-Dichloroethene	9.03	61	322477	11.97	ppbv	99
20) n-Hexane	9.22	57	363214	12.16	ppbv	98
21) 1,1-Dichloroethane	9.59	63	432951	11.84	ppbv	100
22) Vinyl acetate	9.52	43	541127	12.45	ppbv	99
23) cis-1,2-Dichloroethene	10.27	96	266991	12.07	ppbv	99
24) 2-Butanone	10.24	43	356357	11.89	ppbv	100
25) Ethyl acetate	10.19	43	432764	11.68	ppbv #	98
26) Tetrahydrofuran	10.58	42	231616	12.08	ppbv	94
27) Chloroform	10.60	83	510481	12.26	ppbv	98
28) 1,1,1-Trichloroethane	10.85	97	534577	11.90	ppbv	99
29) Cyclohexane	10.85	56	367404	12.13	ppbv	100
30) Carbon tetrachloride	11.01	117	580813	11.70	ppbv	98
31) Benzene	11.29	78	698199	11.93	ppbv	99
32) 1,2-Dichloroethane	11.36	62	286681	11.85	ppbv	99
34) Heptane	11.34	43	416349	11.41	ppbv	97
35) Trichloroethene	12.02	130	364119	10.94	ppbv	97
36) 1,2-Dichloropropane	12.37	63	257882	11.30	ppbv	100
37) 1,4-Dioxane	12.45	88	137468	10.45	ppbv	95
38) Bromodichloromethane	12.66	83	511350	10.79	ppbv	97
39) cis-1,3-Dichloropropene	13.22	75	392895	10.75	ppbv	99
40) 4-Methyl-2-pentanone	13.32	58	170112	10.90	ppbv	98
41) Toluene	13.62	91	887979	11.48	ppbv	97
42) trans-1,3-Dichloropropene	13.92	75	347355	10.27	ppbv	99
43) 1,1,2-Trichloroethane	14.19	97	301178	11.22	ppbv	99
44) Tetrachloroethene	14.32	166	478027	10.95	ppbv	96
45) 2-Hexanone	14.40	43	324613	10.71	ppbv	97
46) Chlorodibromomethane	14.74	129	553849	11.19	ppbv	99
47) 1,2-Dibromoethane	14.98	107	465915	11.10	ppbv	100
49) Chlorobenzene	15.58	112	669769	11.19	ppbv	99
50) Ethylbenzene	15.61	91	1088422	11.34	ppbv	96
51) m,p-Xylene	15.77	91	1717611	23.03	ppbv	96
52) o-Xylene	16.36	91	871664	11.47	ppbv	98

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\071212\07121202.D Vial: 2
Acq On : 12 Jul 2012 10:08 am Operator: RACHEL HILL
Sample : CCV VOA1 071212 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jul 12 10:32 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

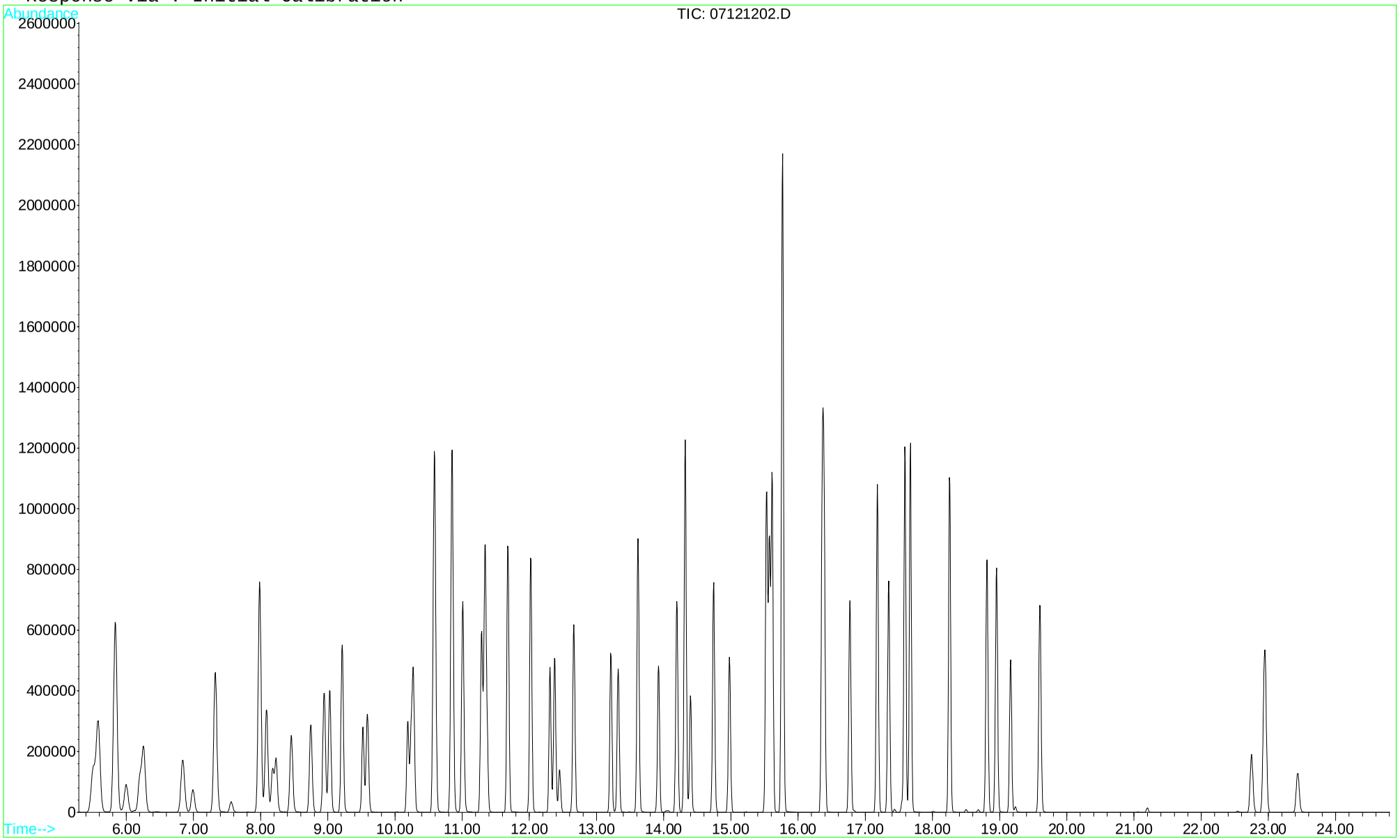
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.39	104	658147	11.26	ppbv	98
54)	Bromoform	16.77	173	456096	10.58	ppbv	98
56)	1,1,2,2-Tetrachloroethane	17.35	83	535360	11.29	ppbv	98
57)	4-Ethyltoluene	17.59	105	1106532	11.20	ppbv	98
58)	1,3,5-Trimethylbenzene	17.67	105	933929	11.06	ppbv	98
59)	1,2,4-Trimethylbenzene	18.25	105	873046	11.05	ppbv	98
60)	1,3-Dichlorobenzene	18.81	146	538267	10.37	ppbv	98
61)	1,4-Dichlorobenzene	18.95	146	516307	10.31	ppbv	97
62)	Benzyl chloride	19.16	91	550576	10.00	ppbv	99
63)	1,2-Dichlorobenzene	19.60	146	471395	10.36	ppbv	97
64)	1,2,4-Trichlorobenzene	22.75	180	122013	7.38	ppbv	97
65)	Hexachlorobutadiene	22.95	225	206691	9.30	ppbv	99
66)	Naphthalene	23.44	128	231062	7.06	ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071212\07121202.D Vial: 2
Acq On : 12 Jul 2012 10:08 am Operator: RACHEL HILL
Sample : CCV VOA1 071212 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jul 12 10:32 2012 Quant Results File: 053112V1.RES

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA1_120713A** **Run No.:** 50123

Analytical Run Date: 7/13/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 49025 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: ch rev 7/24/12/PR by RD2 on 18jul12. Mismatch observed for site dup 6785-35/36 in TO15 and MaAph analysis.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 071312	BFB_TUNE	TUNE	R50123	7/13/2012 5:43:00 AM	Celeste Hoitash		
CCV VOA1 071312	EPA_TO15	CCV	R50123	7/13/2012 8:24:00 AM	Celeste Hoitash		
RLVS VOA1 071312	EPA_TO15	RLVS	R50123	7/13/2012 9:08:00 AM	Celeste Hoitash		
MBLK/CC105 VOA1	EPA_TO15	MBLK	R50123	7/13/2012 9:57:00 AM	Katherine Jones		
~~1206952-019A~~	EPA_TO15	SAMP	R50123	7/13/2012 11:29:00 AM	Celeste Hoitash		
1206785-035A	EPA_TO15	SAMP	R50123	7/13/2012 2:33:00 PM	Celeste Hoitash		
1206785-036A	EPA_TO15	SAMP	R50123	7/13/2012 3:19:00 PM	Celeste Hoitash		
1206952-004A	EPA_TO15	SAMP	R50123	7/13/2012 4:05:00 PM	Celeste Hoitash		
1206952-004Adup	EPA_TO15	DUP	R50123	7/13/2012 4:50:00 PM	Katherine Jones		
1206952-005A	EPA_TO15	SAMP	R50123	7/13/2012 5:35:00 PM	Celeste Hoitash		
1206952-010A	EPA_TO15	SAMP	R50123	7/13/2012 9:57:00 PM	Celeste Hoitash		
1206952-001A	EPA_TO15	SAMP	R50123	7/14/2012 1:27:00 AM	Celeste Hoitash		
1206952-003A	EPA_TO15	SAMP	R50123	7/14/2012 3:04:00 AM	Celeste Hoitash		
RLVS2 VOA1 07131	EPA_TO15	RLVS	R50123	7/14/2012 3:47:00 AM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

26-Jul-12

RunNo 50123

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
980344	BFB VOA1 071312	BFB_TUNE	TUNE	.\1\DATA\071312	7/13/2012 5:43:0	1	R50123		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		100	0	0	0	0	0	1%	0	2	0%	
174	M		91.4	91.4		100	0	0	0	0	0	91%	50	120	0%	
175	M		7.4	7.4		100	0	0	0	0	0	7%	4	9	0%	
176	M		97.9	97.9		100	0	0	0	0	0	98%	93	101	0%	
177	M		6.6	6.6		100	0	0	0	0	0	7%	5	9	0%	
50	M		16.9	16.9		100	0	0	0	0	0	17%	8	40	0%	
75	M		46.9	46.9		100	0	0	0	0	0	47%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
980345	CCV VOA1 071312	EPA_TO15	CCV	.\1\DATA\071312	7/13/2012 8:24:0	1	R50123		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	10.54	10.54		9.6	0	0	0.107	1	50	110%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	9.79	9.79		10	0	0	0.211	1	50	98%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.87	10.87		9.8	0	0	0.108	1	50	111%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.13	10.13		9.8	0	0	0.2	1	50	103%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.52	10.52		9.7	0	0	0.111	1	50	108%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.6	10.6		9.9	0	0	0.097	1	50	107%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	7.24	7.24		9.1	0	0	0.271	1	50	80%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.56	9.56		9.8	0	0	0.245	1	50	98%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.11	10.11		9.6	0	0	0.186	1	50	105%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.14	9.14		9.7	0	0	0.208	1	50	94%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.37	10.37		9.7	0	0	0.196	1	50	107%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.35	10.35		9.8	0	0	0.224	1	50	106%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.42	9.42		9.7	0	0	0.24	1	50	97%	70	130	0%	
1,3-Butadiene	A	ppbv	11.24	11.24		9.8	0	0	0.152	1	50	115%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.28	9.28		9.7	0	0	0.202	1	50	96%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
980345	CCV VOA1 071312	EPA_TO15	CCV	.\1\DATA\071312	7/13/2012 8:24:0	1	R50123		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	9.23	9.23		9.6	0	0	0.194	1	50	96%	70	130	0%	
1,4-Dioxane	A	ppbv	9.56	9.56		9.6	0	0	0.128	1	50	100%	70	130	0%	
2-Butanone	A	ppbv	10.68	10.68		9.9	0	0	0.287	1	50	108%	70	130	0%	
2-Hexanone	A	ppbv	9.8	9.8		9.8	0	0	0.135	1	50	100%	70	130	0%	
2-Propanol	A	ppbv	10.07	10.07		10.1	0	0	0.329	1	50	100%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	9.79	9.79		10	0	0	0.157	1	50	98%	70	130	0%	
Acetone	A	ppbv	10.54	10.54		10	0	0	0.43	1	50	105%	70	130	0%	
Benzene	A	ppbv	10.59	10.59		9.6	0	0	0.126	1	50	110%	70	130	0%	
Benzyl chloride	A	ppbv	9.06	9.06		9.7	0	0	0.155	1	50	93%	70	130	0%	
Bromodichloromethane	A	ppbv	10.01	10.01		9.6	0	0	0.156	1	50	104%	70	130	0%	
Bromoform	A	ppbv	9.48	9.48		9.6	0	0	0.197	1	50	99%	70	130	0%	
Bromomethane	A	ppbv	9.83	9.83		9.3	0	0	0.075	1	50	106%	70	130	0%	
Carbon disulfide	A	ppbv	10.27	10.27		9.7	0	0	0.093	1	50	106%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.36	10.36		9.5	0	0	0.114	1	50	109%	70	130	0%	
Chlorobenzene	A	ppbv	10.02	10.02		9.9	0	0	0.275	1	50	101%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.26	10.26		9.2	0	0	0.165	1	50	112%	70	130	0%	
Chloroethane	A	ppbv	9.62	9.62		9.8	0	0	0.063	1	50	98%	70	130	0%	
Chloroform	A	ppbv	10.7	10.7		9.4	0	0	0.126	1	50	114%	70	130	0%	
Chloromethane	A	ppbv	9.8	9.8		9.8	0	0	0.104	1	50	100%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.73	10.73		9.8	0	0	0.107	1	50	109%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.99	9.99		9.5	0	0	0.166	1	50	105%	70	130	0%	
Cyclohexane	A	ppbv	10.74	10.74		9.8	0	0	0.684	2	50	110%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.79	9.79		9.2	0	0	0.086	1	50	106%	70	130	0%	
Ethanol	A	ppbv	9.07	9.07		9.2	0	0	1.962	5	50	99%	70	130	0%	
Ethyl acetate	A	ppbv	10.44	10.44		9.8	0	0	0.157	1	50	107%	70	130	0%	
Ethylbenzene	A	ppbv	10.01	10.01		9.8	0	0	0.737	2	50	102%	70	130	0%	
Heptane	A	ppbv	10.61	10.61		9.9	0	0	0.249	1	50	107%	70	130	0%	
Hexachlorobutadiene	A	ppbv	8.37	8.37		9.4	0	0	0.374	2	50	89%	70	130	0%	
m,p-Xylene	A	ppbv	20.03	20.03		19.2	0	0	0.524	2	100	104%	70	130	0%	
Methylene chloride	A	ppbv	10.5	10.5		10	0	0	2.077	5	50	105%	70	130	0%	
n-Hexane	A	ppbv	10.9	10.9		10.1	0	0	0.692	2	50	108%	70	130	0%	
Naphthalene	A	ppbv	7.18	7.18		9.2	0	0	0.247	1	50	78%	70	130	0%	
o-Xylene	A	ppbv	9.92	9.92		10	0	0	0.258	1	50	99%	70	130	0%	
Propylene	A	ppbv	10.96	10.96		10.2	0	0	0.075	1	50	107%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
980345	CCV VOA1 071312	EPA_TO15	CCV	.\1\DATA\071312	7/13/2012 8:24:0	1	R50123		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	9.79	9.79		9.8	0	0	0.263	1	50	100%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.57	10.57		9.9	0	0	0.228	1	50	107%	70	130	0%	
Tetrachloroethene	A	ppbv	10.05	10.05		9.6	0	0	0.148	1	50	105%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.37	10.37		10	0	0	0.201	1	50	104%	70	130	0%	
Toluene	A	ppbv	10.42	10.42		9.8	0	0	0.158	1	50	106%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.64	10.64		9.8	0	0	0.117	1	50	109%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.35	9.35		9.1	0	0	0.171	1	50	103%	70	130	0%	
Trichloroethene	A	ppbv	10.21	10.21		9.6	0	0	0.119	1	50	106%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.26	10.26		9.6	0	0	0.148	1	50	107%	70	130	0%	
Vinyl acetate	A	ppbv	11.01	11.01		9.9	0	0	0.266	1	50	111%	70	130	0%	
Vinyl chloride	A	ppbv	10.62	10.62		9.4	0	0	0.072	1	50	113%	70	130	0%	
Xylenes, Total	C	ppbv	29.95	29.95		29.2	0	0	0.782	3	150	103%	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		12.5	0	0	0	0	0	100%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.09	12.09		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
980346	RLVS VOA1 071312	EPA_TO15	RLVS	.\1\DATA\071312	7/13/2012 9:08:0	1	R50123		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	1.06	1.06		0.996	0	0	0.107	1	50	106%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.12	1.12		1	0	0	0.211	1	50	112%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.12	1.12		0.98	0	0	0.108	1	50	114%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	1.01	1.01		0.98	0	0	0.2	1	50	103%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.09	1.09		0.97	0	0	0.111	1	50	112%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.1	1.1		0.99	0	0	0.097	1	50	111%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	0.8	0.8		0.91	0	0	0.271	1	50	88%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	1.05	1.05		0.98	0	0	0.245	1	50	107%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.94	0.94		0.96	0	0	0.186	1	50	98%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.11	1.11		0.97	0	0	0.208	1	50	114%	70	130	0%	
1,2-Dichloroethane	A	ppbv	1.13	1.13		0.97	0	0	0.196	1	50	116%	70	130	0%	
1,2-Dichloropropane	A	ppbv	1.11	1.11		0.98	0	0	0.224	1	50	113%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\071312\07131203.D Vial: 3
Acq On : 13 Jul 2012 8:24 am Operator: RACHEL HILL
Sample : CCV VOA1 071312 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
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	91	0.00
2	T	Propylene	0.813	0.874	-7.5	89	0.00
3	T	Dichlorodifluoromethane	3.079	3.276	-6.4	87	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.303	2.403	-4.3	87	0.00
5	T	Chloromethane	0.928	0.958	-3.2	82	0.00
6	T	Vinyl chloride	1.049	1.185	-13.0	88	0.00
7	T	1,3-Butadiene	0.727	0.834	-14.7	87	0.00
8	T	Bromomethane	1.112	1.176	-5.8	86	0.00
9	T	Chloroethane	0.591	0.618	-4.6	83	0.00
10	T	Trichlorofluoromethane	2.936	3.136	-6.8	85	0.00
11	T	Ethanol	0.315	0.310	1.6	75	0.00
12	T	Freon113	1.993	2.210	-10.9	85	0.00
13	T	1,1-Dichloroethene	1.379	1.477	-7.1	82	0.00
14	T	Acetone	1.332	1.404	-5.4	75	0.00
15	T	Carbon disulfide	2.400	2.541	-5.9	82	0.00
16	T	2-Propanol	1.279	1.276	0.2	76	0.00
17	T	Methylene chloride	1.022	1.073	-5.0	82	0.00
18	T	tert-Butyl Methyl Ether	2.198	2.348	-6.8	74	0.00
19	T	trans-1,2-Dichloroethene	1.262	1.370	-8.6	82	0.00
20	T	n-Hexane	1.399	1.510	-7.9	81	0.00
21	T	1,1-Dichloroethane	1.713	1.858	-8.5	81	0.00
22	T	Vinyl acetate	2.035	2.264	-11.3	74	0.00
23	T	cis-1,2-Dichloroethene	1.036	1.135	-9.6	82	0.00
24	T	2-Butanone	1.404	1.514	-7.8	74	0.00
25	T	Ethyl acetate	1.735	1.849	-6.6	73	0.00
26	T	Tetrahydrofuran	0.898	0.931	-3.7	72	0.00
27	T	Chloroform	1.950	2.129	-9.2	81	0.00
28	T	1,1,1-Trichloroethane	2.105	2.310	-9.7	82	0.00
29	T	Cyclohexane	1.419	1.555	-9.6	81	0.00
30	T	Carbon tetrachloride	2.325	2.535	-9.0	80	0.00
31	T	Benzene	2.740	3.021	-10.3	78	0.00
32	T	1,2-Dichloroethane	1.133	1.211	-6.9	76	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	91	0.00
34	T	Heptane	0.486	0.521	-7.2	78	0.00
35	T	Trichloroethene	0.444	0.472	-6.3	81	0.00
36	T	1,2-Dichloropropane	0.304	0.321	-5.6	74	0.00
37	T	1,4-Dioxane	0.175	0.174	0.6	74	0.00
38	T	Bromodichloromethane	0.631	0.658	-4.3	77	0.00
39	T	cis-1,3-Dichloropropene	0.487	0.512	-5.1	74	0.00
40	T	4-Methyl-2-pentanone	0.208	0.203	2.4	70	0.00
41	T	Toluene	1.030	1.096	-6.4	75	0.00
42	T	trans-1,3-Dichloropropene	0.451	0.463	-2.7	73	0.00
43	T	1,1,2-Trichloroethane	0.358	0.370	-3.4	75	0.00
44	T	Tetrachloroethene	0.582	0.609	-4.6	80	0.00
45	T	2-Hexanone	0.404	0.404	0.0	69	0.00
46	T	Chlorodibromomethane	0.660	0.691	-4.7	76	0.00
47	T	1,2-Dibromoethane	0.559	0.589	-5.4	75	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	93	0.00
49	T	Chlorobenzene	0.880	0.892	-1.4	76	0.00
50	T	Ethylbenzene	1.411	1.441	-2.1	75	0.00
51	T	m,p-Xylene	1.097	1.144	-4.3	75	0.00
52	T	o-Xylene	1.117	1.109	0.7	74	0.00
53	T	Styrene	0.860	0.858	0.2	74	0.00
54	T	Bromoform	0.634	0.626	1.3	75	0.00
55	S	4-Bromofluorobenzene	0.581	0.562	3.3	90	0.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\071312\07131203.D Vial: 3
Acq On : 13 Jul 2012 8:24 am Operator: RACHEL HILL
Sample : CCV VOA1 071312 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
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)
56	T	1,1,2,2-Tetrachloroethane	0.697	0.683	2.0	74	0.00
57	T	4-Ethyltoluene	1.452	1.431	1.4	75	0.00
58	T	1,3,5-Trimethylbenzene	1.242	1.207	2.8	74	0.00
59	T	1,2,4-Trimethylbenzene	1.162	1.133	2.5	74	0.00
60	T	1,3-Dichlorobenzene	0.763	0.730	4.3	75	0.00
61	T	1,4-Dichlorobenzene	0.736	0.707	3.9	75	0.00
62	T	Benzyl chloride	0.809	0.756	6.6	72	0.00
63	T	1,2-Dichlorobenzene	0.669	0.630	5.8	74	0.00
64	T	1,2,4-Trichlorobenzene	0.243	0.193	20.6	64	0.00
65	T	Hexachlorobutadiene	0.327	0.291	11.0	68	0.00
66		Naphthalene	0.481	0.375	22.0	63	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\071312\07131203.D Vial: 3
Acq On : 13 Jul 2012 8:24 am Operator: RACHEL HILL
Sample : CCV VOA1 071312 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jul 13 8:49 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.58	130	327494	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.68	114	1070979	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.53	117	983796	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.18	95	552715	12.09	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 96.72%

Target Compounds						Qvalue
2) Propylene	5.51	41	233528	10.96	ppbv	98
3) Dichlorodifluoromethane	5.58	85	789522	9.79	ppbv	100
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	598192	9.91	ppbv #	85
5) Chloromethane	5.99	50	238422	9.80	ppbv	100
6) Vinyl chloride	6.20	62	291768	10.62	ppbv #	100
7) 1,3-Butadiene	6.26	39	214249	11.24	ppbv	98
8) Bromomethane	6.84	94	286449	9.83	ppbv #	97
9) Chloroethane	6.98	64	149015	9.62	ppbv	99
10) Trichlorofluoromethane	7.32	101	788786	10.26	ppbv	98
11) Ethanol	7.56	45	74732	9.07	ppbv	98
12) Freon113	7.98	101	567428	10.87	ppbv	93
13) 1,1-Dichloroethene	8.09	61	382993	10.60	ppbv	99
14) Acetone	8.18	43	367858	10.54	ppbv #	96
15) Carbon disulfide	8.46	76	645655	10.27	ppbv #	99
16) 2-Propanol	8.23	45	337674	10.07	ppbv #	1
17) Methylene chloride	8.75	49	281105	10.50	ppbv	99
18) tert-Butyl Methyl Ether	8.94	73	609056	10.57	ppbv	99
19) trans-1,2-Dichloroethene	9.02	61	351848	10.64	ppbv	100
20) n-Hexane	9.21	57	399443	10.90	ppbv	98
21) 1,1-Dichloroethane	9.59	63	472134	10.52	ppbv	99
22) Vinyl acetate	9.52	43	587339	11.01	ppbv	99
23) cis-1,2-Dichloroethene	10.27	96	291341	10.73	ppbv	99
24) 2-Butanone	10.24	43	392767	10.68	ppbv	98
25) Ethyl acetate	10.19	43	474639	10.44	ppbv #	100
26) Tetrahydrofuran	10.58	42	243943	10.37	ppbv	94
27) Chloroform	10.60	83	546663	10.70	ppbv	97
28) 1,1,1-Trichloroethane	10.84	97	581011	10.54	ppbv	99
29) Cyclohexane	10.85	56	399382	10.74	ppbv	99
30) Carbon tetrachloride	11.01	117	630827	10.36	ppbv	98
31) Benzene	11.29	78	759946	10.59	ppbv	100
32) 1,2-Dichloroethane	11.37	62	307726	10.37	ppbv	99
34) Heptane	11.34	43	441982	10.61	ppbv	97
35) Trichloroethene	12.02	130	388001	10.21	ppbv	96
36) 1,2-Dichloropropane	12.38	63	269562	10.35	ppbv	100
37) 1,4-Dioxane	12.45	88	143518	9.56	ppbv	94
38) Bromodichloromethane	12.66	83	541522	10.01	ppbv	98
39) cis-1,3-Dichloropropene	13.21	75	416500	9.99	ppbv	100
40) 4-Methyl-2-pentanone	13.32	58	174346	9.79	ppbv	97
41) Toluene	13.61	91	920017	10.42	ppbv	97
42) trans-1,3-Dichloropropene	13.92	75	360729	9.35	ppbv	100
43) 1,1,2-Trichloroethane	14.20	97	310387	10.13	ppbv	99
44) Tetrachloroethene	14.32	166	500941	10.05	ppbv	96
45) 2-Hexanone	14.40	43	339161	9.80	ppbv	97
46) Chlorodibromomethane	14.74	129	579901	10.26	ppbv	99
47) 1,2-Dibromoethane	14.97	107	484509	10.11	ppbv	100
49) Chlorobenzene	15.57	112	694631	10.02	ppbv	99
50) Ethylbenzene	15.61	91	1111678	10.01	ppbv	96
51) m,p-Xylene	15.76	91	1728785	20.03	ppbv	97
52) o-Xylene	16.36	91	872519	9.92	ppbv	98

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\071312\07131203.D Vial: 3
Acq On : 13 Jul 2012 8:24 am Operator: RACHEL HILL
Sample : CCV VOA1 071312 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jul 13 8:49 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

