RTI Laboratories, Inc.

Date: *03-Jan.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: 1112148

CASE NARRATIVE

SAMPLE RECEIPT:
Samples were received at the RTI Laboratory, Livonia, MI via commercial delivery on 12/6/2011. Samples were received in good condition. The sample set consisted of 36 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

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.

Air-Phase Petroleum Hydrocarbons Analyses:

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

Surrogate recoveries were within established control limits.

Fixed Gases (Noncondensable Gases/Light Hydrocarbons) Analyses:

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

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

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

Date: 1/3/2012

RTI Laboratories - Definitions and Acronyms

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Definitions:

% REC: Percent Recovery; a measure of accuracy expressed as a percentage of a measured (recovered) concentration compared to the known concentration added to the sample.

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

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 mass of target analytes to a specified amount of de-ionized water and prepared with the batch of samples, used to calculate Accuracy (%REC).

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

MBLK: Method Blank; a sample of similar matrix that is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedure, and in which no target analytes
or interferences are present at concentrations that impact the analytical results for sample analyses.

MS: Matrix Spike; prepared by adding a known mass 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: The duplicate sample of the MS, used to calculate both Accuracy (%REC) and Precision (%RPD)

PL: Permit limit; only applicable to wastewater reports.

Qual: Qualifier that applies to the analyte reported

Result: Analyte concentration reported

RL: Reporting Limit/Limit of Quantitation; the limit to which data is compared for reporting. Analyte concentrations below the reporting limit are reported as ND or with a "J" qualifier.

Units: The units in which the analyte concentration is reported.

Qualifiers:

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

1112148

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Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV060

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

Samples Shipment Date: 01 DEC 2011
Lab Destination: RTI Laboratories
Lab Contact: Mike Truchan
Project Contact: Pamela Moss
Carrier/Waybill No.: UPS/2323121220

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 X | Skin Irritant | Poison B | Radiological | Unknown

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

1. Relinquished By (Signature/Affiliation) Antonio Fragello Shaw — Date: 12/1/11 Time: 1400
1. Received By (Signature/Affiliation) S. Meier — Date: 12/6/11 Time: 9:29
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: Time:

Comments:

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA0743	SVMW-14-150-GS-VA0743-REG	28 NOV 2011	8:56	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0743	SVMW-14-150-GS-VA0743-REG	28 NOV 2011	8:56	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0840
VA0744	SVMW-14-250-GS-VA0744-REG	28 NOV 2011	9:30	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		8
VA0744	SVMW-14-250-GS-VA0744-REG	28 NOV 2011	9:30	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0745	SVMW-14-350-GS-VA0745-REG	28 NOV 2011	9:58	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0800
VA0745	SVMW-14-350-GS-VA0745-REG	28 NOV 2011	9:58	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0746	SVMW-14-450-GS-VA0746-REG	28 NOV 2011	10:30	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by			N		0671

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Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

1112148

Reference Document No: 140705-SV060

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					
VA0746	SVMW-14-450-GS-VA0746-REG	28 NOV 2011	10:30	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0759	SVEW-04-313-GS-VA0759-REG	30 NOV 2011	9:20	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N	0715	
VA0759	SVEW-04-313-GS-VA0759-REG	30 NOV 2011	9:20	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0760	SVEW-04-313-GS-VA0760-FD	30 NOV 2011	9:20	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0760	SVEW-04-313-GS-VA0760-FD	30 NOV 2011	9:20	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N	44	
VA0764	SVEW-08-260-GS-VA0764-REG	30 NOV 2011	10:35	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N	0832	
VA0764	SVEW-08-260-GS-VA0764-REG	30 NOV 2011	10:35	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0765	SVEW-09-460-GS-VA0765-REG	30 NOV 2011	12:30	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N	0701	
VA0765	SVEW-09-460-GS-VA0765-REG	30 NOV 2011	12:30	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0768	SVEW-12-410-GS-VA0768-REG	28 NOV 2011	11:03	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N	0629	
VA0768	SVEW-12-410-GS-VA0768-REG	28 NOV 2011	11:03	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0777	KAFB-106109-025-GS-VA0777-REG	28 NOV 2011	12:56	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N	0779	
VA0777	KAFB-106109-025-GS-VA0777-REG	28 NOV 2011	12:56	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0778	KAFB-106109-050-GS-VA0778-REG	28 NOV 2011	13:27	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0778	KAFB-106109-050-GS-VA0778-REG	28 NOV 2011	13:27	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N	0825	
VA0779	KAFB-106109-150-GS-VA0779-REG	28 NOV 2011	13:58	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N	0795	
VA0779	KAFB-106109-150-GS-VA0779-REG	28 NOV 2011	13:58	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0780	KAFB-106109-150-GS-VA0780-FD	28 NOV 2011	13:58	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N	0725	
VA0780	KAFB-106109-150-GS-VA0780-FD	28 NOV 2011	13:58	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0781	KAFB-106109-250-GS-VA0781-REG	28 NOV 2011	14:50	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N	0591	
VA0781	KAFB-106109-250-GS-VA0781-REG	28 NOV 2011	14:50	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0782	KAFB-106109-350-GS-VA0782-REG	28 NOV 2011	15:25	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N	0628	
VA0782	KAFB-106109-350-GS-VA0782-REG	28 NOV 2011	15:25	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0783	KAFB-106109-450-GS-VA0783-REG	28 NOV 2011	16:02	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0783	KAFB-106109-450-GS-VA0783-REG	28 NOV 2011	16:02	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N	0709	
VA0817	KAFB-106115-025-GS-VA0817-REG	30 NOV 2011	15:15	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N	0820	
VA0817	KAFB-106115-025-GS-VA0817-REG	30 NOV 2011	15:15	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		

1112148

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Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV060

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA0818	KAFB-106115-050-GS-VA0818-REG	30 NOV 2011	15:44	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0817
VA0818	KAFB-106115-050-GS-VA0818-REG	30 NOV 2011	15:44	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0819	KAFB-106115-150-GS-VA0819-REG	01 DEC 2011	8:45	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0754
VA0819	KAFB-106115-150-GS-VA0819-REG	01 DEC 2011	8:45	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0820	KAFB-106115-250-GS-VA0820-REG	01 DEC 2011	9:23	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0773
VA0820	KAFB-106115-250-GS-VA0820-REG	01 DEC 2011	9:23	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0821	KAFB-106115-350-GS-VA0821-REG	01 DEC 2011	10:08	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0834
VA0821	KAFB-106115-350-GS-VA0821-REG	01 DEC 2011	10:08	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0822	KAFB-106115-350-GS-VA0822-FD	01 DEC 2011	10:08	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0807
VA0822	KAFB-106115-350-GS-VA0822-FD	01 DEC 2011	10:08	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0823	KAFB-106115-450-GS-VA0823-REG	01 DEC 2011	11:16	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0714
VA0823	KAFB-106115-450-GS-VA0823-REG	01 DEC 2011	11:16	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0976	KAFB-106139-025-GS-VA0976-REG	29 NOV 2011	13:39	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0835
VA0976	KAFB-106139-025-GS-VA0976-REG	29 NOV 2011	13:39	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0977	KAFB-106139-050-GS-VA0977-REG	29 NOV 2011	14:07	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0815
VA0977	KAFB-106139-050-GS-VA0977-REG	29 NOV 2011	14:07	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0978	KAFB-106139-150-GS-VA0978-REG	29 NOV 2011	14:38	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0978	KAFB-106139-150-GS-VA0978-REG	29 NOV 2011	14:38	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0844
VA0979	KAFB-106139-250-GS-VA0979-REG	29 NOV 2011	15:15	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0802
VA0979	KAFB-106139-250-GS-VA0979-REG	29 NOV 2011	15:15	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0980	KAFB-106139-350-GS-VA0980-REG	29 NOV 2011	15:48	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0776
VA0980	KAFB-106139-350-GS-VA0980-REG	29 NOV 2011	15:48	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0981	KAFB-106139-450-GS-VA0981-REG	29 NOV 2011	16:22	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0799
VA0981	KAFB-106139-450-GS-VA0981-REG	29 NOV 2011	16:22	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0982	KAFB-106140-025-GS-VA0982-REG	29 NOV 2011	8:46	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0734
VA0982	KAFB-106140-025-GS-VA0982-REG	29 NOV 2011	8:46	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0983	KAFB-106140-050-GS-VA0983-REG	29 NOV 2011	9:18	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0983	KAFB-106140-050-GS-VA0983-REG	29 NOV 2011	9:18	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0721

Shaw™
Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

1112148

Reference Document No: 140705-SV060

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA0984	KAFB-106140-150-GS-VA0984-REG	29 NOV 2011	9:50	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0710
VA0984	KAFB-106140-150-GS-VA0984-REG	29 NOV 2011	9:50	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0985	KAFB-106140-250-GS-VA0985-REG	29 NOV 2011	10:38	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0743
VA0985	KAFB-106140-250-GS-VA0985-REG	29 NOV 2011	10:38	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0986	KAFB-106140-350-GS-VA0986-REG	29 NOV 2011	11:15	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0665
VA0986	KAFB-106140-350-GS-VA0986-REG	29 NOV 2011	11:15	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0987	KAFB-106140-450-GS-VA0987-REG	29 NOV 2011	12:00	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0777
VA0987	KAFB-106140-450-GS-VA0987-REG	29 NOV 2011	12:00	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA8060-TB	FIELDQC-GS-VA8060-TB-TB	28 NOV 2011	08:00	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15			N		0674

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

30 LBS 2 OF 4
DWT: 26,16,14

1112148

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4106 2650

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

REF 1:140705
REF 2:BA010030

BILLING: P/P

WS 14.0.21 HP LaserJet 4 21.0A 10/2011

Fold here and place in label pouch

RTI LABORATORIES
31628 GLENDALE ST

LIVONIA MI 48150

P: RED2 S: MNITE I: 3
19F – FL2
1Z10335E034106 2650
LAU90DH MILIV DEC 08 05:49:07 2011
US 4821 HIP 11.1.3 ZEBRAZ4MP

Included

VA0743	VA0768	VA0779	VA0892
VA0746	VA0777	VA0781	VA0983
VA0744	VA0780	VA0782	VA8060-TB
VA0745	VA0778	VA0783	VA0986
		VA0984	VA0985

CUSTODY SEAL
DATE 12/1/11
SIGNATURE [signature]

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

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

10 LBS 3 OF 4
DWT: 22,14,16

1112148

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4119 5267

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

REF 1:140705
REF 2:BA010030

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

T - 10 Door: 1249
FSTZ882575 MI 48150
MI 482 9-02

UPS GROUND

1Z10335E0341195267

P05D167 3811897 Dec 05 19:40 4 US 60

SS2007 HIP 11.1.3 BTLP2844L

RTI LABORATORIES
31628 GLENDALE ST
LIVONIA MI 48150

P: RED2 S: MNITE I: 3
19F — FL2
1Z10335E034119 5267
LRH90DH MILIV DEC 06 05:16:35 2011
US 4821 HIP 11.1.3 ZEBRAZ4MP

WS 14.0.21 HP LaserJet 4 21.0A 10/2011

Included
Teddlar bags

RTI LABORATORIES
31628 GLENDALE ST
LIVONIA MI 48150

Regulators

P: RED2 S: MNITE I: 3
19F — FL2
1Z10335E034237 8479
GCCBHEL MILIV165 DEC 06 05:43:33 2011
US 4821 HIP 11.1.3 ZF ZM400

CUSTODY SEAL
DATE 12/1/11
SIGNATURE

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

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

30 LBS 1 OF 4
DWT: 26,16,14

1112148

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4206 4647

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

REF 1:140705
REF 2:BA010030

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

WS 14.0.21 HP LaserJet 4 21.0A 10/2011

T - 10
FSTZ882575

Door: 1249
MI 48150
MI 482 9-02

UPS GROUND

1Z10335E0342064647

P05D167 3811897 Dec 05 19:43:03 2011 US

SS2007 HIP 11.1.3 BTLP2844L

6059 T

Place in label pouch

Included

VA0820	VA0822
VA0819	VA0980
VA0823	VA0979
VA0764	VA0821
VA0766	VA0977
VA0759	VA0976
VA0817	VA0978
VA0818	VA0981
VA 765	VA0987

RTI LABORATORIES
31628 GLENDALE ST
LIVONIA MI 48150

CUSTODY SEAL
DATE 12/1/11
SIGNATURE

QEC
Quality E
800-255-

P: RED2 S: MNITE I: 3
19F – FL2
1Z10335E034206 4647
IRV1CCN L1UM1211 DEC 06 05:44:06 2011
9 4821 HIP 11.1.3 ZEBRAZ4MP

RTI LABORATORIES, INC.

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

Sample Receipt Checklist

Client Name: **SHA04**

Date and Time Received: **12/6/2011 9:29:00 AM**

Work Order Number **1112148** RcptNo: **1**

Received by: **Stephanie Mercieca**

Completed by:

Reviewed by:

Completed Date: 12/6/2011 1:51:27 PM

Reviewed Date: 12/7/2011 9:45:24 AM

Carrier name: UPS

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

Case Number: SDG: SAS:

Adjusted? _____ Checked by

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

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1112148-001A	Container-01 of 01	Bottle				
1112148-001B	Container-01 of 01	Bottle				
1112148-002A	Container-01 of 01	Bottle				
1112148-002B	Container-01 of 01	Bottle				
1112148-003A	Container-01 of 01	Bottle				
1112148-003B	Container-01 of 01	Bottle				
1112148-004A	Container-01 of 01	Bottle				
1112148-004B	Container-01 of 01	Bottle				
1112148-005A	Container-01 of 01	Bottle				
1112148-005B	Container-01 of 01	Bottle				
1112148-006A	Container-01 of 01	Bottle				
1112148-006B	Container-01 of 01	Bottle				
1112148-007A	Container-01 of 01	Bottle				
1112148-007B	Container-01 of 01	Bottle				
1112148-008A	Container-01 of 01	Bottle				
1112148-008B	Container-01 of 01	Bottle				
1112148-009A	Container-01 of 01	Bottle				
1112148-009B	Container-01 of 01	Bottle				
1112148-010A	Container-01 of 01	Bottle				
1112148-010B	Container-01 of 01	Bottle				
1112148-011A	Container-01 of 01	Bottle				
1112148-011B	Container-01 of 01	Bottle				
1112148-012A	Container-01 of 01	Bottle				
1112148-012B	Container-01 of 01	Bottle				
1112148-013A	Container-01 of 01	Bottle				
1112148-013B	Container-01 of 01	Bottle				
1112148-014A	Container-01 of 01	Bottle				
1112148-014B	Container-01 of 01	Bottle				
1112148-015A	Container-01 of 01	Bottle				
1112148-015B	Container-01 of 01	Bottle				
1112148-016A	Container-01 of 01	Bottle				
1112148-016B	Container-01 of 01	Bottle				
1112148-017A	Container-01 of 01	Bottle				
1112148-017B	Container-01 of 01	Bottle				

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1112148-018A	Container-01 of 01	Bottle				
1112148-018B	Container-01 of 01	Bottle				
1112148-019A	Container-01 of 01	Bottle				
1112148-019B	Container-01 of 01	Bottle				
1112148-020A	Container-01 of 01	Bottle				
1112148-020B	Container-01 of 01	Bottle				
1112148-021A	Container-01 of 01	Bottle				
1112148-021B	Container-01 of 01	Bottle				
1112148-022A	Container-01 of 01	Bottle				
1112148-022B	Container-01 of 01	Bottle				
1112148-023A	Container-01 of 01	Bottle				
1112148-023B	Container-01 of 01	Bottle				
1112148-024A	Container-01 of 01	Bottle				
1112148-024B	Container-01 of 01	Bottle				
1112148-025A	Container-01 of 01	Bottle				
1112148-025B	Container-01 of 01	Bottle				
1112148-026A	Container-01 of 01	Bottle				
1112148-026B	Container-01 of 01	Bottle				
1112148-027A	Container-01 of 01	Bottle				
1112148-027B	Container-01 of 01	Bottle				
1112148-028A	Container-01 of 01	Bottle				
1112148-028B	Container-01 of 01	Bottle				
1112148-029A	Container-01 of 01	Bottle				
1112148-029B	Container-01 of 01	Bottle				
1112148-030A	Container-01 of 01	Bottle				
1112148-030B	Container-01 of 01	Bottle				
1112148-031A	Container-01 of 01	Bottle				
1112148-031B	Container-01 of 01	Bottle				
1112148-032A	Container-01 of 01	Bottle				
1112148-032B	Container-01 of 01	Bottle				
1112148-033A	Container-01 of 01	Bottle				
1112148-033B	Container-01 of 01	Bottle				
1112148-034A	Container-01 of 01	Bottle				
1112148-034B	Container-01 of 01	Bottle				

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1112148-035A	Container-01 of 01	Bottle				
1112148-035B	Container-01 of 01	Bottle				
1112148-036A	Container-01 of 01	Bottle				

Adjusted? _____ Checked by _____

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

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

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

Client Instructions:

Date Contacted: Contacted By:

Regarding:

CorrectiveAction:

Comments:
Tracking numbers:
UPS 1Z10335E0342064647,
UPS 1Z10335E0341062650,
UPS 1Z10335E0341195267,
UPS 1Z10335E0342378479

RTI Laboratories - Workorder Sample Summary

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1112148-001	VA0743		11/28/2011 8:56 AM	12/6/2011 9:29 AM	Air
1112148-001	VA0743		11/28/2011 8:56 AM	12/6/2011 9:29 AM	Air
1112148-002	VA0744		11/28/2011 9:30 AM	12/6/2011 9:29 AM	Air
1112148-002	VA0744		11/28/2011 9:30 AM	12/6/2011 9:29 AM	Air
1112148-003	VA0745		11/28/2011 9:58 AM	12/6/2011 9:29 AM	Air
1112148-003	VA0745		11/28/2011 9:58 AM	12/6/2011 9:29 AM	Air
1112148-004	VA0746		11/28/2011 10:30 AM	12/6/2011 9:29 AM	Air
1112148-004	VA0746		11/28/2011 10:30 AM	12/6/2011 9:29 AM	Air
1112148-005	VA0759		11/30/2011 9:20 AM	12/6/2011 9:29 AM	Air
1112148-005	VA0759		11/30/2011 9:20 AM	12/6/2011 9:29 AM	Air
1112148-006	VA0760		11/30/2011 9:20 AM	12/6/2011 9:29 AM	Air
1112148-006	VA0760		11/30/2011 9:20 AM	12/6/2011 9:29 AM	Air
1112148-007	VA0764		11/30/2011 10:35 AM	12/6/2011 9:29 AM	Air
1112148-007	VA0764		11/30/2011 10:35 AM	12/6/2011 9:29 AM	Air
1112148-008	VA0765		11/30/2011 12:30 PM	12/6/2011 9:29 AM	Air
1112148-008	VA0765		11/30/2011 12:30 PM	12/6/2011 9:29 AM	Air
1112148-009	VA0768		11/28/2011 11:03 AM	12/6/2011 9:29 AM	Air
1112148-009	VA0768		11/28/2011 11:03 AM	12/6/2011 9:29 AM	Air
1112148-010	VA0777		11/28/2011 12:56 PM	12/6/2011 9:29 AM	Air
1112148-010	VA0777		11/28/2011 12:56 PM	12/6/2011 9:29 AM	Air
1112148-011	VA0778		11/28/2011 1:27 PM	12/6/2011 9:29 AM	Air
1112148-011	VA0778		11/28/2011 1:27 PM	12/6/2011 9:29 AM	Air
1112148-012	VA0779		11/28/2011 1:58 PM	12/6/2011 9:29 AM	Air
1112148-012	VA0779		11/28/2011 1:58 PM	12/6/2011 9:29 AM	Air
1112148-013	VA0780		11/28/2011 1:58 PM	12/6/2011 9:29 AM	Air
1112148-013	VA0780		11/28/2011 1:58 PM	12/6/2011 9:29 AM	Air
1112148-014	VA0781		11/28/2011 2:50 PM	12/6/2011 9:29 AM	Air
1112148-014	VA0781		11/28/2011 2:50 PM	12/6/2011 9:29 AM	Air
1112148-015	VA0782		11/28/2011 3:25 PM	12/6/2011 9:29 AM	Air
1112148-015	VA0782		11/28/2011 3:25 PM	12/6/2011 9:29 AM	Air
1112148-016	VA0783		11/28/2011 4:02 PM	12/6/2011 9:29 AM	Air
1112148-016	VA0783		11/28/2011 4:02 PM	12/6/2011 9:29 AM	Air
1112148-017	VA0817		11/30/2011 3:15 PM	12/6/2011 9:29 AM	Air
1112148-017	VA0817		11/30/2011 3:15 PM	12/6/2011 9:29 AM	Air
1112148-018	VA0818		11/30/2011 3:44 PM	12/6/2011 9:29 AM	Air
1112148-018	VA0818		11/30/2011 3:44 PM	12/6/2011 9:29 AM	Air
1112148-019	VA0819		12/1/2011 8:45 AM	12/6/2011 9:29 AM	Air
1112148-019	VA0819		12/1/2011 8:45 AM	12/6/2011 9:29 AM	Air
1112148-020	VA0820		12/1/2011 9:23 AM	12/6/2011 9:29 AM	Air
1112148-020	VA0820		12/1/2011 9:23 AM	12/6/2011 9:29 AM	Air
1112148-021	VA0821		12/1/2011 10:08 AM	12/6/2011 9:29 AM	Air
1112148-021	VA0821		12/1/2011 10:08 AM	12/6/2011 9:29 AM	Air
1112148-022	VA0822		12/1/2011 10:08 AM	12/6/2011 9:29 AM	Air
1112148-022	VA0822		12/1/2011 10:08 AM	12/6/2011 9:29 AM	Air
1112148-023	VA0823		12/1/2011 11:16 AM	12/6/2011 9:29 AM	Air

RTI Laboratories - Workorder Sample Summary

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1112148-023	VA0823		12/1/2011 11:16 AM	12/6/2011 9:29 AM	Air
1112148-024	VA0976		11/29/2011 1:39 PM	12/6/2011 9:29 AM	Air
1112148-024	VA0976		11/29/2011 1:39 PM	12/6/2011 9:29 AM	Air
1112148-025	VA0977		11/29/2011 2:07 PM	12/6/2011 9:29 AM	Air
1112148-025	VA0977		11/29/2011 2:07 PM	12/6/2011 9:29 AM	Air
1112148-026	VA0978		11/29/2011 2:38 PM	12/6/2011 9:29 AM	Air
1112148-026	VA0978		11/29/2011 2:38 PM	12/6/2011 9:29 AM	Air
1112148-027	VA0979		11/29/2011 3:15 PM	12/6/2011 9:29 AM	Air
1112148-027	VA0979		11/29/2011 3:15 PM	12/6/2011 9:29 AM	Air
1112148-028	VA0980		11/29/2011 3:48 PM	12/6/2011 9:29 AM	Air
1112148-028	VA0980		11/29/2011 3:48 PM	12/6/2011 9:29 AM	Air
1112148-029	VA0981		11/29/2011 4:22 PM	12/6/2011 9:29 AM	Air
1112148-029	VA0981		11/29/2011 4:22 PM	12/6/2011 9:29 AM	Air
1112148-030	VA0982		11/29/2011 8:46 AM	12/6/2011 9:29 AM	Air
1112148-030	VA0982		11/29/2011 8:46 AM	12/6/2011 9:29 AM	Air
1112148-031	VA0983		11/29/2011 9:18 AM	12/6/2011 9:29 AM	Air
1112148-031	VA0983		11/29/2011 9:18 AM	12/6/2011 9:29 AM	Air
1112148-032	VA0984		11/29/2011 9:50 AM	12/6/2011 9:29 AM	Air
1112148-032	VA0984		11/29/2011 9:50 AM	12/6/2011 9:29 AM	Air
1112148-033	VA0985		11/29/2011 10:38 AM	12/6/2011 9:29 AM	Air
1112148-033	VA0985		11/29/2011 10:38 AM	12/6/2011 9:29 AM	Air
1112148-034	VA0986		11/29/2011 11:15 AM	12/6/2011 9:29 AM	Air
1112148-034	VA0986		11/29/2011 11:15 AM	12/6/2011 9:29 AM	Air
1112148-035	VA0987		11/29/2011 12:00 PM	12/6/2011 9:29 AM	Air
1112148-035	VA0987		11/29/2011 12:00 PM	12/6/2011 9:29 AM	Air
1112148-036	VA8060-TB		11/28/2011 8:00 AM	12/6/2011 9:29 AM	Air

RTI Laboratories - DATES REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1112148-001A	VA0743	11/28/2011 8:56 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2011 12:28 PM
				EPA_TO15-Volatile Organic Compounds			12/12/2011 4:54 PM
1112148-001B	VA0743	11/28/2011 8:56 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/16/2011 1:56 PM
1112148-002A	VA0744	11/28/2011 9:30 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2011 1:12 PM
				EPA_TO15-Volatile Organic Compounds			12/12/2011 5:36 PM
1112148-002B	VA0744	11/28/2011 9:30 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/16/2011 2:17 PM
1112148-003A	VA0745	11/28/2011 9:58 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2011 1:55 PM
				EPA_TO15-Volatile Organic Compounds			12/12/2011 6:17 PM
1112148-003B	VA0745	11/28/2011 9:58 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/16/2011 2:45 PM
1112148-004A	VA0746	11/28/2011 10:30 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2011 2:39 PM
				EPA_TO15-Volatile Organic Compounds			12/12/2011 6:58 PM
1112148-004B	VA0746	11/28/2011 10:30 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/16/2011 3:08 PM
1112148-005A	VA0759	11/30/2011 9:20 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2011 8:00 PM
				EPA_TO15-Volatile Organic Compounds			12/13/2011 9:38 PM
1112148-005B	VA0759	11/30/2011 9:20 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/16/2011 3:32 PM
1112148-006A	VA0760	11/30/2011 9:20 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2011 8:42 PM
				EPA_TO15-Volatile Organic Compounds			12/13/2011 10:19 PM

RTI Laboratories - DATES REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1112148-006B	VA0760	11/30/2011 9:20 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/16/2011 3:52 PM
1112148-007A	VA0764	11/30/2011 10:35 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2011 9:28 PM
				EPA_TO15-Volatile Organic Compounds			12/22/2011 3:50 PM
1112148-007B	VA0764	11/30/2011 10:35 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2011 2:09 PM
1112148-008A	VA0765	11/30/2011 12:30 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2011 10:18 PM
				EPA_TO15-Volatile Organic Compounds			12/13/2011 11:40 PM
				EPA_TO15-Volatile Organic Compounds			12/22/2011 5:26 PM
1112148-008B	VA0765	11/30/2011 12:30 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2011 2:31 PM
1112148-009A	VA0768	11/28/2011 11:03 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2011 3:22 PM
				EPA_TO15-Volatile Organic Compounds			12/12/2011 8:20 PM
1112148-009B	VA0768	11/28/2011 11:03 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2011 3:26 PM
1112148-010A	VA0777	11/28/2011 12:56 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2011 5:41 PM
				EPA_TO15-Volatile Organic Compounds			12/12/2011 9:02 PM
1112148-010B	VA0777	11/28/2011 12:56 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2011 3:50 PM
1112148-011A	VA0778	11/28/2011 1:27 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/15/2011 10:19 AM
				EPA_TO15-Volatile Organic Compounds			12/12/2011 9:43 PM
1112148-011B	VA0778	11/28/2011 1:27 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2011 4:22 PM

RTI Laboratories - DATES REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1112148-012A	VA0779	11/28/2011 1:58 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/15/2011 11:02 AM
				EPA_TO15-Volatile Organic Compounds			12/12/2011 10:24 PM
1112148-012B	VA0779	11/28/2011 1:58 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2011 4:45 PM
1112148-013A	VA0780	11/28/2011 1:58 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/15/2011 12:28 PM
				EPA_TO15-Volatile Organic Compounds			12/12/2011 11:05 PM
1112148-013B	VA0780	11/28/2011 1:58 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2011 5:17 PM
1112148-014A	VA0781	11/28/2011 2:50 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/15/2011 1:11 PM
				EPA_TO15-Volatile Organic Compounds			12/12/2011 11:47 PM
1112148-014B	VA0781	11/28/2011 2:50 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2011 6:00 PM
1112148-015A	VA0782	11/28/2011 3:25 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/15/2011 1:54 PM
				EPA_TO15-Volatile Organic Compounds			12/13/2011 12:27 AM
1112148-015B	VA0782	11/28/2011 3:25 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2011 6:20 PM
1112148-016A	VA0783	11/28/2011 4:02 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/19/2011 5:09 PM
				EPA_TO15-Volatile Organic Compounds			12/13/2011 2:07 PM
1112148-016B	VA0783	11/28/2011 4:02 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2011 6:54 PM
1112148-017A	VA0817	11/30/2011 3:15 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/22/2011 12:55 PM
				EPA_TO15-Volatile Organic Compounds			12/22/2011 6:17 PM

RTI Laboratories - DATES REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1112148-017B	VA0817	11/30/2011 3:15 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2011 8:21 PM
1112148-018A	VA0818	11/30/2011 3:44 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/23/2011 9:13 AM
				EPA_TO15-Volatile Organic Compounds			12/22/2011 1:33 PM
1112148-018B	VA0818	11/30/2011 3:44 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2011 8:41 PM
1112148-019A	VA0819	12/1/2011 8:45 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/22/2011 1:39 PM
				EPA_TO15-Volatile Organic Compounds			12/22/2011 7:03 PM
1112148-019B	VA0819	12/1/2011 8:45 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2011 8:59 PM
1112148-020A	VA0820	12/1/2011 9:23 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/22/2011 2:23 PM
				EPA_TO15-Volatile Organic Compounds			12/22/2011 7:49 PM
1112148-020B	VA0820	12/1/2011 9:23 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2011 9:17 PM
1112148-021A	VA0821	12/1/2011 10:08 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2011 11:02 PM
				EPA_TO15-Volatile Organic Compounds			12/28/2011 10:04 AM
1112148-021B	VA0821	12/1/2011 10:08 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2011 9:44 PM
1112148-022A	VA0822	12/1/2011 10:08 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2011 11:46 PM
				EPA_TO15-Volatile Organic Compounds			12/28/2011 10:51 AM
1112148-022B	VA0822	12/1/2011 10:08 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2011 10:20 PM

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WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1112148-023A	VA0823	12/1/2011 11:16 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/13/2011 10:11 PM
				EPA_TO15-Volatile Organic Compounds			12/28/2011 11:36 AM
1112148-023B	VA0823	12/1/2011 11:16 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2011 1:09 PM
1112148-024A	VA0976	11/29/2011 1:39 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/22/2011 9:13 AM
				EPA_TO15-Volatile Organic Compounds			12/13/2011 6:54 PM
				EPA_TO15-Volatile Organic Compounds			12/22/2011 4:35 PM
1112148-024B	VA0976	11/29/2011 1:39 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2011 1:30 PM
1112148-025A	VA0977	11/29/2011 2:07 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/19/2011 2:04 PM
				EPA_TO15-Volatile Organic Compounds			12/13/2011 1:49 AM
1112148-025B	VA0977	11/29/2011 2:07 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2011 1:53 PM
1112148-026A	VA0978	11/29/2011 2:38 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/19/2011 2:49 PM
				EPA_TO15-Volatile Organic Compounds			12/13/2011 2:30 AM
1112148-026B	VA0978	11/29/2011 2:38 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2011 2:29 PM
1112148-027A	VA0979	11/29/2011 3:15 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/22/2011 10:44 AM
				EPA_TO15-Volatile Organic Compounds			12/13/2011 3:12 AM
1112148-027B	VA0979	11/29/2011 3:15 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2011 2:49 PM
1112148-028A	VA0980	11/29/2011 3:48 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/22/2011 11:28 AM
				EPA_TO15-Volatile Organic Compounds			12/22/2011 12:48 PM

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WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1112148-028B	VA0980	11/29/2011 3:48 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2011 3:57 PM
1112148-029A	VA0981	11/29/2011 4:22 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/22/2011 12:12 PM
				EPA_TO15-Volatile Organic Compounds			12/22/2011 3:03 PM
1112148-029B	VA0981	11/29/2011 4:22 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2011 4:17 PM
1112148-030A	VA0982	11/29/2011 8:46 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/15/2011 3:20 PM
				EPA_TO15-Volatile Organic Compounds			12/13/2011 2:48 PM
1112148-030B	VA0982	11/29/2011 8:46 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2011 4:37 PM
1112148-031A	VA0983	11/29/2011 9:18 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/15/2011 4:03 PM
				EPA_TO15-Volatile Organic Compounds			12/13/2011 3:30 PM
1112148-031B	VA0983	11/29/2011 9:18 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2011 4:56 PM
1112148-032A	VA0984	11/29/2011 9:50 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/15/2011 4:46 PM
				EPA_TO15-Volatile Organic Compounds			12/13/2011 4:11 PM
1112148-032B	VA0984	11/29/2011 9:50 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2011 5:16 PM
1112148-033A	VA0985	11/29/2011 10:38 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/19/2011 12:35 PM
				EPA_TO15-Volatile Organic Compounds			12/13/2011 4:52 PM
1112148-033B	VA0985	11/29/2011 10:38 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2011 6:17 PM

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WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1112148-034A	VA0986	11/29/2011 11:15 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/19/2011 1:19 PM
				EPA_TO15-Volatile Organic Compounds			12/13/2011 5:32 PM
1112148-034B	VA0986	11/29/2011 11:15 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2011 6:36 PM
1112148-035A	VA0987	11/29/2011 12:00 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/16/2011 4:44 PM
				EPA_TO15-Volatile Organic Compounds			12/13/2011 6:13 PM
				EPA_TO15-Volatile Organic Compounds			12/22/2011 11:12 AM
1112148-035B	VA0987	11/29/2011 12:00 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2011 6:54 PM
1112148-036A	VA8060-TB	11/28/2011 8:00 AM	Air				
				EPA_TO15-Volatile Organic Compounds			12/9/2011 3:16 AM

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WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 8:56:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-001	**Matrix:**	Air
Client Sample ID:	VA0743		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.18	0.10		%	1	12/16/2011 1:56 PM
Carbon Monoxide	ND	0.10	U	%	1	12/16/2011 1:56 PM
Methane	ND	0.50	U	%	1	12/16/2011 1:56 PM
Nitrogen	80	0.10		%	1	12/16/2011 1:56 PM
Oxygen	21	0.10		%	1	12/16/2011 1:56 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/12/2011 4:54 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/12/2011 4:54 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	95	40		ppbv	40	12/12/2011 4:54 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/12/2011 4:54 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/12/2011 4:54 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 4:54 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/12/2011 4:54 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2011 4:54 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/12/2011 4:54 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 4:54 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/12/2011 4:54 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/12/2011 4:54 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2011 4:54 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/12/2011 4:54 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 4:54 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 4:54 PM
2-Butanone	ND	40	U	ppbv	40	12/12/2011 4:54 PM
2-Hexanone	ND	40	U	ppbv	40	12/12/2011 4:54 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Acetone	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Benzene	190	40		ppbv	40	12/12/2011 4:54 PM
Benzyl chloride	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Bromoform	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Bromomethane	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Carbon disulfide	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Carbon tetrachloride	89	40		ppbv	40	12/12/2011 4:54 PM
Chlorobenzene	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Chloroethane	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Chloroform	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Chloromethane	ND	40	U	ppbv	40	12/12/2011 4:54 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 4:54 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2011 4:54 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 8:56:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-001	**Matrix:**	Air
Client Sample ID:	VA0743		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	240	80		ppbv	40	12/12/2011 4:54 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Ethyl acetate	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Ethylbenzene	63	80	J	ppbv	40	12/12/2011 4:54 PM
Heptane	360	40		ppbv	40	12/12/2011 4:54 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/12/2011 4:54 PM
m,p-Xylene	200	80		ppbv	40	12/12/2011 4:54 PM
Methylene chloride	ND	200	U	ppbv	40	12/12/2011 4:54 PM
n-Hexane	170	80		ppbv	40	12/12/2011 4:54 PM
Naphthalene	ND	40	U	ppbv	40	12/12/2011 4:54 PM
o-Xylene	56	40		ppbv	40	12/12/2011 4:54 PM
Propylene	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Styrene	ND	40	U	ppbv	40	12/12/2011 4:54 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Toluene	950	40		ppbv	40	12/12/2011 4:54 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 4:54 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Trichloroethene	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Vinyl acetate	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Vinyl chloride	ND	40	U	ppbv	40	12/12/2011 4:54 PM
Xylenes, Total	260	120		ppbv	40	12/12/2011 4:54 PM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	40	12/12/2011 4:54 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	10,000	4,700		µg/m³	40	12/14/2011 12:28 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/14/2011 12:28 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/14/2011 12:28 PM
Surr: 4-Bromofluorobenzene	99.2	70-130		%REC	40	12/14/2011 12:28 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 9:30:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-002	**Matrix:**	Air
Client Sample ID:	VA0744		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.17	0.10		%	1	12/16/2011 2:17 PM
Carbon Monoxide	ND	0.10	U	%	1	12/16/2011 2:17 PM
Methane	ND	0.50	U	%	1	12/16/2011 2:17 PM
Nitrogen	79	0.10		%	1	12/16/2011 2:17 PM
Oxygen	21	0.10		%	1	12/16/2011 2:17 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/12/2011 5:36 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/12/2011 5:36 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	80	40		ppbv	40	12/12/2011 5:36 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/12/2011 5:36 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/12/2011 5:36 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 5:36 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/12/2011 5:36 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2011 5:36 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/12/2011 5:36 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 5:36 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/12/2011 5:36 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/12/2011 5:36 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2011 5:36 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/12/2011 5:36 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 5:36 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 5:36 PM
2-Butanone	ND	40	U	ppbv	40	12/12/2011 5:36 PM
2-Hexanone	ND	40	U	ppbv	40	12/12/2011 5:36 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Acetone	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Benzene	600	40		ppbv	40	12/12/2011 5:36 PM
Benzyl chloride	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Bromoform	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Bromomethane	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Carbon disulfide	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Carbon tetrachloride	110	40		ppbv	40	12/12/2011 5:36 PM
Chlorobenzene	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Chloroethane	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Chloroform	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Chloromethane	ND	40	U	ppbv	40	12/12/2011 5:36 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 5:36 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2011 5:36 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 9:30:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-002	**Matrix:**	Air
Client Sample ID:	VA0744		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	220	80		ppbv	40	12/12/2011 5:36 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Ethyl acetate	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Ethylbenzene	52	80	J	ppbv	40	12/12/2011 5:36 PM
Heptane	280	40		ppbv	40	12/12/2011 5:36 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/12/2011 5:36 PM
m,p-Xylene	170	80		ppbv	40	12/12/2011 5:36 PM
Methylene chloride	ND	200	U	ppbv	40	12/12/2011 5:36 PM
n-Hexane	140	80		ppbv	40	12/12/2011 5:36 PM
Naphthalene	ND	40	U	ppbv	40	12/12/2011 5:36 PM
o-Xylene	55	40		ppbv	40	12/12/2011 5:36 PM
Propylene	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Styrene	ND	40	U	ppbv	40	12/12/2011 5:36 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Toluene	1,000	40		ppbv	40	12/12/2011 5:36 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 5:36 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Trichloroethene	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Vinyl acetate	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Vinyl chloride	ND	40	U	ppbv	40	12/12/2011 5:36 PM
Xylenes, Total	220	120		ppbv	40	12/12/2011 5:36 PM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	40	12/12/2011 5:36 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	11,000	4,700		µg/m³	40	12/14/2011 1:12 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/14/2011 1:12 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/14/2011 1:12 PM
Surr: 4-Bromofluorobenzene	97.0	70-130		%REC	40	12/14/2011 1:12 PM