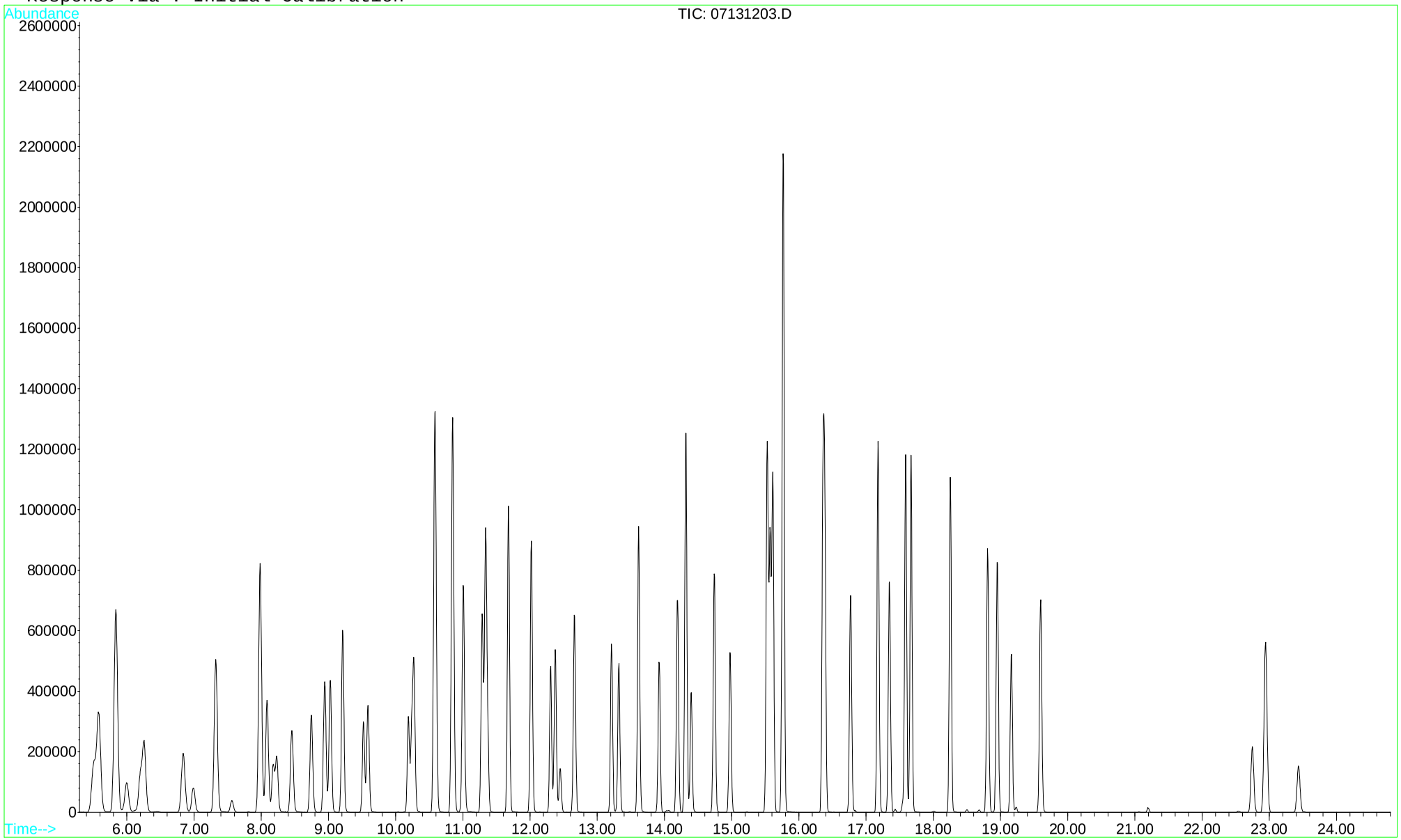
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.39	104	662124	9.79	ppbv	98
54)	Bromoform	16.77	173	473062	9.48	ppbv	98
56)	1,1,2,2-Tetrachloroethane	17.34	83	537192	9.79	ppbv	98
57)	4-Ethyltoluene	17.59	105	1103452	9.65	ppbv	98
58)	1,3,5-Trimethylbenzene	17.67	105	921156	9.42	ppbv	98
59)	1,2,4-Trimethylbenzene	18.25	105	874244	9.56	ppbv	98
60)	1,3-Dichlorobenzene	18.81	146	557641	9.28	ppbv	97
61)	1,4-Dichlorobenzene	18.95	146	534489	9.23	ppbv	98
62)	Benzyl chloride	19.16	91	577294	9.06	ppbv	99
63)	1,2-Dichlorobenzene	19.60	146	481254	9.14	ppbv	97
64)	1,2,4-Trichlorobenzene	22.75	180	138411	7.24	ppbv	97
65)	Hexachlorobutadiene	22.95	225	215487	8.37	ppbv	99
66)	Naphthalene	23.44	128	271885	7.18	ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071312\07131203.D Vial: 3
Acq On : 13 Jul 2012 8:24 am Operator: RACHEL HILL
Sample : CCV VOA1 071312 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jul 13 8:49 2012 Quant Results File: 053112V1.RES

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration



Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration

Calibration Files
2 =05311203.D 4 =05311204.D 5 =05311205.D
6 =05311206.D 7 =05311207.D 8 =05311208.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	0.848	0.884	0.871	0.834	0.783	0.742	0.813	7.59
3)	T	Dichlorodifluoromet	3.256	3.403	3.344	3.166	2.961	2.754	3.079	9.41
4)	T	1,2-Dichloro-1,2,2,	2.289	2.503	2.497	2.363	2.253	2.133	2.303	7.12
5)	T	Chloromethane	1.004	1.057	1.001	0.946	0.887	0.820	0.928	10.99
6)	T	Vinyl chloride	1.129	1.220	1.163	1.078	1.002	0.905	1.049	13.14
7)	T	1,3-Butadiene	0.814	0.868	0.814	0.741	0.683	0.610	0.727	15.66
8)	T	Bromomethane	1.139	1.235	1.221	1.126	1.075	1.001	1.112	8.79
9)	T	Chloroethane	0.602	0.677	0.655	0.586	0.565	0.531	0.591	9.95
10)	T	Trichlorofluorometh	3.101	3.349	3.286	2.882	2.802	2.594	2.936	10.93
11)	T	Ethanol	0.344	0.373	0.357	0.280	0.297	0.278	0.315	13.41
12)	T	Freon113	2.116	2.365	2.294	1.862	1.895	1.751	1.993	13.54
13)	T	1,1-Dichloroethene	1.468	1.640	1.579	1.311	1.297	1.197	1.379	13.56
14)	T	Acetone	1.656	1.690	1.567	1.077	1.216	1.088	1.332	22.07
15)	T	Carbon disulfide	2.441	2.793	2.710	2.388	2.300	2.127	2.400	11.61
16)	T	2-Propanol	1.335	1.520	1.451	1.204	1.219	1.132	1.279	12.57
17)	T	Methylene chloride	1.343	1.192	1.138	0.903	0.920	0.847	1.022	19.74
18)	T	tert-Butyl Methyl E	2.333	2.865	2.678	1.759	2.085	1.874	2.198	20.06
19)	T	trans-1,2-Dichloroe	1.322	1.522	1.467	1.149	1.202	1.103	1.262	14.19
20)	T	n-Hexane	1.444	1.688	1.628	1.275	1.335	1.240	1.399	13.99
21)	T	1,1-Dichloroethane	1.814	2.074	1.998	1.564	1.618	1.490	1.713	14.72
22)	T	Vinyl acetate	1.595	2.784	2.592	1.704	2.027	1.823	2.035	23.03
23)	T	cis-1,2-Dichloroeth	1.036	1.259	1.203	0.950	0.995	0.919	1.036	13.69
24)	T	2-Butanone	1.454	1.863	1.706	1.116	1.363	1.172	1.404	20.70
25)	T	Ethyl acetate	1.617	2.280	2.162	1.452	1.693	1.490	1.735	19.90
26)	T	Tetrahydrofuran	0.884	1.167	1.086	0.793	0.868	0.784	0.898	18.79
27)	T	Chloroform	2.029	2.387	2.258	1.810	1.878	1.710	1.950	15.02
28)	T	1,1,1-Trichloroetha	2.087	2.565	2.468	1.953	2.059	1.877	2.105	14.60
29)	T	Cyclohexane	1.489	1.747	1.670	1.324	1.375	1.236	1.419	16.42
30)	T	Carbon tetrachlorid	2.199	2.855	2.712	2.146	2.263	2.102	2.325	14.07
31)	T	Benzene	2.922	3.496	3.252	2.399	2.567	2.341	2.740	18.00
32)	T	1,2-Dichloroethane	1.177	1.450	1.350	0.969	1.062	0.993	1.133	17.77
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.478	0.608	0.564	0.454	0.481	0.436	0.486	15.81
35)	T	Trichloroethene	0.407	0.526	0.503	0.411	0.442	0.417	0.444	11.47
36)	T	1,2-Dichloropropane	0.296	0.392	0.358	0.260	0.293	0.271	0.304	16.98
37)	T	1,4-Dioxane	0.175	0.215	0.205	0.154	0.170	0.157	0.175	14.43
38)	T	Bromodichloromethan	0.581	0.771	0.722	0.597	0.623	0.581	0.631	13.20
39)	T	cis-1,3-Dichloropro	0.405	0.626	0.579	0.434	0.481	0.451	0.487	17.13
40)	T	4-Methyl-2-pentanon	0.192	0.263	0.240	0.184	0.202	0.191	0.208	14.91
41)	T	Toluene	1.024	1.318	1.205	0.909	0.997	0.909	1.030	16.68
42)	T	trans-1,3-Dichlorop	0.343	0.576	0.535	0.411	0.452	0.425	0.451	17.67
43)	T	1,1,2-Trichloroetha	0.338	0.445	0.410	0.320	0.348	0.328	0.358	14.06
44)	T	Tetrachloroethene	0.513	0.690	0.655	0.553	0.582	0.553	0.582	11.47
45)	T	2-Hexanone	0.375	0.528	0.473	0.350	0.389	0.367	0.404	17.21
46)	T	Chlorodibromomethan	0.540	0.821	0.764	0.611	0.661	0.628	0.660	15.03
47)	T	1,2-Dibromoethane	0.496	0.707	0.653	0.506	0.551	0.516	0.559	15.45
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.838	1.091	1.017	0.788	0.867	0.812	0.880	14.30
50)	T	Ethylbenzene	1.485	1.788	1.640	1.264	1.360	1.243	1.411	17.13
51)	T	m,p-Xylene	1.179	1.427	1.304	1.010	1.063	0.937	1.097	20.67
52)	T	o-Xylene	1.162	1.402	1.285	1.017	1.083	0.994	1.117	16.12
53)	T	Styrene	0.747	1.078	1.002	0.796	0.861	0.802	0.860	15.36
54)	T	Bromoform	0.485	0.775	0.729	0.594	0.646	0.623	0.634	15.16
55)	S	4-Bromofluorobenzen	0.590	0.585	0.574	0.577	0.579	0.578	0.581	0.92
56)	T	1,1,2,2-Tetrachloro	0.759	0.857	0.786	0.641	0.663	0.614	0.697	15.18
57)	T	4-Ethyltoluene	1.619	1.787	1.629	1.320	1.379	1.287	1.452	15.78

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

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration

Calibration Files
2 =05311203.D 4 =05311204.D 5 =05311205.D
6 =05311206.D 7 =05311207.D 8 =05311208.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.436	1.516	1.400	1.111	1.167	1.080	1.242	16.54
59)	T	1,2,4-Trimethylbenz	1.252	1.430	1.301	1.058	1.116	1.034	1.162	14.70
60)	T	1,3-Dichlorobenzene	0.804	0.913	0.841	0.691	0.733	0.695	0.763	11.99
61)	T	1,4-Dichlorobenzene	0.775	0.879	0.816	0.669	0.708	0.665	0.736	12.11
62)	T	Benzyl chloride		0.979	0.913	0.748	0.790	0.732	0.809	13.83
63)	T	1,2-Dichlorobenzene	0.778	0.794	0.732	0.604	0.627	0.587	0.669	14.37
64)	T	1,2,4-Trichlorobenz	0.273	0.279	0.258	0.201	0.226	0.233	0.243	11.48
65)	T	Hexachlorobutadiene		0.401	0.361	0.278	0.314	0.310	0.327	13.95
66)		Naphthalene	0.594	0.551	0.518	0.400	0.440	0.446	0.481	15.19

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
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	6.00	0.567	A	3	A	B
6		T	Vinyl chloride	62	6.20	0.586	A	2	A	B
7		T	1,3-Butadiene	39	6.26	0.591	A	2	A	B
8		T	Bromomethane	94	6.84	0.647	A	3	A	B
9		T	Chloroethane	64	6.99	0.660	A	3	A	B
10		T	Trichlorofluoromethane	101	7.33	0.693	A	3	A	B
11		T	Ethanol	45	7.56	0.714	A	2	A	B
12		T	Freon113	101	7.98	0.754	A	2	A	B
13		T	1,1-Dichloroethene	61	8.09	0.764	A	2	A	B
14		T	Acetone	43	8.18	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	9.52	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	0.967	A	2	A	B
25		T	Ethyl acetate	43	10.19	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	10.84	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	11.68	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	12.38	1.060	A	3	A	B
37		T	1,4-Dioxane	88	12.45	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	13.21	1.131	A	2	A	B
40		T	4-Methyl-2-pentanone	58	13.32	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	14.32	1.226	A	3	A	B
45		T	2-Hexanone	43	14.40	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	1.283	A	2	A	B
48	I		Chlorobenzene-d5	117	15.53	1.000	A	2	A	B
49		T	Chlorobenzene	112	15.57	1.003	A	3	A	B
50		T	Ethylbenzene	91	15.61	1.005	A	2	A	B
51		T	m,p-Xylene	91	15.77	1.015	A	2	A	B
52		T	o-Xylene	91	16.36	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	17.18	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	17.59	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	1.176	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	19.16	1.234	A	2	A	B
63		T	1,2-Dichlorobenzene	146	19.60	1.262	A	3	A	B
64		T	1,2,4-Trichlorobenzene	180	22.75	1.465	A	3	A	B
65		T	Hexachlorobutadiene	225	22.95	1.478	A	2	A	B
66			Naphthalene	128	23.44	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
-----------------------------------------------------------------------
          053112V1.M     Fri Jun 01 14:15:20 2012
```

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\053112\05311212.D Vial: 12
Acq On : 31 May 2012 5:06 pm Operator: RACHEL HILL
Sample : ICV VOA1 053112 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
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	133	0.00
2	T	Propylene	0.813	0.827	-1.7	124	0.00
3	T	Dichlorodifluoromethane	3.079	3.095	-0.5	121	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.303	2.330	-1.2	124	0.00
5	T	Chloromethane	0.928	0.949	-2.3	120	0.00
6	T	Vinyl chloride	1.049	1.032	1.6	113	0.00
7	T	1,3-Butadiene	0.727	0.818	-12.5	125	0.00
8	T	Bromomethane	1.112	1.143	-2.8	123	0.00
9	T	Chloroethane	0.591	0.595	-0.7	117	0.00
10	T	Trichlorofluoromethane	2.936	2.977	-1.4	118	0.00
11	T	Ethanol	0.315	0.291	7.6	104	0.00
12	T	Freon113	1.993	2.089	-4.8	118	0.00
13	T	1,1-Dichloroethene	1.379	1.446	-4.9	117	0.00
14	T	Acetone	1.332	1.390	-4.4	109	0.00
15	T	Carbon disulfide	2.400	2.859	-19.1	136	0.00
16	T	2-Propanol	1.279	1.425	-11.4	125	0.00
17	T	Methylene chloride	1.022	1.016	0.6	114	0.00
18	T	tert-Butyl Methyl Ether	2.198	2.375	-8.1	110	0.00
19	T	trans-1,2-Dichloroethene	1.262	1.371	-8.6	120	0.00
20	T	n-Hexane	1.399	1.486	-6.2	117	0.00
21	T	1,1-Dichloroethane	1.713	1.757	-2.6	113	0.00
22	T	Vinyl acetate	2.035	2.196	-7.9	105	0.00
23	T	cis-1,2-Dichloroethene	1.036	1.086	-4.8	115	0.00
24	T	2-Butanone	1.404	1.494	-6.4	107	0.00
25	T	Ethyl acetate	1.735	1.951	-12.4	114	0.00
26	T	Tetrahydrofuran	0.898	0.942	-4.9	108	0.00
27	T	Chloroform	1.950	2.004	-2.8	112	0.00
28	T	1,1,1-Trichloroethane	2.105	2.179	-3.5	113	0.00
29	T	Cyclohexane	1.419	1.530	-7.8	117	0.00
30	T	Carbon tetrachloride	2.325	2.431	-4.6	113	0.00
31	T	Benzene	2.740	2.799	-2.2	107	0.00
32	T	1,2-Dichloroethane	1.133	1.146	-1.1	105	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	136	0.00
34	T	Heptane	0.486	0.511	-5.1	115	0.00
35	T	Trichloroethene	0.444	0.442	0.5	115	0.00
36	T	1,2-Dichloropropane	0.304	0.304	0.0	106	0.00
37	T	1,4-Dioxane	0.175	0.170	2.9	108	0.00
38	T	Bromodichloromethane	0.631	0.658	-4.3	116	0.00
39	T	cis-1,3-Dichloropropene	0.487	0.476	2.3	104	0.00
40	T	4-Methyl-2-pentanone	0.208	0.231	-11.1	120	0.00
41	T	Toluene	1.030	1.125	-9.2	116	0.00
42	T	trans-1,3-Dichloropropene	0.451	0.496	-10.0	117	0.00
43	T	1,1,2-Trichloroethane	0.358	0.355	0.8	109	0.00
44	T	Tetrachloroethene	0.582	0.578	0.7	114	0.00
45	T	2-Hexanone	0.404	0.455	-12.6	117	0.00
46	T	Chlorodibromomethane	0.660	0.662	-0.3	110	0.00
47	T	1,2-Dibromoethane	0.559	0.564	-0.9	109	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	134	0.00
49	T	Chlorobenzene	0.880	0.876	0.5	108	0.00
50	T	Ethylbenzene	1.411	1.403	0.6	105	0.00
51	T	m,p-Xylene	1.097	1.129	-2.9	106	0.00
52	T	o-Xylene	1.117	1.137	-1.8	109	0.00
53	T	Styrene	0.860	0.882	-2.6	110	0.00
54	T	Bromoform	0.634	0.657	-3.6	114	0.00
55	S	4-Bromofluorobenzene	0.581	0.581	0.0	134	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\053112\05311212.D Vial: 12
Acq On : 31 May 2012 5:06 pm Operator: RACHEL HILL
Sample : ICV VOA1 053112 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
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)
56	T	1,1,2,2-Tetrachloroethane	0.697	0.726	-4.2	114	0.00
57	T	4-Ethyltoluene	1.452	1.473	-1.4	111	0.00
58	T	1,3,5-Trimethylbenzene	1.242	1.247	-0.4	111	0.00
59	T	1,2,4-Trimethylbenzene	1.162	1.213	-4.4	114	0.00
60	T	1,3-Dichlorobenzene	0.763	0.781	-2.4	115	0.00
61	T	1,4-Dichlorobenzene	0.736	0.757	-2.9	116	0.00
62	T	Benzyl chloride	0.809	0.921	-13.8	126	0.00
63	T	1,2-Dichlorobenzene	0.669	0.701	-4.8	119	0.00
64	T	1,2,4-Trichlorobenzene	0.243	0.270	-11.1	130	0.00
65	T	Hexachlorobutadiene	0.327	0.377	-15.3	126	0.00
66		Naphthalene	0.481	0.567	-17.9	138	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\053112\05311212.D Vial: 12
Acq On : 31 May 2012 5:06 pm Operator: RACHEL HILL
Sample : ICV VOA1 053112 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 1 9:19 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.58	130	481456	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.68	114	1612192	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.53	117	1418692	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.18	95	824147	12.50	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 100.00%

Target Compounds						Qvalue
2) Propylene	5.52	41	324728	10.37	ppbv	99
3) Dichlorodifluoromethane	5.59	85	1096677	9.25	ppbv	100
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	852398	9.61	ppbv #	86
5) Chloromethane	6.00	50	347318	9.71	ppbv	98
6) Vinyl chloride	6.21	62	373657	9.25	ppbv	99
7) 1,3-Butadiene	6.26	39	308884	11.03	ppbv	96
8) Bromomethane	6.85	94	409579	9.56	ppbv	99
9) Chloroethane	7.00	64	210732	9.26	ppbv	99
10) Trichlorofluoromethane	7.33	101	1100913	9.74	ppbv	99
11) Ethanol	7.56	45	103216	8.52	ppbv	99
12) Freon113	7.99	101	788697	10.28	ppbv	95
13) 1,1-Dichloroethene	8.09	61	551564	10.39	ppbv	99
14) Acetone	8.18	43	535459	10.44	ppbv	99
15) Carbon disulfide	8.46	76	1068272	11.56	ppbv #	100
16) 2-Propanol	8.23	45	554191	11.25	ppbv #	75
17) Methylene chloride	8.75	49	391415	9.94	ppbv	98
18) tert-Butyl Methyl Ether	8.95	73	905796	10.70	ppbv	98
19) trans-1,2-Dichloroethene	9.03	61	517367	10.65	ppbv	99
20) n-Hexane	9.22	57	578015	10.73	ppbv	97
21) 1,1-Dichloroethane	9.59	63	656601	9.95	ppbv	100
22) Vinyl acetate	9.52	43	837373	10.68	ppbv	99
23) cis-1,2-Dichloroethene	10.28	96	409835	10.27	ppbv	99
24) 2-Butanone	10.24	43	569860	10.54	ppbv	100
25) Ethyl acetate	10.19	43	736475	11.02	ppbv #	100
26) Tetrahydrofuran	10.58	42	363003	10.50	ppbv	96
27) Chloroform	10.60	83	756368	10.07	ppbv	97
28) 1,1,1-Trichloroethane	10.85	97	805667	9.94	ppbv	99
29) Cyclohexane	10.86	56	577408	10.56	ppbv	99
30) Carbon tetrachloride	11.01	117	889700	9.94	ppbv	99
31) Benzene	11.29	78	1035086	9.81	ppbv	100
32) 1,2-Dichloroethane	11.37	62	428112	9.81	ppbv	99
34) Heptane	11.34	43	652953	10.41	ppbv	98
35) Trichloroethene	12.02	130	547778	9.58	ppbv	97
36) 1,2-Dichloropropane	12.38	63	384611	9.81	ppbv	100
37) 1,4-Dioxane	12.45	88	211101	9.34	ppbv	95
38) Bromodichloromethane	12.67	83	814332	10.00	ppbv	98
39) cis-1,3-Dichloropropene	13.21	75	583735	9.30	ppbv	100
40) 4-Methyl-2-pentanone	13.32	58	298491	11.13	ppbv	98
41) Toluene	13.62	91	1422215	10.70	ppbv	98
42) trans-1,3-Dichloropropene	13.93	75	582336	10.02	ppbv	100
43) 1,1,2-Trichloroethane	14.20	97	449010	9.74	ppbv	99
44) Tetrachloroethene	14.32	166	715360	9.54	ppbv	96
45) 2-Hexanone	14.40	43	575397	11.04	ppbv	96
46) Chlorodibromomethane	14.75	129	837258	9.84	ppbv	99
47) 1,2-Dibromoethane	14.98	107	698125	9.68	ppbv	100
49) Chlorobenzene	15.57	112	983994	9.85	ppbv	99
50) Ethylbenzene	15.62	91	1560666	9.75	ppbv	97
51) m,p-Xylene	15.77	91	2459547	19.76	ppbv	98
52) o-Xylene	16.36	91	1290286	10.18	ppbv	98

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\053112\05311212.D Vial: 12
Acq On : 31 May 2012 5:06 pm Operator: RACHEL HILL
Sample : ICV VOA1 053112 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 1 9:19 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

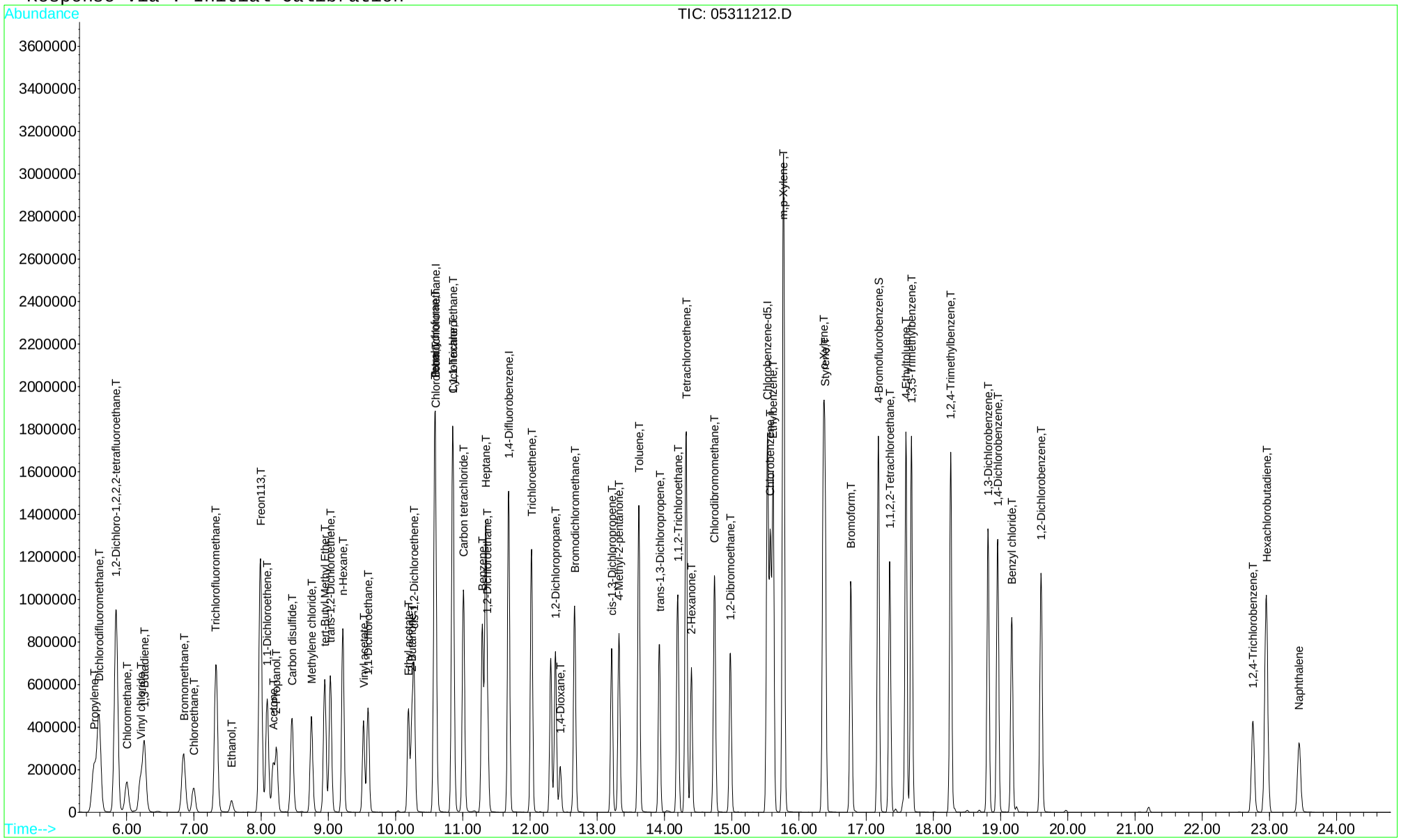
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.39	104	981022	10.06	ppbv	99
54)	Bromoform	16.77	173	715854	9.95	ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.35	83	824498	10.42	ppbv	98
57)	4-Ethyltoluene	17.59	105	1637849	9.94	ppbv	99
58)	1,3,5-Trimethylbenzene	17.68	105	1373368	9.74	ppbv	99
59)	1,2,4-Trimethylbenzene	18.26	105	1348761	10.23	ppbv	99
60)	1,3-Dichlorobenzene	18.82	146	859808	9.93	ppbv	99
61)	1,4-Dichlorobenzene	18.96	146	824927	9.87	ppbv	99
62)	Benzyl chloride	19.17	91	1014035	11.04	ppbv	99
63)	1,2-Dichlorobenzene	19.60	146	772077	10.17	ppbv	98
64)	1,2,4-Trichlorobenzene	22.75	180	279313	10.13	ppbv	96
65)	Hexachlorobutadiene	22.95	225	402349	10.84	ppbv	99
66)	Naphthalene	23.44	128	592469	10.84	ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\053112\05311212.D Vial: 12
Acq On : 31 May 2012 5:06 pm Operator: RACHEL HILL
Sample : ICV VOA1 053112 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 1 9:19 2012 Quant Results File: 053112V1.RES

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA9_120706B** **Run No.:** 50001

Analytical Run Date: 7/6/2012 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 50000 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: PR RD2 071212 - Ending RLVS Failed QSM criteria, as well as, RLVS duplicate analysis. Reporting here due to expiring hold times.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB2 VOA9 070612	BFB_TUNE	TUNE	R50001	7/6/2012 5:22:00 PM	Robert Lynch		
ICV VOA9 070612	MA_APH	ICV	R50001	7/6/2012 6:11:00 PM	Robert Lynch		
RLVS VOA9 070612	MA_APH	RLVS	R50001	7/6/2012 7:00:00 PM	Robert Lynch		
MBLK VOA9 070612	MA_APH	MBLK	R50001	7/6/2012 7:51:00 PM	Robert Lynch		
1206517-035A	MA_APH	SAMP	R50001	7/6/2012 9:24:00 PM	Robert Lynch		
1206517-035Adup	MA_APH	DUP	R50001	7/6/2012 10:09:00 PM	Robert Lynch		
1206633-011A	MA_APH	SAMP	R50001	7/6/2012 10:59:00 PM	Robert Lynch		
1206633-012A	MA_APH	SAMP	R50001	7/6/2012 11:50:00 PM	Robert Lynch		
1206633-013A	MA_APH	SAMP	R50001	7/7/2012 12:35:00 AM	Robert Lynch		
1206785-028A	MA_APH	SAMP	R50001	7/7/2012 6:49:00 AM	Robert Lynch		
RLVS2 VOA9 07061	MA_APH	RLVS	R50001	7/7/2012 7:32:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

26-Jul-12

RunNo 50001

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
978043	BFB2 VOA9 070612	BFB_TUNE	TUNE	.\1\DATA\070612	7/6/2012 5:22:00	1	R50001		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		100	0	0	0	0	0	0%	0	2	0%	
174	M		62	62		100	0	0	0	0	0	62%	50	120	0%	
175	M		7.7	7.7		100	0	0	0	0	0	8%	4	9	0%	
176	M		96.6	96.6		100	0	0	0	0	0	97%	93	101	0%	
177	M		6.5	6.5		100	0	0	0	0	0	7%	5	9	0%	
50	M		23.5	23.5		100	0	0	0	0	0	24%	8	40	0%	
75	M		47.7	47.7		100	0	0	0	0	0	48%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.5	6.5		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
978044	ICV VOA9 070612	MA_APH	ICV	.\1\DATA\070612	7/6/2012 6:11:00	1	R50001		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	236.58	236.58		234	0	0	0	0	0	101%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	1170	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	259.4	259.4		266	0	0	0	0	0	98%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	1330	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	379.93	379.93		378	0	0	0	0	0	101%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	1890	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	88.82	88.82		89.5	0	0	0	0	0	99%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\070612\07061211.D Vial: 11
Acq On : 6 Jul 2012 6:11 pm Operator: RACHEL HILL
Sample : ICV VOA9 070612 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\070612V9.M (RTE Integrator)
Title : MASS APH
Last Update : Mon Jul 09 08:52:04 2012
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	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	30.357	-4.0	99	-0.02
2	L1	C5-C8 Aliphatic HC {2}	36.400	37.012	-1.7	97	-0.03
3	L1	C5-C8 Aliphatic HC {3}	41.800	42.178	-0.9	97	-0.02
4	L1	C5-C8 Aliphatic HC {4}	35.400	34.993	1.1	95	-0.02
5	L1	C5-C8 Aliphatic HC {5}	42.200	42.357	-0.4	97	-0.02
6	L1	C5-C8 Aliphatic HC {6}	49.000	49.507	-1.0	96	-0.01
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	236.585	-1.1	97	0.19
8	L1	C9-C12 Aliphatic HC	54.600	56.949	-4.3	99	-0.01
9	L1	C9-C12 Aliphatic HC {2}	54.600	58.001	-6.2	100	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	61.179	0.0	94	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	62.467	-2.7	97	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	68.103	2.7	93	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	68.438	11.1	84	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	379.925	-0.5	95	0.00
15	L1	C9-C10 Aromatic HC	51.700	50.661	2.0	93	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	49.887	2.6	93	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	51.078	2.1	92	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	57.587	1.9	93	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	50.588	3.8	91	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	56.775	3.3	93	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	259.402	2.5	92	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-7.00#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.41#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.30#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-11.07#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.84#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-12.29#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.42#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.41#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.54#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.52#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.63#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.80#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.45#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.35#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.52#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.62#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.62#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	0.00
40	I	Chlorobenzene-d5	12.500	12.500	0.0	100	0.00
41	S	4-Bromofluorobenzene	89.500	88.819	0.8	99	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\070612\07061211.D Vial: 11
Acq On : 6 Jul 2012 6:11 pm Operator: RACHEL HILL
Sample : ICV VOA9 070612 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 10 15:30 2012 Quant Results File: 070612V9.RES

Quant Method : C:\HPCHEM\1\METHODS\070612V9.M (RTE Integrator)
Title : MASS APH
Last Update : Mon Jul 09 17:32:53 2012
Response via : Initial Calibration
DataAcq Meth : 070612V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	736523	12.50	ug/m3	0.00

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.35	95	457104	88.82	ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 99.24%

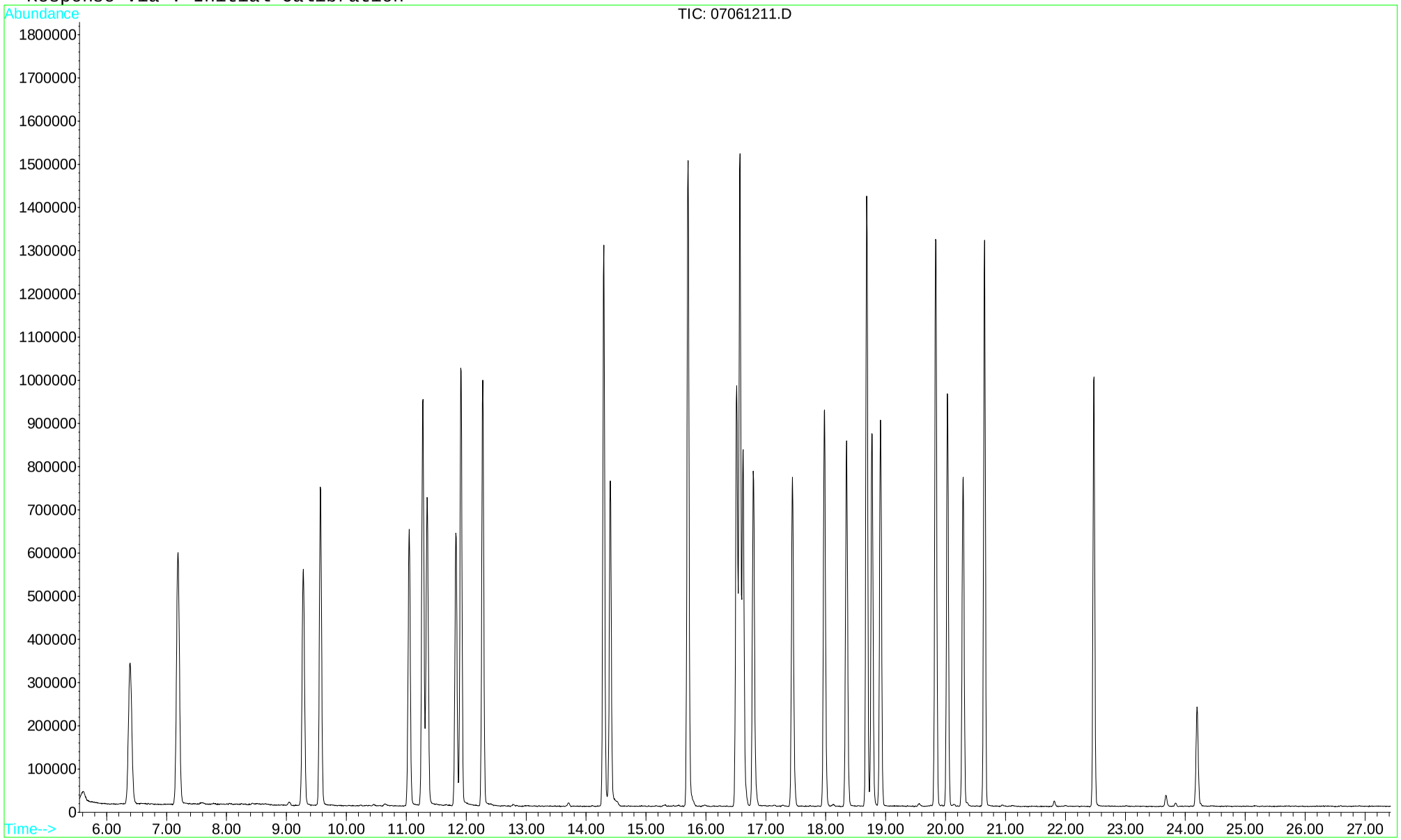
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2072008	30.36	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	1916632	37.01	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	2499404	42.18	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	1854185	34.99	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2360180	42.36	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.30	TIC	2873862	49.51	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	13576271m	236.58	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	3598125	56.95	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.57	TIC	3456735	58.00	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	3075098	61.18	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	3049769	62.47	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.65	TIC	2757215	68.10	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.48	TIC	2123294	68.44	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	18060236m	379.93	ug/m3	
15) C9-C10 Aromatic HC	17.98	120	219342	50.66	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	229075	49.89	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	341072	51.08	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	78231	57.59	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.29	120	263064	50.59	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	191428	56.77	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.98	TIC	1322212m	259.40	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\070612\07061211.D Vial: 11
Acq On : 6 Jul 2012 6:11 pm Operator: RACHEL HILL
Sample : ICV VOA9 070612 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 10 15:30 2012 Quant Results File: 070612V9.RES

Method : C:\HPCHEM\1\METHODS\070612V9.M (RTE Integrator)
Title : MASS APH
Last Update : Mon Jul 09 08:52:04 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA9_120711B** **Run No.:** 50115

Analytical Run Date: 7/11/2012 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 50114 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: ch rev 7/16/12/PR by RD2 on 16jul12. Run stopped mid-analysis due to autosampler error.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB2 VOA9 071112	BFB_TUNE	TUNE	R50115	7/12/2012 4:53:00 AM	Celeste Hoitash		
ICV VOA9 071112	MA_APH	ICV	R50115	7/12/2012 5:36:00 AM	Celeste Hoitash		
RLVS VOA9 071112	MA_APH	RLVS	R50115	7/12/2012 6:19:00 AM	Celeste Hoitash		
MBLK VOA9 071112	MA_APH	MBLK	R50115	7/12/2012 7:09:00 AM	Celeste Hoitash		
1206785-029A	MA_APH	SAMP	R50115	7/12/2012 10:47:00 AM	Celeste Hoitash		
1206785-030A	MA_APH	SAMP	R50115	7/12/2012 11:31:00 AM	Celeste Hoitash		
1206785-031A	MA_APH	SAMP	R50115	7/12/2012 1:01:00 PM	Celeste Hoitash		
1206785-032A	MA_APH	SAMP	R50115	7/12/2012 1:47:00 PM	Celeste Hoitash		
1206785-032Adup	MA_APH	DUP	R50115	7/12/2012 2:33:00 PM	Celeste Hoitash		
1206785-033A	MA_APH	SAMP	R50115	7/12/2012 3:16:00 PM	Celeste Hoitash		
1206785-027A	MA_APH	SAMP	R50115	7/12/2012 4:04:00 PM	Celeste Hoitash		
1206785-010A	MA_APH	SAMP	R50115	7/12/2012 4:47:00 PM	Celeste Hoitash		
1206785-011A	MA_APH	SAMP	R50115	7/12/2012 5:30:00 PM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

26-Jul-12

RunNo 50115