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WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 9:58:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-003	**Matrix:**	Air
Client Sample ID:	VA0745		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.13	0.10		%	1	12/16/2011 2:45 PM
Carbon Monoxide	ND	0.10	U	%	1	12/16/2011 2:45 PM
Methane	ND	0.50	U	%	1	12/16/2011 2:45 PM
Nitrogen	79	0.10		%	1	12/16/2011 2:45 PM
Oxygen	21	0.10		%	1	12/16/2011 2:45 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/12/2011 6:17 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/12/2011 6:17 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/12/2011 6:17 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/12/2011 6:17 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/12/2011 6:17 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 6:17 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/12/2011 6:17 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2011 6:17 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/12/2011 6:17 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 6:17 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/12/2011 6:17 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/12/2011 6:17 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2011 6:17 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/12/2011 6:17 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 6:17 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 6:17 PM
2-Butanone	ND	40	U	ppbv	40	12/12/2011 6:17 PM
2-Hexanone	ND	40	U	ppbv	40	12/12/2011 6:17 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Acetone	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Benzene	110	40		ppbv	40	12/12/2011 6:17 PM
Benzyl chloride	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Bromoform	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Bromomethane	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Carbon disulfide	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Chlorobenzene	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Chloroethane	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Chloroform	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Chloromethane	ND	40	U	ppbv	40	12/12/2011 6:17 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 6:17 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2011 6:17 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 9:58:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-003	**Matrix:**	Air
Client Sample ID:	VA0745		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	150	80		ppbv	40	12/12/2011 6:17 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Ethyl acetate	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Ethylbenzene	ND	80	U	ppbv	40	12/12/2011 6:17 PM
Heptane	200	40		ppbv	40	12/12/2011 6:17 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/12/2011 6:17 PM
m,p-Xylene	130	80		ppbv	40	12/12/2011 6:17 PM
Methylene chloride	ND	200	U	ppbv	40	12/12/2011 6:17 PM
n-Hexane	92	80		ppbv	40	12/12/2011 6:17 PM
Naphthalene	ND	40	U	ppbv	40	12/12/2011 6:17 PM
o-Xylene	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Propylene	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Styrene	ND	40	U	ppbv	40	12/12/2011 6:17 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Toluene	530	40		ppbv	40	12/12/2011 6:17 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 6:17 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Trichloroethene	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Vinyl acetate	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Vinyl chloride	ND	40	U	ppbv	40	12/12/2011 6:17 PM
Xylenes, Total	130	120		ppbv	40	12/12/2011 6:17 PM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	40	12/12/2011 6:17 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	16,000	4,700		µg/m³	40	12/14/2011 1:55 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/14/2011 1:55 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/14/2011 1:55 PM
Surr: 4-Bromofluorobenzene	98.7	70-130		%REC	40	12/14/2011 1:55 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 10:30:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-004	**Matrix:**	Air
Client Sample ID:	VA0746		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	1.4	0.10		%	1	12/16/2011 3:08 PM
Carbon Monoxide	ND	0.10	U	%	1	12/16/2011 3:08 PM
Methane	ND	0.50	U	%	1	12/16/2011 3:08 PM
Nitrogen	83	0.10		%	1	12/16/2011 3:08 PM
Oxygen	15	0.10		%	1	12/16/2011 3:08 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/12/2011 6:58 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/12/2011 6:58 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/12/2011 6:58 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/12/2011 6:58 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/12/2011 6:58 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 6:58 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/12/2011 6:58 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2011 6:58 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/12/2011 6:58 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 6:58 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/12/2011 6:58 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/12/2011 6:58 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2011 6:58 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/12/2011 6:58 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 6:58 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 6:58 PM
2-Butanone	ND	40	U	ppbv	40	12/12/2011 6:58 PM
2-Hexanone	ND	40	U	ppbv	40	12/12/2011 6:58 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Acetone	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Benzene	66	40		ppbv	40	12/12/2011 6:58 PM
Benzyl chloride	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Bromoform	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Bromomethane	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Carbon disulfide	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Chlorobenzene	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Chloroethane	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Chloroform	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Chloromethane	ND	40	U	ppbv	40	12/12/2011 6:58 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 6:58 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2011 6:58 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 10:30:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-004	**Matrix:**	Air
Client Sample ID:	VA0746		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	160	80		ppbv	40	12/12/2011 6:58 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Ethyl acetate	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Ethylbenzene	ND	80	U	ppbv	40	12/12/2011 6:58 PM
Heptane	180	40		ppbv	40	12/12/2011 6:58 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/12/2011 6:58 PM
m,p-Xylene	110	80		ppbv	40	12/12/2011 6:58 PM
Methylene chloride	ND	200	U	ppbv	40	12/12/2011 6:58 PM
n-Hexane	110	80		ppbv	40	12/12/2011 6:58 PM
Naphthalene	ND	40	U	ppbv	40	12/12/2011 6:58 PM
o-Xylene	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Propylene	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Styrene	ND	40	U	ppbv	40	12/12/2011 6:58 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Toluene	430	40		ppbv	40	12/12/2011 6:58 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 6:58 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Trichloroethene	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Vinyl acetate	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Vinyl chloride	ND	40	U	ppbv	40	12/12/2011 6:58 PM
Xylenes, Total	110	120	J	ppbv	40	12/12/2011 6:58 PM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	40	12/12/2011 6:58 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	34,000	4,700		µg/m³	40	12/14/2011 2:39 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/14/2011 2:39 PM
C9-C12 Aliphatic Hydrocarbons	2,800	7,600	J	µg/m³	40	12/14/2011 2:39 PM
Surr: 4-Bromofluorobenzene	98.4	70-130		%REC	40	12/14/2011 2:39 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/30/2011 9:20:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-005	**Matrix:**	Air
Client Sample ID:	VA0759		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: MB**
Carbon dioxide	0.43	0.10		%	1	12/16/2011 3:32 PM
Carbon Monoxide	ND	0.10	U	%	1	12/16/2011 3:32 PM
Methane	ND	0.50	U	%	1	12/16/2011 3:32 PM
Nitrogen	80	0.10		%	1	12/16/2011 3:32 PM
Oxygen	20	0.10		%	1	12/16/2011 3:32 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
1,3-Butadiene	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
2-Butanone	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
2-Hexanone	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Acetone	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Benzene	37,000	8,000		ppbv	8000	12/13/2011 9:38 PM
Benzyl chloride	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Bromodichloromethane	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Bromoform	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Bromomethane	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Carbon disulfide	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Chlorobenzene	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Chloroethane	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Chloroform	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Chloromethane	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/30/2011 9:20:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-005	**Matrix:**	Air
Client Sample ID:	VA0759		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	130,000	16,000		ppbv	8000	12/13/2011 9:38 PM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Ethyl acetate	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Ethylbenzene	9,700	16,000	J	ppbv	8000	12/13/2011 9:38 PM
Heptane	170,000	8,000		ppbv	8000	12/13/2011 9:38 PM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	12/13/2011 9:38 PM
m,p-Xylene	27,000	16,000		ppbv	8000	12/13/2011 9:38 PM
Methylene chloride	ND	40,000	U	ppbv	8000	12/13/2011 9:38 PM
n-Hexane	98,000	16,000		ppbv	8000	12/13/2011 9:38 PM
Naphthalene	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
o-Xylene	8,600	8,000		ppbv	8000	12/13/2011 9:38 PM
Propylene	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Styrene	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Tetrachloroethene	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Toluene	150,000	8,000		ppbv	8000	12/13/2011 9:38 PM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Trichloroethene	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Vinyl acetate	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Vinyl chloride	ND	8,000	U	ppbv	8000	12/13/2011 9:38 PM
Xylenes, Total	36,000	24,000		ppbv	8000	12/13/2011 9:38 PM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	8000	12/13/2011 9:38 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	6,200,000	940,000		µg/m³	8000	12/14/2011 8:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/14/2011 8:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/14/2011 8:00 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	8000	12/14/2011 8:00 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/30/2011 9:20:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-006	**Matrix:**	Air
Client Sample ID:	VA0760		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.48	0.10		%	1	12/16/2011 3:52 PM
Carbon Monoxide	ND	0.10	U	%	1	12/16/2011 3:52 PM
Methane	ND	0.50	U	%	1	12/16/2011 3:52 PM
Nitrogen	80	0.10		%	1	12/16/2011 3:52 PM
Oxygen	20	0.10		%	1	12/16/2011 3:52 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
1,3-Butadiene	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
2-Butanone	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
2-Hexanone	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Acetone	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Benzene	50,000	8,000		ppbv	8000	12/13/2011 10:19 PM
Benzyl chloride	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Bromodichloromethane	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Bromoform	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Bromomethane	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Carbon disulfide	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Chlorobenzene	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Chloroethane	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Chloroform	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Chloromethane	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/30/2011 9:20:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-006	**Matrix:**	Air
Client Sample ID:	VA0760		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	180,000	16,000		ppbv	8000	12/13/2011 10:19 PM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Ethyl acetate	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Ethylbenzene	9,800	16,000	J	ppbv	8000	12/13/2011 10:19 PM
Heptane	200,000	8,000		ppbv	8000	12/13/2011 10:19 PM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	12/13/2011 10:19 PM
m,p-Xylene	26,000	16,000		ppbv	8000	12/13/2011 10:19 PM
Methylene chloride	ND	40,000	U	ppbv	8000	12/13/2011 10:19 PM
n-Hexane	140,000	16,000		ppbv	8000	12/13/2011 10:19 PM
Naphthalene	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
o-Xylene	8,100	8,000		ppbv	8000	12/13/2011 10:19 PM
Propylene	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Styrene	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Tetrachloroethene	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Toluene	160,000	8,000		ppbv	8000	12/13/2011 10:19 PM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Trichloroethene	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Vinyl acetate	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Vinyl chloride	ND	8,000	U	ppbv	8000	12/13/2011 10:19 PM
Xylenes, Total	34,000	24,000		ppbv	8000	12/13/2011 10:19 PM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	8000	12/13/2011 10:19 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	7,000,000	940,000		µg/m³	8000	12/14/2011 8:42 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/14/2011 8:42 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/14/2011 8:42 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	8000	12/14/2011 8:42 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/30/2011 10:35:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-007	**Matrix:**	Air
Client Sample ID:	VA0764		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.43	0.10		%	1	12/20/2011 2:09 PM
Carbon Monoxide	ND	0.10	U	%	1	12/20/2011 2:09 PM
Methane	ND	0.50	U	%	1	12/20/2011 2:09 PM
Nitrogen	79	0.10		%	1	12/20/2011 2:09 PM
Oxygen	21	0.10		%	1	12/20/2011 2:09 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/22/2011 3:50 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/22/2011 3:50 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/22/2011 3:50 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/22/2011 3:50 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/22/2011 3:50 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/22/2011 3:50 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/22/2011 3:50 PM
1,2,4-Trimethylbenzene	810	800		ppbv	800	12/22/2011 3:50 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/22/2011 3:50 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/22/2011 3:50 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/22/2011 3:50 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/22/2011 3:50 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/22/2011 3:50 PM
1,3-Butadiene	ND	800	U	ppbv	800	12/22/2011 3:50 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/22/2011 3:50 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/22/2011 3:50 PM
2-Butanone	ND	800	U	ppbv	800	12/22/2011 3:50 PM
2-Hexanone	ND	800	U	ppbv	800	12/22/2011 3:50 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Acetone	4,000	800		ppbv	800	12/22/2011 3:50 PM
Benzene	3,700	800		ppbv	800	12/22/2011 3:50 PM
Benzyl chloride	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Bromodichloromethane	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Bromoform	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Bromomethane	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Carbon disulfide	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Carbon tetrachloride	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Chlorobenzene	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Chlorodibromomethane	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Chloroethane	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Chloroform	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Chloromethane	ND	800	U	ppbv	800	12/22/2011 3:50 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/22/2011 3:50 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/22/2011 3:50 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/30/2011 10:35:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-007	**Matrix:**	Air
Client Sample ID:	VA0764		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	8,400	1,600		ppbv	800	12/22/2011 3:50 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Ethyl acetate	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Ethylbenzene	940	1,600	J	ppbv	800	12/22/2011 3:50 PM
Heptane	3,800	800		ppbv	800	12/22/2011 3:50 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/22/2011 3:50 PM
m,p-Xylene	3,200	1,600		ppbv	800	12/22/2011 3:50 PM
Methylene chloride	ND	4,000	U	ppbv	800	12/22/2011 3:50 PM
n-Hexane	5,200	1,600		ppbv	800	12/22/2011 3:50 PM
Naphthalene	ND	800	U	ppbv	800	12/22/2011 3:50 PM
o-Xylene	1,100	800		ppbv	800	12/22/2011 3:50 PM
Propylene	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Styrene	ND	800	U	ppbv	800	12/22/2011 3:50 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Tetrachloroethene	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Tetrahydrofuran	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Toluene	11,000	800		ppbv	800	12/22/2011 3:50 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/22/2011 3:50 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Trichloroethene	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Vinyl acetate	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Vinyl chloride	ND	800	U	ppbv	800	12/22/2011 3:50 PM
Xylenes, Total	4,200	2,400		ppbv	800	12/22/2011 3:50 PM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	800	12/22/2011 3:50 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	530,000	94,000		µg/m³	800	12/14/2011 9:28 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	12/14/2011 9:28 PM
C9-C12 Aliphatic Hydrocarbons	25,000	150,000	J	µg/m³	800	12/14/2011 9:28 PM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	800	12/14/2011 9:28 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/30/2011 12:30:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-008	**Matrix:**	Air
Client Sample ID:	VA0765		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.38	0.10		%	1	12/20/2011 2:31 PM
Carbon Monoxide	ND	0.10	U	%	1	12/20/2011 2:31 PM
Methane	ND	0.50	U	%	1	12/20/2011 2:31 PM
Nitrogen	79	0.10		%	1	12/20/2011 2:31 PM
Oxygen	21	0.10		%	1	12/20/2011 2:31 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 11:40 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/13/2011 11:40 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/13/2011 11:40 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 11:40 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 11:40 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 11:40 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/13/2011 11:40 PM
1,2,4-Trimethylbenzene	230	40		ppbv	40	12/13/2011 11:40 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/13/2011 11:40 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 11:40 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 11:40 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/13/2011 11:40 PM
1,3,5-Trimethylbenzene	90	40		ppbv	40	12/13/2011 11:40 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/13/2011 11:40 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 11:40 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 11:40 PM
2-Butanone	ND	40	U	ppbv	40	12/13/2011 11:40 PM
2-Hexanone	ND	40	U	ppbv	40	12/13/2011 11:40 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Acetone	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Benzene	2,800	400		ppbv	400	12/22/2011 5:26 PM
Benzyl chloride	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Bromoform	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Bromomethane	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Carbon disulfide	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Chlorobenzene	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Chloroethane	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Chloroform	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Chloromethane	ND	40	U	ppbv	40	12/13/2011 11:40 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 11:40 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 11:40 PM

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WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/30/2011 12:30:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-008	**Matrix:**	Air
Client Sample ID:	VA0765		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	3,800	800		ppbv	400	12/22/2011 5:26 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Ethyl acetate	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Ethylbenzene	300	80		ppbv	40	12/13/2011 11:40 PM
Heptane	1,200	40		ppbv	40	12/13/2011 11:40 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/13/2011 11:40 PM
m,p-Xylene	1,200	80		ppbv	40	12/13/2011 11:40 PM
Methylene chloride	ND	200	U	ppbv	40	12/13/2011 11:40 PM
n-Hexane	3,800	800		ppbv	400	12/22/2011 5:26 PM
Naphthalene	ND	40	U	ppbv	40	12/13/2011 11:40 PM
o-Xylene	400	40		ppbv	40	12/13/2011 11:40 PM
Propylene	350	40		ppbv	40	12/13/2011 11:40 PM
Styrene	ND	40	U	ppbv	40	12/13/2011 11:40 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Toluene	6,200	400		ppbv	400	12/22/2011 5:26 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 11:40 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Trichloroethene	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Vinyl acetate	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Vinyl chloride	ND	40	U	ppbv	40	12/13/2011 11:40 PM
Xylenes, Total	1,600	120		ppbv	40	12/13/2011 11:40 PM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	40	12/13/2011 11:40 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	310,000	47,000		µg/m³	400	12/14/2011 10:18 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/14/2011 10:18 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/14/2011 10:18 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	400	12/14/2011 10:18 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 11:03:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-009	**Matrix:**	Air
Client Sample ID:	VA0768		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.15	0.10		%	1	12/20/2011 3:26 PM
Carbon Monoxide	ND	0.10	U	%	1	12/20/2011 3:26 PM
Methane	ND	0.50	U	%	1	12/20/2011 3:26 PM
Nitrogen	79	0.10		%	1	12/20/2011 3:26 PM
Oxygen	21	0.10		%	1	12/20/2011 3:26 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/12/2011 8:20 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/12/2011 8:20 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/12/2011 8:20 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/12/2011 8:20 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/12/2011 8:20 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 8:20 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/12/2011 8:20 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2011 8:20 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/12/2011 8:20 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 8:20 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/12/2011 8:20 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/12/2011 8:20 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2011 8:20 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/12/2011 8:20 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 8:20 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 8:20 PM
2-Butanone	ND	40	U	ppbv	40	12/12/2011 8:20 PM
2-Hexanone	ND	40	U	ppbv	40	12/12/2011 8:20 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Acetone	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Benzene	260	40		ppbv	40	12/12/2011 8:20 PM
Benzyl chloride	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Bromoform	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Bromomethane	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Carbon disulfide	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Chlorobenzene	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Chloroethane	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Chloroform	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Chloromethane	ND	40	U	ppbv	40	12/12/2011 8:20 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 8:20 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2011 8:20 PM

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WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 11:03:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-009	**Matrix:**	Air
Client Sample ID:	VA0768		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,200	80		ppbv	40	12/12/2011 8:20 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Ethyl acetate	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Ethylbenzene	54	80	J	ppbv	40	12/12/2011 8:20 PM
Heptane	440	40		ppbv	40	12/12/2011 8:20 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/12/2011 8:20 PM
m,p-Xylene	180	80		ppbv	40	12/12/2011 8:20 PM
Methylene chloride	ND	200	U	ppbv	40	12/12/2011 8:20 PM
n-Hexane	1,000	80		ppbv	40	12/12/2011 8:20 PM
Naphthalene	ND	40	U	ppbv	40	12/12/2011 8:20 PM
o-Xylene	53	40		ppbv	40	12/12/2011 8:20 PM
Propylene	65	40		ppbv	40	12/12/2011 8:20 PM
Styrene	ND	40	U	ppbv	40	12/12/2011 8:20 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Toluene	790	40		ppbv	40	12/12/2011 8:20 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 8:20 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Trichloroethene	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Vinyl acetate	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Vinyl chloride	ND	40	U	ppbv	40	12/12/2011 8:20 PM
Xylenes, Total	230	120		ppbv	40	12/12/2011 8:20 PM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	40	12/12/2011 8:20 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	110,000	4,700		µg/m³	40	12/14/2011 3:22 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/14/2011 3:22 PM
C9-C12 Aliphatic Hydrocarbons	2,000	7,600	J	µg/m³	40	12/14/2011 3:22 PM
Surr: 4-Bromofluorobenzene	98.6	70-130		%REC	40	12/14/2011 3:22 PM