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
980223	BFB2 VOA9 071112	BFB_TUNE	TUNE	.\1\DATA\071112	7/12/2012 4:53:0	1	R50115		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		100	0	0	0	0	0	0%	0	2	0%	
174	M		79.9	79.9		100	0	0	0	0	0	80%	50	120	0%	
175	M		7.6	7.6		100	0	0	0	0	0	8%	4	9	0%	
176	M		97.6	97.6		100	0	0	0	0	0	98%	93	101	0%	
177	M		7.2	7.2		100	0	0	0	0	0	7%	5	9	0%	
50	M		15.4	15.4		100	0	0	0	0	0	15%	8	40	0%	
75	M		38.4	38.4		100	0	0	0	0	0	38%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		7.5	7.5		100	0	0	0	0	0	8%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
980211	ICV VOA9 071112	MA_APH	ICV	.\1\DATA\071112	7/12/2012 5:36:0	1	R50115		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	248.73	248.73		234	0	0	0	0	0	106%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	1170	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	291.5	291.5		266	0	0	0	0	0	110%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	1330	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	411.12	411.12		378	0	0	0	0	0	109%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	1890	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	89.1	89.1		89.5	0	0	0	0	0	100%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\071112\07111211.D Vial: 11
Acq On : 12 Jul 2012 5:36 am Operator: RACHEL HILL
Sample : ICV VOA9 071112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\071112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jul 12 09:55:59 2012
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	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	30.727	-5.2	98	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	38.648	-6.2	100	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	43.722	-4.6	98	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	38.246	-8.0	101	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	44.512	-5.5	98	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	52.931	-8.0	99	-0.01
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	248.729	-6.3	99	0.00
8	L1	C9-C12 Aliphatic HC	54.600	59.050	-8.2	99	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	59.827	-9.6	98	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	66.723	-9.0	99	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	67.626	-11.2	102	-0.01
12	L1	C9-C12 Aliphatic HC {5}	70.000	75.723	-8.2	101	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	80.906	-5.1	98	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	411.116	-8.8	100	0.00
15	L1	C9-C10 Aromatic HC	51.700	56.069	-8.5	102	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	55.772	-8.9	104	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	57.085	-9.4	102	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	64.460	-9.8	102	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	57.440	-9.2	104	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	65.339	-11.3	103	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	291.500	-9.6	103	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-7.00#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.30#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.18#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-10.95#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.73#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-12.17#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.31#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.41#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.44#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.42#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.53#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.70#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.35#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.25#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.52#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.55#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.55#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	0.00
40	I	Chlorobenzene-d5	12.500	12.500	0.0	102	0.00
41	S	4-Bromofluorobenzene	89.500	89.102	0.4	102	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\071112\07111211.D Vial: 11
Acq On : 12 Jul 2012 5:36 am Operator: RACHEL HILL
Sample : ICV VOA9 071112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 12 9:59 2012 Quant Results File: 071112V9.RES

Quant Method : C:\HPCHEM\1\METHODS\071112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jul 12 09:55:59 2012
Response via : Initial Calibration
DataAcq Meth : 071112V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.42	117	1419840	12.50	ug/m3	0.00

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.25	95	1109105	89.10	ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 99.55%

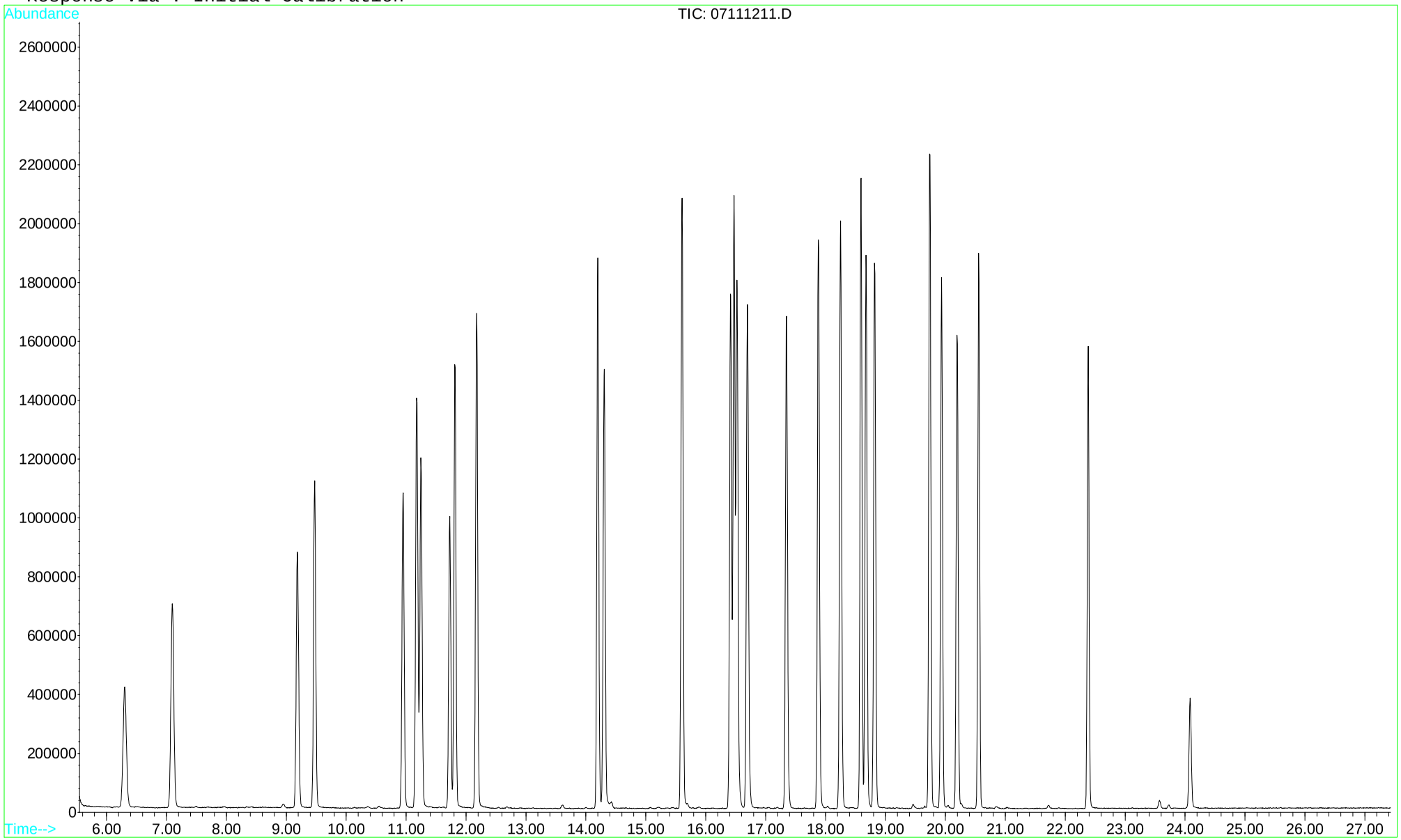
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.10	TIC	2408819	30.73	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.47	TIC	2882556	38.65	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.17	TIC	3669729	43.72	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.25	TIC	3129550	38.25	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.81	TIC	3552009	44.51	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.20	TIC	4193883	52.93	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.10	TIC	19836546m	248.73	ug/m3	
8) C9-C12 Aliphatic HC	15.61	TIC	5003401	59.05	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.47	TIC	4705609	59.83	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.59	TIC	4711666	66.72	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.74	TIC	5247587	67.63	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.55	TIC	3982630	75.72	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.38	TIC	3338831	80.91	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.61	TIC	26989724m	411.12	ug/m3	
15) C9-C10 Aromatic HC	17.88	120	444479	56.07	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.67	120	467873	55.77	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.82	120	684529	57.09	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.94	120	151337	64.46	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.19	120	522057	57.44	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.94	134	316844	65.34	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.88	TIC	2587119m	291.50	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071112\07111211.D Vial: 11
Acq On : 12 Jul 2012 5:36 am Operator: RACHEL HILL
Sample : ICV VOA9 071112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 12 9:59 2012 Quant Results File: 071112V9.RES

Method : C:\HPCHEM\1\METHODS\071112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jul 12 09:55:59 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA9_120713A** **Run No.:** 50118

Analytical Run Date: 7/13/2012 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 50114 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: ch rev 7/16/12/PR by RD2 on 16jul12

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 VOA9 071312	BFB_TUNE	TUNE	R50118	7/13/2012 11:23:00 AM	Celeste Hoitash		
CCV VOA9 071312	MA_APH	CCV	R50118	7/13/2012 12:06:00 PM	Celeste Hoitash		
RLVS VOA9 071312	MA_APH	RLVS	R50118	7/13/2012 12:50:00 PM	Celeste Hoitash		
MBLK VOA9 071312	MA_APH	MBLK	R50118	7/13/2012 1:45:00 PM	Celeste Hoitash		
1206785-037A	MA_APH	SAMP	R50118	7/13/2012 2:35:00 PM	Celeste Hoitash		
1206785-024A	MA_APH	SAMP	R50118	7/13/2012 3:21:00 PM	Celeste Hoitash		
1206785-040A	MA_APH	SAMP	R50118	7/13/2012 4:04:00 PM	Celeste Hoitash		
1206785-041A	MA_APH	SAMP	R50118	7/13/2012 4:49:00 PM	Celeste Hoitash		
1206785-041Adup	MA_APH	DUP	R50118	7/13/2012 5:33:00 PM	Celeste Hoitash		
1206785-025A	MA_APH	SAMP	R50118	7/13/2012 6:23:00 PM	Celeste Hoitash		
1206785-026A	MA_APH	SAMP	R50118	7/13/2012 7:56:00 PM	Celeste Hoitash		
1206785-046A	MA_APH	SAMP	R50118	7/13/2012 8:45:00 PM	Celeste Hoitash		
1206785-044A	MA_APH	SAMP	R50118	7/13/2012 9:28:00 PM	Celeste Hoitash		
1206785-045A	MA_APH	SAMP	R50118	7/13/2012 10:12:00 PM	Celeste Hoitash		
1206785-039A	MA_APH	SAMP	R50118	7/13/2012 11:44:00 PM	Celeste Hoitash		
1206785-043A	MA_APH	SAMP	R50118	7/14/2012 1:17:00 AM	Celeste Hoitash		
1206785-042A	MA_APH	SAMP	R50118	7/14/2012 2:00:00 AM	Celeste Hoitash		
1206785-038A	MA_APH	SAMP	R50118	7/14/2012 4:16:00 AM	Celeste Hoitash		
1206785-008A	MA_APH	SAMP	R50118	7/14/2012 6:54:00 AM	Celeste Hoitash		
1206785-009A	MA_APH	SAMP	R50118	7/14/2012 7:36:00 AM	Celeste Hoitash		
1206785-006A	MA_APH	SAMP	R50118	7/14/2012 8:21:00 AM	Celeste Hoitash		
1206785-007A	MA_APH	SAMP	R50118	7/14/2012 9:05:00 AM	Celeste Hoitash		
RLVS2 VOA9 07131	MA_APH	RLVS	R50118	7/14/2012 9:49:00 AM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

26-Jul-12

RunNo 50118

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
980251	BFB1 VOA9 071312	BFB_TUNE	TUNE	.\1\DATA\071312	7/13/2012 11:23:	1	R50118		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		100	0	0	0	0	0	0%	0	2	0%	
174	M		71.9	71.9		100	0	0	0	0	0	72%	50	120	0%	
175	M		7.5	7.5		100	0	0	0	0	0	8%	4	9	0%	
176	M		95.1	95.1		100	0	0	0	0	0	95%	93	101	0%	
177	M		8.1	8.1		100	0	0	0	0	0	8%	5	9	0%	
50	M		15.1	15.1		100	0	0	0	0	0	15%	8	40	0%	
75	M		35.5	35.5		100	0	0	0	0	0	36%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		7.2	7.2		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
980267	CCV VOA9 071312	MA_APH	CCV	.\1\DATA\071312	7/13/2012 12:06:	1	R50118		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	240.15	240.15		234	0	0	0	0	0	103%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	1170	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	305.77	305.77		266	0	0	0	0	0	115%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	1330	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	407.74	407.74		378	0	0	0	0	0	108%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	1890	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	88.74	88.74		89.5	0	0	0	0	0	99%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\071312\07131202.D Vial: 2
Acq On : 13 Jul 2012 12:06 pm Operator: RACHEL HILL
Sample : CCV VOA9 071312 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\071112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jul 12 09:55:59 2012
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	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	30.292	-3.7	97	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	36.711	-0.9	95	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	41.524	0.7	93	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	37.297	-5.4	99	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	43.394	-2.8	95	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	50.984	-4.0	96	-0.01
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	240.149	-2.6	96	0.00
8	L1	C9-C12 Aliphatic HC	54.600	57.935	-6.1	97	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	61.934	-13.4	102	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	64.158	-4.8	95	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	66.818	-9.9	100	-0.01
12	L1	C9-C12 Aliphatic HC {5}	70.000	73.829	-5.5	99	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	82.134	-6.7	100	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	407.742	-7.9	99	0.00
15	L1	C9-C10 Aromatic HC	51.700	59.192	-14.5	108	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	58.400	-14.1	108	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	60.055	-15.0	107	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	66.689	-13.6	106	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	60.045	-14.2	109	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	68.500	-16.7	108	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	305.771	-15.0	108	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-7.00#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.30#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.18#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-10.95#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.73#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-12.17#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.31#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.41#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.44#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.42#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.53#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.70#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.35#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.25#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.52#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.55#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.55#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	0.00
40	I	Chlorobenzene-d5	12.500	12.500	0.0	102	0.00
41	S	4-Bromofluorobenzene	89.500	88.739	0.9	102	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\071312\07131202.D Vial: 2
Acq On : 13 Jul 2012 12:06 pm Operator: RACHEL HILL
Sample : CCV VOA9 071312 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 14 8:13 2012 Quant Results File: 071112V9.RES

Quant Method : C:\HPCHEM\1\METHODS\071112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jul 12 09:55:59 2012
Response via : Initial Calibration
DataAcq Meth : 071112V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.42	117	1418377	12.50	ug/m3	0.00

System Monitoring Compounds
41) 4-Bromofluorobenzene 18.25 95 1103441 88.74 ug/m3 0.00
Spiked Amount 89.500 Range 70 - 130 Recovery = 99.15%

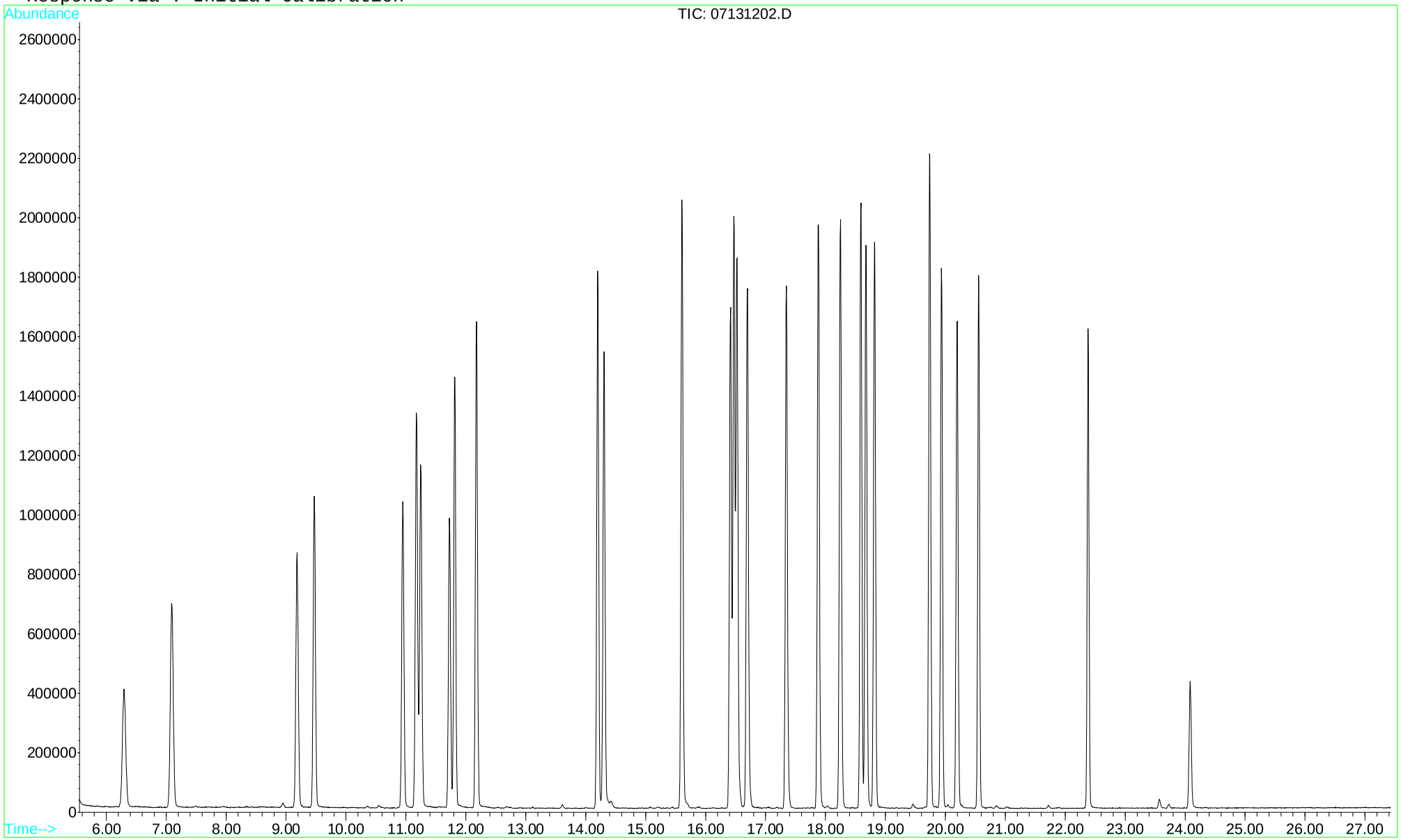
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.09	TIC	2374712	30.29	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.47	TIC	2738074	36.71	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.17	TIC	3485183	41.52	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.25	TIC	3051946	37.30	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.82	TIC	3462768	43.39	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.20	TIC	4039624	50.98	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.09	TIC	19152307m	240.15	ug/m3	
8) C9-C12 Aliphatic HC	15.60	TIC	4908919	57.93	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.47	TIC	4871397	61.93	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.59	TIC	4530524	64.16	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.74	TIC	5184856	66.82	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.55	TIC	3883029	73.83	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.38	TIC	3389504	82.13	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.60	TIC	26768229m	407.74	ug/m3	
15) C9-C10 Aromatic HC	17.88	120	469235	59.19	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.68	120	489921	58.40	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.82	120	720144	60.06	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.93	120	156571	66.69	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.20	120	545731	60.04	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.93	134	332173	68.50	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.88	TIC	2713775m	305.77	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071312\07131202.D Vial: 2
Acq On : 13 Jul 2012 12:06 pm Operator: RACHEL HILL
Sample : CCV VOA9 071312 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 14 8:13 2012 Quant Results File: 071112V9.RES

Method : C:\HPCHEM\1\METHODS\071112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jul 12 09:55:59 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA9_120717A** **Run No.:** 50250

Analytical Run Date: 7/17/2012 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 50187 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: ch rev 7/20/12/PR AW 7.18.12

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA9 071712	BFB_TUNE	TUNE	R50250	7/17/2012 2:36:00 PM	Celeste Hoitash		
CCV VOA9 071712	MA_APH	CCV	R50250	7/17/2012 3:21:00 PM	Celeste Hoitash		
RLVS VOA9 071712	MA_APH	RLVS	R50250	7/17/2012 4:45:00 PM	Celeste Hoitash		
MBLK VOA9 071712	MA_APH	MBLK	R50250	7/17/2012 5:36:00 PM	Celeste Hoitash		
1206785-020A	MA_APH	SAMP	R50250	7/17/2012 6:58:00 PM	Celeste Hoitash	H	
1206785-020Adup	MA_APH	DUP	R50250	7/17/2012 7:46:00 PM	Celeste Hoitash	H	
1206785-001A	MA_APH	SAMP	R50250	7/17/2012 8:34:00 PM	Celeste Hoitash	H	
1206785-012A	MA_APH	SAMP	R50250	7/17/2012 9:20:00 PM	Celeste Hoitash	H	
1206785-013A	MA_APH	SAMP	R50250	7/17/2012 10:06:00 PM	Celeste Hoitash	H	
1206785-002A	MA_APH	SAMP	R50250	7/17/2012 10:52:00 PM	Celeste Hoitash	H	
1206785-003A	MA_APH	SAMP	R50250	7/17/2012 11:36:00 PM	Celeste Hoitash	H	
1206785-004A	MA_APH	SAMP	R50250	7/18/2012 12:21:00 AM	Celeste Hoitash	H	
1206785-014A	MA_APH	SAMP	R50250	7/18/2012 1:48:00 AM	Celeste Hoitash	H	
1206785-005A	MA_APH	SAMP	R50250	7/18/2012 2:32:00 AM	Celeste Hoitash	H	
1206785-017A	MA_APH	SAMP	R50250	7/18/2012 3:15:00 AM	Celeste Hoitash	H	
1206785-016A	MA_APH	SAMP	R50250	7/18/2012 3:58:00 AM	Celeste Hoitash	H	
1206785-018A	MA_APH	SAMP	R50250	7/18/2012 9:32:00 AM	Celeste Hoitash	H	
1206785-019A	MA_APH	SAMP	R50250	7/18/2012 10:15:00 AM	Celeste Hoitash	H	
RLVS2 VOA9 07171	MA_APH	RLVS	R50250	7/18/2012 1:08:00 PM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

26-Jul-12

RunNo 50250

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
982243	BFB VOA9 071712	BFB_TUNE	TUNE	.\1\DATA\071712	7/17/2012 2:36:0	1	R50250		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		100	0	0	0	0	0	0%	0	2	0%	
174	M		87.3	87.3		100	0	0	0	0	0	87%	50	120	0%	
175	M		8	8		100	0	0	0	0	0	8%	4	9	0%	
176	M		100.1	100.1		100	0	0	0	0	0	100%	93	101	0%	
177	M		6.6	6.6		100	0	0	0	0	0	7%	5	9	0%	
50	M		16.5	16.5		100	0	0	0	0	0	17%	8	40	0%	
75	M		35.7	35.7		100	0	0	0	0	0	36%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.9	6.9		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
982244	CCV VOA9 071712	MA_APH	CCV	.\1\DATA\071712	7/17/2012 3:21:0	1	R50250		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	239.83	239.83		234	0	0	0	0	0	102%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	1170	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	283.58	283.58		266	0	0	0	0	0	107%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	1330	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	399.98	399.98		378	0	0	0	0	0	106%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	1890	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	88.82	88.82		89.5	0	0	0	0	0	99%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\071712\07171202.D Vial: 11
Acq On : 17 Jul 2012 3:21 pm Operator: RACHEL HILL
Sample : CCV VOA9 071712 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\071612V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jul 17 10:08:43 2012
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	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	30.245	-3.6	93	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	37.124	-2.0	91	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	42.818	-2.4	92	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	35.802	-1.1	90	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	43.053	-2.0	91	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	50.827	-3.7	92	0.00