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WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 12:56:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-010	**Matrix:**	Air
Client Sample ID:	VA0777		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.45	0.10		%	1	12/20/2011 3:50 PM
Carbon Monoxide	ND	0.10	U	%	1	12/20/2011 3:50 PM
Methane	ND	0.50	U	%	1	12/20/2011 3:50 PM
Nitrogen	78	0.10		%	1	12/20/2011 3:50 PM
Oxygen	21	0.10		%	1	12/20/2011 3:50 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/12/2011 9:02 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/12/2011 9:02 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/12/2011 9:02 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/12/2011 9:02 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/12/2011 9:02 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 9:02 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/12/2011 9:02 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2011 9:02 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/12/2011 9:02 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 9:02 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/12/2011 9:02 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/12/2011 9:02 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2011 9:02 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/12/2011 9:02 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 9:02 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 9:02 PM
2-Butanone	ND	40	U	ppbv	40	12/12/2011 9:02 PM
2-Hexanone	ND	40	U	ppbv	40	12/12/2011 9:02 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Acetone	41	40		ppbv	40	12/12/2011 9:02 PM
Benzene	120	40		ppbv	40	12/12/2011 9:02 PM
Benzyl chloride	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Bromoform	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Bromomethane	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Carbon disulfide	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Chlorobenzene	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Chloroethane	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Chloroform	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Chloromethane	ND	40	U	ppbv	40	12/12/2011 9:02 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 9:02 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2011 9:02 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 12:56:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-010	**Matrix:**	Air
Client Sample ID:	VA0777		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	170	80		ppbv	40	12/12/2011 9:02 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Ethyl acetate	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Ethylbenzene	47	80	J	ppbv	40	12/12/2011 9:02 PM
Heptane	220	40		ppbv	40	12/12/2011 9:02 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/12/2011 9:02 PM
m,p-Xylene	170	80		ppbv	40	12/12/2011 9:02 PM
Methylene chloride	ND	200	U	ppbv	40	12/12/2011 9:02 PM
n-Hexane	110	80		ppbv	40	12/12/2011 9:02 PM
Naphthalene	ND	40	U	ppbv	40	12/12/2011 9:02 PM
o-Xylene	47	40		ppbv	40	12/12/2011 9:02 PM
Propylene	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Styrene	ND	40	U	ppbv	40	12/12/2011 9:02 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Toluene	590	40		ppbv	40	12/12/2011 9:02 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 9:02 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Trichloroethene	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Vinyl acetate	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Vinyl chloride	ND	40	U	ppbv	40	12/12/2011 9:02 PM
Xylenes, Total	210	120		ppbv	40	12/12/2011 9:02 PM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	40	12/12/2011 9:02 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	29,000	4,700		µg/m³	40	12/14/2011 5:41 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/14/2011 5:41 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/14/2011 5:41 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	40	12/14/2011 5:41 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 1:27:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-011	**Matrix:**	Air
Client Sample ID:	VA0778		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.57	0.10		%	1	12/20/2011 4:22 PM
Carbon Monoxide	ND	0.10	U	%	1	12/20/2011 4:22 PM
Methane	ND	0.50	U	%	1	12/20/2011 4:22 PM
Nitrogen	79	0.10		%	1	12/20/2011 4:22 PM
Oxygen	21	0.10		%	1	12/20/2011 4:22 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/12/2011 9:43 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/12/2011 9:43 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/12/2011 9:43 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/12/2011 9:43 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/12/2011 9:43 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 9:43 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/12/2011 9:43 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2011 9:43 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/12/2011 9:43 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 9:43 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/12/2011 9:43 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/12/2011 9:43 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2011 9:43 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/12/2011 9:43 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 9:43 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 9:43 PM
2-Butanone	ND	40	U	ppbv	40	12/12/2011 9:43 PM
2-Hexanone	ND	40	U	ppbv	40	12/12/2011 9:43 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Acetone	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Benzene	120	40		ppbv	40	12/12/2011 9:43 PM
Benzyl chloride	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Bromoform	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Bromomethane	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Carbon disulfide	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Chlorobenzene	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Chloroethane	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Chloroform	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Chloromethane	ND	40	U	ppbv	40	12/12/2011 9:43 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 9:43 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2011 9:43 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 1:27:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-011	**Matrix:**	Air
Client Sample ID:	VA0778		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	160	80		ppbv	40	12/12/2011 9:43 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Ethyl acetate	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Ethylbenzene	40	80	J	ppbv	40	12/12/2011 9:43 PM
Heptane	210	40		ppbv	40	12/12/2011 9:43 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/12/2011 9:43 PM
m,p-Xylene	140	80		ppbv	40	12/12/2011 9:43 PM
Methylene chloride	ND	200	U	ppbv	40	12/12/2011 9:43 PM
n-Hexane	120	80		ppbv	40	12/12/2011 9:43 PM
Naphthalene	ND	40	U	ppbv	40	12/12/2011 9:43 PM
o-Xylene	41	40		ppbv	40	12/12/2011 9:43 PM
Propylene	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Styrene	ND	40	U	ppbv	40	12/12/2011 9:43 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Toluene	490	40		ppbv	40	12/12/2011 9:43 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 9:43 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Trichloroethene	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Vinyl acetate	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Vinyl chloride	ND	40	U	ppbv	40	12/12/2011 9:43 PM
Xylenes, Total	180	120		ppbv	40	12/12/2011 9:43 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	40	12/12/2011 9:43 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	9,300	4,700		µg/m³	40	12/15/2011 10:19 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/15/2011 10:19 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/15/2011 10:19 AM
Surr: 4-Bromofluorobenzene	98.4	70-130		%REC	40	12/15/2011 10:19 AM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 1:58:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-012	**Matrix:**	Air
Client Sample ID:	VA0779		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.18	0.10		%	1	12/20/2011 4:45 PM
Carbon Monoxide	ND	0.10	U	%	1	12/20/2011 4:45 PM
Methane	ND	0.50	U	%	1	12/20/2011 4:45 PM
Nitrogen	79	0.10		%	1	12/20/2011 4:45 PM
Oxygen	21	0.10		%	1	12/20/2011 4:45 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/12/2011 10:24 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/12/2011 10:24 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/12/2011 10:24 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/12/2011 10:24 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/12/2011 10:24 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 10:24 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/12/2011 10:24 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2011 10:24 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/12/2011 10:24 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 10:24 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/12/2011 10:24 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/12/2011 10:24 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2011 10:24 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/12/2011 10:24 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 10:24 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 10:24 PM
2-Butanone	ND	40	U	ppbv	40	12/12/2011 10:24 PM
2-Hexanone	ND	40	U	ppbv	40	12/12/2011 10:24 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Acetone	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Benzene	140	40		ppbv	40	12/12/2011 10:24 PM
Benzyl chloride	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Bromoform	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Bromomethane	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Carbon disulfide	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Chlorobenzene	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Chloroethane	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Chloroform	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Chloromethane	ND	40	U	ppbv	40	12/12/2011 10:24 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 10:24 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2011 10:24 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 1:58:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-012	**Matrix:**	Air
Client Sample ID:	VA0779		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	210	80		ppbv	40	12/12/2011 10:24 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Ethyl acetate	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Ethylbenzene	43	80	J	ppbv	40	12/12/2011 10:24 PM
Heptane	250	40		ppbv	40	12/12/2011 10:24 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/12/2011 10:24 PM
m,p-Xylene	150	80		ppbv	40	12/12/2011 10:24 PM
Methylene chloride	ND	200	U	ppbv	40	12/12/2011 10:24 PM
n-Hexane	140	80		ppbv	40	12/12/2011 10:24 PM
Naphthalene	ND	40	U	ppbv	40	12/12/2011 10:24 PM
o-Xylene	42	40		ppbv	40	12/12/2011 10:24 PM
Propylene	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Styrene	ND	40	U	ppbv	40	12/12/2011 10:24 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Toluene	570	40		ppbv	40	12/12/2011 10:24 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 10:24 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Trichloroethene	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Vinyl acetate	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Vinyl chloride	ND	40	U	ppbv	40	12/12/2011 10:24 PM
Xylenes, Total	190	120		ppbv	40	12/12/2011 10:24 PM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	40	12/12/2011 10:24 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	10,000	4,700		µg/m³	40	12/15/2011 11:02 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/15/2011 11:02 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/15/2011 11:02 AM
Surr: 4-Bromofluorobenzene	99.1	70-130		%REC	40	12/15/2011 11:02 AM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 1:58:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-013	**Matrix:**	Air
Client Sample ID:	VA0780		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.13	0.10		%	1	12/20/2011 5:17 PM
Carbon Monoxide	ND	0.10	U	%	1	12/20/2011 5:17 PM
Methane	ND	0.50	U	%	1	12/20/2011 5:17 PM
Nitrogen	79	0.10		%	1	12/20/2011 5:17 PM
Oxygen	21	0.10		%	1	12/20/2011 5:17 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/12/2011 11:05 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/12/2011 11:05 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/12/2011 11:05 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/12/2011 11:05 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/12/2011 11:05 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 11:05 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/12/2011 11:05 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2011 11:05 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/12/2011 11:05 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 11:05 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/12/2011 11:05 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/12/2011 11:05 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2011 11:05 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/12/2011 11:05 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 11:05 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 11:05 PM
2-Butanone	ND	40	U	ppbv	40	12/12/2011 11:05 PM
2-Hexanone	ND	40	U	ppbv	40	12/12/2011 11:05 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Acetone	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Benzene	260	40		ppbv	40	12/12/2011 11:05 PM
Benzyl chloride	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Bromoform	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Bromomethane	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Carbon disulfide	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Chlorobenzene	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Chloroethane	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Chloroform	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Chloromethane	ND	40	U	ppbv	40	12/12/2011 11:05 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 11:05 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2011 11:05 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 1:58:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-013	**Matrix:**	Air
Client Sample ID:	VA0780		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	410	80		ppbv	40	12/12/2011 11:05 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Ethyl acetate	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Ethylbenzene	60	80	J	ppbv	40	12/12/2011 11:05 PM
Heptane	420	40		ppbv	40	12/12/2011 11:05 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/12/2011 11:05 PM
m,p-Xylene	200	80		ppbv	40	12/12/2011 11:05 PM
Methylene chloride	ND	200	U	ppbv	40	12/12/2011 11:05 PM
n-Hexane	290	80		ppbv	40	12/12/2011 11:05 PM
Naphthalene	ND	40	U	ppbv	40	12/12/2011 11:05 PM
o-Xylene	58	40		ppbv	40	12/12/2011 11:05 PM
Propylene	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Styrene	ND	40	U	ppbv	40	12/12/2011 11:05 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Toluene	820	40		ppbv	40	12/12/2011 11:05 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 11:05 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Trichloroethene	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Vinyl acetate	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Vinyl chloride	ND	40	U	ppbv	40	12/12/2011 11:05 PM
Xylenes, Total	260	120		ppbv	40	12/12/2011 11:05 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	40	12/12/2011 11:05 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	19,000	4,700		µg/m³	40	12/15/2011 12:28 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/15/2011 12:28 PM
C9-C12 Aliphatic Hydrocarbons	3,700	7,600	J	µg/m³	40	12/15/2011 12:28 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	40	12/15/2011 12:28 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 2:50:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-014	**Matrix:**	Air
Client Sample ID:	VA0781		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.32	0.10		%	1	12/20/2011 6:00 PM
Carbon Monoxide	ND	0.10	U	%	1	12/20/2011 6:00 PM
Methane	ND	0.50	U	%	1	12/20/2011 6:00 PM
Nitrogen	79	0.10		%	1	12/20/2011 6:00 PM
Oxygen	21	0.10		%	1	12/20/2011 6:00 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/12/2011 11:47 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/12/2011 11:47 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/12/2011 11:47 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/12/2011 11:47 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/12/2011 11:47 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 11:47 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/12/2011 11:47 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2011 11:47 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/12/2011 11:47 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 11:47 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/12/2011 11:47 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/12/2011 11:47 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2011 11:47 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/12/2011 11:47 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 11:47 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2011 11:47 PM
2-Butanone	ND	40	U	ppbv	40	12/12/2011 11:47 PM
2-Hexanone	ND	40	U	ppbv	40	12/12/2011 11:47 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Acetone	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Benzene	250	40		ppbv	40	12/12/2011 11:47 PM
Benzyl chloride	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Bromoform	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Bromomethane	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Carbon disulfide	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Chlorobenzene	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Chloroethane	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Chloroform	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Chloromethane	ND	40	U	ppbv	40	12/12/2011 11:47 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 11:47 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2011 11:47 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 2:50:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-014	**Matrix:**	Air
Client Sample ID:	VA0781		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	150	80		ppbv	40	12/12/2011 11:47 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Ethyl acetate	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Ethylbenzene	ND	80	U	ppbv	40	12/12/2011 11:47 PM
Heptane	140	40		ppbv	40	12/12/2011 11:47 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/12/2011 11:47 PM
m,p-Xylene	92	80		ppbv	40	12/12/2011 11:47 PM
Methylene chloride	ND	200	U	ppbv	40	12/12/2011 11:47 PM
n-Hexane	76	80	J	ppbv	40	12/12/2011 11:47 PM
Naphthalene	ND	40	U	ppbv	40	12/12/2011 11:47 PM
o-Xylene	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Propylene	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Styrene	ND	40	U	ppbv	40	12/12/2011 11:47 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Toluene	330	40		ppbv	40	12/12/2011 11:47 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2011 11:47 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Trichloroethene	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Vinyl acetate	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Vinyl chloride	ND	40	U	ppbv	40	12/12/2011 11:47 PM
Xylenes, Total	92	120	J	ppbv	40	12/12/2011 11:47 PM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	40	12/12/2011 11:47 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	18,000	4,700		µg/m³	40	12/15/2011 1:11 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/15/2011 1:11 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/15/2011 1:11 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	40	12/15/2011 1:11 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 3:25:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-015	**Matrix:**	Air
Client Sample ID:	VA0782		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.18	0.10		%	1	12/20/2011 6:20 PM
Carbon Monoxide	ND	0.10	U	%	1	12/20/2011 6:20 PM
Methane	ND	0.50	U	%	1	12/20/2011 6:20 PM
Nitrogen	78	0.10		%	1	12/20/2011 6:20 PM
Oxygen	21	0.10		%	1	12/20/2011 6:20 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 12:27 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/13/2011 12:27 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/13/2011 12:27 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 12:27 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 12:27 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 12:27 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/13/2011 12:27 AM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 12:27 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/13/2011 12:27 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 12:27 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 12:27 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/13/2011 12:27 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 12:27 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/13/2011 12:27 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 12:27 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 12:27 AM
2-Butanone	ND	40	U	ppbv	40	12/13/2011 12:27 AM
2-Hexanone	ND	40	U	ppbv	40	12/13/2011 12:27 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Acetone	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Benzene	550	40		ppbv	40	12/13/2011 12:27 AM
Benzyl chloride	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Bromoform	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Bromomethane	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Carbon disulfide	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Carbon tetrachloride	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Chlorobenzene	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Chloroethane	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Chloroform	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Chloromethane	ND	40	U	ppbv	40	12/13/2011 12:27 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 12:27 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 12:27 AM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 3:25:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-015	**Matrix:**	Air
Client Sample ID:	VA0782		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,000	80		ppbv	40	12/13/2011 12:27 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Ethyl acetate	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Ethylbenzene	ND	80	U	ppbv	40	12/13/2011 12:27 AM
Heptane	150	40		ppbv	40	12/13/2011 12:27 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/13/2011 12:27 AM
m,p-Xylene	88	80		ppbv	40	12/13/2011 12:27 AM
Methylene chloride	ND	200	U	ppbv	40	12/13/2011 12:27 AM
n-Hexane	740	80		ppbv	40	12/13/2011 12:27 AM
Naphthalene	ND	40	U	ppbv	40	12/13/2011 12:27 AM
o-Xylene	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Propylene	170	40		ppbv	40	12/13/2011 12:27 AM
Styrene	ND	40	U	ppbv	40	12/13/2011 12:27 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Toluene	770	40		ppbv	40	12/13/2011 12:27 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 12:27 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Trichloroethene	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Vinyl acetate	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Vinyl chloride	ND	40	U	ppbv	40	12/13/2011 12:27 AM
Xylenes, Total	88	120	J	ppbv	40	12/13/2011 12:27 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	40	12/13/2011 12:27 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	99,000	4,700		µg/m³	40	12/15/2011 1:54 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/15/2011 1:54 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/15/2011 1:54 PM
Surr: 4-Bromofluorobenzene	99.0	70-130		%REC	40	12/15/2011 1:54 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 4:02:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-016	**Matrix:**	Air
Client Sample ID:	VA0783		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.87	0.10		%	1	12/20/2011 6:54 PM
Carbon Monoxide	ND	0.10	U	%	1	12/20/2011 6:54 PM
Methane	ND	0.50	U	%	1	12/20/2011 6:54 PM
Nitrogen	82	0.10		%	1	12/20/2011 6:54 PM
Oxygen	17	0.10		%	1	12/20/2011 6:54 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 2:07 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/13/2011 2:07 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/13/2011 2:07 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 2:07 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 2:07 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 2:07 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/13/2011 2:07 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 2:07 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/13/2011 2:07 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 2:07 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 2:07 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/13/2011 2:07 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 2:07 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/13/2011 2:07 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 2:07 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 2:07 PM
2-Butanone	ND	40	U	ppbv	40	12/13/2011 2:07 PM
2-Hexanone	ND	40	U	ppbv	40	12/13/2011 2:07 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Acetone	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Benzene	180	40		ppbv	40	12/13/2011 2:07 PM
Benzyl chloride	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Bromoform	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Bromomethane	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Carbon disulfide	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Chlorobenzene	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Chloroethane	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Chloroform	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Chloromethane	ND	40	U	ppbv	40	12/13/2011 2:07 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 2:07 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 2:07 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 4:02:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-016	**Matrix:**	Air
Client Sample ID:	VA0783		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,600	80		ppbv	40	12/13/2011 2:07 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Ethyl acetate	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Ethylbenzene	ND	80	U	ppbv	40	12/13/2011 2:07 PM
Heptane	200	40		ppbv	40	12/13/2011 2:07 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/13/2011 2:07 PM
m,p-Xylene	71	80	J	ppbv	40	12/13/2011 2:07 PM
Methylene chloride	ND	200	U	ppbv	40	12/13/2011 2:07 PM
n-Hexane	1,400	80		ppbv	40	12/13/2011 2:07 PM
Naphthalene	ND	40	U	ppbv	40	12/13/2011 2:07 PM
o-Xylene	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Propylene	170	40		ppbv	40	12/13/2011 2:07 PM
Styrene	ND	40	U	ppbv	40	12/13/2011 2:07 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Toluene	450	40		ppbv	40	12/13/2011 2:07 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 2:07 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Trichloroethene	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Vinyl acetate	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Vinyl chloride	ND	40	U	ppbv	40	12/13/2011 2:07 PM
Xylenes, Total	71	120	J	ppbv	40	12/13/2011 2:07 PM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	40	12/13/2011 2:07 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	390,000	47,000		µg/m³	400	12/19/2011 5:09 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/19/2011 5:09 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/19/2011 5:09 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	400	12/19/2011 5:09 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/30/2011 3:15:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-017	**Matrix:**	Air
Client Sample ID:	VA0817		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.45	0.10		%	1	12/20/2011 8:21 PM
Carbon Monoxide	ND	0.10	U	%	1	12/20/2011 8:21 PM
Methane	ND	0.50	U	%	1	12/20/2011 8:21 PM
Nitrogen	78	0.10		%	1	12/20/2011 8:21 PM
Oxygen	21	0.10		%	1	12/20/2011 8:21 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	12/22/2011 6:17 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	12/22/2011 6:17 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	12/22/2011 6:17 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	12/22/2011 6:17 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	12/22/2011 6:17 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	12/22/2011 6:17 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	12/22/2011 6:17 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	12/22/2011 6:17 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	12/22/2011 6:17 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	12/22/2011 6:17 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	12/22/2011 6:17 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	12/22/2011 6:17 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	12/22/2011 6:17 PM
1,3-Butadiene	ND	400	U	ppbv	400	12/22/2011 6:17 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	12/22/2011 6:17 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	12/22/2011 6:17 PM
2-Butanone	ND	400	U	ppbv	400	12/22/2011 6:17 PM
2-Hexanone	ND	400	U	ppbv	400	12/22/2011 6:17 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Acetone	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Benzene	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Benzyl chloride	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Bromodichloromethane	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Bromoform	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Bromomethane	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Carbon disulfide	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Carbon tetrachloride	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Chlorobenzene	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Chlorodibromomethane	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Chloroethane	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Chloroform	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Chloromethane	ND	400	U	ppbv	400	12/22/2011 6:17 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	12/22/2011 6:17 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	12/22/2011 6:17 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/30/2011 3:15:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-017	**Matrix:**	Air
Client Sample ID:	VA0817		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	540	800	J	ppbv	400	12/22/2011 6:17 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Ethyl acetate	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Ethylbenzene	ND	800	U	ppbv	400	12/22/2011 6:17 PM
Heptane	1,100	400		ppbv	400	12/22/2011 6:17 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	12/22/2011 6:17 PM
m,p-Xylene	980	800		ppbv	400	12/22/2011 6:17 PM
Methylene chloride	ND	2,000	U	ppbv	400	12/22/2011 6:17 PM
n-Hexane	ND	800	U	ppbv	400	12/22/2011 6:17 PM
Naphthalene	ND	400	U	ppbv	400	12/22/2011 6:17 PM
o-Xylene	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Propylene	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Styrene	ND	400	U	ppbv	400	12/22/2011 6:17 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Tetrachloroethene	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Tetrahydrofuran	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Toluene	2,400	400		ppbv	400	12/22/2011 6:17 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	12/22/2011 6:17 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Trichloroethene	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Vinyl acetate	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Vinyl chloride	ND	400	U	ppbv	400	12/22/2011 6:17 PM
Xylenes, Total	980	1,200	J	ppbv	400	12/22/2011 6:17 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	400	12/22/2011 6:17 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	17,000	4,700		µg/m³	40	12/22/2011 12:55 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/22/2011 12:55 PM
C9-C12 Aliphatic Hydrocarbons	2,300	7,600	J	µg/m³	40	12/22/2011 12:55 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	40	12/22/2011 12:55 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/30/2011 3:44:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-018	**Matrix:**	Air
Client Sample ID:	VA0818		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.54	0.10		%	1	12/20/2011 8:41 PM
Carbon Monoxide	ND	0.10	U	%	1	12/20/2011 8:41 PM
Methane	ND	0.50	U	%	1	12/20/2011 8:41 PM
Nitrogen	78	0.10		%	1	12/20/2011 8:41 PM
Oxygen	20	0.10		%	1	12/20/2011 8:41 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/22/2011 1:33 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/22/2011 1:33 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/22/2011 1:33 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/22/2011 1:33 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/22/2011 1:33 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/22/2011 1:33 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/22/2011 1:33 PM
1,2,4-Trimethylbenzene	90	40		ppbv	40	12/22/2011 1:33 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/22/2011 1:33 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/22/2011 1:33 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/22/2011 1:33 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/22/2011 1:33 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/22/2011 1:33 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/22/2011 1:33 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/22/2011 1:33 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/22/2011 1:33 PM
2-Butanone	ND	40	U	ppbv	40	12/22/2011 1:33 PM
2-Hexanone	ND	40	U	ppbv	40	12/22/2011 1:33 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Acetone	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Benzene	160	40		ppbv	40	12/22/2011 1:33 PM
Benzyl chloride	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Bromoform	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Bromomethane	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Carbon disulfide	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Chlorobenzene	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Chloroethane	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Chloroform	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Chloromethane	ND	40	U	ppbv	40	12/22/2011 1:33 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/22/2011 1:33 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/22/2011 1:33 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/30/2011 3:44:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-018	**Matrix:**	Air
Client Sample ID:	VA0818		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	300	80		ppbv	40	12/22/2011 1:33 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Ethyl acetate	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Ethylbenzene	170	80		ppbv	40	12/22/2011 1:33 PM
Heptane	640	40		ppbv	40	12/22/2011 1:33 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/22/2011 1:33 PM
m,p-Xylene	530	80		ppbv	40	12/22/2011 1:33 PM
Methylene chloride	ND	200	U	ppbv	40	12/22/2011 1:33 PM
n-Hexane	150	80		ppbv	40	12/22/2011 1:33 PM
Naphthalene	ND	40	U	ppbv	40	12/22/2011 1:33 PM
o-Xylene	160	40		ppbv	40	12/22/2011 1:33 PM
Propylene	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Styrene	ND	40	U	ppbv	40	12/22/2011 1:33 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Toluene	1,400	40		ppbv	40	12/22/2011 1:33 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/22/2011 1:33 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Trichloroethene	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Vinyl acetate	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Vinyl chloride	ND	40	U	ppbv	40	12/22/2011 1:33 PM
Xylenes, Total	690	120		ppbv	40	12/22/2011 1:33 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	40	12/22/2011 1:33 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	32,000	9,400		µg/m³	80	12/23/2011 9:13 AM
C9-C10 Aromatic Hydrocarbons	ND	11,000	U	µg/m³	80	12/23/2011 9:13 AM
C9-C12 Aliphatic Hydrocarbons	2,800	15,000	J	µg/m³	80	12/23/2011 9:13 AM
Surr: 4-Bromofluorobenzene	94.4	70-130		%REC	80	12/23/2011 9:13 AM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/1/2011 8:45:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-019	**Matrix:**	Air
Client Sample ID:	VA0819		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.28	0.10		%	1	12/20/2011 8:59 PM
Carbon Monoxide	ND	0.10	U	%	1	12/20/2011 8:59 PM
Methane	ND	0.50	U	%	1	12/20/2011 8:59 PM
Nitrogen	79	0.10		%	1	12/20/2011 8:59 PM
Oxygen	20	0.10		%	1	12/20/2011 8:59 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
1,1,2,2-Tetrachloroethane	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
1,1,2-Trichloroethane	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
1,1-Dichloroethane	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
1,1-Dichloroethene	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
1,2,4-Trichlorobenzene	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
1,2,4-Trimethylbenzene	13	8.0		ppbv	8	12/22/2011 7:03 PM
1,2-Dibromoethane	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
1,2-Dichlorobenzene	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
1,2-Dichloroethane	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
1,2-Dichloropropane	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
1,3,5-Trimethylbenzene	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
1,3-Butadiene	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
1,3-Dichlorobenzene	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
1,4-Dichlorobenzene	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
2-Butanone	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
2-Hexanone	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
4-Methyl-2-pentanone	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Acetone	9.7	8.0		ppbv	8	12/22/2011 7:03 PM
Benzene	24	8.0		ppbv	8	12/22/2011 7:03 PM
Benzyl chloride	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Bromodichloromethane	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Bromoform	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Bromomethane	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Carbon disulfide	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Carbon tetrachloride	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Chlorobenzene	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Chlorodibromomethane	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Chloroethane	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Chloroform	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Chloromethane	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
cis-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
cis-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
Lab ID: 1112148-019
Client Sample ID: VA0819
Collection Date: 12/1/2011 8:45:00 AM
Matrix: Air