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	239.828	-2.5	91	0.00
8	L1	C9-C12 Aliphatic HC	54.600	57.507	-5.3	92	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	56.909	-4.2	91	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	64.028	-4.6	91	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	65.168	-7.2	94	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	74.730	-6.8	94	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	82.386	-7.0	94	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	399.983	-5.8	93	0.00
15	L1	C9-C10 Aromatic HC	51.700	53.824	-4.1	91	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	54.603	-6.6	94	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	56.263	-7.8	95	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	61.925	-5.5	93	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	55.583	-5.7	94	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	63.258	-7.8	93	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	283.576	-6.6	94	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-7.00#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.30#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.18#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-10.95#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.73#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-12.17#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.31#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.41#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.44#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.42#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.53#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.70#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.35#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.25#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.52#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.55#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.55#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	0.00
40	I	Chlorobenzene-d5	12.500	12.500	0.0	89	0.00
41	S	4-Bromofluorobenzene	89.500	88.820	0.8	89	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\071712\07171202.D Vial: 11
Acq On : 17 Jul 2012 3:21 pm Operator: RACHEL HILL
Sample : CCV VOA9 071712 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 18 10:30 2012 Quant Results File: 071612V9.RES

Quant Method : C:\HPCHEM\1\METHODS\071612V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jul 17 10:08:43 2012
Response via : Initial Calibration
DataAcq Meth : 071612V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.42	117	1024766	12.50	ug/m3	0.00

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.26	95	761814	88.82	ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 99.24%

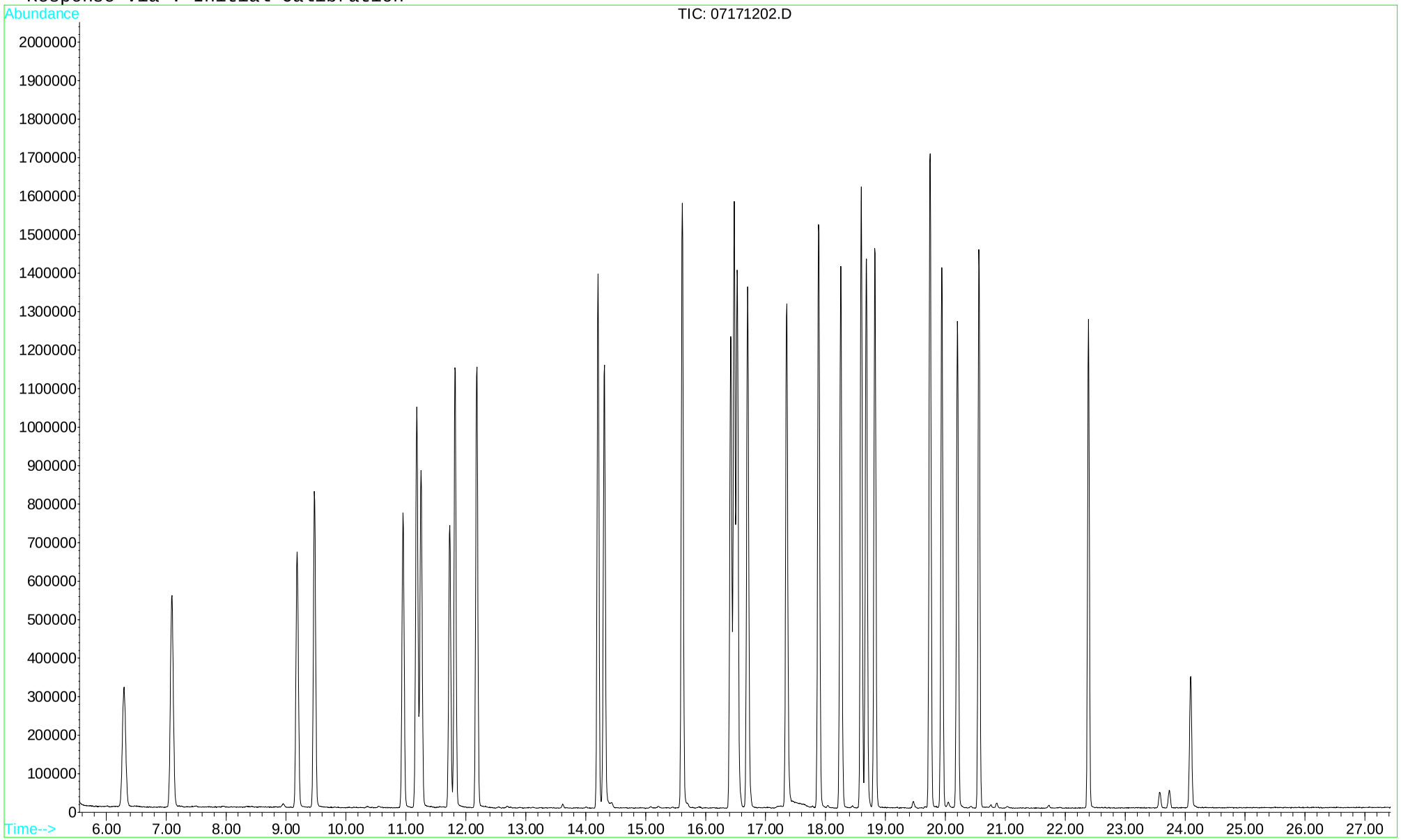
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.10	TIC	1889288	30.25	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.47	TIC	2129030	37.12	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.18	TIC	2734786	42.82	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.25	TIC	2279118	35.80	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.82	TIC	2654740	43.05	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.20	TIC	3100883	50.83	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.10	TIC	14787845m	239.83	ug/m3	
8) C9-C12 Aliphatic HC	15.61	TIC	3753905	57.51	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.48	TIC	3519738	56.91	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.60	TIC	3516896	64.03	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.75	TIC	3973345	65.17	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.56	TIC	3125296	74.73	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.39	TIC	2692850	82.39	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.61	TIC	20582030m	399.98	ug/m3	
15) C9-C10 Aromatic HC	17.88	120	350502	53.82	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.68	120	376576	54.60	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.83	120	555374	56.26	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.94	120	118412	61.93	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.20	120	418645	55.58	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.94	134	263341	63.26	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.88	TIC	2082850m	283.58	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071712\07171202.D Vial: 11
Acq On : 17 Jul 2012 3:21 pm Operator: RACHEL HILL
Sample : CCV VOA9 071712 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 18 10:30 2012 Quant Results File: 071612V9.RES

Method : C:\HPCHEM\1\METHODS\071612V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jul 17 10:08:43 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA9_120718A** **Run No.:** 50271

Analytical Run Date: 7/18/2012 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 50187 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: ch rev 7/24/12/PR - AW 072412. Ending RLVS failing. Mismatch between field duplicate samples observed for 6785-35/36 &21/22 in TO15 and MaAph analysis.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA9 071812	BFB_TUNE	TUNE	R50271	7/18/2012 1:59:00 PM	Celeste Hoitash		
CCV VOA9 071812	MA_APH	CCV	R50271	7/18/2012 2:43:00 PM	Celeste Hoitash		
RLVS VOA9 071812	MA_APH	RLVS	R50271	7/18/2012 3:28:00 PM	Celeste Hoitash		
MBLK VOA9 071812	MA_APH	MBLK	R50271	7/18/2012 5:40:00 PM	Celeste Hoitash		
1206785-023A	MA_APH	SAMP	R50271	7/18/2012 6:26:00 PM	Celeste Hoitash	H	Under-diluted sample. Will re-run at a higher dilution. Reporting here to show that sample and duplicate were analyzed for QC.
1206785-023Adup	MA_APH	DUP	R50271	7/18/2012 7:12:00 PM	Celeste Hoitash	H	
1206785-035A	MA_APH	SAMP	R50271	7/18/2012 7:58:00 PM	Celeste Hoitash	H	
1206785-036A	MA_APH	SAMP	R50271	7/18/2012 8:44:00 PM	Celeste Hoitash	H	
1206785-015A	MA_APH	SAMP	R50271	7/18/2012 9:27:00 PM	Celeste Hoitash	H	
1206785-022A	MA_APH	SAMP	R50271	7/18/2012 10:10:00 PM	Celeste Hoitash	H	
1206785-021A	MA_APH	SAMP	R50271	7/18/2012 10:53:00 PM	Celeste Hoitash	H	
1206785-023A	MA_APH	SAMP	R50271	7/19/2012 2:17:00 AM	Celeste Hoitash	H	
RLVS2 VOA9 07181	MA_APH	RLVS	R50271	7/19/2012 10:24:00 AM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

26-Jul-12

RunNo 50271

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
982787	BFB VOA9 071812	BFB_TUNE	TUNE	.\1\DATA\071812	7/18/2012 1:59:0	1	R50271		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		100	0	0	0	0	0	0%	0	2	0%	
174	M		89.5	89.5		100	0	0	0	0	0	90%	50	120	0%	
175	M		7.6	7.6		100	0	0	0	0	0	8%	4	9	0%	
176	M		99.2	99.2		100	0	0	0	0	0	99%	93	101	0%	
177	M		6.5	6.5		100	0	0	0	0	0	7%	5	9	0%	
50	M		16.4	16.4		100	0	0	0	0	0	16%	8	40	0%	
75	M		34.8	34.8		100	0	0	0	0	0	35%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
982788	CCV VOA9 071812	MA_APH	CCV	.\1\DATA\071812	7/18/2012 2:43:0	1	R50271		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	256.18	256.18		234	0	0	0	0	0	109%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	1170	0%	0	0	0%	U
C9-C10 Aromatic HC - TOTAL	A	µg/m³	294.59	294.59		266	0	0	0	0	0	111%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	1330	0%	0	0	0%	U
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	410	410		378	0	0	0	0	0	108%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	1890	0%	0	0	0%	U
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	88.26	88.26		89.5	0	0	0	0	0	99%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\071812\07181202.D Vial: 11
Acq On : 18 Jul 2012 2:43 pm Operator: RACHEL HILL
Sample : CCV VOA9 071812 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\071612V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jul 17 10:08:43 2012
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	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	34.369	-17.7	106	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	39.548	-8.6	97	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	45.522	-8.9	98	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	37.905	-7.1	95	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	45.482	-7.8	96	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	53.369	-8.9	97	0.00
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	256.176	-9.5	98	0.00
8	L1	C9-C12 Aliphatic HC	54.600	59.830	-9.6	96	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	60.402	-10.6	96	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	66.447	-8.6	95	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	67.783	-11.5	97	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	72.994	-4.3	92	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	80.176	-4.1	92	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	409.996	-8.5	95	0.00
15	L1	C9-C10 Aromatic HC	51.700	56.770	-9.8	96	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	56.809	-11.0	98	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	58.337	-11.8	98	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	64.792	-10.4	98	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	57.699	-9.7	97	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	64.365	-9.7	95	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	294.590	-10.7	97	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-7.00#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.30#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.18#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-10.95#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.73#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-12.17#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.31#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.41#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.44#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.42#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.53#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.70#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.35#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.25#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.52#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.55#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.55#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	0.00
40	I	Chlorobenzene-d5	12.500	12.500	0.0	92	0.00
41	S	4-Bromofluorobenzene	89.500	88.263	1.4	92	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\071812\07181202.D Vial: 11
Acq On : 18 Jul 2012 2:43 pm Operator: RACHEL HILL
Sample : CCV VOA9 071812 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 19 8:52 2012 Quant Results File: 071612V9.RES

Quant Method : C:\HPCHEM\1\METHODS\071612V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jul 17 10:08:43 2012
Response via : Initial Calibration
DataAcq Meth : 071612V9

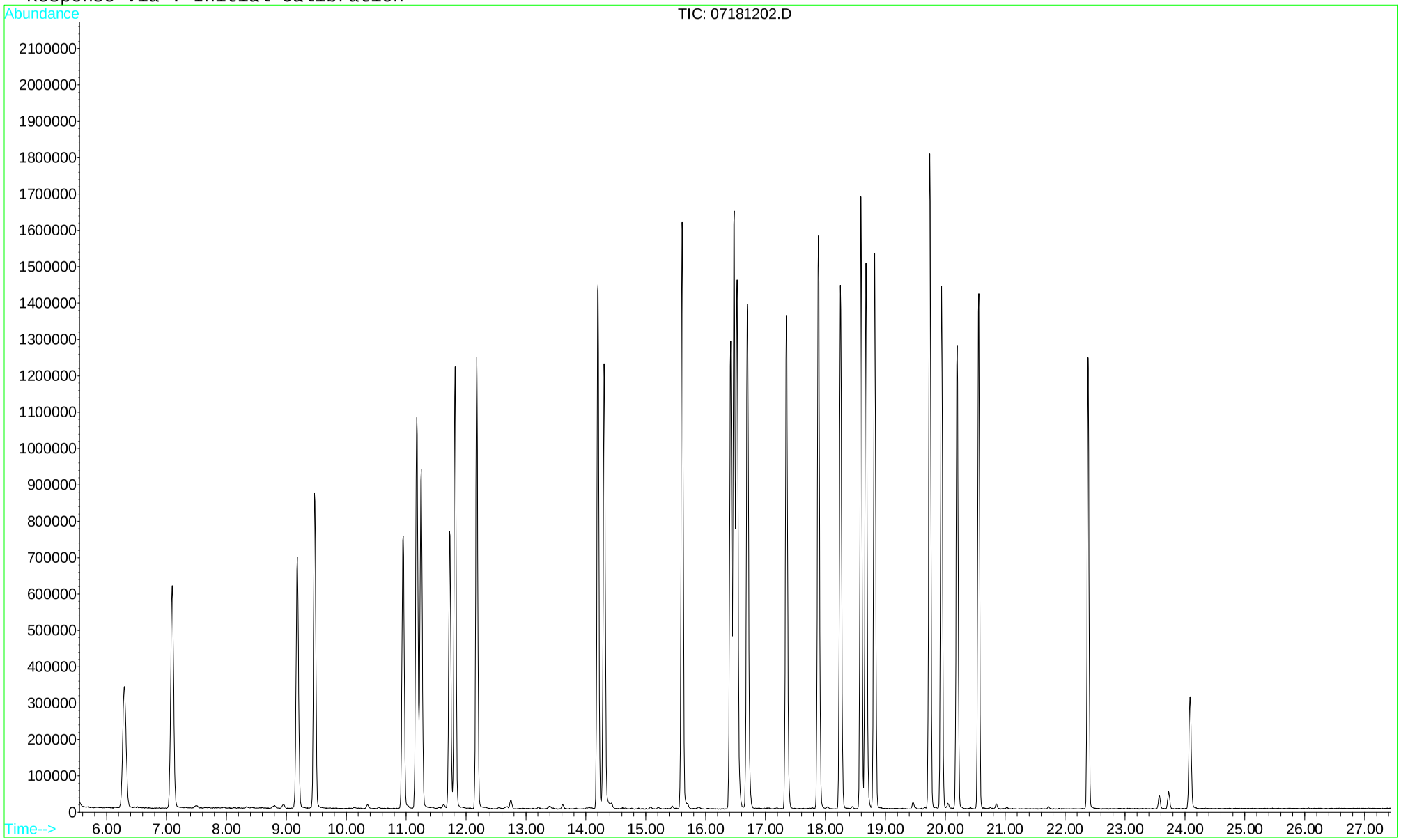
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.42	117	1056697	12.50	ug/m3	0.00
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.25	95	780626	88.26	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 98.61%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.10	TIC	2146905	34.37	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.47	TIC	2268066	39.55	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.18	TIC	2907479	45.52	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.25	TIC	2412977	37.90	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.82	TIC	2804492	45.48	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.20	TIC	3255951	53.37	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.10	TIC	15795870m	256.18	ug/m3	
8) C9-C12 Aliphatic HC	15.60	TIC	3905524	59.83	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.48	TIC	3735782	60.40	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.59	TIC	3649779	66.45	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.74	TIC	4132834	67.78	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.56	TIC	3052714	72.99	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.38	TIC	2620623	80.18	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.60	TIC	21097256m	410.00	ug/m3	
15) C9-C10 Aromatic HC	17.88	120	369683	56.77	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.68	120	391790	56.81	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.82	120	575847	58.34	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.93	120	123894	64.79	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.20	120	434585	57.70	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.94	134	267951	64.36	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.88	TIC	2163750m	294.59	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071812\07181202.D Vial: 11
Acq On : 18 Jul 2012 2:43 pm Operator: RACHEL HILL
Sample : CCV VOA9 071812 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 19 8:52 2012 Quant Results File: 071612V9.RES

Method : C:\HPCHEM\1\METHODS\071612V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jul 17 10:08:43 2012
Response via : Initial Calibration



Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\070612V9.M (RTE Integrator)
Title : MASS APH
Last Update : Mon Jul 09 08:52:04 2012
Response via : Initial Calibration

Calibration Files
1 =07061203.D 2 =07061204.D 3 =07061205.D
4 =07061206.D 5 =07061207.D 6 =07061208.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	L1	C5-C8 Aliphatic HC	8.520	7.151	6.767	6.518	6.132	5.865	6.622	E4	15.37
2)	L1	C5-C8 Aliphatic HC	6.113	5.409	5.110	5.000	4.756	4.683	5.064	E4	11.21
3)	L1	C5-C8 Aliphatic HC	6.943	6.169	5.964	5.668	5.439	5.372	5.778	E4	11.45
4)	L1	C5-C8 Aliphatic HC	6.186	5.539	5.107	5.190	5.001	4.770	5.201	E4	10.12
5)	L1	C5-C8 Aliphatic HC	6.503	5.786	5.532	5.432	5.162	5.017	5.430	E4	11.28
6)	L1	C5-C8 Aliphatic HC	6.925	6.120	5.802	5.609	5.354	5.020	5.600	E4	14.55
7)	L1	C5-C8 Aliphatic HC	6.813	5.999	5.686	5.550	5.290	5.094	5.586	E4	12.35
8)	L1	C9-C12 Aliphatic HC	7.652	6.654	6.346	6.096	5.802	5.360	6.059	E4	16.43
9)	L1	C9-C12 Aliphatic HC	7.148	6.339	6.011	5.746	5.396	5.118	5.739	E4	15.39
10)	L1	C9-C12 Aliphatic HC	6.025	5.334	5.117	4.859	4.621	4.202	4.820	E4	16.44
11)	L1	C9-C12 Aliphatic HC	5.918	5.157	4.930	4.738	4.447	4.104	4.690	E4	16.33
12)	L1	C9-C12 Aliphatic HC	4.815	4.250	4.110	3.922	3.706	3.488	3.900	E4	14.81
13)	L1	C9-C12 Aliphatic HC	3.803	3.271	3.090	2.975	2.820	2.656	2.989	E4	15.91
14)	L1	C9-C12 Aliphatic HC	5.730	5.023	4.798	4.591	4.340	4.039	4.569	E4	15.89
15)	L1	C9-C10 Aromatic HC	5.182	4.548	4.304	4.240	3.983	3.720	4.184	E3	14.36
16)	L1	C9-C10 Aromatic HC	5.400	4.825	4.660	4.442	4.280	3.944	4.445	E3	13.50
17)	L1	C9-C10 Aromatic HC	8.053	7.065	6.692	6.478	6.117	5.661	6.439	E3	15.30
18)	L1	C9-C10 Aromatic HC	1.603	1.432	1.387	1.323	1.255	1.151	1.309	E3	14.77
19)	L1	C9-C10 Aromatic HC	6.163	5.481	5.249	5.062	4.767	4.478	5.033	E3	13.83
20)	L1	C9-C10 Aromatic HC	4.001	3.518	3.448	3.254	3.112	2.897	3.256	E3	14.26
21)	L1	C9-C10 Aromatic HC	6.082	5.375	5.137	4.941	4.680	4.367	4.925	E3	14.42
22)		C5-C8 Aliphatic	6.813	5.999	5.686	5.550	5.290	5.094	5.586	E4	12.35
23)	L1	non C5-C8	6.731	5.616	5.425	5.224	4.946	4.738	5.274	E4	14.96
24)	L1	non C5-C8 {2}	5.009	4.428	4.145	4.022	3.824	3.678	4.072	E4	13.03
25)	L1	non C5-C8 {3}	2.599	2.630	2.586	2.584	2.549	2.591	2.609	E4	2.11
26)	L1	non C5-C8 {4}	5.600	4.923	4.707	4.637	4.450	4.330	4.657	E4	11.10
27)	L1	non C5-C8 {5}	3.991	3.972	3.999	4.020	4.007	4.067	3.998	E4	1.05
28)	L1	non C5-C8 {6}	5.180	4.742	4.533	4.391	4.291	4.191	4.448	E4	9.76
29)	L1	non C5-C8 - TOTAL	4.035	4.073	4.016	4.019	3.965	3.968	3.971	E4	2.92
30)		C9-C12 Aliphatic	5.730	5.023	4.798	4.591	4.340	4.039	4.569	E4	15.89
31)	L1	non C9-C12	3.832	3.877	3.778	3.872	3.990	3.840	3.842	E4	2.29
32)	L1	non C9-C12 {2}	4.732	4.370	4.333	4.164	3.878	3.622	4.030	E4	13.41
33)	L1	non C9-C12 {3}	5.092	4.568	4.360	4.190	4.013	3.851	4.228	E4	12.08
34)	L1	non C9-C12 {4}	5.017	4.471	4.260	4.101	3.964	3.746	4.142	E4	12.36
35)	L1	non C9-C12 {5}	2.356	2.384	2.397	2.396	2.395	2.434	2.412	E4	2.18
36)	L1	non C9-C12 - TOTAL	3.178	3.105	3.027	2.971	2.882	2.738	2.911	E4	8.20
37)	L1	C9-C10 Aromatic	6.082	5.375	5.137	4.941	4.680	4.367	4.925	E3	14.42
38)	L1	C9-C10 Aromatic {2}	6.082	5.375	5.137	4.941	4.680	4.367	4.925	E3	14.42
39)	L1	C9-C10 Aromatic - T	6.082	5.375	5.137	4.941	4.680	4.367	4.925	E3	14.42
40)	I	Chlorobenzene-d5	----------ISTD----------								
41)	S	4-Bromofluorobenzen	0.087	0.087	0.088	0.087	0.088	0.087	0.088		1.49

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

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\070612V9.M (RTE Integrator)
Title : MASS APH
Last Update : Mon Jul 09 08:52:04 2012
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

070612V9.M Tue Jul 10 17:50:21 2012

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\070612\07061211.D Vial: 11
Acq On : 6 Jul 2012 6:11 pm Operator: RACHEL HILL
Sample : ICV VOA9 070612 Inst : GC/MS Ins
Misc : ICV MA APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\070612V9.M (RTE Integrator)
Title : MASS APH
Last Update : Mon Jul 09 08:52:04 2012
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	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	30.357	-4.0	99	-0.02
2	L1	C5-C8 Aliphatic HC {2}	36.400	37.012	-1.7	97	-0.03
3	L1	C5-C8 Aliphatic HC {3}	41.800	42.178	-0.9	97	-0.02
4	L1	C5-C8 Aliphatic HC {4}	35.400	34.993	1.1	95	-0.02
5	L1	C5-C8 Aliphatic HC {5}	42.200	42.357	-0.4	97	-0.02
6	L1	C5-C8 Aliphatic HC {6}	49.000	49.507	-1.0	96	-0.01
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	236.585	-1.1	97	0.19
8	L1	C9-C12 Aliphatic HC	54.600	56.949	-4.3	99	-0.01
9	L1	C9-C12 Aliphatic HC {2}	54.600	58.001	-6.2	100	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	61.179	0.0	94	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	62.467	-2.7	97	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	68.103	2.7	93	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	68.438	11.1	84	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	379.925	-0.5	95	0.00
15	L1	C9-C10 Aromatic HC	51.700	50.661	2.0	93	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	49.887	2.6	93	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	51.078	2.1	92	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	57.587	1.9	93	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	50.588	3.8	91	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	56.775	3.3	93	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	259.402	2.5	92	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-7.00#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.41#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.30#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-11.07#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.84#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-12.29#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.42#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.41#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.54#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.52#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.63#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.80#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.45#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.35#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.52#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.62#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.62#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	0.00
40	I	Chlorobenzene-d5	12.500	12.500	0.0	100	0.00
41	S	4-Bromofluorobenzene	89.500	88.819	0.8	99	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\070612\07061211.D Vial: 11
Acq On : 6 Jul 2012 6:11 pm Operator: RACHEL HILL
Sample : ICV VOA9 070612 Inst : GC/MS Ins
Misc : ICV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 10 15:30 2012 Quant Results File: 070612V9.RES

Quant Method : C:\HPCHEM\1\METHODS\070612V9.M (RTE Integrator)
Title : MASS APH
Last Update : Mon Jul 09 17:32:53 2012
Response via : Initial Calibration
DataAcq Meth : 070612V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	736523	12.50	ug/m3	0.00

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.35	95	457104	88.82	ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 99.24%

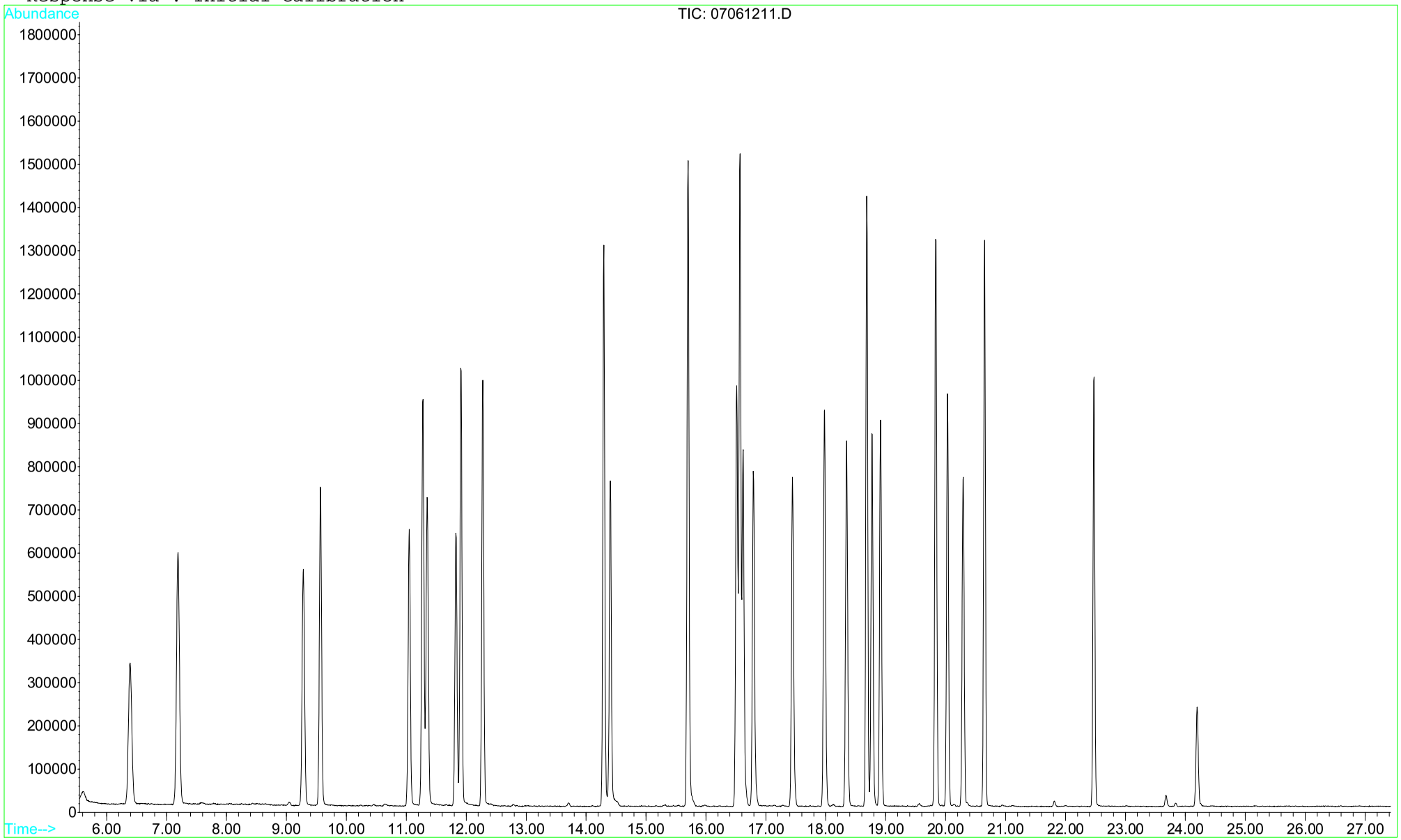
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2072008	30.36	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	1916632	37.01	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	2499404	42.18	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	1854185	34.99	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2360180	42.36	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.30	TIC	2873862	49.51	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	13576271m	236.58	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	3598125	56.95	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.57	TIC	3456735	58.00	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	3075098	61.18	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	3049769	62.47	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.65	TIC	2757215	68.10	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.48	TIC	2123294	68.44	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	18060236m	379.93	ug/m3	
15) C9-C10 Aromatic HC	17.98	120	219342	50.66	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	229075	49.89	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	341072	51.08	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	78231	57.59	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.29	120	263064	50.59	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	191428	56.77	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.98	TIC	1322212m	259.40	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\070612\07061211.D Vial: 11
Acq On : 6 Jul 2012 6:11 pm Operator: RACHEL HILL
Sample : ICV VOA9 070612 Inst : GC/MS Ins
Misc : ICV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 10 15:30 2012 Quant Results File: 070612V9.RES

Method : C:\HPCHEM\1\METHODS\070612V9.M (RTE Integrator)
Title : MASS APH
Last Update : Mon Jul 09 08:52:04 2012
Response via : Initial Calibration



Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\071112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jul 12 09:55:59 2012
Response via : Initial Calibration

Calibration Files
1 =07111203.D 2 =07111204.D 3 =07111205.D
4 =07111206.D 5 =07111207.D 6 =07111208.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	L1	C5-C8 Aliphatic HC	8.923	8.391	8.173	7.954	7.676	7.104	7.840	E4	9.84
2)	L1	C5-C8 Aliphatic HC	8.821	7.883	8.027	7.537	7.210	6.642	7.458	E4	12.20
3)	L1	C5-C8 Aliphatic HC	9.942	8.984	9.081	8.586	8.052	7.432	8.393	E4	13.10
4)	L1	C5-C8 Aliphatic HC	9.570	8.715	8.675	8.227	8.074	7.300	8.183	E4	11.58
5)	L1	C5-C8 Aliphatic HC	9.370	8.600	8.584	8.155	7.874	6.980	7.980	E4	13.11
6)	L1	C5-C8 Aliphatic HC	9.483	8.632	8.655	8.038	7.815	6.849	7.923	E4	14.92
7)	L1	C5-C8 Aliphatic HC	9.385	8.555	8.558	8.107	7.803	7.040	7.975	E4	12.68
8)	L1	C9-C12 Aliphatic HC	1.018	0.927	0.920	0.865	0.835	0.728	0.847	E5	15.17
9)	L1	C9-C12 Aliphatic HC	9.300	8.790	8.637	7.944	7.656	6.969	7.865	E4	15.38
10)	L1	C9-C12 Aliphatic HC	8.250	7.774	7.896	7.212	7.028	6.059	7.062	E4	15.36
11)	L1	C9-C12 Aliphatic HC	9.193	8.500	8.571	7.945	7.675	6.645	7.760	E4	15.27
12)	L1	C9-C12 Aliphatic HC	5.840	5.628	5.938	5.383	5.268	4.607	5.259	E4	12.51
13)	L1	C9-C12 Aliphatic HC	3.980	4.404	4.817	4.339	4.324	3.731	4.127	E4	12.16
14)	L1	C9-C12 Aliphatic HC	7.520	7.173	7.316	6.722	6.538	5.719	6.565	E4	14.09
15)	L1	C9-C10 Aromatic HC	8.677	8.427	8.550	8.138	8.051	7.202	7.927	E3	10.27
16)	L1	C9-C10 Aromatic HC	8.887	8.826	9.142	8.593	8.601	7.723	8.389	E3	9.24
17)	L1	C9-C10 Aromatic HC	1.281	1.287	1.299	1.242	1.225	1.093	1.199	E4	10.34
18)	L1	C9-C10 Aromatic HC	2.371	2.524	2.610	2.445	2.408	2.162	2.348	E3	10.08
19)	L1	C9-C10 Aromatic HC	9.103	9.510	9.917	9.322	9.435	8.538	9.089	E3	7.80
20)	L1	C9-C10 Aromatic HC	4.935	5.252	5.433	5.068	5.028	4.426	4.849	E3	11.49
21)	L1	C9-C10 Aromatic HC	9.324	9.458	9.681	9.136	9.083	8.165	8.875	E3	9.59
22)		C5-C8 Aliphatic	9.385	8.555	8.558	8.107	7.803	7.040	7.975	E4	12.68
23)	L1	non C5-C8	7.456	7.127	6.975	6.749	6.466	6.004	6.623	E4	9.89
24)	L1	non C5-C8 {2}	6.666	6.731	6.698	6.288	6.136	5.505	6.170	E4	10.03
25)	L1	non C5-C8 {3}	4.299	4.246	4.267	4.292	4.095	4.264	4.264	E4	2.04
26)	L1	non C5-C8 {4}	8.408	7.490	7.601	7.211	6.954	6.455	7.178	E4	10.58
27)	L1	non C5-C8 {5}	7.025	6.908	7.080	7.200	6.612	7.229	7.076	E4	3.85
28)	L1	non C5-C8 {6}	1.016	0.893	0.913	0.859	0.886	0.796	0.872	E5	10.04
29)	L1	non C5-C8 - TOTAL	6.517	6.592	6.765	6.662	6.585	6.348	6.510	E4	3.40
30)		C9-C12 Aliphatic	7.520	7.173	7.316	6.722	6.538	5.719	6.565	E4	14.09
31)	L1	non C9-C12	7.199	7.285	7.319	7.334	7.156	7.542	7.353	E4	2.38
32)	L1	non C9-C12 {2}	9.260	8.689	9.246	8.162	8.606	7.132	8.152	E4	14.79
33)	L1	non C9-C12 {3}	9.907	9.258	9.401	8.845	8.780	7.870	8.743	E4	10.84
34)	L1	non C9-C12 {4}	9.611	9.135	9.236	8.640	8.601	7.682	8.553	E4	10.89
35)	L1	non C9-C12 {5}	5.349	5.372	5.516	5.592	5.410	5.708	5.553	E4	3.74
36)	L1	non C9-C12 - TOTAL	6.391	6.320	6.471	6.165	6.164	5.612	6.022	E4	8.62
37)	L1	C9-C10 Aromatic	9.324	9.458	9.681	9.136	9.083	8.165	8.875	E3	9.59
38)	L1	C9-C10 Aromatic {2}	9.324	9.458	9.681	9.136	9.083	8.165	8.875	E3	9.59
39)	L1	C9-C10 Aromatic - T	9.324	9.458	9.681	9.136	9.083	8.165	8.875	E3	9.59
40)	I	Chlorobenzene-d5	----------ISTD----------								
41)	S	4-Bromofluorobenzen	0.108	0.109	0.109	0.109	0.111	0.111	0.110		1.09

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

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\071112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jul 12 09:55:59 2012
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	7.10	1.000	A	0	A	B
2	L1	C5-C8 Aliphatic HC {2}	TIC	9.47	1.000	A	0	A	B
3	L1	C5-C8 Aliphatic HC {3}	TIC	11.18	1.000	A	0	A	B
4	L1	C5-C8 Aliphatic HC {4}	TIC	11.25	1.000	A	0	A	B
5	L1	C5-C8 Aliphatic HC {5}	TIC	11.81	1.000	A	0	A	B
6	L1	C5-C8 Aliphatic HC {6}	TIC	14.21	1.000	A	0	A	B
7	L1	C5-C8 Aliphatic HC - TOTAL	TIC	7.10	1.000	A	0	A	B
8	L1	C9-C12 Aliphatic HC	TIC	15.61	1.000	A	0	A	B
9	L1	C9-C12 Aliphatic HC {2}	TIC	16.48	1.000	A	0	A	B
10	L1	C9-C12 Aliphatic HC {3}	TIC	18.60	1.000	A	0	A	B
11	L1	C9-C12 Aliphatic HC {4}	TIC	19.75	1.000	A	0	A	B
12	L1	C9-C12 Aliphatic HC {5}	TIC	20.56	1.000	A	0	A	B
13	L1	C9-C12 Aliphatic HC {6}	TIC	22.39	1.000	A	0	A	B
14	L1	C9-C12 Aliphatic HC - TOTAL	TIC	15.61	1.000	A	0	A	B
15	L1	C9-C10 Aromatic HC	120	17.88	1.000	A	0	A	B
16	L1	C9-C10 Aromatic HC {2}	120	18.68	1.000	A	0	A	B
17	L1	C9-C10 Aromatic HC {3}	120	18.82	1.000	A	0	A	B
18	L1	C9-C10 Aromatic HC {4}	120	19.94	1.000	A	0	A	B
19	L1	C9-C10 Aromatic HC {5}	120	20.20	1.000	A	0	A	B
20	L1	C9-C10 Aromatic HC {6}	134	19.94	1.000	A	0	A	B
21	L1	C9-C10 Aromatic HC - TOTAL	TIC	17.88	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	6.30	1.000	A	0	A	B
24	L1	non C5-C8 {2}	TIC	9.18	1.000	A	0	A	B
25	L1	non C5-C8 {3}	TIC	10.95	1.000	A	0	A	B
26	L1	non C5-C8 {4}	TIC	11.73	1.000	A	0	A	B
27	L1	non C5-C8 {5}	TIC	12.17	1.000	A	0	A	B
28	L1	non C5-C8 {6}	TIC	14.31	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	16.44	1.000	A	0	A	B
31	L1	non C9-C12	TIC	16.42	1.000	A	0	A	B
32	L1	non C9-C12 {2}	TIC	16.53	1.000	A	0	A	B
33	L1	non C9-C12 {3}	TIC	16.70	1.000	A	0	A	B
34	L1	non C9-C12 {4}	TIC	17.35	1.000	A	0	A	B
35	L1	non C9-C12 {5}	TIC	18.25	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	17.55	1.000	A	0	A	B
38	L1	C9-C10 Aromatic {2}	134	17.55	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	16.42	1.000	A	2	A	B
41	S	4-Bromofluorobenzene	95	18.25	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

071112V9.M Fri Jul 13 15:36:13 2012

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\071112\07111211.D Vial: 11
Acq On : 12 Jul 2012 5:36 am Operator: RACHEL HILL
Sample : ICV VOA9 071112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\071112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jul 12 09:55:59 2012
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	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	30.727	-5.2	98	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	38.648	-6.2	100	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	43.722	-4.6	98	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	38.246	-8.0	101	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	44.512	-5.5	98	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	52.931	-8.0	99	-0.01
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	248.729	-6.3	99	0.00
8	L1	C9-C12 Aliphatic HC	54.600	59.050	-8.2	99	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	59.827	-9.6	98	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	66.723	-9.0	99	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	67.626	-11.2	102	-0.01
12	L1	C9-C12 Aliphatic HC {5}	70.000	75.723	-8.2	101	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	80.906	-5.1	98	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	411.116	-8.8	100	0.00
15	L1	C9-C10 Aromatic HC	51.700	56.069	-8.5	102	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	55.772	-8.9	104	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	57.085	-9.4	102	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	64.460	-9.8	102	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	57.440	-9.2	104	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	65.339	-11.3	103	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	291.500	-9.6	103	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-7.00#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.30#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.18#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-10.95#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.73#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-12.17#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.31#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.41#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.44#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.42#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.53#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.70#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.35#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.25#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.52#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.55#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.55#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	0.00
40	I	Chlorobenzene-d5	12.500	12.500	0.0	102	0.00
41	S	4-Bromofluorobenzene	89.500	89.102	0.4	102	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\071112\07111211.D Vial: 11
Acq On : 12 Jul 2012 5:36 am Operator: RACHEL HILL
Sample : ICV VOA9 071112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 12 9:59 2012 Quant Results File: 071112V9.RES

Quant Method : C:\HPCHEM\1\METHODS\071112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jul 12 09:55:59 2012
Response via : Initial Calibration
DataAcq Meth : 071112V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.42	117	1419840	12.50	ug/m3	0.00
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.25	95	1109105	89.10	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 99.55%			

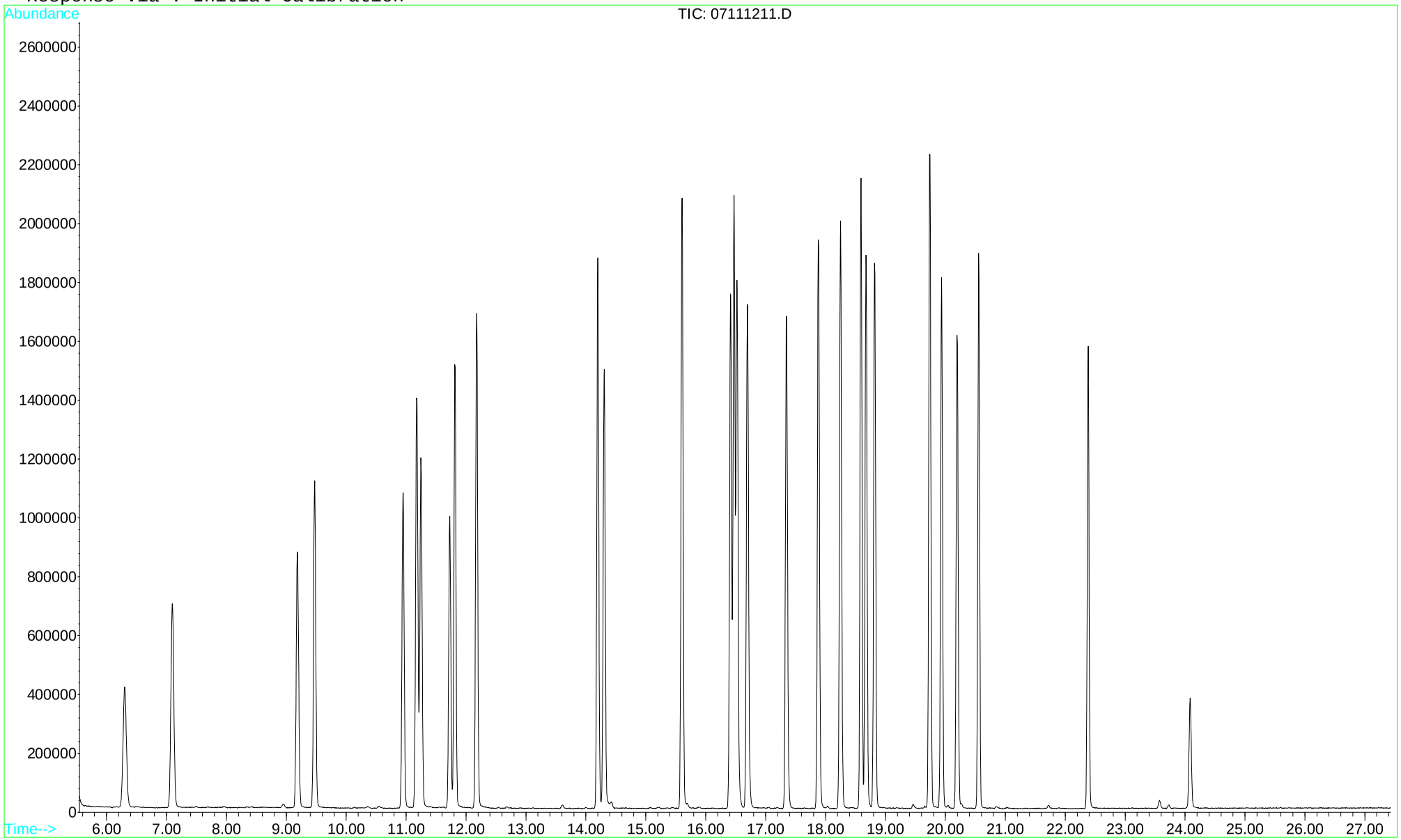
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.10	TIC	2408819	30.73	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.47	TIC	2882556	38.65	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.17	TIC	3669729	43.72	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.25	TIC	3129550	38.25	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.81	TIC	3552009	44.51	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.20	TIC	4193883	52.93	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.10	TIC	19836546m	248.73	ug/m3	
8) C9-C12 Aliphatic HC	15.61	TIC	5003401	59.05	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.47	TIC	4705609	59.83	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.59	TIC	4711666	66.72	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.74	TIC	5247587	67.63	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.55	TIC	3982630	75.72	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.38	TIC	3338831	80.91	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.61	TIC	26989724m	411.12	ug/m3	
15) C9-C10 Aromatic HC	17.88	120	444479	56.07	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.67	120	467873	55.77	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.82	120	684529	57.09	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.94	120	151337	64.46	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.19	120	522057	57.44	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.94	134	316844	65.34	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.88	TIC	2587119m	291.50	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071112\07111211.D Vial: 11
Acq On : 12 Jul 2012 5:36 am Operator: RACHEL HILL
Sample : ICV VOA9 071112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 12 9:59 2012 Quant Results File: 071112V9.RES

Method : C:\HPCHEM\1\METHODS\071112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jul 12 09:55:59 2012
Response via : Initial Calibration



Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\071612V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jul 17 10:08:43 2012
Response via : Initial Calibration

Calibration Files
1 =07161203.D 2 =07161204.D 3 =07161205.D
4 =07161206.D 5 =07161207.D 6 =07161208.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	L1	C5-C8 Aliphatic HC	6.775	6.967	6.670	6.519	5.984	5.684	6.247	E4	10.73
2)	L1	C5-C8 Aliphatic HC	6.599	6.406	6.063	5.830	5.470	5.130	5.735	E4	12.19
3)	L1	C5-C8 Aliphatic HC	7.319	7.118	6.795	6.531	6.105	5.754	6.387	E4	12.40
4)	L1	C5-C8 Aliphatic HC	7.084	7.177	6.708	6.578	6.151	5.655	6.366	E4	11.52
5)	L1	C5-C8 Aliphatic HC	6.979	6.909	6.579	6.390	5.984	5.475	6.166	E4	12.71
6)	L1	C5-C8 Aliphatic HC	7.067	6.866	6.590	6.282	5.875	5.343	6.101	E4	14.08
7)	L1	C5-C8 Aliphatic HC	6.989	6.907	6.566	6.357	5.933	5.493	6.166	E4	12.37
8)	L1	C9-C12 Aliphatic HC	7.663	7.446	6.977	6.794	6.211	5.690	6.528	E4	15.07
9)	L1	C9-C12 Aliphatic HC	7.053	7.099	6.757	6.329	6.038	5.453	6.185	E4	14.93
10)	L1	C9-C12 Aliphatic HC	6.204	6.293	6.022	5.727	5.272	4.739	5.493	E4	14.47
11)	L1	C9-C12 Aliphatic HC	7.021	6.977	6.691	6.307	5.780	5.272	6.097	E4	14.90
12)	L1	C9-C12 Aliphatic HC	4.504	4.753	4.543	4.400	3.951	3.702	4.182	E4	11.84
13)	L1	C9-C12 Aliphatic HC	3.231	3.711	3.636	3.496	3.199	2.957	3.269	E4	11.63
14)	L1	C9-C12 Aliphatic HC	5.750	5.878	5.618	5.363	4.934	4.511	5.146	E4	13.77
15)	L1	C9-C10 Aromatic HC	7.189	7.417	6.976	6.786	6.239	5.801	6.512	E3	12.43
16)	L1	C9-C10 Aromatic HC	7.394	7.795	7.437	7.185	6.679	6.205	6.897	E3	11.37
17)	L1	C9-C10 Aromatic HC	1.064	1.125	1.065	1.027	0.963	0.880	0.987	E4	12.07
18)	L1	C9-C10 Aromatic HC	1.970	2.162	2.080	2.025	1.886	1.722	1.912	E3	11.32
19)	L1	C9-C10 Aromatic HC	7.621	8.501	8.173	7.895	7.351	6.900	7.532	E3	10.12
20)	L1	C9-C10 Aromatic HC	4.381	4.803	4.582	4.392	4.047	3.709	4.163	E3	13.09
21)	L1	C9-C10 Aromatic HC	7.818	8.367	7.942	7.663	7.113	6.605	7.345	E3	11.65
22)		C5-C8 Aliphatic	6.989	6.907	6.566	6.357	5.933	5.493	6.166	E4	12.37
23)	L1	non C5-C8	5.325	5.584	5.453	5.312	5.027	4.545	5.066	E4	10.00
24)	L1	non C5-C8 {2}	5.013	5.509	5.108	4.879	4.466	4.260	4.747	E4	11.16
25)	L1	non C5-C8 {3}	3.319	3.209	3.536	3.478	3.486	3.271	3.338	E4	5.11
26)	L1	non C5-C8 {4}	6.454	6.145	5.690	5.606	5.244	5.028	5.543	E4	11.40
27)	L1	non C5-C8 {5}	5.551	5.424	6.195	5.882	6.124	5.659	5.719	E4	6.42
28)	L1	non C5-C8 {6}	7.890	7.758	7.328	7.123	6.646	6.298	6.957	E4	11.59
29)	L1	non C5-C8 - TOTAL	5.033	5.324	5.449	5.346	5.185	4.940	5.124	E4	5.78
30)		C9-C12 Aliphatic	5.750	5.878	5.618	5.363	4.934	4.511	5.146	E4	13.77
31)	L1	non C9-C12	5.762	5.668	6.435	6.051	5.970	5.861	5.901	E4	4.91
32)	L1	non C9-C12 {2}	7.243	7.497	6.913	6.887	6.346	5.604	6.445	E4	15.77
33)	L1	non C9-C12 {3}	7.762	7.736	7.378	7.037	6.590	6.105	6.879	E4	12.22
34)	L1	non C9-C12 {4}	7.519	7.639	7.175	6.871	6.474	5.970	6.722	E4	12.25
35)	L1	non C9-C12 {5}	4.360	4.339	4.808	4.594	4.814	4.510	4.552	E4	4.32
36)	L1	non C9-C12 - TOTAL	5.096	5.200	5.240	5.025	4.805	4.380	4.802	E4	10.53
37)	L1	C9-C10 Aromatic	7.818	8.367	7.942	7.663	7.113	6.605	7.345	E3	11.65
38)	L1	C9-C10 Aromatic {2}	7.818	8.367	7.942	7.663	7.113	6.605	7.345	E3	11.65
39)	L1	C9-C10 Aromatic - T	7.818	8.367	7.942	7.663	7.113	6.605	7.345	E3	11.65
40)	I	Chlorobenzene-d5	----------ISTD----------								
41)	S	4-Bromofluorobenzen	0.102	0.104	0.103	0.104	0.105	0.105	0.105		2.00

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

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\071612V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jul 17 10:08:43 2012
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	7.10	1.000	A	0	A	B
2	L1	C5-C8 Aliphatic HC {2}	TIC	9.47	1.000	A	0	A	B
3	L1	C5-C8 Aliphatic HC {3}	TIC	11.18	1.000	A	0	A	B
4	L1	C5-C8 Aliphatic HC {4}	TIC	11.25	1.000	A	0	A	B
5	L1	C5-C8 Aliphatic HC {5}	TIC	11.81	1.000	A	0	A	B
6	L1	C5-C8 Aliphatic HC {6}	TIC	14.21	1.000	A	0	A	B
7	L1	C5-C8 Aliphatic HC - TOTAL	TIC	7.10	1.000	A	0	A	B
8	L1	C9-C12 Aliphatic HC	TIC	15.61	1.000	A	0	A	B
9	L1	C9-C12 Aliphatic HC {2}	TIC	16.48	1.000	A	0	A	B
10	L1	C9-C12 Aliphatic HC {3}	TIC	18.60	1.000	A	0	A	B
11	L1	C9-C12 Aliphatic HC {4}	TIC	19.75	1.000	A	0	A	B
12	L1	C9-C12 Aliphatic HC {5}	TIC	20.56	1.000	A	0	A	B
13	L1	C9-C12 Aliphatic HC {6}	TIC	22.39	1.000	A	0	A	B
14	L1	C9-C12 Aliphatic HC - TOTAL	TIC	15.61	1.000	A	0	A	B
15	L1	C9-C10 Aromatic HC	120	17.88	1.000	A	0	A	B
16	L1	C9-C10 Aromatic HC {2}	120	18.68	1.000	A	0	A	B
17	L1	C9-C10 Aromatic HC {3}	120	18.82	1.000	A	0	A	B
18	L1	C9-C10 Aromatic HC {4}	120	19.94	1.000	A	0	A	B
19	L1	C9-C10 Aromatic HC {5}	120	20.20	1.000	A	0	A	B
20	L1	C9-C10 Aromatic HC {6}	134	19.94	1.000	A	0	A	B
21	L1	C9-C10 Aromatic HC - TOTAL	TIC	17.88	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	6.30	1.000	A	0	A	B
24	L1	non C5-C8 {2}	TIC	9.18	1.000	A	0	A	B