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	44	16		ppbv	8	12/22/2011 7:03 PM
Dichlorodifluoromethane	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Ethyl acetate	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Ethylbenzene	12	16	J	ppbv	8	12/22/2011 7:03 PM
Heptane	60	8.0		ppbv	8	12/22/2011 7:03 PM
Hexachlorobutadiene	ND	16	U	ppbv	8	12/22/2011 7:03 PM
m,p-Xylene	46	16		ppbv	8	12/22/2011 7:03 PM
Methylene chloride	ND	40	U	ppbv	8	12/22/2011 7:03 PM
n-Hexane	28	16		ppbv	8	12/22/2011 7:03 PM
Naphthalene	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
o-Xylene	14	8.0		ppbv	8	12/22/2011 7:03 PM
Propylene	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Styrene	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
tert-Butyl Methyl Ether	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Tetrachloroethene	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Tetrahydrofuran	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Toluene	100	8.0		ppbv	8	12/22/2011 7:03 PM
trans-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
trans-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Trichloroethene	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Trichlorofluoromethane	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Vinyl acetate	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Vinyl chloride	ND	8.0	U	ppbv	8	12/22/2011 7:03 PM
Xylenes, Total	59	24		ppbv	8	12/22/2011 7:03 PM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	8	12/22/2011 7:03 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	4,600	940		µg/m³	8	12/22/2011 1:39 PM
C9-C10 Aromatic Hydrocarbons	420	1,100	J	µg/m³	8	12/22/2011 1:39 PM
C9-C12 Aliphatic Hydrocarbons	1,500	1,500	J	µg/m³	8	12/22/2011 1:39 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	8	12/22/2011 1:39 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/1/2011 9:23:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-020	**Matrix:**	Air
Client Sample ID:	VA0820		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.27	0.10		%	1	12/20/2011 9:17 PM
Carbon Monoxide	ND	0.10	U	%	1	12/20/2011 9:17 PM
Methane	ND	0.50	U	%	1	12/20/2011 9:17 PM
Nitrogen	78	0.10		%	1	12/20/2011 9:17 PM
Oxygen	20	0.10		%	1	12/20/2011 9:17 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
1,1,2,2-Tetrachloroethane	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
1,1,2-Trichloroethane	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
1,1-Dichloroethane	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
1,1-Dichloroethene	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
1,2,4-Trichlorobenzene	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
1,2,4-Trimethylbenzene	16	8.0		ppbv	8	12/22/2011 7:49 PM
1,2-Dibromoethane	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
1,2-Dichlorobenzene	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
1,2-Dichloroethane	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
1,2-Dichloropropane	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
1,3,5-Trimethylbenzene	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
1,3-Butadiene	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
1,3-Dichlorobenzene	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
1,4-Dichlorobenzene	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
2-Butanone	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
2-Hexanone	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
4-Methyl-2-pentanone	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Acetone	27	8.0		ppbv	8	12/22/2011 7:49 PM
Benzene	30	8.0		ppbv	8	12/22/2011 7:49 PM
Benzyl chloride	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Bromodichloromethane	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Bromoform	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Bromomethane	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Carbon disulfide	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Carbon tetrachloride	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Chlorobenzene	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Chlorodibromomethane	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Chloroethane	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Chloroform	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Chloromethane	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
cis-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
cis-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/1/2011 9:23:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-020	**Matrix:**	Air
Client Sample ID:	VA0820		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	50	16		ppbv	8	12/22/2011 7:49 PM
Dichlorodifluoromethane	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Ethyl acetate	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Ethylbenzene	16	16		ppbv	8	12/22/2011 7:49 PM
Heptane	72	8.0		ppbv	8	12/22/2011 7:49 PM
Hexachlorobutadiene	ND	16	U	ppbv	8	12/22/2011 7:49 PM
m,p-Xylene	61	16		ppbv	8	12/22/2011 7:49 PM
Methylene chloride	ND	40	U	ppbv	8	12/22/2011 7:49 PM
n-Hexane	29	16		ppbv	8	12/22/2011 7:49 PM
Naphthalene	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
o-Xylene	18	8.0		ppbv	8	12/22/2011 7:49 PM
Propylene	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Styrene	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
tert-Butyl Methyl Ether	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Tetrachloroethene	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Tetrahydrofuran	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Toluene	150	8.0		ppbv	8	12/22/2011 7:49 PM
trans-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
trans-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Trichloroethene	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Trichlorofluoromethane	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Vinyl acetate	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Vinyl chloride	ND	8.0	U	ppbv	8	12/22/2011 7:49 PM
Xylenes, Total	79	24		ppbv	8	12/22/2011 7:49 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	8	12/22/2011 7:49 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	3,700	940		µg/m³	8	12/22/2011 2:23 PM
C9-C10 Aromatic Hydrocarbons	400	1,100	J	µg/m³	8	12/22/2011 2:23 PM
C9-C12 Aliphatic Hydrocarbons	1,500	1,500	J	µg/m³	8	12/22/2011 2:23 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	8	12/22/2011 2:23 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/1/2011 10:08:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-021	**Matrix:**	Air
Client Sample ID:	VA0821		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: MB**
Carbon dioxide	0.31	0.10		%	1	12/20/2011 9:44 PM
Carbon Monoxide	ND	0.10	U	%	1	12/20/2011 9:44 PM
Methane	ND	0.50	U	%	1	12/20/2011 9:44 PM
Nitrogen	79	0.10		%	1	12/20/2011 9:44 PM
Oxygen	20	0.10		%	1	12/20/2011 9:44 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
1,1,2,2-Tetrachloroethane	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
1,1,2-Trichloroethane	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
1,1-Dichloroethane	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
1,1-Dichloroethene	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
1,2,4-Trichlorobenzene	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
1,2,4-Trimethylbenzene	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
1,2-Dibromoethane	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
1,2-Dichlorobenzene	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
1,2-Dichloroethane	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
1,2-Dichloropropane	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
1,3,5-Trimethylbenzene	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
1,3-Butadiene	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
1,3-Dichlorobenzene	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
1,4-Dichlorobenzene	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
2-Butanone	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
2-Hexanone	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
4-Methyl-2-pentanone	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Acetone	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Benzene	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Benzyl chloride	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Bromodichloromethane	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Bromoform	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Bromomethane	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Carbon disulfide	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Carbon tetrachloride	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Chlorobenzene	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Chlorodibromomethane	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Chloroethane	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Chloroform	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Chloromethane	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
cis-1,2-Dichloroethene	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
cis-1,3-dichloropropene	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/1/2011 10:08:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-021	**Matrix:**	Air
Client Sample ID:	VA0821		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	9,700	3,200		ppbv	1600	12/28/2011 10:04 AM
Dichlorodifluoromethane	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Ethyl acetate	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Ethylbenzene	ND	3,200	U	ppbv	1600	12/28/2011 10:04 AM
Heptane	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Hexachlorobutadiene	ND	3,200	U	ppbv	1600	12/28/2011 10:04 AM
m,p-Xylene	ND	3,200	U	ppbv	1600	12/28/2011 10:04 AM
Methylene chloride	ND	8,000	U	ppbv	1600	12/28/2011 10:04 AM
n-Hexane	9,200	3,200		ppbv	1600	12/28/2011 10:04 AM
Naphthalene	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
o-Xylene	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Propylene	2,700	1,600		ppbv	1600	12/28/2011 10:04 AM
Styrene	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
tert-Butyl Methyl Ether	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Tetrachloroethene	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Tetrahydrofuran	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Toluene	1,800	1,600		ppbv	1600	12/28/2011 10:04 AM
trans-1,2-Dichloroethene	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
trans-1,3-dichloropropene	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Trichloroethene	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Trichlorofluoromethane	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Vinyl acetate	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Vinyl chloride	ND	1,600	U	ppbv	1600	12/28/2011 10:04 AM
Xylenes, Total	ND	4,800	U	ppbv	1600	12/28/2011 10:04 AM
Surr: 4-Bromofluorobenzene	117	70-130		%REC	1600	12/28/2011 10:04 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,400,000	190,000		µg/m³	1600	12/14/2011 11:02 PM
C9-C10 Aromatic Hydrocarbons	ND	210,000	U	µg/m³	1600	12/14/2011 11:02 PM
C9-C12 Aliphatic Hydrocarbons	ND	300,000	U	µg/m³	1600	12/14/2011 11:02 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1600	12/14/2011 11:02 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/1/2011 10:08:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-022	**Matrix:**	Air
Client Sample ID:	VA0822		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: MB**
Carbon dioxide	0.081	0.10	J	%	1	12/20/2011 10:20 PM
Carbon Monoxide	ND	0.10	U	%	1	12/20/2011 10:20 PM
Methane	ND	0.50	U	%	1	12/20/2011 10:20 PM
Nitrogen	78	0.10		%	1	12/20/2011 10:20 PM
Oxygen	22	0.10		%	1	12/20/2011 10:20 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
1,1,2,2-Tetrachloroethane	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
1,1,2-Trichloroethane	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
1,1-Dichloroethane	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
1,1-Dichloroethene	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
1,2,4-Trichlorobenzene	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
1,2,4-Trimethylbenzene	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
1,2-Dibromoethane	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
1,2-Dichlorobenzene	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
1,2-Dichloroethane	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
1,2-Dichloropropane	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
1,3,5-Trimethylbenzene	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
1,3-Butadiene	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
1,3-Dichlorobenzene	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
1,4-Dichlorobenzene	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
2-Butanone	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
2-Hexanone	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
4-Methyl-2-pentanone	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Acetone	1,800	1,600		ppbv	1600	12/28/2011 10:51 AM
Benzene	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Benzyl chloride	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Bromodichloromethane	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Bromoform	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Bromomethane	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Carbon disulfide	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Carbon tetrachloride	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Chlorobenzene	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Chlorodibromomethane	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Chloroethane	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Chloroform	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Chloromethane	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
cis-1,2-Dichloroethene	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
cis-1,3-dichloropropene	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/1/2011 10:08:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-022	**Matrix:**	Air
Client Sample ID:	VA0822		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	7,500	3,200		ppbv	1600	12/28/2011 10:51 AM
Dichlorodifluoromethane	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Ethyl acetate	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Ethylbenzene	ND	3,200	U	ppbv	1600	12/28/2011 10:51 AM
Heptane	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Hexachlorobutadiene	ND	3,200	U	ppbv	1600	12/28/2011 10:51 AM
m,p-Xylene	ND	3,200	U	ppbv	1600	12/28/2011 10:51 AM
Methylene chloride	8,200	8,000		ppbv	1600	12/28/2011 10:51 AM
n-Hexane	6,000	3,200		ppbv	1600	12/28/2011 10:51 AM
Naphthalene	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
o-Xylene	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Propylene	3,300	1,600		ppbv	1600	12/28/2011 10:51 AM
Styrene	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
tert-Butyl Methyl Ether	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Tetrachloroethene	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Tetrahydrofuran	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Toluene	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
trans-1,2-Dichloroethene	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
trans-1,3-dichloropropene	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Trichloroethene	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Trichlorofluoromethane	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Vinyl acetate	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Vinyl chloride	ND	1,600	U	ppbv	1600	12/28/2011 10:51 AM
Xylenes, Total	ND	4,800	U	ppbv	1600	12/28/2011 10:51 AM
Surr: 4-Bromofluorobenzene	117	70-130		%REC	1600	12/28/2011 10:51 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,200,000	190,000		µg/m³	1600	12/14/2011 11:46 PM
C9-C10 Aromatic Hydrocarbons	ND	210,000	U	µg/m³	1600	12/14/2011 11:46 PM
C9-C12 Aliphatic Hydrocarbons	ND	300,000	U	µg/m³	1600	12/14/2011 11:46 PM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1600	12/14/2011 11:46 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/1/2011 11:16:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-023	**Matrix:**	Air
Client Sample ID:	VA0823		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.94	0.10		%	1	12/21/2011 1:09 PM
Carbon Monoxide	ND	0.10	U	%	1	12/21/2011 1:09 PM
Methane	ND	0.50	U	%	1	12/21/2011 1:09 PM
Nitrogen	81	0.10		%	1	12/21/2011 1:09 PM
Oxygen	16	0.10		%	1	12/21/2011 1:09 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
1,3-Butadiene	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
2-Butanone	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
2-Hexanone	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Acetone	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Benzene	14,000	8,000		ppbv	8000	12/28/2011 11:36 AM
Benzyl chloride	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Bromodichloromethane	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Bromoform	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Bromomethane	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Carbon disulfide	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Chlorobenzene	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Chloroethane	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Chloroform	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Chloromethane	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/1/2011 11:16:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-023	**Matrix:**	Air
Client Sample ID:	VA0823		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	49,000	16,000		ppbv	8000	12/28/2011 11:36 AM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Ethyl acetate	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Ethylbenzene	ND	16,000	U	ppbv	8000	12/28/2011 11:36 AM
Heptane	18,000	8,000		ppbv	8000	12/28/2011 11:36 AM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	12/28/2011 11:36 AM
m,p-Xylene	ND	16,000	U	ppbv	8000	12/28/2011 11:36 AM
Methylene chloride	ND	40,000	U	ppbv	8000	12/28/2011 11:36 AM
n-Hexane	49,000	16,000		ppbv	8000	12/28/2011 11:36 AM
Naphthalene	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
o-Xylene	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Propylene	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Styrene	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Tetrachloroethene	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Toluene	42,000	8,000		ppbv	8000	12/28/2011 11:36 AM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Trichloroethene	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Vinyl acetate	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Vinyl chloride	ND	8,000	U	ppbv	8000	12/28/2011 11:36 AM
Xylenes, Total	ND	24,000	U	ppbv	8000	12/28/2011 11:36 AM
Surr: 4-Bromofluorobenzene	123	70-130		%REC	8000	12/28/2011 11:36 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	9,100,000	940,000		µg/m³	8000	12/13/2011 10:11 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/13/2011 10:11 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/13/2011 10:11 PM
Surr: 4-Bromofluorobenzene	97.4	70-130		%REC	8000	12/13/2011 10:11 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 1:39:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-024	**Matrix:**	Air
Client Sample ID:	VA0976		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.40	0.10		%	1	12/21/2011 1:30 PM
Carbon Monoxide	ND	0.10	U	%	1	12/21/2011 1:30 PM
Methane	ND	0.50	U	%	1	12/21/2011 1:30 PM
Nitrogen	77	0.10		%	1	12/21/2011 1:30 PM
Oxygen	21	0.10		%	1	12/21/2011 1:30 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/22/2011 4:35 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/22/2011 4:35 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/22/2011 4:35 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/22/2011 4:35 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/22/2011 4:35 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/22/2011 4:35 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/22/2011 4:35 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/22/2011 4:35 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/22/2011 4:35 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/22/2011 4:35 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/22/2011 4:35 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/22/2011 4:35 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/22/2011 4:35 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/22/2011 4:35 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/22/2011 4:35 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/22/2011 4:35 PM
2-Butanone	ND	40	U	ppbv	40	12/22/2011 4:35 PM
2-Hexanone	ND	40	U	ppbv	40	12/22/2011 4:35 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Acetone	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Benzene	160	40		ppbv	40	12/22/2011 4:35 PM
Benzyl chloride	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Bromoform	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Bromomethane	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Carbon disulfide	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Chlorobenzene	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Chloroethane	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Chloroform	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Chloromethane	ND	40	U	ppbv	40	12/22/2011 4:35 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/22/2011 4:35 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/22/2011 4:35 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 1:39:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-024	**Matrix:**	Air
Client Sample ID:	VA0976		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	270	80		ppbv	40	12/22/2011 4:35 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Ethyl acetate	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Ethylbenzene	59	80	J	ppbv	40	12/22/2011 4:35 PM
Heptane	310	40		ppbv	40	12/22/2011 4:35 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/22/2011 4:35 PM
m,p-Xylene	200	80		ppbv	40	12/22/2011 4:35 PM
Methylene chloride	ND	200	U	ppbv	40	12/22/2011 4:35 PM
n-Hexane	180	80		ppbv	40	12/22/2011 4:35 PM
Naphthalene	ND	40	U	ppbv	40	12/22/2011 4:35 PM
o-Xylene	54	40		ppbv	40	12/22/2011 4:35 PM
Propylene	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Styrene	ND	40	U	ppbv	40	12/22/2011 4:35 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Toluene	840	40		ppbv	40	12/22/2011 4:35 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/22/2011 4:35 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Trichloroethene	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Vinyl acetate	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Vinyl chloride	ND	40	U	ppbv	40	12/22/2011 4:35 PM
Xylenes, Total	250	120		ppbv	40	12/22/2011 4:35 PM
Surr: 4-Bromofluorobenzene	119	70-130		%REC	40	12/22/2011 4:35 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	11,000	4,700		µg/m³	40	12/22/2011 9:13 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/22/2011 9:13 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/22/2011 9:13 AM
Surr: 4-Bromofluorobenzene	95.9	70-130		%REC	40	12/22/2011 9:13 AM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 2:07:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-025	**Matrix:**	Air
Client Sample ID:	VA0977		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.48	0.10		%	1	12/21/2011 1:53 PM
Carbon Monoxide	ND	0.10	U	%	1	12/21/2011 1:53 PM
Methane	ND	0.50	U	%	1	12/21/2011 1:53 PM
Nitrogen	77	0.10		%	1	12/21/2011 1:53 PM
Oxygen	20	0.10		%	1	12/21/2011 1:53 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 1:49 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/13/2011 1:49 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/13/2011 1:49 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 1:49 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 1:49 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 1:49 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/13/2011 1:49 AM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 1:49 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/13/2011 1:49 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 1:49 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 1:49 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/13/2011 1:49 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 1:49 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/13/2011 1:49 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 1:49 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 1:49 AM
2-Butanone	ND	40	U	ppbv	40	12/13/2011 1:49 AM
2-Hexanone	ND	40	U	ppbv	40	12/13/2011 1:49 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Acetone	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Benzene	56	40		ppbv	40	12/13/2011 1:49 AM
Benzyl chloride	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Bromoform	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Bromomethane	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Carbon disulfide	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Carbon tetrachloride	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Chlorobenzene	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Chloroethane	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Chloroform	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Chloromethane	ND	40	U	ppbv	40	12/13/2011 1:49 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 1:49 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 1:49 AM

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WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 2:07:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-025	**Matrix:**	Air
Client Sample ID:	VA0977		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	96	80		ppbv	40	12/13/2011 1:49 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Ethyl acetate	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Ethylbenzene	ND	80	U	ppbv	40	12/13/2011 1:49 AM
Heptane	97	40		ppbv	40	12/13/2011 1:49 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/13/2011 1:49 AM
m,p-Xylene	62	80	J	ppbv	40	12/13/2011 1:49 AM
Methylene chloride	ND	200	U	ppbv	40	12/13/2011 1:49 AM
n-Hexane	77	80	J	ppbv	40	12/13/2011 1:49 AM
Naphthalene	ND	40	U	ppbv	40	12/13/2011 1:49 AM
o-Xylene	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Propylene	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Styrene	ND	40	U	ppbv	40	12/13/2011 1:49 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Toluene	210	40		ppbv	40	12/13/2011 1:49 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 1:49 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Trichloroethene	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Vinyl acetate	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Vinyl chloride	ND	40	U	ppbv	40	12/13/2011 1:49 AM
Xylenes, Total	62	120	J	ppbv	40	12/13/2011 1:49 AM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	40	12/13/2011 1:49 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	16,000	4,700		µg/m³	40	12/19/2011 2:04 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/19/2011 2:04 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/19/2011 2:04 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	40	12/19/2011 2:04 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 2:38:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-026	**Matrix:**	Air
Client Sample ID:	VA0978		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.30	0.10		%	1	12/21/2011 2:29 PM
Carbon Monoxide	ND	0.10	U	%	1	12/21/2011 2:29 PM
Methane	ND	0.50	U	%	1	12/21/2011 2:29 PM
Nitrogen	78	0.10		%	1	12/21/2011 2:29 PM
Oxygen	21	0.10		%	1	12/21/2011 2:29 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 2:30 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/13/2011 2:30 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/13/2011 2:30 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 2:30 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 2:30 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 2:30 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/13/2011 2:30 AM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 2:30 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/13/2011 2:30 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 2:30 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 2:30 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/13/2011 2:30 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 2:30 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/13/2011 2:30 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 2:30 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 2:30 AM
2-Butanone	ND	40	U	ppbv	40	12/13/2011 2:30 AM
2-Hexanone	ND	40	U	ppbv	40	12/13/2011 2:30 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Acetone	99	40		ppbv	40	12/13/2011 2:30 AM
Benzene	160	40		ppbv	40	12/13/2011 2:30 AM
Benzyl chloride	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Bromoform	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Bromomethane	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Carbon disulfide	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Carbon tetrachloride	66	40		ppbv	40	12/13/2011 2:30 AM
Chlorobenzene	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Chloroethane	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Chloroform	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Chloromethane	ND	40	U	ppbv	40	12/13/2011 2:30 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 2:30 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 2:30 AM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 2:38:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-026	**Matrix:**	Air
Client Sample ID:	VA0978		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	ND	80	U	ppbv	40	12/13/2011 2:30 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Ethyl acetate	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Ethylbenzene	ND	80	U	ppbv	40	12/13/2011 2:30 AM
Heptane	250	40		ppbv	40	12/13/2011 2:30 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/13/2011 2:30 AM
m,p-Xylene	110	80		ppbv	40	12/13/2011 2:30 AM
Methylene chloride	ND	200	U	ppbv	40	12/13/2011 2:30 AM
n-Hexane	150	80		ppbv	40	12/13/2011 2:30 AM
Naphthalene	ND	40	U	ppbv	40	12/13/2011 2:30 AM
o-Xylene	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Propylene	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Styrene	ND	40	U	ppbv	40	12/13/2011 2:30 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Toluene	500	40		ppbv	40	12/13/2011 2:30 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 2:30 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Trichloroethene	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Vinyl acetate	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Vinyl chloride	ND	40	U	ppbv	40	12/13/2011 2:30 AM
Xylenes, Total	110	120	J	ppbv	40	12/13/2011 2:30 AM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	40	12/13/2011 2:30 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	19,000	4,700		µg/m³	40	12/19/2011 2:49 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/19/2011 2:49 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/19/2011 2:49 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	40	12/19/2011 2:49 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 3:15:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-027	**Matrix:**	Air
Client Sample ID:	VA0979		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.32	0.10		%	1	12/21/2011 2:49 PM
Carbon Monoxide	ND	0.10	U	%	1	12/21/2011 2:49 PM
Methane	ND	0.50	U	%	1	12/21/2011 2:49 PM
Nitrogen	77	0.10		%	1	12/21/2011 2:49 PM
Oxygen	21	0.10		%	1	12/21/2011 2:49 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 3:12 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/13/2011 3:12 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	110	40		ppbv	40	12/13/2011 3:12 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 3:12 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 3:12 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 3:12 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/13/2011 3:12 AM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 3:12 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/13/2011 3:12 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 3:12 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 3:12 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/13/2011 3:12 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 3:12 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/13/2011 3:12 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 3:12 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 3:12 AM
2-Butanone	ND	40	U	ppbv	40	12/13/2011 3:12 AM
2-Hexanone	ND	40	U	ppbv	40	12/13/2011 3:12 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Acetone	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Benzene	1,400	40		ppbv	40	12/13/2011 3:12 AM
Benzyl chloride	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Bromoform	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Bromomethane	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Carbon disulfide	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Carbon tetrachloride	180	40		ppbv	40	12/13/2011 3:12 AM
Chlorobenzene	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Chloroethane	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Chloroform	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Chloromethane	ND	40	U	ppbv	40	12/13/2011 3:12 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 3:12 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 3:12 AM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 3:15:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-027	**Matrix:**	Air
Client Sample ID:	VA0979		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	130	80		ppbv	40	12/13/2011 3:12 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Ethyl acetate	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Ethylbenzene	ND	80	U	ppbv	40	12/13/2011 3:12 AM
Heptane	100	40		ppbv	40	12/13/2011 3:12 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/13/2011 3:12 AM
m,p-Xylene	78	80	J	ppbv	40	12/13/2011 3:12 AM
Methylene chloride	ND	200	U	ppbv	40	12/13/2011 3:12 AM
n-Hexane	86	80		ppbv	40	12/13/2011 3:12 AM
Naphthalene	ND	40	U	ppbv	40	12/13/2011 3:12 AM
o-Xylene	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Propylene	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Styrene	ND	40	U	ppbv	40	12/13/2011 3:12 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Toluene	2,000	40		ppbv	40	12/13/2011 3:12 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 3:12 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Trichloroethene	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Vinyl acetate	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Vinyl chloride	ND	40	U	ppbv	40	12/13/2011 3:12 AM
Xylenes, Total	78	120	J	ppbv	40	12/13/2011 3:12 AM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	40	12/13/2011 3:12 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	4,900	4,700		µg/m³	40	12/22/2011 10:44 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/22/2011 10:44 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/22/2011 10:44 AM
Surr: 4-Bromofluorobenzene	94.8	70-130		%REC	40	12/22/2011 10:44 AM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 3:48:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-028	**Matrix:**	Air
Client Sample ID:	VA0980		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.45	0.10		%	1	12/21/2011 3:57 PM
Carbon Monoxide	ND	0.10	U	%	1	12/21/2011 3:57 PM
Methane	ND	0.50	U	%	1	12/21/2011 3:57 PM
Nitrogen	77	0.10		%	1	12/21/2011 3:57 PM
Oxygen	20	0.10		%	1	12/21/2011 3:57 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	16	U	ppbv	16	12/22/2011 12:48 PM
1,1,2,2-Tetrachloroethane	ND	16	U	ppbv	16	12/22/2011 12:48 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	16	U	ppbv	16	12/22/2011 12:48 PM
1,1,2-Trichloroethane	ND	16	U	ppbv	16	12/22/2011 12:48 PM
1,1-Dichloroethane	ND	16	U	ppbv	16	12/22/2011 12:48 PM
1,1-Dichloroethene	ND	16	U	ppbv	16	12/22/2011 12:48 PM
1,2,4-Trichlorobenzene	ND	16	U	ppbv	16	12/22/2011 12:48 PM
1,2,4-Trimethylbenzene	ND	16	U	ppbv	16	12/22/2011 12:48 PM
1,2-Dibromoethane	ND	16	U	ppbv	16	12/22/2011 12:48 PM
1,2-Dichlorobenzene	ND	16	U	ppbv	16	12/22/2011 12:48 PM
1,2-Dichloroethane	ND	16	U	ppbv	16	12/22/2011 12:48 PM
1,2-Dichloropropane	ND	16	U	ppbv	16	12/22/2011 12:48 PM
1,3,5-Trimethylbenzene	ND	16	U	ppbv	16	12/22/2011 12:48 PM
1,3-Butadiene	ND	16	U	ppbv	16	12/22/2011 12:48 PM
1,3-Dichlorobenzene	ND	16	U	ppbv	16	12/22/2011 12:48 PM
1,4-Dichlorobenzene	ND	16	U	ppbv	16	12/22/2011 12:48 PM
2-Butanone	ND	16	U	ppbv	16	12/22/2011 12:48 PM
2-Hexanone	ND	16	U	ppbv	16	12/22/2011 12:48 PM
4-Methyl-2-pentanone	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Acetone	26	16		ppbv	16	12/22/2011 12:48 PM
Benzene	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Benzyl chloride	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Bromodichloromethane	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Bromoform	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Bromomethane	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Carbon disulfide	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Carbon tetrachloride	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Chlorobenzene	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Chlorodibromomethane	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Chloroethane	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Chloroform	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Chloromethane	ND	16	U	ppbv	16	12/22/2011 12:48 PM
cis-1,2-Dichloroethene	ND	16	U	ppbv	16	12/22/2011 12:48 PM
cis-1,3-dichloropropene	ND	16	U	ppbv	16	12/22/2011 12:48 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 3:48:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-028	**Matrix:**	Air
Client Sample ID:	VA0980		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	31	32	J	ppbv	16	12/22/2011 12:48 PM
Dichlorodifluoromethane	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Ethyl acetate	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Ethylbenzene	ND	32	U	ppbv	16	12/22/2011 12:48 PM
Heptane	16	16		ppbv	16	12/22/2011 12:48 PM
Hexachlorobutadiene	ND	32	U	ppbv	16	12/22/2011 12:48 PM
m,p-Xylene	ND	32	U	ppbv	16	12/22/2011 12:48 PM
Methylene chloride	ND	80	U	ppbv	16	12/22/2011 12:48 PM
n-Hexane	93	32		ppbv	16	12/22/2011 12:48 PM
Naphthalene	ND	16	U	ppbv	16	12/22/2011 12:48 PM
o-Xylene	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Propylene	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Styrene	ND	16	U	ppbv	16	12/22/2011 12:48 PM
tert-Butyl Methyl Ether	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Tetrachloroethene	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Tetrahydrofuran	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Toluene	48	16		ppbv	16	12/22/2011 12:48 PM
trans-1,2-Dichloroethene	ND	16	U	ppbv	16	12/22/2011 12:48 PM
trans-1,3-dichloropropene	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Trichloroethene	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Trichlorofluoromethane	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Vinyl acetate	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Vinyl chloride	ND	16	U	ppbv	16	12/22/2011 12:48 PM
Xylenes, Total	ND	48	U	ppbv	16	12/22/2011 12:48 PM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	16	12/22/2011 12:48 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	ND	1,900	U	µg/m³	16	12/22/2011 11:28 AM
C9-C10 Aromatic Hydrocarbons	ND	2,100	U	µg/m³	16	12/22/2011 11:28 AM
C9-C12 Aliphatic Hydrocarbons	ND	3,000	U	µg/m³	16	12/22/2011 11:28 AM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	16	12/22/2011 11:28 AM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 4:22:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-029	**Matrix:**	Air
Client Sample ID:	VA0981		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.68	0.10		%	1	12/21/2011 4:17 PM
Carbon Monoxide	ND	0.10	U	%	1	12/21/2011 4:17 PM
Methane	ND	0.50	U	%	1	12/21/2011 4:17 PM
Nitrogen	78	0.10		%	1	12/21/2011 4:17 PM
Oxygen	20	0.10		%	1	12/21/2011 4:17 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	16	U	ppbv	16	12/22/2011 3:03 PM
1,1,2,2-Tetrachloroethane	ND	16	U	ppbv	16	12/22/2011 3:03 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	16	U	ppbv	16	12/22/2011 3:03 PM
1,1,2-Trichloroethane	ND	16	U	ppbv	16	12/22/2011 3:03 PM
1,1-Dichloroethane	ND	16	U	ppbv	16	12/22/2011 3:03 PM
1,1-Dichloroethene	ND	16	U	ppbv	16	12/22/2011 3:03 PM
1,2,4-Trichlorobenzene	ND	16	U	ppbv	16	12/22/2011 3:03 PM
1,2,4-Trimethylbenzene	ND	16	U	ppbv	16	12/22/2011 3:03 PM
1,2-Dibromoethane	ND	16	U	ppbv	16	12/22/2011 3:03 PM
1,2-Dichlorobenzene	ND	16	U	ppbv	16	12/22/2011 3:03 PM
1,2-Dichloroethane	ND	16	U	ppbv	16	12/22/2011 3:03 PM
1,2-Dichloropropane	ND	16	U	ppbv	16	12/22/2011 3:03 PM
1,3,5-Trimethylbenzene	ND	16	U	ppbv	16	12/22/2011 3:03 PM
1,3-Butadiene	ND	16	U	ppbv	16	12/22/2011 3:03 PM
1,3-Dichlorobenzene	ND	16	U	ppbv	16	12/22/2011 3:03 PM
1,4-Dichlorobenzene	ND	16	U	ppbv	16	12/22/2011 3:03 PM
2-Butanone	ND	16	U	ppbv	16	12/22/2011 3:03 PM
2-Hexanone	ND	16	U	ppbv	16	12/22/2011 3:03 PM
4-Methyl-2-pentanone	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Acetone	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Benzene	46	16		ppbv	16	12/22/2011 3:03 PM
Benzyl chloride	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Bromodichloromethane	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Bromoform	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Bromomethane	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Carbon disulfide	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Carbon tetrachloride	29	16		ppbv	16	12/22/2011 3:03 PM
Chlorobenzene	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Chlorodibromomethane	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Chloroethane	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Chloroform	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Chloromethane	ND	16	U	ppbv	16	12/22/2011 3:03 PM
cis-1,2-Dichloroethene	ND	16	U	ppbv	16	12/22/2011 3:03 PM
cis-1,3-dichloropropene	ND	16	U	ppbv	16	12/22/2011 3:03 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 4:22:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-029	**Matrix:**	Air
Client Sample ID:	VA0981		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	61	32		ppbv	16	12/22/2011 3:03 PM
Dichlorodifluoromethane	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Ethyl acetate	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Ethylbenzene	ND	32	U	ppbv	16	12/22/2011 3:03 PM
Heptane	76	16		ppbv	16	12/22/2011 3:03 PM
Hexachlorobutadiene	ND	32	U	ppbv	16	12/22/2011 3:03 PM
m,p-Xylene	54	32		ppbv	16	12/22/2011 3:03 PM
Methylene chloride	ND	80	U	ppbv	16	12/22/2011 3:03 PM
n-Hexane	41	32		ppbv	16	12/22/2011 3:03 PM
Naphthalene	ND	16	U	ppbv	16	12/22/2011 3:03 PM
o-Xylene	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Propylene	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Styrene	ND	16	U	ppbv	16	12/22/2011 3:03 PM
tert-Butyl Methyl Ether	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Tetrachloroethene	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Tetrahydrofuran	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Toluene	210	16		ppbv	16	12/22/2011 3:03 PM
trans-1,2-Dichloroethene	ND	16	U	ppbv	16	12/22/2011 3:03 PM
trans-1,3-dichloropropene	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Trichloroethene	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Trichlorofluoromethane	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Vinyl acetate	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Vinyl chloride	ND	16	U	ppbv	16	12/22/2011 3:03 PM
Xylenes, Total	54	48		ppbv	16	12/22/2011 3:03 PM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	16	12/22/2011 3:03 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	4,500	1,900		µg/m³	16	12/22/2011 12:12 PM
C9-C10 Aromatic Hydrocarbons	ND	2,100	U	µg/m³	16	12/22/2011 12:12 PM
C9-C12 Aliphatic Hydrocarbons	ND	3,000	U	µg/m³	16	12/22/2011 12:12 PM
Surr: 4-Bromofluorobenzene	98.9	70-130		%REC	16	12/22/2011 12:12 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 8:46:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-030	**Matrix:**	Air
Client Sample ID:	VA0982		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.12	0.10		%	1	12/21/2011 4:37 PM
Carbon Monoxide	ND	0.10	U	%	1	12/21/2011 4:37 PM
Methane	ND	0.50	U	%	1	12/21/2011 4:37 PM
Nitrogen	77	0.10		%	1	12/21/2011 4:37 PM
Oxygen	21	0.10		%	1	12/21/2011 4:37 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 2:48 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/13/2011 2:48 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/13/2011 2:48 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 2:48 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 2:48 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 2:48 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/13/2011 2:48 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 2:48 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/13/2011 2:48 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 2:48 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 2:48 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/13/2011 2:48 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 2:48 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/13/2011 2:48 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 2:48 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 2:48 PM
2-Butanone	ND	40	U	ppbv	40	12/13/2011 2:48 PM
2-Hexanone	ND	40	U	ppbv	40	12/13/2011 2:48 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Acetone	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Benzene	67	40		ppbv	40	12/13/2011 2:48 PM
Benzyl chloride	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Bromoform	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Bromomethane	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Carbon disulfide	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Chlorobenzene	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Chloroethane	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Chloroform	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Chloromethane	ND	40	U	ppbv	40	12/13/2011 2:48 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 2:48 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 2:48 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 8:46:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-030	**Matrix:**	Air
Client Sample ID:	VA0982		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	100	80		ppbv	40	12/13/2011 2:48 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Ethyl acetate	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Ethylbenzene	ND	80	U	ppbv	40	12/13/2011 2:48 PM
Heptane	110	40		ppbv	40	12/13/2011 2:48 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/13/2011 2:48 PM
m,p-Xylene	73	80	J	ppbv	40	12/13/2011 2:48 PM
Methylene chloride	ND	200	U	ppbv	40	12/13/2011 2:48 PM
n-Hexane	70	80	J	ppbv	40	12/13/2011 2:48 PM
Naphthalene	ND	40	U	ppbv	40	12/13/2011 2:48 PM
o-Xylene	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Propylene	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Styrene	ND	40	U	ppbv	40	12/13/2011 2:48 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Toluene	260	40		ppbv	40	12/13/2011 2:48 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 2:48 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Trichloroethene	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Vinyl acetate	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Vinyl chloride	ND	40	U	ppbv	40	12/13/2011 2:48 PM
Xylenes, Total	73	120	J	ppbv	40	12/13/2011 2:48 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	40	12/13/2011 2:48 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	27,000	4,700		µg/m³	40	12/15/2011 3:20 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/15/2011 3:20 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/15/2011 3:20 PM
Surr: 4-Bromofluorobenzene	99.6	70-130		%REC	40	12/15/2011 3:20 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 9:18:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-031	**Matrix:**	Air
Client Sample ID:	VA0983		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.13	0.10		%	1	12/21/2011 4:56 PM
Carbon Monoxide	ND	0.10	U	%	1	12/21/2011 4:56 PM
Methane	ND	0.50	U	%	1	12/21/2011 4:56 PM
Nitrogen	77	0.10		%	1	12/21/2011 4:56 PM
Oxygen	21	0.10		%	1	12/21/2011 4:56 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 3:30 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/13/2011 3:30 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/13/2011 3:30 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 3:30 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 3:30 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 3:30 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/13/2011 3:30 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 3:30 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/13/2011 3:30 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 3:30 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 3:30 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/13/2011 3:30 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 3:30 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/13/2011 3:30 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 3:30 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 3:30 PM
2-Butanone	ND	40	U	ppbv	40	12/13/2011 3:30 PM
2-Hexanone	ND	40	U	ppbv	40	12/13/2011 3:30 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Acetone	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Benzene	55	40		ppbv	40	12/13/2011 3:30 PM
Benzyl chloride	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Bromoform	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Bromomethane	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Carbon disulfide	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Chlorobenzene	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Chloroethane	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Chloroform	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Chloromethane	ND	40	U	ppbv	40	12/13/2011 3:30 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 3:30 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 3:30 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 9:18:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-031	**Matrix:**	Air
Client Sample ID:	VA0983		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	82	80		ppbv	40	12/13/2011 3:30 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Ethyl acetate	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Ethylbenzene	ND	80	U	ppbv	40	12/13/2011 3:30 PM
Heptane	86	40		ppbv	40	12/13/2011 3:30 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/13/2011 3:30 PM
m,p-Xylene	56	80	J	ppbv	40	12/13/2011 3:30 PM
Methylene chloride	ND	200	U	ppbv	40	12/13/2011 3:30 PM
n-Hexane	54	80	J	ppbv	40	12/13/2011 3:30 PM
Naphthalene	ND	40	U	ppbv	40	12/13/2011 3:30 PM
o-Xylene	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Propylene	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Styrene	ND	40	U	ppbv	40	12/13/2011 3:30 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Toluene	190	40		ppbv	40	12/13/2011 3:30 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 3:30 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Trichloroethene	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Vinyl acetate	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Vinyl chloride	ND	40	U	ppbv	40	12/13/2011 3:30 PM
Xylenes, Total	56	120	J	ppbv	40	12/13/2011 3:30 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	40	12/13/2011 3:30 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	15,000	4,700		µg/m³	40	12/15/2011 4:03 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/15/2011 4:03 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/15/2011 4:03 PM
Surr: 4-Bromofluorobenzene	98.5	70-130		%REC	40	12/15/2011 4:03 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 9:50:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-032	**Matrix:**	Air
Client Sample ID:	VA0984		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.12	0.10		%	1	12/21/2011 5:16 PM
Carbon Monoxide	ND	0.10	U	%	1	12/21/2011 5:16 PM
Methane	ND	0.50	U	%	1	12/21/2011 5:16 PM
Nitrogen	77	0.10		%	1	12/21/2011 5:16 PM
Oxygen	21	0.10		%	1	12/21/2011 5:16 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 4:11 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/13/2011 4:11 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/13/2011 4:11 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 4:11 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 4:11 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 4:11 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/13/2011 4:11 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 4:11 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/13/2011 4:11 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 4:11 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 4:11 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/13/2011 4:11 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 4:11 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/13/2011 4:11 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 4:11 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 4:11 PM
2-Butanone	ND	40	U	ppbv	40	12/13/2011 4:11 PM
2-Hexanone	ND	40	U	ppbv	40	12/13/2011 4:11 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Acetone	120	40		ppbv	40	12/13/2011 4:11 PM
Benzene	96	40		ppbv	40	12/13/2011 4:11 PM
Benzyl chloride	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Bromoform	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Bromomethane	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Carbon disulfide	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Chlorobenzene	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Chloroethane	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Chloroform	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Chloromethane	ND	40	U	ppbv	40	12/13/2011 4:11 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 4:11 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 4:11 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 9:50:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-032	**Matrix:**	Air
Client Sample ID:	VA0984		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	140	80		ppbv	40	12/13/2011 4:11 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Ethyl acetate	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Ethylbenzene	41	80	J	ppbv	40	12/13/2011 4:11 PM
Heptane	190	40		ppbv	40	12/13/2011 4:11 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/13/2011 4:11 PM
m,p-Xylene	140	80		ppbv	40	12/13/2011 4:11 PM
Methylene chloride	ND	200	U	ppbv	40	12/13/2011 4:11 PM
n-Hexane	85	80		ppbv	40	12/13/2011 4:11 PM
Naphthalene	ND	40	U	ppbv	40	12/13/2011 4:11 PM
o-Xylene	41	40		ppbv	40	12/13/2011 4:11 PM
Propylene	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Styrene	ND	40	U	ppbv	40	12/13/2011 4:11 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Toluene	540	40		ppbv	40	12/13/2011 4:11 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 4:11 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Trichloroethene	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Vinyl acetate	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Vinyl chloride	ND	40	U	ppbv	40	12/13/2011 4:11 PM
Xylenes, Total	190	120		ppbv	40	12/13/2011 4:11 PM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	40	12/13/2011 4:11 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	8,300	4,700		µg/m³	40	12/15/2011 4:46 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/15/2011 4:46 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/15/2011 4:46 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	40	12/15/2011 4:46 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 10:38:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-033	**Matrix:**	Air
Client Sample ID:	VA0985		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.15	0.10		%	1	12/21/2011 6:17 PM
Carbon Monoxide	ND	0.10	U	%	1	12/21/2011 6:17 PM
Methane	ND	0.50	U	%	1	12/21/2011 6:17 PM
Nitrogen	77	0.10		%	1	12/21/2011 6:17 PM
Oxygen	21	0.10		%	1	12/21/2011 6:17 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 4:52 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/13/2011 4:52 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/13/2011 4:52 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 4:52 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 4:52 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 4:52 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/13/2011 4:52 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 4:52 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/13/2011 4:52 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 4:52 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 4:52 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/13/2011 4:52 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 4:52 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/13/2011 4:52 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 4:52 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 4:52 PM
2-Butanone	ND	40	U	ppbv	40	12/13/2011 4:52 PM
2-Hexanone	ND	40	U	ppbv	40	12/13/2011 4:52 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Acetone	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Benzene	86	40		ppbv	40	12/13/2011 4:52 PM
Benzyl chloride	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Bromoform	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Bromomethane	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Carbon disulfide	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Chlorobenzene	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Chloroethane	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Chloroform	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Chloromethane	ND	40	U	ppbv	40	12/13/2011 4:52 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 4:52 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 4:52 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 10:38:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-033	**Matrix:**	Air
Client Sample ID:	VA0985		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	160	80		ppbv	40	12/13/2011 4:52 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Ethyl acetate	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Ethylbenzene	ND	80	U	ppbv	40	12/13/2011 4:52 PM
Heptane	160	40		ppbv	40	12/13/2011 4:52 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/13/2011 4:52 PM
m,p-Xylene	100	80		ppbv	40	12/13/2011 4:52 PM
Methylene chloride	ND	200	U	ppbv	40	12/13/2011 4:52 PM
n-Hexane	84	80		ppbv	40	12/13/2011 4:52 PM
Naphthalene	ND	40	U	ppbv	40	12/13/2011 4:52 PM
o-Xylene	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Propylene	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Styrene	ND	40	U	ppbv	40	12/13/2011 4:52 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Toluene	390	40		ppbv	40	12/13/2011 4:52 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 4:52 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Trichloroethene	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Vinyl acetate	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Vinyl chloride	ND	40	U	ppbv	40	12/13/2011 4:52 PM
Xylenes, Total	100	120	J	ppbv	40	12/13/2011 4:52 PM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	40	12/13/2011 4:52 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	14,000	4,700		µg/m³	40	12/19/2011 12:35 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/19/2011 12:35 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/19/2011 12:35 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	40	12/19/2011 12:35 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 11:15:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-034	**Matrix:**	Air
Client Sample ID:	VA0986		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.19	0.10		%	1	12/21/2011 6:36 PM
Carbon Monoxide	ND	0.10	U	%	1	12/21/2011 6:36 PM
Methane	ND	0.50	U	%	1	12/21/2011 6:36 PM
Nitrogen	77	0.10		%	1	12/21/2011 6:36 PM
Oxygen	20	0.10		%	1	12/21/2011 6:36 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 5:32 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/13/2011 5:32 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/13/2011 5:32 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 5:32 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 5:32 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 5:32 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/13/2011 5:32 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 5:32 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/13/2011 5:32 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 5:32 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 5:32 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/13/2011 5:32 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 5:32 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/13/2011 5:32 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 5:32 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 5:32 PM
2-Butanone	ND	40	U	ppbv	40	12/13/2011 5:32 PM
2-Hexanone	ND	40	U	ppbv	40	12/13/2011 5:32 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Acetone	200	40		ppbv	40	12/13/2011 5:32 PM
Benzene	120	40		ppbv	40	12/13/2011 5:32 PM
Benzyl chloride	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Bromoform	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Bromomethane	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Carbon disulfide	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Chlorobenzene	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Chloroethane	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Chloroform	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Chloromethane	ND	40	U	ppbv	40	12/13/2011 5:32 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 5:32 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 5:32 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 11:15:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-034	**Matrix:**	Air
Client Sample ID:	VA0986		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,200	80		ppbv	40	12/13/2011 5:32 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Ethyl acetate	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Ethylbenzene	42	80	J	ppbv	40	12/13/2011 5:32 PM
Heptane	380	40		ppbv	40	12/13/2011 5:32 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/13/2011 5:32 PM
m,p-Xylene	140	80		ppbv	40	12/13/2011 5:32 PM
Methylene chloride	ND	200	U	ppbv	40	12/13/2011 5:32 PM
n-Hexane	1,100	80		ppbv	40	12/13/2011 5:32 PM
Naphthalene	ND	40	U	ppbv	40	12/13/2011 5:32 PM
o-Xylene	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Propylene	160	40		ppbv	40	12/13/2011 5:32 PM
Styrene	ND	40	U	ppbv	40	12/13/2011 5:32 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Toluene	1,000	40		ppbv	40	12/13/2011 5:32 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 5:32 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Trichloroethene	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Vinyl acetate	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Vinyl chloride	ND	40	U	ppbv	40	12/13/2011 5:32 PM
Xylenes, Total	140	120		ppbv	40	12/13/2011 5:32 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	40	12/13/2011 5:32 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	110,000	4,700		µg/m³	40	12/19/2011 1:19 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/19/2011 1:19 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/19/2011 1:19 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	40	12/19/2011 1:19 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 12:00:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-035	**Matrix:**	Air
Client Sample ID:	VA0987		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.49	0.10		%	1	12/21/2011 6:54 PM
Carbon Monoxide	ND	0.10	U	%	1	12/21/2011 6:54 PM
Methane	ND	0.50	U	%	1	12/21/2011 6:54 PM
Nitrogen	78	0.10		%	1	12/21/2011 6:54 PM
Oxygen	20	0.10		%	1	12/21/2011 6:54 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 6:13 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/13/2011 6:13 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/13/2011 6:13 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/13/2011 6:13 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 6:13 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 6:13 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/13/2011 6:13 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 6:13 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/13/2011 6:13 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 6:13 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/13/2011 6:13 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/13/2011 6:13 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2011 6:13 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/13/2011 6:13 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 6:13 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2011 6:13 PM
2-Butanone	ND	40	U	ppbv	40	12/13/2011 6:13 PM
2-Hexanone	ND	40	U	ppbv	40	12/13/2011 6:13 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Acetone	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Benzene	300	40		ppbv	40	12/13/2011 6:13 PM
Benzyl chloride	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Bromoform	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Bromomethane	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Carbon disulfide	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Chlorobenzene	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Chloroethane	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Chloroform	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Chloromethane	ND	40	U	ppbv	40	12/13/2011 6:13 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 6:13 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 6:13 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/29/2011 12:00:00 PM
Project:	Kirtland AFB		
Lab ID:	1112148-035	**Matrix:**	Air
Client Sample ID:	VA0987		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	7,800	800		ppbv	400	12/22/2011 11:12 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Ethyl acetate	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Ethylbenzene	69	80	J	ppbv	40	12/13/2011 6:13 PM
Heptane	900	40		ppbv	40	12/13/2011 6:13 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/13/2011 6:13 PM
m,p-Xylene	160	80		ppbv	40	12/13/2011 6:13 PM
Methylene chloride	ND	200	U	ppbv	40	12/13/2011 6:13 PM
n-Hexane	8,500	800		ppbv	400	12/22/2011 11:12 AM
Naphthalene	ND	40	U	ppbv	40	12/13/2011 6:13 PM
o-Xylene	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Propylene	820	40		ppbv	40	12/13/2011 6:13 PM
Styrene	ND	40	U	ppbv	40	12/13/2011 6:13 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Toluene	1,700	40		ppbv	40	12/13/2011 6:13 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2011 6:13 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Trichloroethene	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Vinyl acetate	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Vinyl chloride	ND	40	U	ppbv	40	12/13/2011 6:13 PM
Xylenes, Total	160	120		ppbv	40	12/13/2011 6:13 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	40	12/13/2011 6:13 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	3,900,000	940,000		µg/m³	8000	12/16/2011 4:44 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/16/2011 4:44 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/16/2011 4:44 PM
Surr: 4-Bromofluorobenzene	99.9	70-130		%REC	8000	12/16/2011 4:44 PM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 8:00:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-036	**Matrix:**	Air
Client Sample ID:	VA8060-TB		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/9/2011 3:16 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/9/2011 3:16 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/9/2011 3:16 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/9/2011 3:16 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/9/2011 3:16 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/9/2011 3:16 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/9/2011 3:16 AM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/9/2011 3:16 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/9/2011 3:16 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/9/2011 3:16 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/9/2011 3:16 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/9/2011 3:16 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/9/2011 3:16 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/9/2011 3:16 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/9/2011 3:16 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/9/2011 3:16 AM
2-Butanone	ND	40	U	ppbv	40	12/9/2011 3:16 AM
2-Hexanone	ND	40	U	ppbv	40	12/9/2011 3:16 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Acetone	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Benzene	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Benzyl chloride	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Bromoform	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Bromomethane	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Carbon disulfide	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Carbon tetrachloride	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Chlorobenzene	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Chloroethane	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Chloroform	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Chloromethane	ND	40	U	ppbv	40	12/9/2011 3:16 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/9/2011 3:16 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Cyclohexane	ND	80	U	ppbv	40	12/9/2011 3:16 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Ethyl acetate	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Ethylbenzene	ND	80	U	ppbv	40	12/9/2011 3:16 AM
Heptane	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/9/2011 3:16 AM
m,p-Xylene	ND	80	U	ppbv	40	12/9/2011 3:16 AM
Methylene chloride	92	200	J	ppbv	40	12/9/2011 3:16 AM