25	L1	non C5-C8 {3}	TIC	10.95	1.000	A	0	A	B
26	L1	non C5-C8 {4}	TIC	11.73	1.000	A	0	A	B
27	L1	non C5-C8 {5}	TIC	12.17	1.000	A	0	A	B
28	L1	non C5-C8 {6}	TIC	14.31	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	16.44	1.000	A	0	A	B
31	L1	non C9-C12	TIC	16.42	1.000	A	0	A	B
32	L1	non C9-C12 {2}	TIC	16.53	1.000	A	0	A	B
33	L1	non C9-C12 {3}	TIC	16.70	1.000	A	0	A	B
34	L1	non C9-C12 {4}	TIC	17.35	1.000	A	0	A	B
35	L1	non C9-C12 {5}	TIC	18.25	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	17.55	1.000	A	0	A	B
38	L1	C9-C10 Aromatic {2}	134	17.55	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	16.42	1.000	A	2	A	B
41	S	4-Bromofluorobenzene	95	18.25	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

071612V9.M Tue Jul 17 11:41:01 2012

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\071612B\07161211.D Vial: 11
Acq On : 16 Jul 2012 8:55 pm Operator: RACHEL HILL
Sample : ICV VOA9 071612 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\071612V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jul 17 10:08:43 2012
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	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	32.940	-12.8	101	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	39.071	-7.3	96	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	44.673	-6.9	96	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	38.666	-9.2	97	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	45.699	-8.3	97	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	53.445	-9.1	97	0.00
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	254.483	-8.8	97	0.00
8	L1	C9-C12 Aliphatic HC	54.600	60.032	-9.9	96	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	60.415	-10.7	96	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	66.744	-9.1	95	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	67.384	-10.8	97	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	74.090	-5.8	93	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	77.496	-0.6	89	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	409.300	-8.3	95	0.00
15	L1	C9-C10 Aromatic HC	51.700	56.097	-8.5	95	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	55.126	-7.7	95	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	57.130	-9.4	96	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	63.783	-8.7	96	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	56.134	-6.7	95	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	64.288	-9.5	95	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	288.880	-8.6	95	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-7.00#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.30#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.18#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-10.95#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.73#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-12.17#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.31#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.41#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.44#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.42#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.53#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.70#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.35#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.25#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.52#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.55#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.55#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	0.00
40	I	Chlorobenzene-d5	12.500	12.500	0.0	99	0.00
41	S	4-Bromofluorobenzene	89.500	87.487	2.2	98	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\071612B\07161211.D Vial: 11
Acq On : 16 Jul 2012 8:55 pm Operator: RACHEL HILL
Sample : ICV VOA9 071612 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 17 11:32 2012 Quant Results File: 071612V9.RES

Quant Method : C:\HPCHEM\1\METHODS\071612V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jul 17 10:08:43 2012
Response via : Initial Calibration
DataAcq Meth : 071612V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.42	117	1141399	12.50	ug/m3	0.00
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.25	95	835782	87.49	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 97.75%			

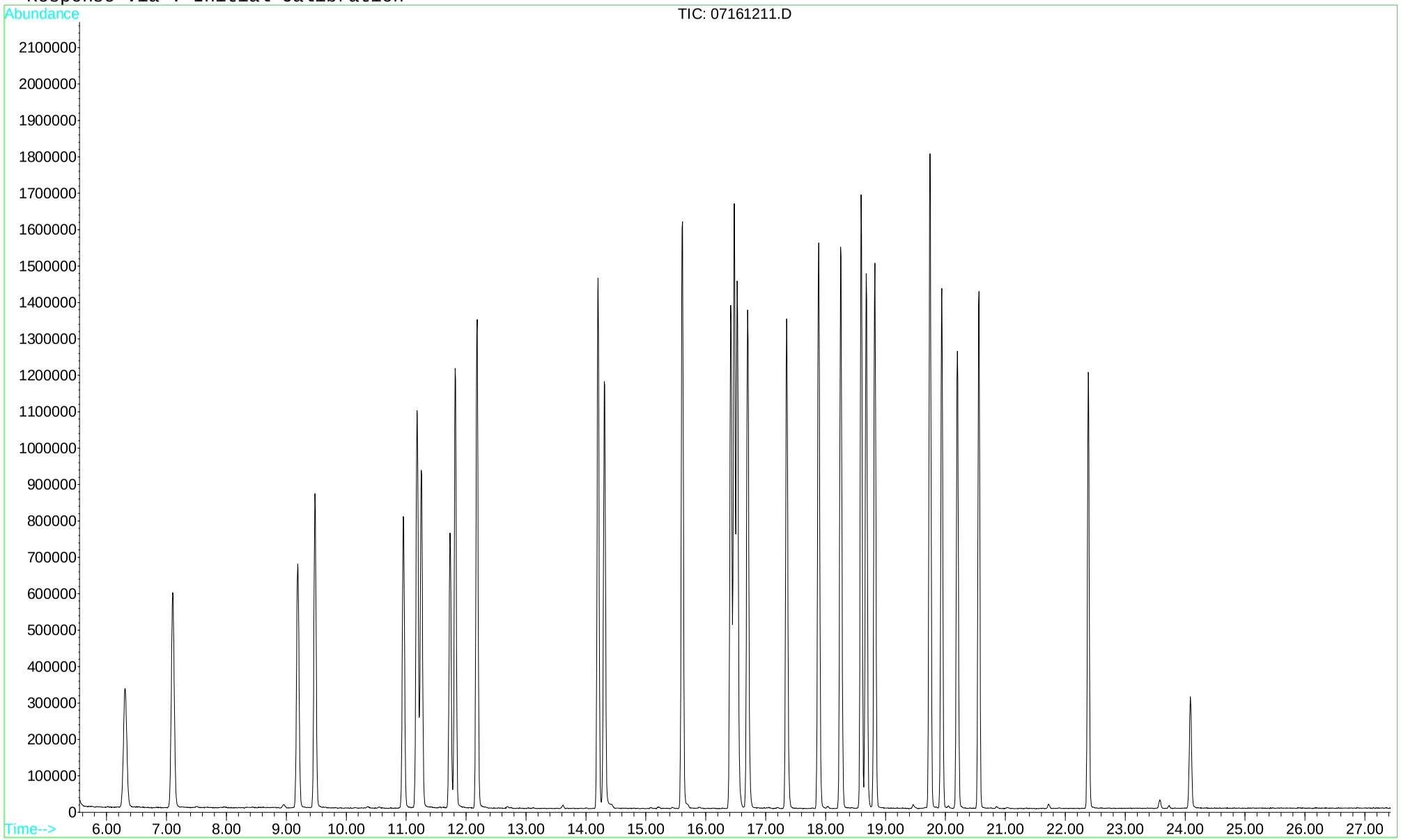
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.10	TIC	2057591	32.94	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.48	TIC	2240731	39.07	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.18	TIC	2853264	44.67	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.25	TIC	2461429	38.67	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.82	TIC	2817904	45.70	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.20	TIC	3260568	53.44	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.10	TIC	15691487m	254.48	ug/m3	
8) C9-C12 Aliphatic HC	15.61	TIC	3918716	60.03	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.48	TIC	3736567	60.41	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.59	TIC	3666089	66.74	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.74	TIC	4108510	67.38	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.56	TIC	3098553	74.09	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.38	TIC	2533020	77.50	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.61	TIC	21061455m	409.30	ug/m3	
15) C9-C10 Aromatic HC	17.88	120	365303	56.10	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.68	120	380186	55.13	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.82	120	563932	57.13	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.93	120	121965	63.78	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.20	120	422794	56.13	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.94	134	267632	64.29	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.88	TIC	2121812m	288.88	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071612B\07161211.D Vial: 11
Acq On : 16 Jul 2012 8:55 pm Operator: RACHEL HILL
Sample : ICV VOA9 071612 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 17 11:32 2012 Quant Results File: 071612V9.RES

Method : C:\HPCHEM\1\METHODS\071612V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jul 17 10:08:43 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: GC-TCD 1_120629A **Run No.:** 49765

Analytical Run Date: 6/29/2012 **InstrumentID:** GC-TCD 1

Analyst: Jon Herndon **Column:** GC-TCD 1

Calibration ID: 49617 **Column ID:** Permanent Gases

Column Length: 2m 100/120mesh x 1mm ID

Run Comments: ch rev 7/3/12/PR 07-02-12 MSB

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
MBLK-062912 TCD	ASTM-D2504	MBLK	R49765	6/29/2012 9:13:00 AM	Celeste Hoitash		
CCV-062912 TCD-A	ASTM-D2504	CCV	R49765	6/29/2012 9:43:00 AM	Celeste Hoitash		
LCS-062912 TCD-A	ASTM-D2504	LCS	R49765	6/29/2012 9:58:00 AM	Celeste Hoitash		
CRQL-062912 TCD-A	ASTM-D2504	CRQL	R49765	6/29/2012 10:31:00 AM	Celeste Hoitash		
1206785-001B	ASTM-D2504	SAMP	R49765	6/29/2012 10:46:00 AM	Celeste Hoitash		
1206785-002B	ASTM-D2504	SAMP	R49765	6/29/2012 11:01:00 AM	Celeste Hoitash		
1206785-003B	ASTM-D2504	SAMP	R49765	6/29/2012 11:17:00 AM	Celeste Hoitash		
1206785-004B	ASTM-D2504	SAMP	R49765	6/29/2012 11:32:00 AM	Celeste Hoitash		
1206785-005B	ASTM-D2504	SAMP	R49765	6/29/2012 11:50:00 AM	Celeste Hoitash		
1206785-006B	ASTM-D2504	SAMP	R49765	6/29/2012 12:09:00 PM	Celeste Hoitash		
1206785-007B	ASTM-D2504	SAMP	R49765	6/29/2012 12:24:00 PM	Celeste Hoitash		
1206785-008B	ASTM-D2504	SAMP	R49765	6/29/2012 12:39:00 PM	Celeste Hoitash		
1206785-009B	ASTM-D2504	SAMP	R49765	6/29/2012 12:56:00 PM	Celeste Hoitash		
1206785-010B	ASTM-D2504	SAMP	R49765	6/29/2012 1:11:00 PM	Celeste Hoitash		
1206785-010BDUP	ASTM-D2504	DUP	R49765	6/29/2012 1:27:00 PM	Celeste Hoitash		
CCV-062712 TCD-B	ASTM-D2504	CCV	R49765	6/29/2012 1:58:00 PM	Celeste Hoitash		
1206785-011B	ASTM-D2504	SAMP	R49765	6/29/2012 2:14:00 PM	Celeste Hoitash		
1206785-012B	ASTM-D2504	SAMP	R49765	6/29/2012 2:29:00 PM	Celeste Hoitash		
1206785-013B	ASTM-D2504	SAMP	R49765	6/29/2012 2:44:00 PM	Celeste Hoitash		
1206785-014B	ASTM-D2504	SAMP	R49765	6/29/2012 3:01:00 PM	Celeste Hoitash		
1206785-015B	ASTM-D2504	SAMP	R49765	6/29/2012 3:16:00 PM	Celeste Hoitash		
1206785-016B	ASTM-D2504	SAMP	R49765	6/29/2012 3:31:00 PM	Celeste Hoitash		
1206785-017B	ASTM-D2504	SAMP	R49765	6/29/2012 3:46:00 PM	Celeste Hoitash		
1206785-018B	ASTM-D2504	SAMP	R49765	6/29/2012 4:00:00 PM	Celeste Hoitash		
1206785-019B	ASTM-D2504	SAMP	R49765	6/29/2012 4:15:00 PM	Celeste Hoitash		
1206785-020B	ASTM-D2504	SAMP	R49765	6/29/2012 4:30:00 PM	Celeste Hoitash		
1206785-020BDUP	ASTM-D2504	DUP	R49765	6/29/2012 4:45:00 PM	Celeste Hoitash		
CCV-062912 TCD-C	ASTM-D2504	CCV	R49765	6/29/2012 5:01:00 PM	Celeste Hoitash		
CRQL-062912 TCD-B	ASTM-D2504	CRQL	R49765	6/29/2012 5:32:00 PM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

26-Jul-12

RunNo 49765

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
972783	MBLK-062912 TCD	ASTM-D2504	MBLK	)\062912\062912(	6/29/2012 9:13:0	1	R49765		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
972785	CCV-062912 TCD-A	ASTM-D2504	CCV	)\062912\062912(	6/29/2012 9:43:0	1	R49765		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.465	2.465		2.5	0	0	0.025	0.1	0	99%	85	115	0%	
Carbon Monoxide	A	%	2.571	2.571		2.5	0	0	0.025	0.1	0	103%	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	%	2.073	2.073		2	0	0	0.025	0.5	0	104%	85	115	0%	
Nitrogen	A	%	2.714	2.714		2.5	0	0	0.025	0.1	0	109%	85	115	0%	
Oxygen	A	%	2.566	2.566		2.5	0	0	0.025	0.1	0	103%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
972786	LCS-062912 TCD-A	ASTM-D2504	LCS	)\062912\062912(	6/29/2012 9:58:0	1	R49765		0	972785	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.54	2.54		2.5	0	2.465	0.025	0.1	0	102%	70	130	3%	
Carbon Monoxide	A	%	2.622	2.622		2.5	0	2.571	0.025	0.1	0	105%	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%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
972808	CCV-062712 TCD-B	ASTM-D2504	CCV	)\062912\062912	6/29/2012 1:58:0	1	R49765		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.545	2.545		2.5	0	0	0.025	0.1	0	102%	85	115	0%	
Carbon Monoxide	A	%	2.634	2.634		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	%	1.982	1.982		2	0	0	0.025	0.5	0	99%	85	115	0%	
Nitrogen	A	%	2.757	2.757		2.5	0	0	0.025	0.1	0	110%	85	115	0%	
Oxygen	A	%	2.577	2.577		2.5	0	0	0.025	0.1	0	103%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
972809	1206785-011B (Container-01 of 01)	ASTM-D2504	SAMP	)\062912\062912	6/29/2012 2:14:0	1	R49765		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	10.398	10.398		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	%	85.549	85.549		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	3.18	3.18		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
972811	1206785-012B (Container-01 of 01)	ASTM-D2504	SAMP	)\062912\062912	6/29/2012 2:29:0	1	R49765		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	7.882	7.882		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	%	84.596	84.596		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	6.14	6.14		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
972858	1206785-020B (Container-01 of 01)	ASTM-D2504	SAMP	)\062912\062912	6/29/2012 4:30:0	1	R49765		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	%	20.956	20.956		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
972859	1206785-020BDUP	ASTM-D2504	DUP	)\062912\062912	6/29/2012 4:45:0	1	R49765		0	972858	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.368	0.368		0	0	0.367	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	%	77.152	77.152		0	0	79.199	0.025	0.1	0	0%	0	0	3%	
Oxygen	A	%	20.969	20.969		0	0	20.956	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
972842	CCV-062912 TCD-C	ASTM-D2504	CCV	)\062912\062912	6/29/2012 5:01:0	1	R49765		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.588	2.588		2.5	0	0	0.025	0.1	0	104%	85	115	0%	
Carbon Monoxide	A	%	2.647	2.647		2.5	0	0	0.025	0.1	0	106%	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	%	1.989	1.989		2	0	0	0.025	0.5	0	99%	85	115	0%	
Nitrogen	A	%	2.698	2.698		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Oxygen	A	%	2.568	2.568		2.5	0	0	0.025	0.1	0	103%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
972843	CRQL-062912 TCD-B	ASTM-D2504	CRQL	)\062912\062912	6/29/2012 5:32:0	1	R49765		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\TCD\062912\06291202.D Vial: 1
Acq On : 29 Jun 2012 9:43 am Operator:
Sample : CCV-062912 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jul 02 09:20:11 2012
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	2.566	-2.6	0	0.02
2	Nitrogen	2.500	2.714	-8.6	0	0.06
3	Carbon Monoxide	2.500	2.571	-2.8	0	-0.06
4	Methane	2.000	2.073	-3.6	0	-0.06
5	Carbon dioxide	2.500	2.465	1.4	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\062912\06291202.D Vial: 1
Acq On : 29 Jun 2012 9:43 am Operator:
Sample : CCV-062912 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 29 10:03 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jun 25 17:07:33 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Oxygen	2.18	384435	2.566	%
2)	Nitrogen	2.37	472085	2.714	%
3)	Carbon Monoxide	3.07f	418652	2.571	%
4)	Methane	5.69f	297134	2.073	%
5)	Carbon dioxide	9.32f	510308	2.465	%

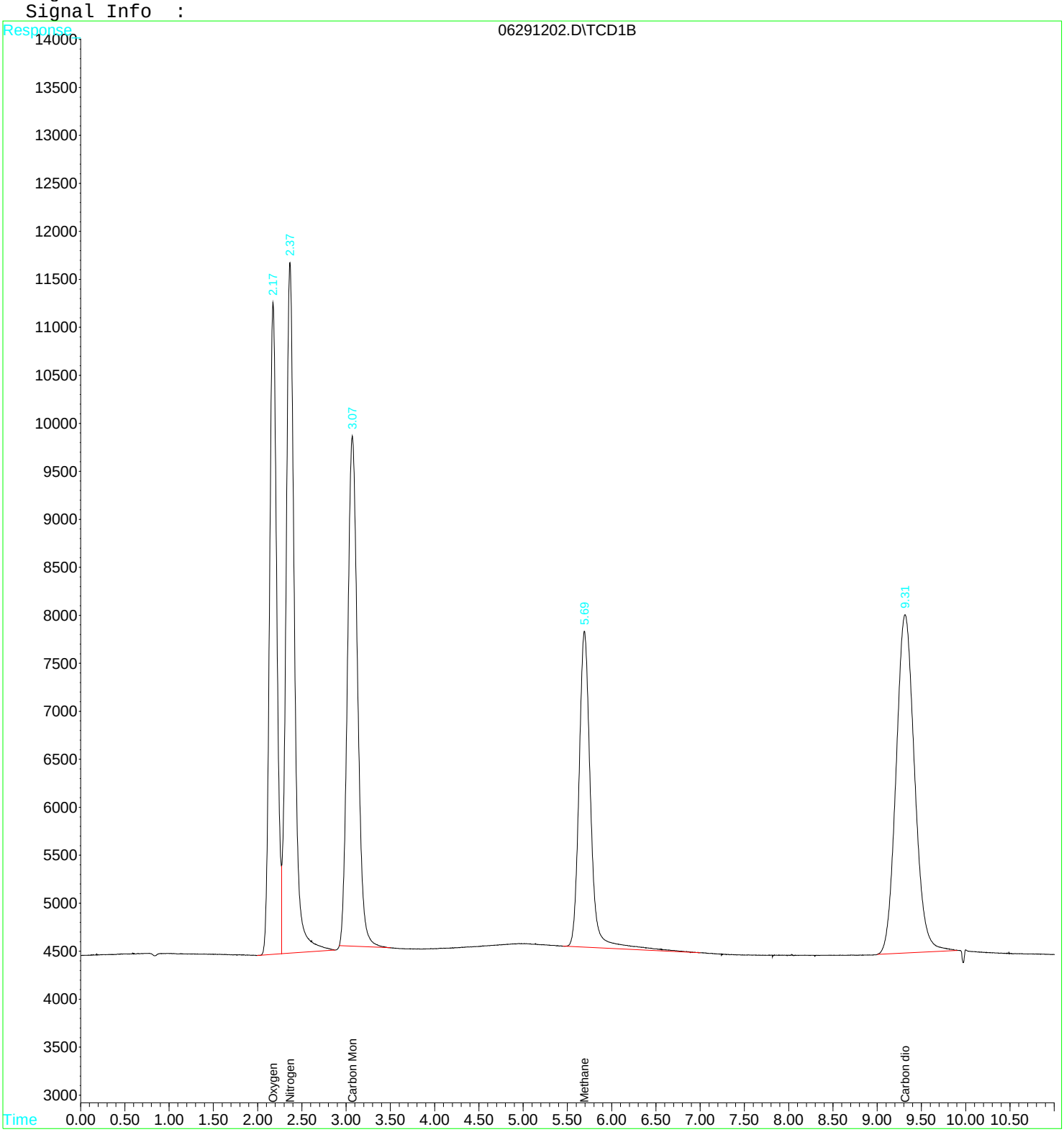
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\062912\06291202.D Vial: 1
Acq On : 29 Jun 2012 9:43 am Operator:
Sample : CCV-062912 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jun 29 10:03 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jun 25 17:07:33 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\TCD\062912\06291216.D Vial: 1
Acq On : 29 Jun 2012 1:58 pm Operator:
Sample : CCV-062712 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jul 02 09:20:11 2012
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	2.577	-3.1	0	0.01
2	Nitrogen	2.500	2.757	-10.3	0	0.05
3	Carbon Monoxide	2.500	2.634	-5.4	0	-0.06
4	Methane	2.000	1.982	0.9	0	-0.06
5	Carbon dioxide	2.500	2.545	-1.8	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
06291216.D 062512.M Mon Jul 02 09:42:50 2012

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\062912\06291216.D Vial: 1
Acq On : 29 Jun 2012 1:58 pm Operator:
Sample : CCV-062712 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jul 2 9:36 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jul 02 09:20:11 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.17	386166	2.577 %
2)	Nitrogen	2.36f	479615	2.757 %
3)	Carbon Monoxide	3.07f	428893	2.634 %
4)	Methane	5.69f	284049	1.982 %
5)	Carbon dioxide	9.30	526875	2.545 %

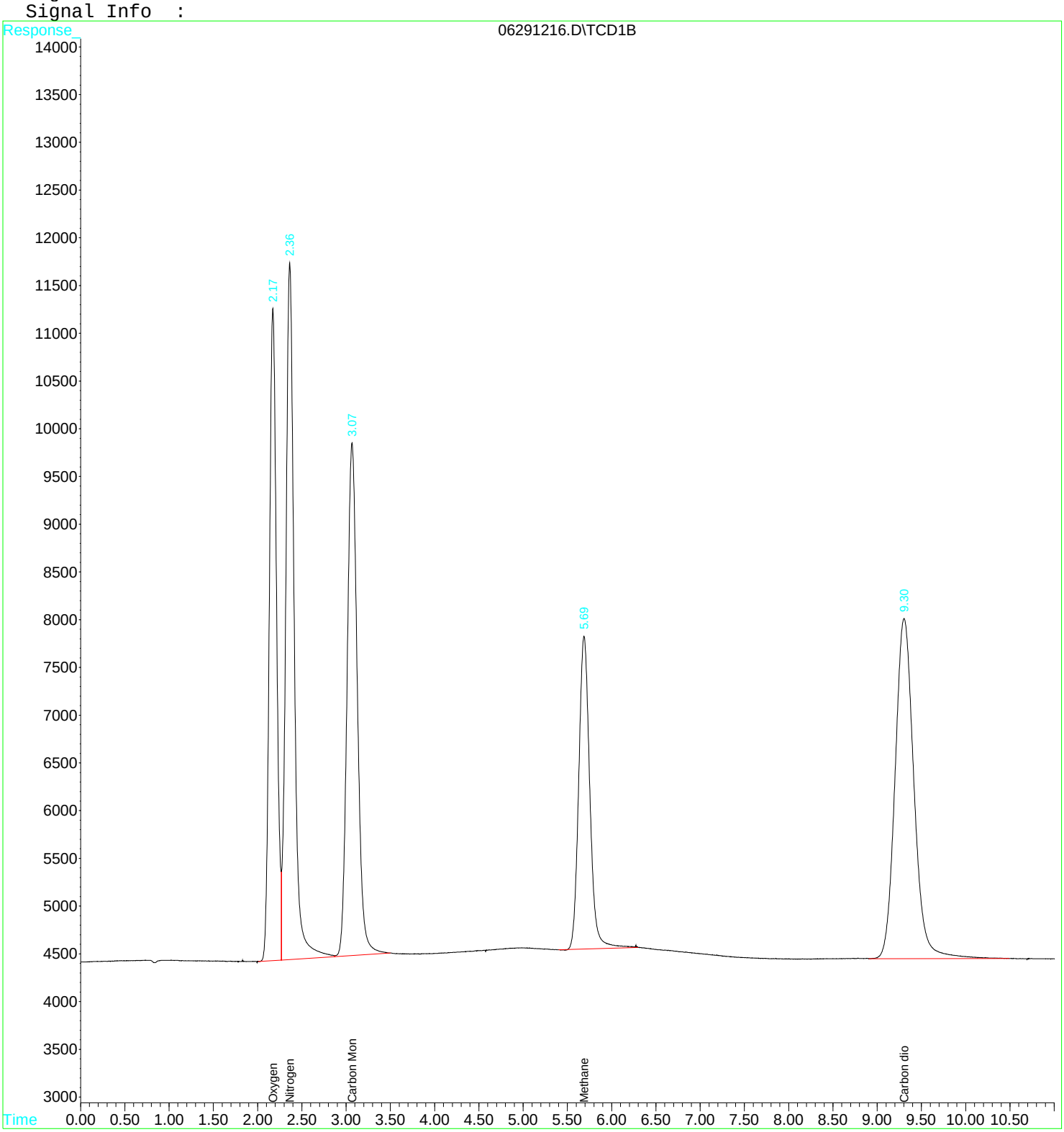
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\062912\06291216.D Vial: 1
Acq On : 29 Jun 2012 1:58 pm Operator:
Sample : CCV-062712 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jul 2 9:36 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jul 02 09:20:11 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\TCD\062912\06291228.D Vial: 1
Acq On : 29 Jun 2012 5:01 pm Operator:
Sample : CCV-062912 TCD-C Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jul 02 09:20:11 2012
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	2.568	-2.7	0	0.01
2	Nitrogen	2.500	2.698	-7.9	0	0.05
3	Carbon Monoxide	2.500	2.647	-5.9	0	-0.06
4	Methane	2.000	1.989	0.5	0	-0.06
5	Carbon dioxide	2.500	2.588	-3.5	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
06291228.D 062512.M Mon Jul 02 09:42:57 2012

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\062912\06291228.D Vial: 1
Acq On : 29 Jun 2012 5:01 pm Operator:
Sample : CCV-062912 TCD-C Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jul 2 9:24 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jul 02 09:20:11 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.17	384836	2.568 %
2)	Nitrogen	2.36f	469263	2.698 %
3)	Carbon Monoxide	3.07f	430936	2.647 %
4)	Methane	5.69f	285073	1.989 %
5)	Carbon dioxide	9.30	535694	2.588 %

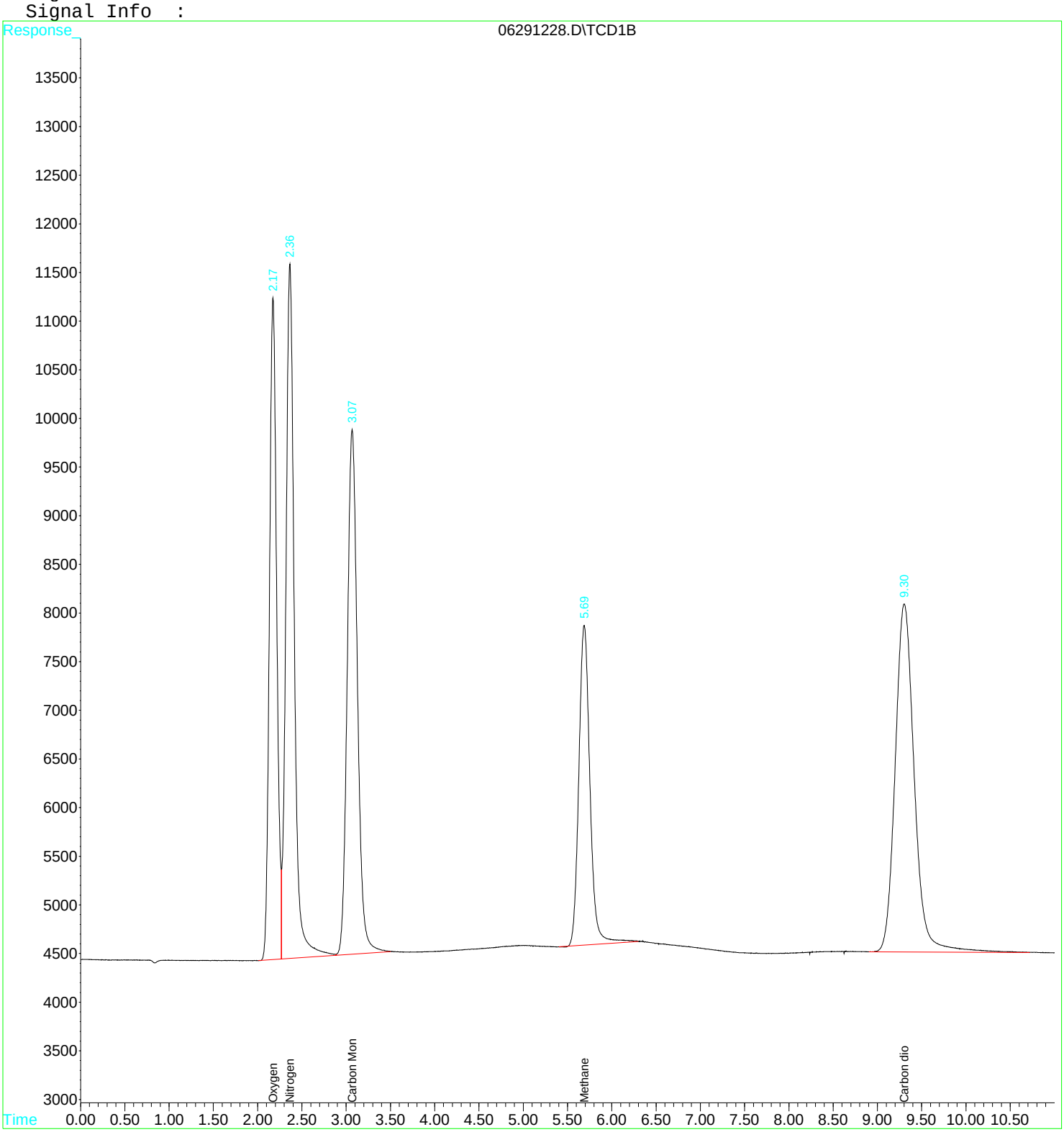
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\062912\06291228.D Vial: 1
Acq On : 29 Jun 2012 5:01 pm Operator:
Sample : CCV-062912 TCD-C Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jul 2 9:24 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jul 02 09:20:11 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-TCD 1_120702A **Run No.:** 49810

Analytical Run Date: 7/2/2012 **InstrumentID:** GC-TCD 1

Analyst: Jon Herndon **Column:** GC-TCD 1

Calibration ID: 49617 **Column ID:** Permanent Gases

Column Length: 2m 100/120mesh x 1mm ID

Run Comments: PR 7-6-12 MSB

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
MBLK-070212 TCD	ASTM-D2504	MBLK	R49810	7/2/2012 8:44:00 AM	Robert Lynch		
CCV-070212 TCD-A	ASTM-D2504	CCV	R49810	7/2/2012 8:58:00 AM	Robert Lynch		
LCS-070212 TCD-A	ASTM-D2504	LCS	R49810	7/2/2012 9:13:00 AM	Robert Lynch		
CRQL-070212 TCD-A	ASTM-D2504	CRQL	R49810	7/2/2012 9:43:00 AM	Robert Lynch		
1206785-021B	ASTM-D2504	SAMP	R49810	7/2/2012 9:57:00 AM	Robert Lynch		
1206785-022B	ASTM-D2504	SAMP	R49810	7/2/2012 10:12:00 AM	Robert Lynch		
1206785-023B	ASTM-D2504	SAMP	R49810	7/2/2012 10:27:00 AM	Robert Lynch		
1206785-024B	ASTM-D2504	SAMP	R49810	7/2/2012 10:43:00 AM	Robert Lynch		
1206785-025B	ASTM-D2504	SAMP	R49810	7/2/2012 10:58:00 AM	Robert Lynch		
1206785-026B	ASTM-D2504	SAMP	R49810	7/2/2012 11:13:00 AM	Robert Lynch		
1206785-027B	ASTM-D2504	SAMP	R49810	7/2/2012 11:29:00 AM	Robert Lynch		
1206785-028B	ASTM-D2504	SAMP	R49810	7/2/2012 11:47:00 AM	Robert Lynch		
1206785-029B	ASTM-D2504	SAMP	R49810	7/2/2012 12:02:00 PM	Robert Lynch		
1206785-030B	ASTM-D2504	SAMP	R49810	7/2/2012 12:17:00 PM	Robert Lynch		
1206785-030BDUP	ASTM-D2504	DUP	R49810	7/2/2012 12:32:00 PM	Robert Lynch		
CCV-070212 TCD-B	ASTM-D2504	CCV	R49810	7/2/2012 1:05:00 PM	Robert Lynch		
1206785-031B	ASTM-D2504	SAMP	R49810	7/2/2012 1:21:00 PM	Robert Lynch		
1206785-032B	ASTM-D2504	SAMP	R49810	7/2/2012 1:36:00 PM	Robert Lynch		
1206785-033B	ASTM-D2504	SAMP	R49810	7/2/2012 1:51:00 PM	Robert Lynch		
1206785-035B	ASTM-D2504	SAMP	R49810	7/2/2012 2:13:00 PM	Robert Lynch		
1206785-036B	ASTM-D2504	SAMP	R49810	7/2/2012 2:28:00 PM	Robert Lynch		
1206785-037B	ASTM-D2504	SAMP	R49810	7/2/2012 2:44:00 PM	Robert Lynch		
1206785-038B	ASTM-D2504	SAMP	R49810	7/2/2012 2:59:00 PM	Robert Lynch		
1206785-039B	ASTM-D2504	SAMP	R49810	7/2/2012 3:15:00 PM	Robert Lynch		
1206785-040B	ASTM-D2504	SAMP	R49810	7/2/2012 3:30:00 PM	Robert Lynch		
1206785-041B	ASTM-D2504	SAMP	R49810	7/2/2012 3:46:00 PM	Robert Lynch		
1206785-041BDUP	ASTM-D2504	DUP	R49810	7/2/2012 4:01:00 PM	Robert Lynch		
CCV-070212 TCD-C	ASTM-D2504	CCV	R49810	7/2/2012 4:32:00 PM	Robert Lynch		
CRQL-070212 TCD-B	ASTM-D2504	CRQL	R49810	7/2/2012 4:47:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

26-Jul-12

RunNo 49810

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
973840	MBLK-070212 TCD	ASTM-D2504	MBLK	)\070212\070212(	7/2/2012 8:44:00	1	R49810		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