RTI Laboratories - Analytical Report

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2011 8:00:00 AM
Project:	Kirtland AFB		
Lab ID:	1112148-036	**Matrix:**	Air
Client Sample ID:	VA8060-TB		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
n-Hexane	ND	80	U	ppbv	40	12/9/2011 3:16 AM
Naphthalene	ND	40	U	ppbv	40	12/9/2011 3:16 AM
o-Xylene	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Propylene	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Styrene	ND	40	U	ppbv	40	12/9/2011 3:16 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Toluene	ND	40	U	ppbv	40	12/9/2011 3:16 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/9/2011 3:16 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Trichloroethene	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Vinyl acetate	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Vinyl chloride	ND	40	U	ppbv	40	12/9/2011 3:16 AM
Xylenes, Total	ND	120	U	ppbv	40	12/9/2011 3:16 AM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	40	12/9/2011 3:16 AM

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R44800

Sample ID:	MBLK VOA1 120711	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	44800
Client ID:	PBW	Batch ID:	R44800	TestNo:	TO-15			Analysis Date:	12/8/2011	SeqNo:	881025

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#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R44800

Sample ID:	**MBLK VOA1 120711**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**44800**
Client ID:	**PBW**	Batch ID:	**R44800**	TestNo:	**TO-15**			Analysis Date:	**12/8/2011**	SeqNo:	**881025**

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	14		12.50		113	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R44800

Sample ID:	**1111882-006Adup**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**44800**		
Client ID:	**ZZZZZZ**	Batch ID:	**R44800**	TestNo:	**TO-15**			Analysis Date:	**12/8/2011**	SeqNo:	**881034**		

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	1,100	800						928.0	14.4	25	
Benzene	2,700	800						2,392	13.1	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#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R44800**

Sample ID:	**1111882-006Adup**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**44800**
Client ID:	**ZZZZZZ**	Batch ID:	**R44800**	TestNo:	**TO-15**			Analysis Date:	**12/8/2011**	SeqNo:	**881034**

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	5,100	1,600						4,416	14.1	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	2,500	800						2,296	9.62	25	
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	980	1,600						864.0	13.0	25	J
Methylene chloride	6,200	4,000						5,640	9.72	25	
n-Hexane	5,200	1,600						4,600	11.6	25	
Naphthalene	ND	800						0	0	25	U
o-Xylene	ND	800						0	0	25	U
Propylene	1,600	800						1,584	2.04	25	
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	6,400	800						5,480	15.7	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	980	2,400						864.0	13.0	25	J
Surr: 4-Bromofluorobenzene	11,000		10,000		113	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R44856

Sample ID:	MBLK VOA1 121211	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	44856
Client ID:	PBW	Batch ID:	R44856	TestNo:	TO-15			Analysis Date:	12/12/2011	SeqNo:	882299

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#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R44856

Sample ID:	**MBLK VOA1 121211**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**44856**
Client ID:	**PBW**	Batch ID:	**R44856**	TestNo:	**TO-15**			Analysis Date:	**12/12/2011**	SeqNo:	**882299**

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	14		12.50		113	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R44856

Sample ID:	1112148-004Adup	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	44856
Client ID:	VA0746	Batch ID:	R44856	TestNo:	TO-15			Analysis Date:	12/12/2011	SeqNo:	882306

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						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	40						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40						0	0	25	U
1,1,2-Trichloroethane	ND	40						0	0	25	U
1,1-Dichloroethane	ND	40						0	0	25	U
1,1-Dichloroethene	ND	40						0	0	25	U
1,2,4-Trichlorobenzene	ND	40						0	0	25	U
1,2,4-Trimethylbenzene	ND	40						0	0	25	U
1,2-Dibromoethane	ND	40						0	0	25	U
1,2-Dichlorobenzene	ND	40						0	0	25	U
1,2-Dichloroethane	ND	40						0	0	25	U
1,2-Dichloropropane	ND	40						0	0	25	U
1,3,5-Trimethylbenzene	ND	40						0	0	25	U
1,3-Butadiene	ND	40						0	0	25	U
1,3-Dichlorobenzene	ND	40						0	0	25	U
1,4-Dichlorobenzene	ND	40						0	0	25	U
2-Butanone	ND	40						0	0	25	U
2-Hexanone	ND	40						0	0	25	U
4-Methyl-2-pentanone	ND	40						0	0	25	U
Acetone	ND	40						0	0	25	U
Benzene	59	40						66.00	11.5	25	
Benzyl chloride	ND	40						0	0	25	U
Bromodichloromethane	ND	40						0	0	25	U
Bromoform	ND	40						0	0	25	U
Bromomethane	ND	40						0	0	25	U
Carbon disulfide	ND	40						0	0	25	U
Carbon tetrachloride	ND	40						0	0	25	U
Chlorobenzene	ND	40						0	0	25	U
Chlorodibromomethane	ND	40						0	0	25	U
Chloroethane	ND	40						0	0	25	U
Chloroform	ND	40						0	0	25	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R44856

Sample ID:	**1112148-004Adup**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**44856**		
Client ID:	**VA0746**	Batch ID:	**R44856**	TestNo:	**TO-15**			Analysis Date:	**12/12/2011**	SeqNo:	**882306**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	40						0	0	25	U
cis-1,2-Dichloroethene	ND	40						0	0	25	U
cis-1,3-dichloropropene	ND	40						0	0	25	U
Cyclohexane	150	80						164.0	9.45	25	
Dichlorodifluoromethane	ND	40						0	0	25	U
Ethyl acetate	ND	40						0	0	25	U
Ethylbenzene	ND	80						0	0	25	U
Heptane	160	40						178.0	11.2	25	
Hexachlorobutadiene	ND	80						0	0	25	U
m,p-Xylene	99	80						106.4	7.41	25	
Methylene chloride	ND	200						0	0	25	U
n-Hexane	96	80						106.0	9.90	25	
Naphthalene	ND	40						0	0	25	U
o-Xylene	ND	40						0	0	25	U
Propylene	ND	40						0	0	25	U
Styrene	ND	40						0	0	25	U
tert-Butyl Methyl Ether	ND	40						0	0	25	U
Tetrachloroethene	ND	40						0	0	25	U
Tetrahydrofuran	ND	40						0	0	25	U
Toluene	380	40						426.4	11.9	25	
trans-1,2-Dichloroethene	ND	40						0	0	25	U
trans-1,3-dichloropropene	ND	40						0	0	25	U
Trichloroethene	ND	40						0	0	25	U
Trichlorofluoromethane	ND	40						0	0	25	U
Vinyl acetate	ND	40						0	0	25	U
Vinyl chloride	ND	40						0	0	25	U
Xylenes, Total	99	120						106.4	7.41	25	J
Surr: 4-Bromofluorobenzene	550		500.0		109	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R44881**

Sample ID:	**Blank 121311 VOA**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**44881**
Client ID:	**PBW**	Batch ID:	**R44881**	TestNo:	**MA_APH**			Analysis Date:	**12/13/2011**	SeqNo:	**882992**

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	83		89.50		92.7	70	130				

Sample ID:	**1111882-011Adup2**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**44881**
Client ID:	**ZZZZZZ**	Batch ID:	**R44881**	TestNo:	**MA_APH**			Analysis Date:	**12/13/2011**	SeqNo:	**883000**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	24,000	4,700						22,520	6.72	30	
C9-C10 Aromatic Hydrocarbons	ND	5,300						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	7,600						0	0	30	U
Surr: 4-Bromofluorobenzene	3,600		3,580		100	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R44886

Sample ID:	MBLK VOA1 121311	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	44886
Client ID:	PBW	Batch ID:	R44886	TestNo:	TO-15			Analysis Date:	12/13/2011	SeqNo:	883143

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#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R44886

Sample ID:	**MBLK VOA1 121311**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**44886**
Client ID:	**PBW**	Batch ID:	**R44886**	TestNo:	**TO-15**			Analysis Date:	**12/13/2011**	SeqNo:	**883143**

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	14		12.50		111	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R44921

Sample ID:	Blank 121411 VOA	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	44921
Client ID:	PBW	Batch ID:	R44921	TestNo:	MA_APH			Analysis Date:	12/14/2011	SeqNo:	883950

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	86		89.50		95.6	70	130				

Sample ID:	1112148-009Adup	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	44921
Client ID:	VA0768	Batch ID:	R44921	TestNo:	MA_APH			Analysis Date:	12/14/2011	SeqNo:	883956

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	110,000	4,700						112,800	0.606	30	
C9-C10 Aromatic Hydrocarbons	ND	5,300						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	2,300	7,600						2,010	11.7	30	J
Surr: 4-Bromofluorobenzene	3,600		3,580		100	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R44957**

Sample ID:	**Blank 121511 VOA**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**44957**
Client ID:	**PBW**	Batch ID:	**R44957**	TestNo:	**MA_APH**			Analysis Date:	**12/15/2011**	SeqNo:	**884634**

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	87		89.50		97.1	70	130				

Sample ID:	**1112148-012Adup**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**44957**
Client ID:	**VA0779**	Batch ID:	**R44957**	TestNo:	**MA_APH**			Analysis Date:	**12/15/2011**	SeqNo:	**884637**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	11,000	4,700						10,260	2.69	30	
C9-C10 Aromatic Hydrocarbons	ND	5,300						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	7,600						0	0	30	U
Surr: 4-Bromofluorobenzene	3,600		3,580		100	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R45016**

Sample ID:	**MBLK 121611 VOA9**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**45016**
Client ID:	**PBW**	Batch ID:	**R45016**	TestNo:	**MA_APH**			Analysis Date:	**12/16/2011**	SeqNo:	**885648**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	73	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	88		89.50		98.7	70	130				

Sample ID:	**1112398-010Adup**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**45016**
Client ID:	**ZZZZZZ**	Batch ID:	**R45016**	TestNo:	**MA_APH**			Analysis Date:	**12/16/2011**	SeqNo:	**885653**

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	940,000						1,373,000	5.02	30	
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000						0	0	30	U
Surr: 4-Bromofluorobenzene	740,000		716,000		103	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R45018

Sample ID:	MBLK 121911 VOA9	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45018
Client ID:	PBW	Batch ID:	R45018	TestNo:	MA_APH			Analysis Date:	12/19/2011	SeqNo:	885829

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	86		89.50		96.3	70	130				

Sample ID:	1112398-013Adup	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45018
Client ID:	ZZZZZZ	Batch ID:	R45018	TestNo:	MA_APH			Analysis Date:	12/19/2011	SeqNo:	885838

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	940,000						0	0	30	U
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000						0	0	30	U
Surr: 4-Bromofluorobenzene	730,000		716,000		103	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R45077

Sample ID:	mblk	Samp Type:	MBLK	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	45077
Client ID:	PBW	Batch ID:	R45077	TestNo:	ASTM-D2504			Analysis Date:	12/16/2011	SeqNo:	886915

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	Samp Type:	LCS	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	45077
Client ID:	LCSW	Batch ID:	R45077	TestNo:	ASTM-D2504			Analysis Date:	12/16/2011	SeqNo:	886917

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.9	0.10	2.500	0	115	70	130	2.872	0.0348	0	
Carbon Monoxide	2.8	0.10	2.500	0	112	70	130	2.796	0	0	
Methane	2.1	0.50	2.000	0	106	70	130	2.131	0.0469	0	
Nitrogen	2.7	0.10	2.500	0	107	70	130	2.684	0.112	0	
Oxygen	2.7	0.10	2.500	0	108	70	130	2.703	0.0740	0	

Sample ID:	1112148-006bdup	Samp Type:	DUP	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	45077
Client ID:	VA0760	Batch ID:	R45077	TestNo:	ASTM-D2504			Analysis Date:	12/16/2011	SeqNo:	886925

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.47	0.10						0.4750	1.48	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	79	0.10						79.53	0.218	20	
Oxygen	20	0.10						19.86	0.212	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R45080**

Sample ID:	**mblk**	Samp Type:	**MBLK**	Test Code:	**ASTM-D2504**	Units:	**%**	Prep Date:		RunNo:	**45080**
Client ID:	**PBW**	Batch ID:	**R45080**	TestNo:	**ASTM-D2504**			Analysis Date:	**12/21/2011**	SeqNo:	**886928**

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**	Samp Type:	**LCS**	Test Code:	**ASTM-D2504**	Units:	**%**	Prep Date:		RunNo:	**45080**
Client ID:	**LCSW**	Batch ID:	**R45080**	TestNo:	**ASTM-D2504**			Analysis Date:	**12/21/2011**	SeqNo:	**886930**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.8	0.10	2.500	0	111	70	130	2.820	1.28	0	
Carbon Monoxide	2.7	0.10	2.500	0	108	70	130	2.800	3.27	0	
Methane	2.1	0.50	2.000	0	103	70	130	2.056	0.582	0	
Nitrogen	2.6	0.10	2.500	0	105	70	130	2.842	7.60	0	
Oxygen	2.6	0.10	2.500	0	105	70	130	2.705	3.35	0	

Sample ID:	**1112148-032bdup**	Samp Type:	**DUP**	Test Code:	**ASTM-D2504**	Units:	**%**	Prep Date:		RunNo:	**45080**
Client ID:	**VA0984**	Batch ID:	**R45080**	TestNo:	**ASTM-D2504**			Analysis Date:	**12/21/2011**	SeqNo:	**886942**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.12	0.10						0.1220	0	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	77	0.10						77.11	0.331	20	
Oxygen	21	0.10						20.72	0.453	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R45081

Sample ID:	mblk	Samp Type:	MBLK	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	45081
Client ID:	PBW	Batch ID:	R45081	TestNo:	ASTM-D2504			Analysis Date:	12/20/2011	SeqNo:	886967

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	Samp Type:	LCS	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	45081
Client ID:	LCSW	Batch ID:	R45081	TestNo:	ASTM-D2504			Analysis Date:	12/20/2011	SeqNo:	886969

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	3.0	0.10	2.500	0	119	70	130	2.861	3.81	0	
Carbon Monoxide	2.8	0.10	2.500	0	111	70	130	2.769	0.648	0	
Methane	2.1	0.50	2.000	0	105	70	130	2.086	0.717	0	
Nitrogen	2.7	0.10	2.500	0	107	70	130	2.656	0.563	0	
Oxygen	2.7	0.10	2.500	0	108	70	130	2.674	0.671	0	

Sample ID:	1112148-016bdup	Samp Type:	DUP	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	45081
Client ID:	VA0783	Batch ID:	R45081	TestNo:	ASTM-D2504			Analysis Date:	12/20/2011	SeqNo:	886981

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.86	0.10						0.8690	0.925	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	82	0.10						82.29	0.0438	20	
Oxygen	17	0.10						16.78	0.101	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R45087

Sample ID:	MBLK VOA1 122111	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45087
Client ID:	PBW	Batch ID:	R45087	TestNo:	TO-15			Analysis Date:	12/22/2011	SeqNo:	887750

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#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R45087

Sample ID:	MBLK VOA1 122111	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45087
Client ID:	PBW	Batch ID:	R45087	TestNo:	TO-15			Analysis Date:	12/22/2011	SeqNo:	887750

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	14		12.50		111	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R45087

Sample ID:	1112148-018Adup	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45087		
Client ID:	VA0818	Batch ID:	R45087	TestNo:	TO-15			Analysis Date:	12/22/2011	SeqNo:	887755		

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						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	40						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40						0	0	25	U
1,1,2-Trichloroethane	ND	40						0	0	25	U
1,1-Dichloroethane	ND	40						0	0	25	U
1,1-Dichloroethene	ND	40						0	0	25	U
1,2,4-Trichlorobenzene	ND	40						0	0	25	U
1,2,4-Trimethylbenzene	69	40						90.40	26.6	25	R
1,2-Dibromoethane	ND	40						0	0	25	U
1,2-Dichlorobenzene	ND	40						0	0	25	U
1,2-Dichloroethane	ND	40						0	0	25	U
1,2-Dichloropropane	ND	40						0	0	25	U
1,3,5-Trimethylbenzene	ND	40						0	0	25	U
1,3-Butadiene	ND	40						0	0	25	U
1,3-Dichlorobenzene	ND	40						0	0	25	U
1,4-Dichlorobenzene	ND	40						0	0	25	U
2-Butanone	ND	40						0	0	25	U
2-Hexanone	ND	40						0	0	25	U
4-Methyl-2-pentanone	ND	40						0	0	25	U
Acetone	ND	40						0	0	25	U
Benzene	180	40						163.2	7.32	25	
Benzyl chloride	ND	40						0	0	25	U
Bromodichloromethane	ND	40						0	0	25	U
Bromoform	ND	40						0	0	25	U
Bromomethane	ND	40						0	0	25	U
Carbon disulfide	ND	40						0	0	25	U
Carbon tetrachloride	ND	40						0	0	25	U
Chlorobenzene	ND	40						0	0	25	U
Chlorodibromomethane	ND	40						0	0	25	U
Chloroethane	ND	40						0	0	25	U
Chloroform	ND	40						0	0	25	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R45087

Sample ID:	**1112148-018Adup**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**45087**		
Client ID:	**VA0818**	Batch ID:	**R45087**	TestNo:	**TO-15**			Analysis Date:	**12/22/2011**	SeqNo:	**887755**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	40						0	0	25	U
cis-1,2-Dichloroethene	ND	40						0	0	25	U
cis-1,3-dichloropropene	ND	40						0	0	25	U
Cyclohexane	310	80						299.2	5.08	25	
Dichlorodifluoromethane	ND	40						0	0	25	U
Ethyl acetate	ND	40						0	0	25	U
Ethylbenzene	130	80						166.0	21.9	25	
Heptane	610	40						636.4	4.96	25	
Hexachlorobutadiene	ND	80						0	0	25	U
m,p-Xylene	440	80						530.8	19.2	25	
Methylene chloride	ND	200						0	0	25	U
n-Hexane	160	80						154.0	6.05	25	
Naphthalene	ND	40						0	0	25	U
o-Xylene	130	40						155.6	17.6	25	
Propylene	ND	40						0	0	25	U
Styrene	ND	40						0	0	25	U
tert-Butyl Methyl Ether	ND	40						0	0	25	U
Tetrachloroethene	ND	40						0	0	25	U
Tetrahydrofuran	ND	40						0	0	25	U
Toluene	1,300	40						1,350	6.48	25	
trans-1,2-Dichloroethene	ND	40						0	0	25	U
trans-1,3-dichloropropene	ND	40						0	0	25	U
Trichloroethene	ND	40						0	0	25	U
Trichlorofluoromethane	ND	40						0	0	25	U
Vinyl acetate	ND	40						0	0	25	U
Vinyl chloride	ND	40						0	0	25	U
Xylenes, Total	570	120						686.4	18.9	25	
Surr: 4-Bromofluorobenzene	530		500.0		106	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R45089**

Sample ID:	**1112398-018Adup**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**45089**
Client ID:	**ZZZZZZ**	Batch ID:	**R45089**	TestNo:	**MA_APH**			Analysis Date:	**12/22/2011**	SeqNo:	**887171**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	2,100,000	940,000						1,985,000	7.45	30	
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000						0	0	30	U
Surr: 4-Bromofluorobenzene	700,000		716,000		97.9	70	130		0	30	

Sample ID:	**Blank 122111 VOA**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**45089**
Client ID:	**PBW**	Batch ID:	**R45089**	TestNo:	**MA_APH**			Analysis Date:	**12/22/2011**	SeqNo:	**887174**

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				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R45120**

Sample ID:	**Blank 122211 VOA**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**45120**
Client ID:	**PBW**	Batch ID:	**R45120**	TestNo:	**MA_APH**			Analysis Date:	**12/22/2011**	SeqNo:	**887797**

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	86		89.50		95.7	70	130				

Sample ID:	**1112696-028Adup**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**45120**
Client ID:	**ZZZZZZ**	Batch ID:	**R45120**	TestNo:	**MA_APH**			Analysis Date:	**12/22/2011**	SeqNo:	**887800**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	940,000						0	0	30	U
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000						0	0	30	U
Surr: 4-Bromofluorobenzene	690,000		716,000		96.1	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R45160

Sample ID:	VOA1 MBLK 122711	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45160
Client ID:	PBW	Batch ID:	R45160	TestNo:	TO-15			Analysis Date:	12/28/2011	SeqNo:	888354

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#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R45160

Sample ID:	**VOA1 MBLK 122711**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**45160**
Client ID:	**PBW**	Batch ID:	**R45160**	TestNo:	**TO-15**			Analysis Date:	**12/28/2011**	SeqNo:	**888354**

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	15		12.50		117	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R45160

Sample ID:	1112148-023Adup	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45160
Client ID:	VA0823	Batch ID:	R45160	TestNo:	TO-15			Analysis Date:	12/28/2011	SeqNo:	888358

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	8,000						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	8,000						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000						0	0	25	U
1,1,2-Trichloroethane	ND	8,000						0	0	25	U
1,1-Dichloroethane	ND	8,000						0	0	25	U
1,1-Dichloroethene	ND	8,000						0	0	25	U
1,2,4-Trichlorobenzene	ND	8,000						0	0	25	U
1,2,4-Trimethylbenzene	ND	8,000						0	0	25	U
1,2-Dibromoethane	ND	8,000						0	0	25	U
1,2-Dichlorobenzene	ND	8,000						0	0	25	U
1,2-Dichloroethane	ND	8,000						0	0	25	U
1,2-Dichloropropane	ND	8,000						0	0	25	U
1,3,5-Trimethylbenzene	ND	8,000						0	0	25	U
1,3-Butadiene	ND	8,000						0	0	25	U
1,3-Dichlorobenzene	ND	8,000						0	0	25	U
1,4-Dichlorobenzene	ND	8,000						0	0	25	U
2-Butanone	ND	8,000						0	0	25	U
2-Hexanone	ND	8,000						0	0	25	U
4-Methyl-2-pentanone	ND	8,000						0	0	25	U
Acetone	ND	8,000						0	0	25	U
Benzene	17,000	8,000						13,520	23.5	25	
Benzyl chloride	ND	8,000						0	0	25	U
Bromodichloromethane	ND	8,000						0	0	25	U
Bromoform	ND	8,000						0	0	25	U
Bromomethane	ND	8,000						0	0	25	U
Carbon disulfide	ND	8,000						0	0	25	U
Carbon tetrachloride	ND	8,000						0	0	25	U
Chlorobenzene	ND	8,000						0	0	25	U
Chlorodibromomethane	ND	8,000						0	0	25	U
Chloroethane	ND	8,000						0	0	25	U
Chloroform	ND	8,000						0	0	25	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112148

Date Reported: 12/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R45160

Sample ID:	**1112148-023Adup**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**45160**
Client ID:	**VA0823**	Batch ID:	**R45160**	TestNo:	**TO-15**			Analysis Date:	**12/28/2011**	SeqNo:	**888358**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	8,000						0	0	25	U
cis-1,2-Dichloroethene	ND	8,000						0	0	25	U
cis-1,3-dichloropropene	ND	8,000						0	0	25	U
Cyclohexane	54,000	16,000						48,640	10.7	25	
Dichlorodifluoromethane	ND	8,000						0	0	25	U
Ethyl acetate	ND	8,000						0	0	25	U
Ethylbenzene	ND	16,000						0	0	25	U
Heptane	20,000	8,000						17,680	12.3	25	
Hexachlorobutadiene	ND	16,000						0	0	25	U
m,p-Xylene	ND	16,000						0	0	25	U
Methylene chloride	ND	40,000						0	0	25	U
n-Hexane	58,000	16,000						49,200	16.8	25	
Naphthalene	ND	8,000						0	0	25	U
o-Xylene	ND	8,000						0	0	25	U
Propylene	ND	8,000						0	0	25	U
Styrene	ND	8,000						0	0	25	U
tert-Butyl Methyl Ether	ND	8,000						0	0	25	U
Tetrachloroethene	ND	8,000						0	0	25	U
Tetrahydrofuran	ND	8,000						0	0	25	U
Toluene	54,000	8,000						42,320	24.0	25	
trans-1,2-Dichloroethene	ND	8,000						0	0	25	U
trans-1,3-dichloropropene	ND	8,000						0	0	25	U
Trichloroethene	ND	8,000						0	0	25	U
Trichlorofluoromethane	ND	8,000						0	0	25	U
Vinyl acetate	ND	8,000						0	0	25	U
Vinyl chloride	ND	8,000						0	0	25	U
Xylenes, Total	ND	24,000						0	0	25	U
Surr: 4-Bromofluorobenzene	110,000		100,000		107	70	130		0	25	

RTI Laboratories

Run ID: VOA1_111207B **Run No.:** 44800

Analytical Run Date: 12/7/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 44800 **Column ID:** 0.25mm, 1.4umFT

Column Length: 30m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 VOA1 120711	BFB_TUNE	TUNE	R44800	12/7/2011 12:26:00 PM	Robert Lynch		
1ppbv ICAL	EPA_TO15	ICAL	R44800	12/7/2011 4:58:00 PM	Robert Lynch		
10ppbv ICAL	EPA_TO15	ICAL	R44800	12/7/2011 5:39:00 PM	Robert Lynch		
12ppbv ICAL	EPA_TO15	ICAL	R44800	12/7/2011 6:21:00 PM	Robert Lynch		
15ppbv ICAL	EPA_TO15	ICAL	R44800	12/7/2011 7:02:00 PM	Robert Lynch		
20ppbv ICAL	EPA_TO15	ICAL	R44800	12/7/2011 7:44:00 PM	Robert Lynch		
30ppbv ICAL	EPA_TO15	ICAL	R44800	12/7/2011 8:26:00 PM	Robert Lynch		
50ppbv ICAL	EPA_TO15	ICAL	R44800	12/7/2011 9:10:00 PM	Robert Lynch		
BFB2 VOA1 120711	BFB_TUNE	TUNE	R44800	12/7/2011 9:50:00 PM	Robert Lynch		
ICV VOA1 120711	EPA_TO15	ICV	R44800	12/7/2011 10:31:00 PM	Robert Lynch		
BFB3 VOA1 120711	BFB_TUNE	TUNE	R44800	12/8/2011 6:42:00 AM	Robert Lynch		
CCV VOA1 120711	EPA_TO15	CCV	R44800	12/8/2011 7:24:00 AM	Robert Lynch		
RLVS VOA1 120711	EPA_TO15	RLVS	R44800	12/8/2011 9:06:00 AM	Robert Lynch		
MBLK VOA1 120711	EPA_TO15	MBLK	R44800	12/8/2011 9:54:00 AM	Charles O`Bryan		
1111752-034A	EPA_TO15	SAMP	R44800	12/8/2011 1:05:00 PM	Robert Lynch		
1111752-037A	EPA_TO15	SAMP	R44800	12/8/2011 1:50:00 PM	Robert Lynch		
1111882-001A	EPA_TO15	SAMP	R44800	12/8/2011 2:33:00 PM	Robert Lynch		
1111882-002A	EPA_TO15	SAMP	R44800	12/8/2011 3:15:00 PM	Robert Lynch		
1111882-003A	EPA_TO15	SAMP	R44800	12/8/2011 3:56:00 PM	Robert Lynch		
1111882-004A	EPA_TO15	SAMP	R44800	12/8/2011 4:45:00 PM	Robert Lynch		
1111882-005A	EPA_TO15	SAMP	R44800	12/8/2011 5:26:00 PM	Robert Lynch		
1111882-006A	EPA_TO15	SAMP	R44800	12/8/2011 6:10:00 PM	Robert Lynch		
1111882-006Adup	EPA_TO15	DUP	R44800	12/8/2011 6:54:00 PM	Charles O`Bryan		
1111882-007A	EPA_TO15	SAMP	R44800	12/8/2011 7:38:00 PM	Robert Lynch		
1111882-008A	EPA_TO15	SAMP	R44800	12/8/2011 8:19:00 PM	Robert Lynch		
1111882-009A	EPA_TO15	SAMP	R44800	12/8/2011 9:00:00 PM	Robert Lynch		
1111882-010A	EPA_TO15	SAMP	R44800	12/8/2011 9:41:00 PM	Robert Lynch		
1111882-015A	EPA_TO15	SAMP	R44800	12/8/2011 11:44:00 PM	Robert Lynch		
1111752-032A	EPA_TO15	SAMP	R44800	12/9/2011 12:28:00 AM	Robert Lynch		
1111752-037A	EPA_TO15	SAMP	R44800	12/9/2011 1:09:00 AM	Robert Lynch		
1111882-013A	EPA_TO15	SAMP	R44800	12/9/2011 1:50:00 AM	Robert Lynch		
1111882-014A	EPA_TO15	SAMP	R44800	12/9/2011 2:35:00 AM	Robert Lynch		
1112148-036A	EPA_TO15	SAMP	R44800	12/9/2011 3:16:00 AM	Robert Lynch		
RLVS2 VOA1 12071	EPA_TO15	RLVS	R44800	12/9/2011 4:39:00 AM	Robert Lynch		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
881022	ICV VOA1 120711	EPA_TO15	ICV	\1\DATA\120711	12/7/2011 10:31:	1	R44800		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	11.55	11.55		9.6	0	0	0.107	1	0	120%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	11.73	11.73		10	0	0	0.211	1	0	117%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	12.11	12.11		9.8	0	0	0.108	1	0	124%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	11.71	11.71		9.8	0	0	0.2	1	0	119%	70	130	0%	
1,1-Dichloroethane	A	ppbv	11.57	11.57		9.7	0	0	0.111	1	0	119%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.85	11.85		9.9	0	0	0.097	1	0	120%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.21	9.21		9.1	0	0	0.271	1	0	101%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	11.15	11.15		9.8	0	0	0.245	1	0	114%	70	130	0%	
1,2-Dibromoethane	A	ppbv	11.45	11.45		9.6	0	0	0.186	1	0	119%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	11.16	11.16		9.7	0	0	0.208	1	0	115%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.7	11.7		9.7	0	0	0.196	1	0	121%	70	130	0%	
1,2-Dichloropropane	A	ppbv	12.11	12.11		9.8	0	0	0.224	1	0	124%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	11.09	11.09		9.7	0	0	0.24	1	0	114%	70	130	0%	
1,3-Butadiene	A	ppbv	11.92	11.92		9.8	0	0	0.152	1	0	122%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	11.17	11.17		9.7	0	0	0.202	1	0	115%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	11.12	11.12		9.6	0	0	0.194	1	0	116%	70	130	0%	
1,4-Dioxane	A	ppbv	11.78	11.78		9.6	0	0	0.128	1	0	123%	70	130	0%	
2-Butanone	A	ppbv	12.57	12.57		9.9	0	0	0.287	1	0	127%	70	130	0%	
2-Hexanone	A	ppbv	12.05	12.05		9.8	0	0	0.135	1	0	123%	70	130	0%	
2-Propanol	A	ppbv	12.18	12.18		10.1	0	0	0.329	1	0	121%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	12.24	12.24		10	0	0	0.157	1	0	122%	70	130	0%	
Acetone	A	ppbv	12.5	12.5		10	0	0	0.43	1	0	125%	70	130	0%	
Benzene	A	ppbv	11.82	11.82		9.6	0	0	0.126	1	0	123%	70	130	0%	
Benzyl chloride	A	ppbv	11.95	11.95		9.7	0	0	0.155	1	0	123%	70	130	0%	
Bromodichloromethane	A	ppbv	11.63	11.63		9.6	0	0	0.156	1	0	121%	70	130	0%	
Bromoform	A	ppbv	11.54	11.54		9.6	0	0	0.197	1	0	120%	70	130	0%	
Bromomethane	A	ppbv	10.4	10.4		9.3	0	0	0.075	1	0	112%	70	130	0%	
Carbon disulfide	A	ppbv	11.35	11.35		9.7	0	0	0.093	1	0	117%	70	130	0%	
Carbon tetrachloride	A	ppbv	11.2	11.2		9.5	0	0	0.114	1	0	118%	70	130	0%	
Chlorobenzene	A	ppbv	11.88	11.88		9.9	0	0	0.275	1	0	120%	70	130	0%	
Chlorodibromomethane	A	ppbv	11.69	11.69		9.2	0	0	0.165	1	0	127%	70	130	0%	
Chloroethane	A	ppbv	10.56	10.56		9.8	0	0	0.063	1	0	108%	70	130	0%	
Chloroform	A	ppbv	11.63	11.63		9.4	0	0	0.126	1	0	124%	70	130	0%	
Chloromethane	A	ppbv	10.55	10.55		9.8	0	0	0.104	1	0	108%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
881022	ICV VOA1 120711	EPA_TO15	ICV	\1\DATA\120711	12/7/2011 10:31:	1	R44800		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
cis-1,2-Dichloroethene	A	ppbv	11.56	11.56		9.8	0	0	0.107	1	0	118%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	11.63	11.63		9.5	0	0	0.166	1	0	122%	70	130	0%	
Cyclohexane	A	ppbv	12.19	12.19		9.8	0	0	0.684	2	0	124%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.76	9.76		9.2	0	0	0.086	1	0	106%	70	130	0%	
Ethanol	A	ppbv	11.5	11.5		9.2	0	0	1.962	5	0	125%	70	130	0%	
Ethyl acetate	A	ppbv	12.01	12.01		9.8	0	0	0.157	1	0	123%	70	130	0%	
Ethylbenzene	A	ppbv	11.92	11.92		9.8	0	0	0.737	2	0	122%	70	130	0%	
Heptane	A	ppbv	12.32	12.32		9.9	0	0	0.249	1	0	124%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.56	9.56		9.4	0	0	0.374	2	0	102%	70	130	0%	
m,p-Xylene	A	ppbv	24.33	24.33		19.2	0	0	0.524	2	0	127%	70	130	0%	
Methylene chloride	A	ppbv	11.36	11.36		10	0	0	2.077	5	0	114%	70	130	0%	
n-Hexane	A	ppbv	12.08	12.08		10.1	0	0	0.692	2	0	120%	70	130	0%	
Naphthalene	A	ppbv	9.24	9.24		9.2	0	0	0.247	1	0	100%	70	130	0%	
o-Xylene	A	ppbv	12.52	12.52		10	0	0	0.258	1	0	125%	70	130	0%	
Propylene	A	ppbv	10.81	10.81		10.2	0	0	0.075	1	0	106%	70	130	0%	
Styrene	A	ppbv	12.08	12.08		9.8	0	0	0.263	1	0	123%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	12.24	12.24		9.9	0	0	0.228	1	0	124%	70	130	0%	
Tetrachloroethene	A	ppbv	11.61	11.61		9.6	0	0	0.148	1	0	121%	70	130	0%	
Tetrahydrofuran	A	ppbv	12.37	12.37		10	0	0	0.201	1	0	124%	70	130	0%	
Toluene	A	ppbv	12.01	12.01		9.8	0	0	0.158	1	0	123%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.63	11.63		9.8	0	0	0.117	1	0	119%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.97	10.97		9.1	0	0	0.171	1	0	121%	70	130	0%	
Trichloroethene	A	ppbv	11.5	11.5		9.6	0	0	0.119	1	0	120%	70	130	0%	
Trichlorofluoromethane	A	ppbv	11.03	11.03		9.6	0	0	0.148	1	0	115%	70	130	0%	
Vinyl acetate	A	ppbv	12.84	12.84		9.9	0	0	0.266	1	0	130%	70	130	0%	
Vinyl chloride	A	ppbv	11.65	11.65		9.4	0	0	0.072	1	0	124%	70	130	0%	
Xylenes, Total	C	ppbv	36.85	36.85		29.2	0	0	0.782	3	0	126%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		1.25	0	0	0	0	0	1000%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.8	12.8		12.5	0	0	0	0	0	102%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\120711\12071115.D
Acq On : 8 Dec 2011 7:24 am
Sample : CCV VOA1 120711
Misc : CCV EPA TO15
MS Integration Params: CLME.P

Vial: 2
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	118	0.00
2	T	Propylene	1.210	1.232	-1.8	111	0.00
3	T	Dichlorodifluoromethane	3.234	3.301	-2.1	110	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.367	2.539	-7.3	114	0.00
5	T	Chloromethane	1.111	1.080	2.8	101	0.00
6	T	Vinyl chloride	1.356	1.607	-18.5	109	0.00
7	T	1,3-Butadiene	1.043	1.204	-15.4	107	-0.01
8	T	Bromomethane	1.267	1.364	-7.7	114	0.00
9	T	Chloroethane	0.750	0.807	-7.6	112	0.00
10	T	Trichlorofluoromethane	2.606	2.755	-5.7	108	0.00
11	T	Ethanol	0.327	0.292	10.7	85	0.00
12	T	Freon113	2.214	2.301	-3.9	100	0.00
13	T	1,1-Dichloroethene	1.735	1.817	-4.7	103	0.00
14	T	Acetone	1.666	1.381	17.1	76	0.00
15	T	Carbon disulfide	3.296	3.569	-8.3	109	0.00
16	T	2-Propanol	1.615	1.473	8.8	88	0.00
17	T	Methylene chloride	1.417	1.333	5.9	95	0.00
18	T	tert-Butyl Methyl Ether	2.438	1.956	19.8	74	0.00
19	T	trans-1,2-Dichloroethene	1.702	1.649	3.1	95	0.00
20	T	n-Hexane	1.880	1.839	2.2	95	0.00
21	T	1,1-Dichloroethane	2.017	1.891	6.2	92	0.00
22	T	Vinyl acetate	2.647	2.225	15.9	74	0.00
23	T	cis-1,2-Dichloroethene	1.189	1.122	5.6	93	0.00
24	T	2-Butanone	1.782	1.470	17.5	76	0.00
25	T	Ethyl acetate	2.392	1.923	19.6	72	0.00
26	T	Tetrahydrofuran	1.046	0.914	12.6	79	0.00
27	T	Chloroform	2.084	2.005	3.8	92	0.00
28	T	1,1,1-Trichloroethane	1.971	1.897	3.8	92	0.00
29	T	Cyclohexane	1.785	1.809	-1.3	94	0.00
30	T	Carbon tetrachloride	1.891	1.793	5.2	92	0.00
31	T	Benzene	2.941	2.552	13.2	80	0.00
32	T	1,2-Dichloroethane	1.142	0.964	15.6	78	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	126	0.00
34	T	Heptane	0.666	0.633	5.0	92	0.00
35	T	Trichloroethene	0.424	0.392	7.5	95	0.00
36	T	1,2-Dichloropropane	0.337	0.279	17.2	80	0.00
37	T	1,4-Dioxane	0.135	0.117	13.3	86	0.00
38	T	Bromodichloromethane	0.580	0.501	13.6	85	0.00
39	T	cis-1,3-Dichloropropene	0.500	0.424	15.2	84	0.00
40	T	4-Methyl-2-pentanone	0.220	0.188	14.5	84	0.00
41	T	Toluene	0.917	0.777	15.3	83	0.00
42	T	trans-1,3-Dichloropropene	0.421	0.363	13.8	86	0.00
43	T	1,1,2-Trichloroethane	0.320	0.271	15.3	86	0.00
44	T	Tetrachloroethene	0.459	0.438	4.6	97	0.00
45	T	2-Hexanone	0.434	0.372	14.3	83	0.00
46	T	Chlorodibromomethane	0.472	0.411	12.9	88	0.00
47	T	1,2-Dibromoethane	0.456	0.397	12.9	88	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	126	0.00
49	T	Chlorobenzene	0.917	0.799	12.9	88	0.00
50	T	Ethylbenzene	1.485	1.292	13.0	86	0.00
51	T	m,p-Xylene	1.100	1.020	7.3	88	0.00
52	T	o-Xylene	1.071	0.961	10.3	90	0.00
53	T	Styrene	0.777	0.712	8.4	92	0.00
54	T	Bromoform	0.578	0.621	-7.4	109	0.00
55	S	4-Bromofluorobenzene	0.571	0.613	-7.4	134	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\120711\12071115.D Vial: 2
Acq On : 8 Dec 2011 7:24 am Operator: RACHEL HILL
Sample : CCV VOA1 120711 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.850	0.817	3.9	97	0.00
57	T	4-Ethyltoluene	1.317	1.188	9.8	95	0.00
58	T	1,3,5-Trimethylbenzene	1.097	0.998	9.0	97	0.00
59	T	1,2,4-Trimethylbenzene	1.050	0.984	6.3	99	0.00
60	T	1,3-Dichlorobenzene	0.661	0.639	3.3	99	0.00
61	T	1,4-Dichlorobenzene	0.612	0.588	3.9	98	0.00
62	T	Benzyl chloride	0.745	0.748	-0.4	95	0.00
63	T	1,2-Dichlorobenzene	0.613	0.608	0.8	101	0.00
64	T	1,2,4-Trichlorobenzene	0.104	0.091	12.5	96	0.00
65	T	Hexachlorobutadiene	0.239	0.211	11.7	96	0.00
66		Naphthalene	0.165	0.154	6.7	103	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12071115.D 120711V1.M Fri Dec 09 17:11:47 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\120711\12071115.D
Acq On : 8 Dec 2011 7:24 am
Sample : CCV VOA1 120711
Misc : CCV EPA TO15
MS Integration Params: CLME.P
Quant Time: Dec 9 10:07 2011

Vial: 2
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Quant Results File: 120711V1.RES

Quant Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Initial Calibration
DataAcq Meth : 120711V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.59	130	664724	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	2278810	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.54	117	1425733	12.50 ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.19	95	873994	13.43 ppbv	0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 107.44%		

Target Compounds					Qvalue
2) Propylene	5.52	41	668288	10.39 ppbv	99
3) Dichlorodifluoromethane	5.59	85	1614735	9.39 ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	1282915	10.19 ppbv #	81
5) Chloromethane	6.00	50	545589	9.23 ppbv	99
6) Vinyl chloride	6.21	62	803491	11.14 ppbv	100
7) 1,3-Butadiene	6.27	39	627212	11.31 ppbv	97
8) Bromomethane	6.85	94	674340	10.01 ppbv	99
9) Chloroethane	7.01	64	395025	9.91 ppbv	100
10) Trichlorofluoromethane	7.34	101	1406586	10.15 ppbv	99
11) Ethanol	7.57	45	142682	8.21 ppbv	99
12) Freon113	7.99	101	1199038	10.19 ppbv	92
13) 1,1-Dichloroethene	8.10	61	956634	10.37 ppbv	96
14) Acetone	8.19	43	734389	8.29 ppbv	97
15) Carbon disulfide	8.47	76	1840941	10.50 ppbv #	100
16) 2-Propanol	8.23	45	791195	9.21 ppbv #	72
17) Methylene chloride	8.76	49	708777	9.41 ppbv	91
18) tert-Butyl Methyl Ether	8.95	73	1029536	7.94 ppbv #	92
19) trans-1,2-Dichloroethene	9.04	61	859139	9.49 ppbv	94
20) n-Hexane	9.22	57	987777	9.88 ppbv	98
21) 1,1-Dichloroethane	9.60	63	975570	9.09 ppbv	98
22) Vinyl acetate	9.53	43	1171438	8.32 ppbv	98
23) cis-1,2-Dichloroethene	10.29	96	584640	9.25 ppbv	95
24) 2-Butanone	10.25	43	773662	8.17 ppbv	94
25) Ethyl acetate	10.20	43	1001950	7.88 ppbv #	99
26) Tetrahydrofuran	10.59	42	486112	8.74 ppbv	94
27) Chloroform	10.60	83	1044673	9.43 ppbv	100
28) 1,1,1-Trichloroethane	10.86	97	968410	9.24 ppbv	98
29) Cyclohexane	10.87	56	942886	9.93 ppbv	94
30) Carbon tetrachloride	11.02	117	905721	9.01 ppbv	99
31) Benzene	11.30	78	1302841	8.33 ppbv	99
32) 1,2-Dichloroethane	11.38	62	497476	8.19 ppbv	98
34) Heptane	11.35	43	1141727	9.40 ppbv	94
35) Trichloroethene	12.03	130	686045	8.88 ppbv	95
36) 1,2-Dichloropropane	12.39	63	498232	8.10 ppbv	96
37) 1,4-Dioxane	12.46	88	204136	8.29 ppbv	94
38) Bromodichloromethane	12.67	83	876450	8.29 ppbv	99
39) cis-1,3-Dichloropropene	13.22	75	734046	8.05 ppbv	98
40) 4-Methyl-2-pentanone	13.33	58	343263	8.55 ppbv	93
41) Toluene	13.63	91	1388507	8.31 ppbv	98
42) trans-1,3-Dichloropropene	13.93	75	601718	7.85 ppbv	98
43) 1,1,2-Trichloroethane	14.21	97	483423	8.29 ppbv	97
44) Tetrachloroethene	14.33	166	767228	9.16 ppbv	99
45) 2-Hexanone	14.41	43	665225	8.41 ppbv	99
46) Chlorodibromomethane	14.75	129	734388	8.53 ppbv	100
47) 1,2-Dibromoethane	14.99	107	694160	8.34 ppbv	99
49) Chlorobenzene	15.58	112	902447	8.62 ppbv	95
50) Ethylbenzene	15.63	91	1444541	8.53 ppbv	95
51) m,p-Xylene	15.78	91	2234057	17.81 ppbv	95
52) o-Xylene	16.37	91	1095931	8.98 ppbv	94

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\120711\12071115.D
Acq On : 8 Dec 2011 7:24 am
Sample : CCV VOA1 120711
Misc : CCV EPA TO15
MS Integration Params: CLME.P
Quant Time: Dec 9 10:07 2011

Vial: 2
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Quant Results File: 120711V1.RES

Quant Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Initial Calibration
DataAcq Meth : 120711V1

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
53) Styrene	16.40	104	795463	8.98 ppbv	98
54) Bromoform	16.78	173	679825	10.31 ppbv	99
56) 1,1,2,2-Tetrachloroethane	17.36	83	931686	9.61 ppbv #	99
57) 4-Ethyltoluene	17.60	105	1327700	8.84 ppbv	97
58) 1,3,5-Trimethylbenzene	17.69	105	1104505	8.83 ppbv	97
59) 1,2,4-Trimethylbenzene	18.27	105	1099879	9.18 ppbv	98
60) 1,3-Dichlorobenzene	18.83	146	707211	9.38 ppbv	99
61) 1,4-Dichlorobenzene	18.97	146	644122	9.