973841	CCV-070212 TCD-A	ASTM-D2504	CCV	)\070212\070212(	7/2/2012 8:58:00	1	R49810		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.533	2.533		2.5	0	0	0.025	0.1	0	101%	85	115	0%	
Carbon Monoxide	A	%	2.629	2.629		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	%	2.027	2.027		2	0	0	0.025	0.5	0	101%	85	115	0%	
Nitrogen	A	%	2.728	2.728		2.5	0	0	0.025	0.1	0	109%	85	115	0%	
Oxygen	A	%	2.573	2.573		2.5	0	0	0.025	0.1	0	103%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
973842	LCS-070212 TCD-A	ASTM-D2504	LCS	)\070212\070212(	7/2/2012 9:13:00	1	R49810		0	973841	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.517	2.517		2.5	0	2.533	0.025	0.1	0	101%	70	130	1%	
Carbon Monoxide	A	%	2.624	2.624		2.5	0	2.629	0.025	0.1	0	105%	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%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
973855	CCV-070212 TCD-B	ASTM-D2504	CCV	D\070212\070212	7/2/2012 1:05:00	1	R49810		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.531	2.531		2.5	0	0	0.025	0.1	0	101%	85	115	0%	
Carbon Monoxide	A	%	2.642	2.642		2.5	0	0	0.025	0.1	0	106%	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	%	2.048	2.048		2	0	0	0.025	0.5	0	102%	85	115	0%	
Nitrogen	A	%	2.712	2.712		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Oxygen	A	%	2.579	2.579		2.5	0	0	0.025	0.1	0	103%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
973856	1206785-031B (Container-01 of 01)	ASTM-D2504	SAMP	D\070212\070212	7/2/2012 1:21:00	1	R49810		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.257	0.257		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	%	77.638	77.638		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	20.317	20.317		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
973857	1206785-032B (Container-01 of 01)	ASTM-D2504	SAMP	D\070212\070212	7/2/2012 1:36:00	1	R49810		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.408	0.408		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	%	77.19	77.19		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	20.472	20.472		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
973865	1206785-041B (Container-01 of 01)	ASTM-D2504	SAMP	)\070212\070212	7/2/2012 3:46:00	1	R49810		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	%	4.552	4.552		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
973866	1206785-041BDUP	ASTM-D2504	DUP	)\070212\070212	7/2/2012 4:01:00	1	R49810		0	973865	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	7.652	7.652		0	0	7.72	0.025	0.1	0	0%	0	0	1%	
Carbon Monoxide	A	%	0.403	0.403		0	0	0.408	0.025	0.1	0	0%	0	0	1%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	83.668	83.668		0	0	84.012	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	4.627	4.627		0	0	4.552	0.025	0.1	0	0%	0	0	2%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
973867	CCV-070212 TCD-C	ASTM-D2504	CCV	)\070212\070212	7/2/2012 4:32:00	1	R49810		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.523	2.523		2.5	0	0	0.025	0.1	0	101%	85	115	0%	
Carbon Monoxide	A	%	2.63	2.63		2.5	0	0	0.025	0.1	0	105%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	1.969	1.969		2	0	0	0.025	0.5	0	98%	85	115	0%	
Nitrogen	A	%	2.69	2.69		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Oxygen	A	%	2.565	2.565		2.5	0	0	0.025	0.1	0	103%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
973868	CRQL-070212 TCD-B	ASTM-D2504	CRQL	)\070212\070212	7/2/2012 4:47:00	1	R49810		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\TCD\070212\07021202.D Vial: 1
Acq On : 2 Jul 2012 8:58 am Operator:
Sample : CCV-070212 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jul 02 09:20:11 2012
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	2.573	-2.9	0	-0.01
2	Nitrogen	2.500	2.728	-9.1	0	0.03
3	Carbon Monoxide	2.500	2.629	-5.2	0	-0.09
4	Methane	2.000	2.027	-1.4	0	-0.10
5	Carbon dioxide	2.500	2.533	-1.3	0	-0.06

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\070212\07021202.D Vial: 1
Acq On : 2 Jul 2012 8:58 am Operator:
Sample : CCV-070212 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 2 8:12 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jun 25 17:07:33 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.15	385553	2.573 %
2)	Nitrogen	2.34	474567	2.728 %
3)	Carbon Monoxide	3.03	428110	2.629 %
4)	Methane	5.65	290509	2.027 %
5)	Carbon dioxide	9.25	524264	2.533 %

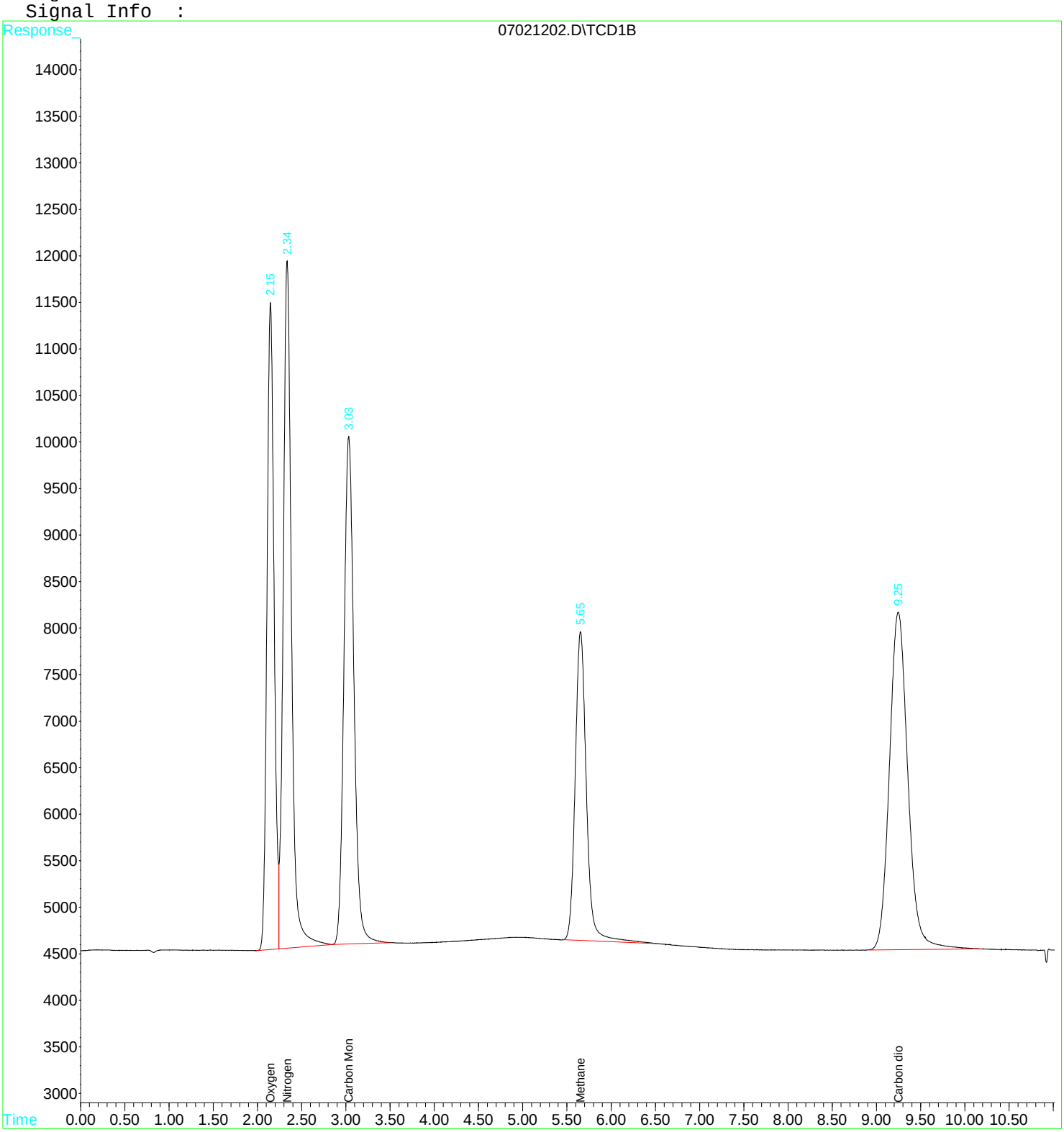
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\070212\07021202.D Vial: 1
Acq On : 2 Jul 2012 8:58 am Operator:
Sample : CCV-070212 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jul 2 8:12 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jun 25 17:07:33 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\TCD\070212\07021216.D Vial: 1
Acq On : 2 Jul 2012 1:05 pm Operator:
Sample : CCV-070212 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jul 02 09:20:11 2012
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	2.579	-3.2	0	-0.01
2	Nitrogen	2.500	2.712	-8.5	0	0.03
3	Carbon Monoxide	2.500	2.642	-5.7	0	-0.10
4	Methane	2.000	2.048	-2.4	0	-0.10
5	Carbon dioxide	2.500	2.531	-1.2	0	-0.08

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\070212\07021216.D Vial: 1
Acq On : 2 Jul 2012 1:05 pm Operator:
Sample : CCV-070212 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 2 13:41 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jun 25 17:07:33 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Oxygen	2.15	386437	2.579	%
2)	Nitrogen	2.34	471757	2.712	%
3)	Carbon Monoxide	3.03	430144	2.642	%
4)	Methane	5.65	293533	2.048	%
5)	Carbon dioxide	9.23	523967	2.531	%

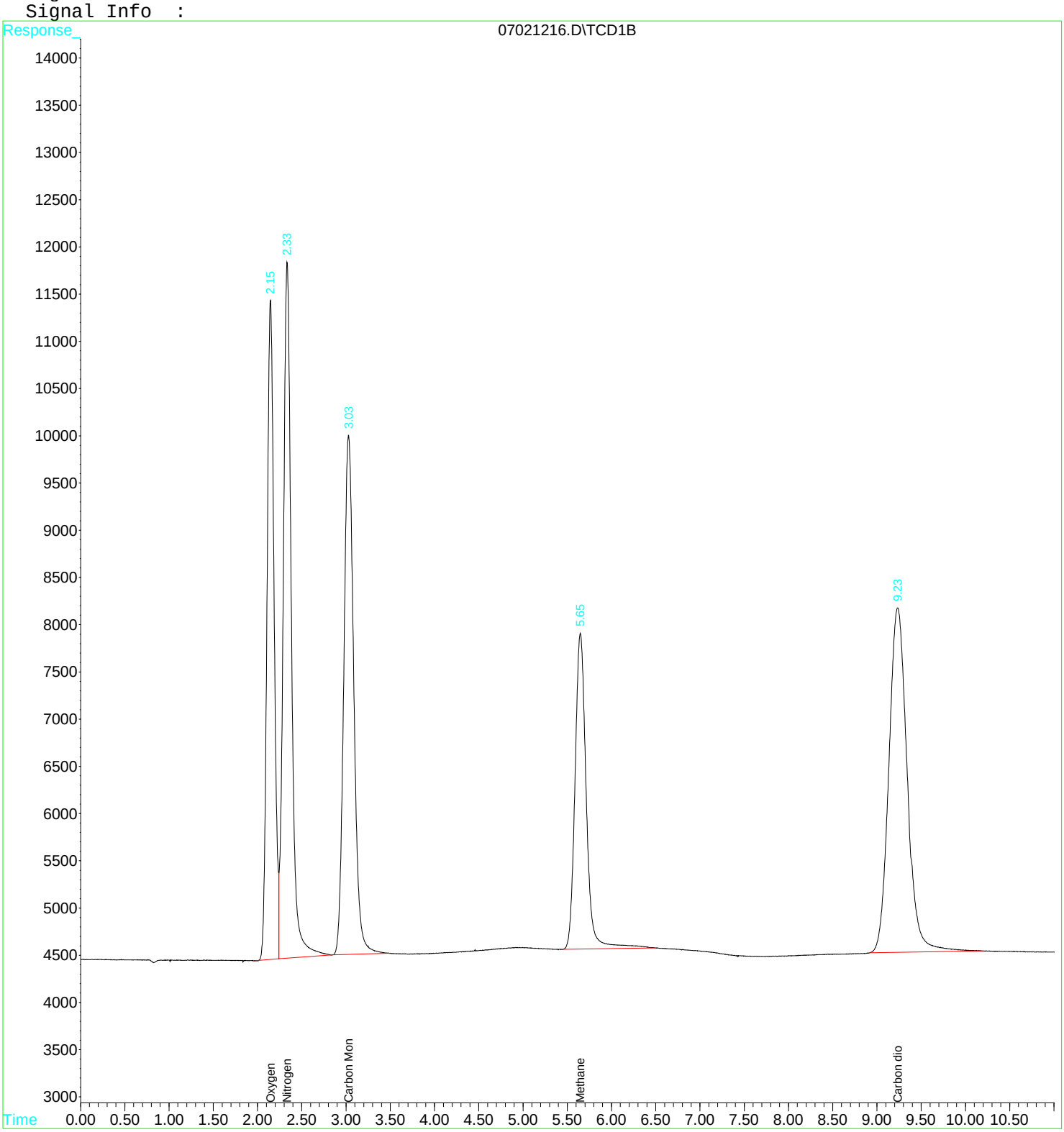
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\070212\07021216.D Vial: 1
Acq On : 2 Jul 2012 1:05 pm Operator:
Sample : CCV-070212 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jul 2 13:41 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jun 25 17:07:33 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\TCD\070212\07021228.D Vial: 1
Acq On : 2 Jul 2012 4:32 pm Operator:
Sample : CCV-070212 TCD-C Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jul 02 09:20:11 2012
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	2.565	-2.6	0	0.00
2	Nitrogen	2.500	2.690	-7.6	0	0.03
3	Carbon Monoxide	2.500	2.630	-5.2	0	-0.09
4	Methane	2.000	1.969	1.5	0	-0.10
5	Carbon dioxide	2.500	2.523	-0.9	0	-0.08

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\070212\07021228.D Vial: 1
Acq On : 2 Jul 2012 4:32 pm Operator:
Sample : CCV-070212 TCD-C Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 3 9:29 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Tue Jul 03 09:57:48 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Oxygen	2.15	384262	2.565	%
2)	Nitrogen	2.34	467996	2.690	%
3)	Carbon Monoxide	3.03	428289	2.630	%
4)	Methane	5.65	282239	1.969	%
5)	Carbon dioxide	9.23	522365	2.523	%

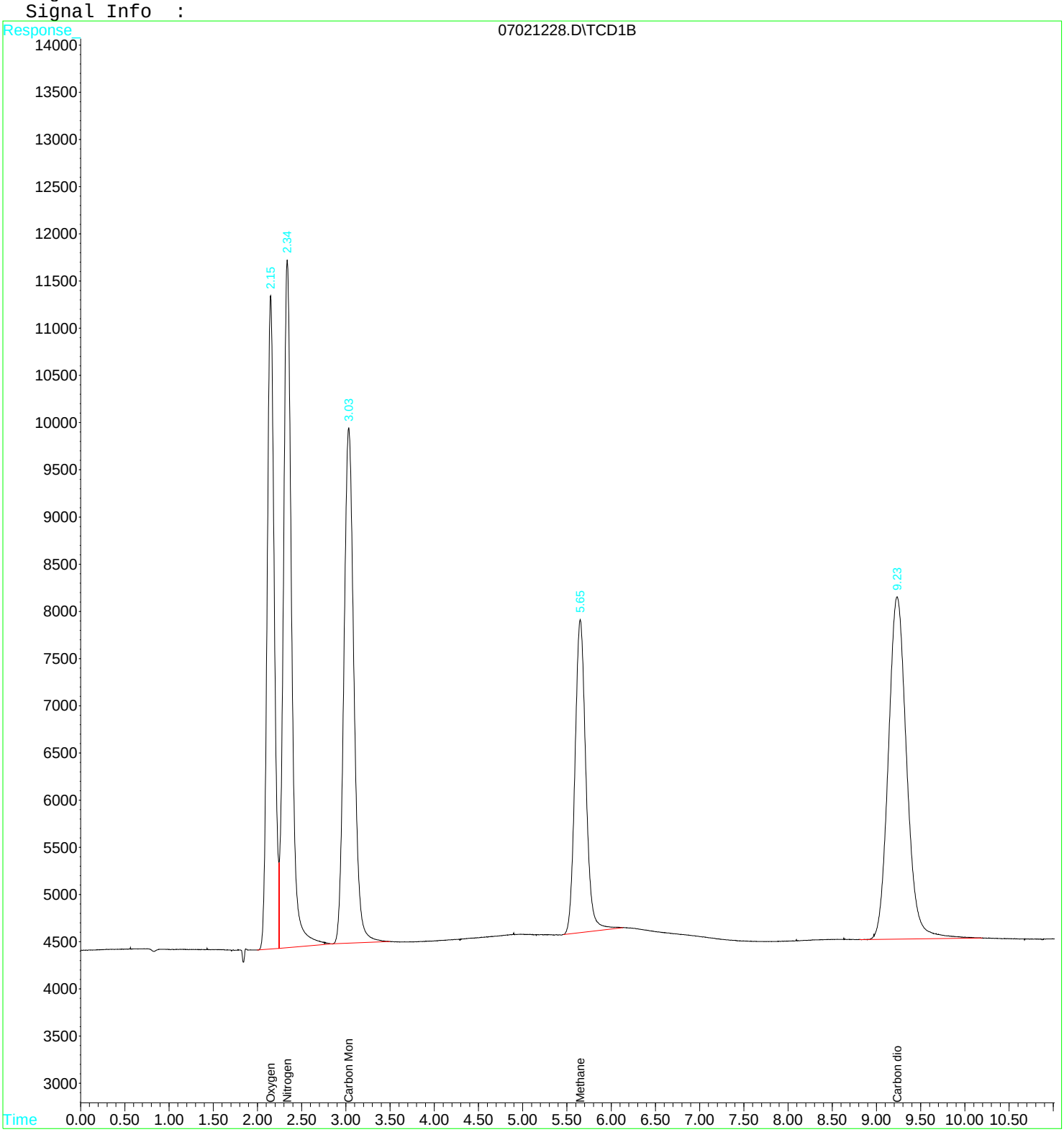
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\070212\07021228.D Vial: 1
Acq On : 2 Jul 2012 4:32 pm Operator:
Sample : CCV-070212 TCD-C Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jul 3 9:29 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Tue Jul 03 09:57:48 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: **GC-TCD 1_120703A** **Run No.:** 49857

Analytical Run Date: 7/3/2012 **InstrumentID:** GC-TCD 1

Analyst: Jon Herndon **Column:** GC-TCD 1

Calibration ID: 49617 **Column ID:** Permanent Gases

Column Length: 2m 100/120mesh x 1mm ID

Run Comments: PR 7-6-12 MSB

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
MBLK-070312 TCD	ASTM-D2504	MBLK	R49857	7/3/2012 9:05:00 AM	Robert Lynch		
CCV-070312 TCD-A	ASTM-D2504	CCV	R49857	7/3/2012 9:42:00 AM	Robert Lynch		
LCS-070312 TCD-A	ASTM-D2504	LCS	R49857	7/3/2012 9:59:00 AM	Robert Lynch		
CRQL-070312 TCD-A	ASTM-D2504	CRQL	R49857	7/3/2012 10:30:00 AM	Robert Lynch		
1206785-042B	ASTM-D2504	SAMP	R49857	7/3/2012 10:50:00 AM	Robert Lynch		
1206785-043B	ASTM-D2504	SAMP	R49857	7/3/2012 11:05:00 AM	Robert Lynch		
1206785-044B	ASTM-D2504	SAMP	R49857	7/3/2012 11:22:00 AM	Robert Lynch		
1206785-045B	ASTM-D2504	SAMP	R49857	7/3/2012 11:37:00 AM	Robert Lynch		
1206785-046B	ASTM-D2504	SAMP	R49857	7/3/2012 11:52:00 AM	Robert Lynch		
1206952-001B	ASTM-D2504	SAMP	R49857	7/3/2012 12:13:00 PM	Robert Lynch		
1206952-002B	ASTM-D2504	SAMP	R49857	7/3/2012 12:33:00 PM	Robert Lynch		
1206952-003B	ASTM-D2504	SAMP	R49857	7/3/2012 12:48:00 PM	Robert Lynch		
1206952-004B	ASTM-D2504	SAMP	R49857	7/3/2012 1:03:00 PM	Robert Lynch		
1206952-005B	ASTM-D2504	SAMP	R49857	7/3/2012 1:18:00 PM	Robert Lynch		
1206952-005BDUP	ASTM-D2504	DUP	R49857	7/3/2012 1:39:00 PM	Robert Lynch		
CCV-070312 TCD-B	ASTM-D2504	CCV	R49857	7/3/2012 2:09:00 PM	Robert Lynch		
1206952-006B	ASTM-D2504	SAMP	R49857	7/3/2012 2:35:00 PM	Robert Lynch		
1206952-007B	ASTM-D2504	SAMP	R49857	7/3/2012 2:50:00 PM	Robert Lynch		
1206952-008B	ASTM-D2504	SAMP	R49857	7/3/2012 3:05:00 PM	Robert Lynch		
1206952-009B	ASTM-D2504	SAMP	R49857	7/3/2012 3:23:00 PM	Robert Lynch		
1206952-010B	ASTM-D2504	SAMP	R49857	7/3/2012 3:37:00 PM	Robert Lynch		
1206952-010BDUP	ASTM-D2504	DUP	R49857	7/3/2012 3:52:00 PM	Robert Lynch		
CCV-070312 TCD-C	ASTM-D2504	CCV	R49857	7/3/2012 4:07:00 PM	Robert Lynch		
CRQL-070312 TCD-B	ASTM-D2504	CRQL	R49857	7/3/2012 4:39:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

26-Jul-12

RunNo 49857

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
974718	MBLK-070312 TCD	ASTM-D2504	MBLK	070312-TCD\070	7/3/2012 9:05:00	1	R49857		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
974719	CCV-070312 TCD-A	ASTM-D2504	CCV	070312-TCD\070	7/3/2012 9:42:00	1	R49857		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.537	2.537		2.5	0	0	0.025	0.1	0	101%	85	115	0%	
Carbon Monoxide	A	%	2.637	2.637		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	%	2.035	2.035		2	0	0	0.025	0.5	0	102%	85	115	0%	
Nitrogen	A	%	2.701	2.701		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Oxygen	A	%	2.574	2.574		2.5	0	0	0.025	0.1	0	103%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
974720	LCS-070312 TCD-A	ASTM-D2504	LCS	070312-TCD\070	7/3/2012 9:59:00	1	R49857		0	974719	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.537	2.537		2.5	0	2.537	0.025	0.1	0	101%	70	130	0%	
Carbon Monoxide	A	%	2.635	2.635		2.5	0	2.637	0.025	0.1	0	105%	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%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
974733	CCV-070312 TCD-B	ASTM-D2504	CCV	070312-TCD\070	7/3/2012 2:09:00	1	R49857		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.517	2.517		2.5	0	0	0.025	0.1	0	101%	85	115	0%	
Carbon Monoxide	A	%	2.635	2.635		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	%	1.958	1.958		2	0	0	0.025	0.5	0	98%	85	115	0%	
Nitrogen	A	%	2.868	2.868		2.5	0	0	0.025	0.1	0	115%	85	115	0%	
Oxygen	A	%	2.617	2.617		2.5	0	0	0.025	0.1	0	105%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
974734	1206952-006B (Container-01 of 01)	ASTM-D2504	SAMP	070312-TCD\070	7/3/2012 2:35:00	1	R49857		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.194	0.194		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	%	79.353	79.353		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	19.352	19.352		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
974735	1206952-007B (Container-01 of 01)	ASTM-D2504	SAMP	070312-TCD\070	7/3/2012 2:50:00	1	R49857		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.085	0.085		0	0	0	0.025	0.1	0	0%	0	0	0%	J
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	%	76.904	76.904		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	20.847	20.847		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
974738	1206952-010B (Container-01 of 01)	ASTM-D2504	SAMP	070312-TCD\070	7/3/2012 3:37:00	1	R49857		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	%	19.025	19.025		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
974739	1206952-010BDUP	ASTM-D2504	DUP	070312-TCD\070	7/3/2012 3:52:00	1	R49857		0	974738	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.265	0.265		0	0	0.267	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	%	78.184	78.184		0	0	78.291	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	18.988	18.988		0	0	19.025	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
974740	CCV-070312 TCD-C	ASTM-D2504	CCV	070312-TCD\070	7/3/2012 4:07:00	1	R49857		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.522	2.522		2.5	0	0	0.025	0.1	0	101%	85	115	0%	
Carbon Monoxide	A	%	2.63	2.63		2.5	0	0	0.025	0.1	0	105%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	1.954	1.954		2	0	0	0.025	0.5	0	98%	85	115	0%	
Nitrogen	A	%	2.766	2.766		2.5	0	0	0.025	0.1	0	111%	85	115	0%	
Oxygen	A	%	2.584	2.584		2.5	0	0	0.025	0.1	0	103%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
974741	CRQL-070312 TCD-B	ASTM-D2504	CRQL	070312-TCD\070	7/3/2012 4:39:00	1	R49857		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\TCD\070312-TCD\07031202.D Vial: 1
Acq On : 3 Jul 2012 9:42 am Operator:
Sample : CCV-070312 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jul 02 09:20:11 2012
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	2.574	-3.0	0	0.00
2	Nitrogen	2.500	2.701	-8.0	0	0.03
3	Carbon Monoxide	2.500	2.637	-5.5	0	-0.09
4	Methane	2.000	2.035	-1.8	0	-0.09
5	Carbon dioxide	2.500	2.537	-1.5	0	-0.06

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\070312-TCD\07031202.D Vial: 1
Acq On : 3 Jul 2012 9:42 am Operator:
Sample : CCV-070312 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 3 8:57 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Tue Jul 03 09:57:48 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Oxygen	2.15	385695	2.574	%
2)	Nitrogen	2.34	469842	2.701	%
3)	Carbon Monoxide	3.04	429450	2.637	%
4)	Methane	5.66	291609	2.035	%
5)	Carbon dioxide	9.25	525139	2.537	%

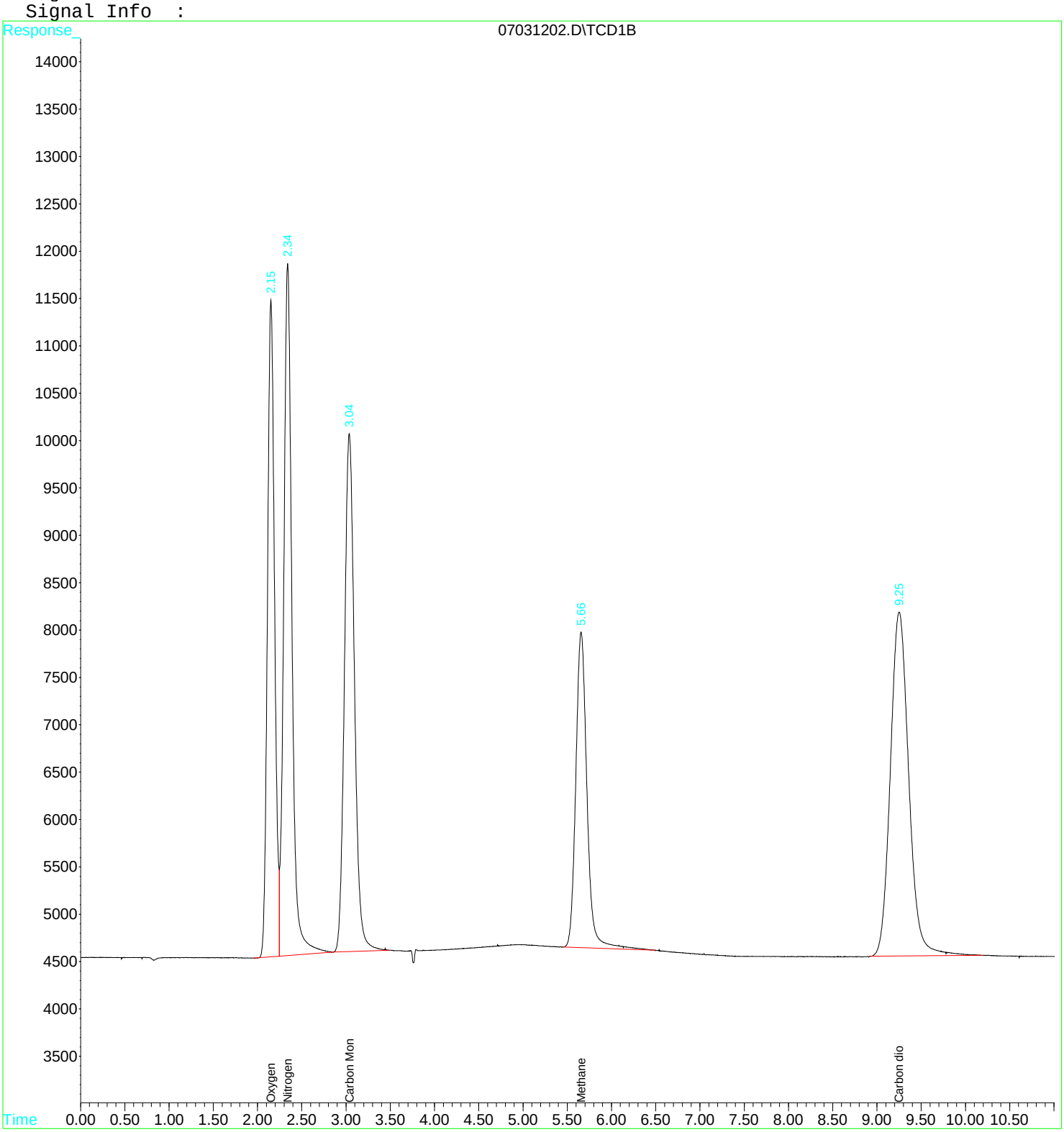
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\070312-TCD\07031202.D Vial: 1
Acq On : 3 Jul 2012 9:42 am Operator:
Sample : CCV-070312 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jul 3 8:57 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Tue Jul 03 09:57:48 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\TCD\070312-TCD\07031216.D Vial: 1
Acq On : 3 Jul 2012 2:09 pm Operator:
Sample : CCV-070312 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jul 02 09:20:11 2012
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	2.617	-4.7	0	0.00
2	Nitrogen	2.500	2.868	-14.7	0	0.03
3	Carbon Monoxide	2.500	2.635	-5.4	0	-0.09
4	Methane	2.000	1.958	2.1	0	-0.10
5	Carbon dioxide	2.500	2.517	-0.7	0	-0.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
07031216.D 062512.M Thu Jul 05 11:30:08 2012 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\070312-TCD\07031216.D Vial: 1
Acq On : 3 Jul 2012 2:09 pm Operator:
Sample : CCV-070312 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 3 15:04 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Tue Jul 03 09:57:48 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Oxygen	2.15	392074	2.617	%
2)	Nitrogen	2.34	498868	2.868	%
3)	Carbon Monoxide	3.04	429079	2.635	%
4)	Methane	5.66	280606	1.958	%
5)	Carbon dioxide	9.25	521107	2.517	%

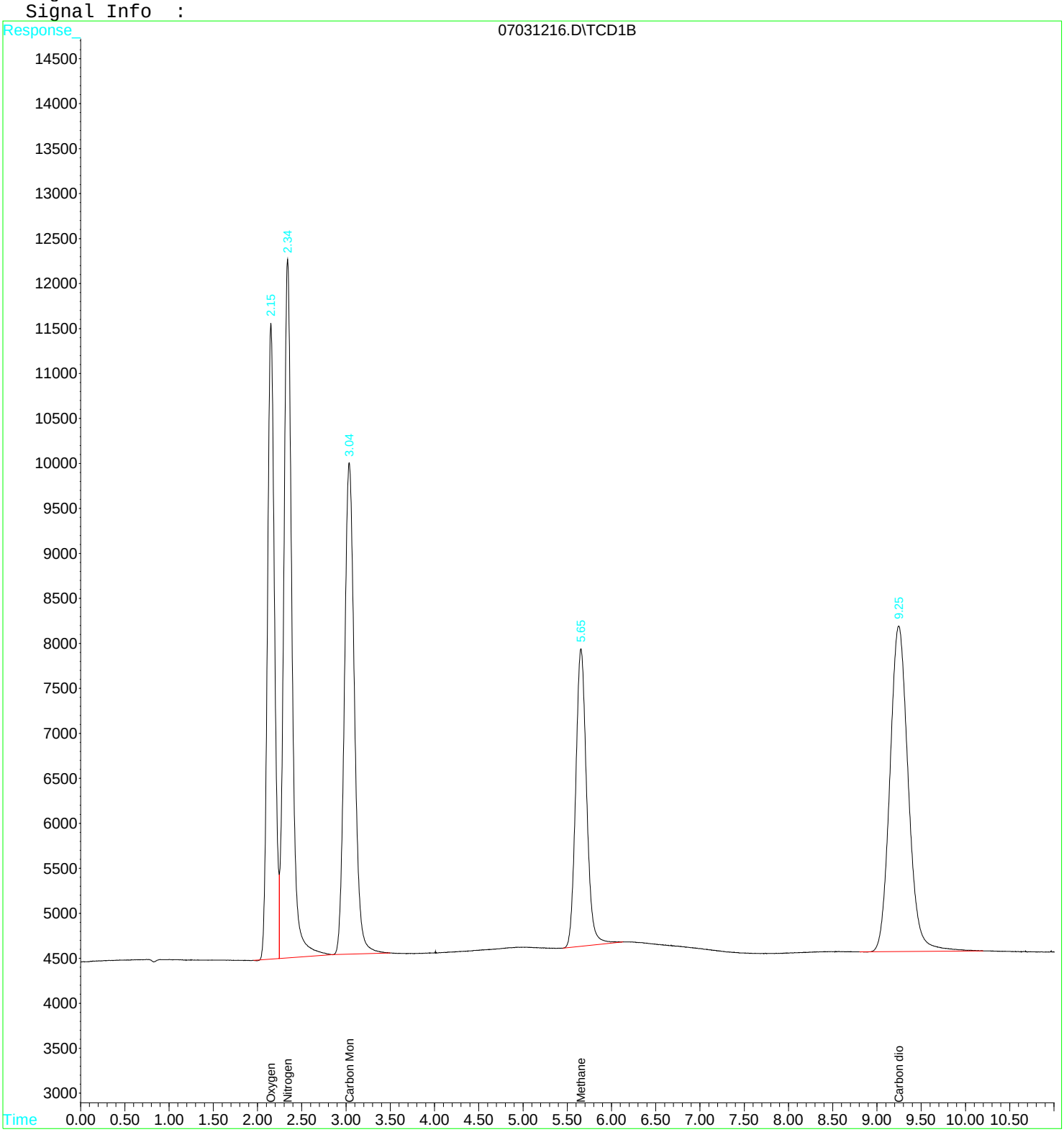
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\070312-TCD\07031216.D Vial: 1
Acq On : 3 Jul 2012 2:09 pm Operator:
Sample : CCV-070312 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jul 3 15:04 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Tue Jul 03 09:57:48 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\TCD\070312-TCD\07031223.D Vial: 1
Acq On : 3 Jul 2012 4:07 pm Operator:
Sample : CCV-070312 TCD-C Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jul 02 09:20:11 2012
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	2.584	-3.4	0	-0.01
2	Nitrogen	2.500	2.766	-10.6	0	0.03
3	Carbon Monoxide	2.500	2.630	-5.2	0	-0.09
4	Methane	2.000	1.954	2.3	0	-0.10
5	Carbon dioxide	2.500	2.522	-0.9	0	-0.07

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\070312-TCD\07031223.D Vial: 1
Acq On : 3 Jul 2012 4:07 pm Operator:
Sample : CCV-070312 TCD-C Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 5 10:17 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Tue Jul 03 09:57:48 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Oxygen	2.15	387099	2.584	%
2)	Nitrogen	2.34	481203	2.766	%
3)	Carbon Monoxide	3.03	428272	2.630	%
4)	Methane	5.65	280067	1.954	%
5)	Carbon dioxide	9.24	522170	2.522	%

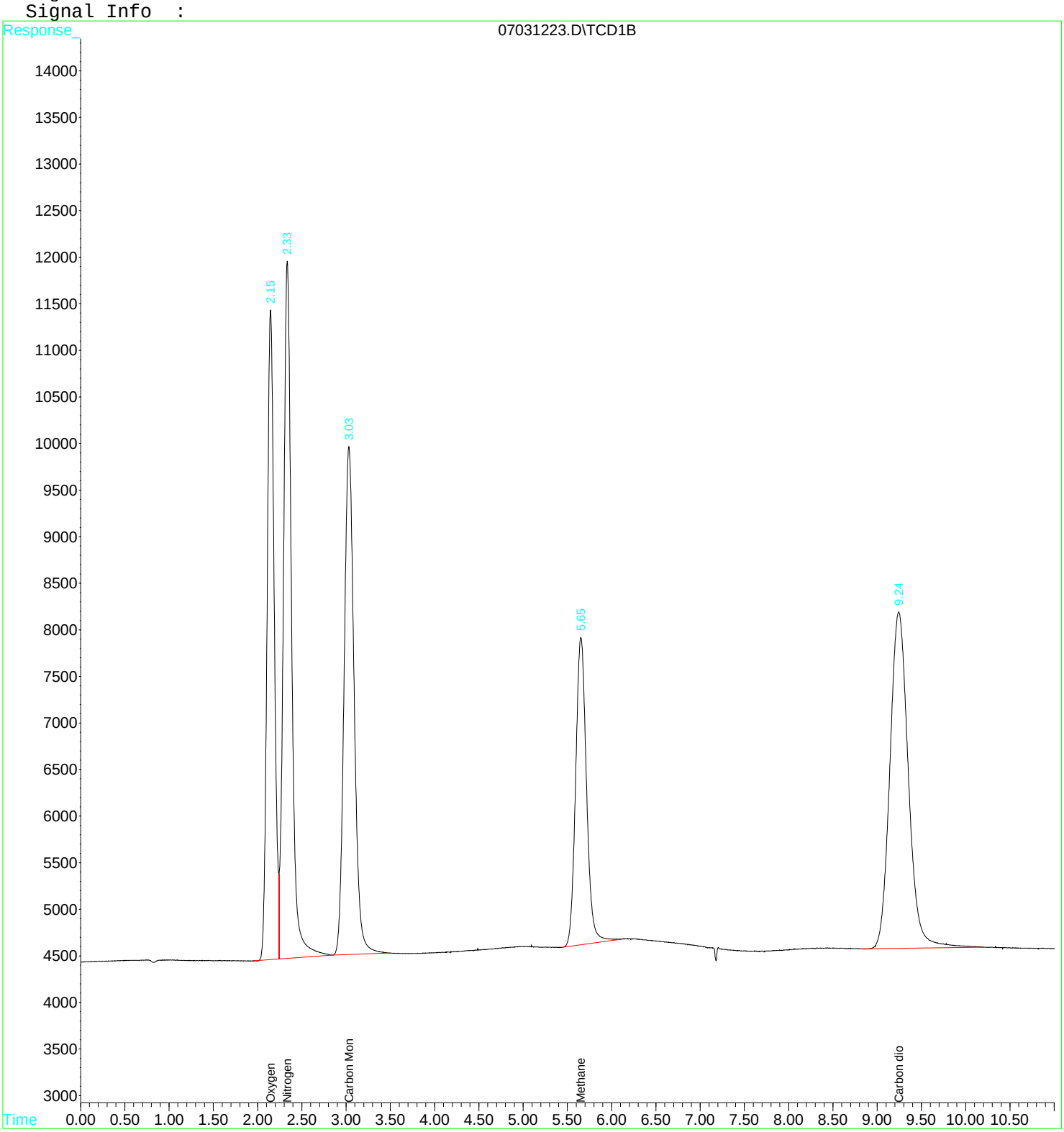
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\070312-TCD\07031223.D Vial: 1
Acq On : 3 Jul 2012 4:07 pm Operator:
Sample : CCV-070312 TCD-C Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jul 5 10:17 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Tue Jul 03 09:57:48 2012
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\062512.M (Chemstation Integrator)
Title :
Last Update : Tue Jun 26 10:08:21 2012

Calibration Files
1 =06251202.D 2 =06251203.D 3 =06251204.D
4 =06251205.D 5 =06251206.D 6 =06251207.D

	Compound	1	2	3	4	5	6	Avg		%RSD
1)	Oxygen	1.438	1.499	1.479	1.481	1.430	1.632	1.498	E5	4.54
2)	Nitrogen	1.776	1.733	1.737	1.720	1.663	1.790	1.739	E5	2.40
3)	Carbon Monoxide	1.695	1.642	1.639	1.623	1.559	1.612	1.628	E5	2.72
4)	Methane	1.499	1.452	1.448	1.443	1.416	1.341	1.433	E5	3.67
5)	Carbon dioxide	2.156	2.072	2.078	2.053	1.983	2.079	2.070	E5	2.68

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

062512.M Tue Jun 26 10:10:16 2012

Compound List Report GC/TCD

Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Tue Jun 26 10:08:21 2012
Response via : Initial Calibration
Total Cpnds : 5

PK#	Type	Compound Name	Exp_RT	Rel_RT	Cal	A/H	ID
1		Oxygen	2.21	1.000	A	A	R
2		Nitrogen	2.38	1.000	A	A	R
3		Carbon Monoxide	3.13	1.000	A	A	R
4		Methane	5.75	1.000	A	A	R
5		Carbon dioxide	9.41	1.000	A	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

062512.M Tue Jun 26 10:10:22 2012

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\TCD\062512\06251210.D Vial: 1
Acq On : 25 Jun 2012 5:24 pm Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jun 25 17:07:33 2012
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	2.613	-4.5	0	0.00
2	Nitrogen	2.500	2.746	-9.8	0	0.02
3	Carbon Monoxide	2.500	2.664	-6.6	0	-0.01
4	Methane	2.000	2.139	-6.9	0	-0.01
5	Carbon dioxide	2.500	2.623	-4.9	0	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\062512\06251210.D Vial: 1
Acq On : 25 Jun 2012 5:24 pm Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 25 16:36 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jun 25 17:07:33 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

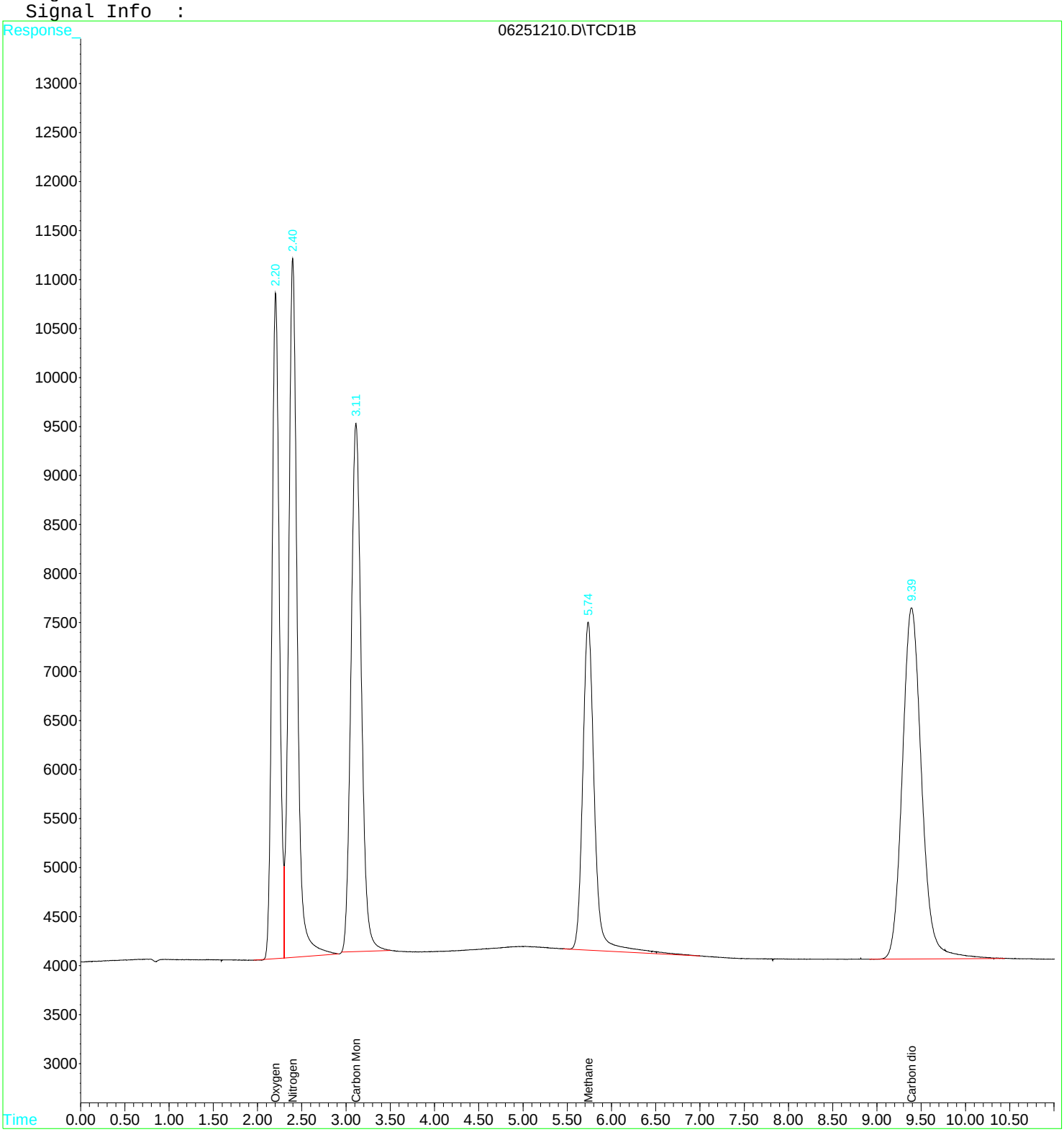
Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.20	391497	2.613 %
2)	Nitrogen	2.40	477577	2.746 %
3)	Carbon Monoxide	3.11	433851	2.664 %
4)	Methane	5.74	306500	2.139 %
5)	Carbon dioxide	9.39	542989	2.623 %

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\062512\06251210.D Vial: 1
Acq On : 25 Jun 2012 5:24 pm Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 25 16:36 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jun 25 17:07:33 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :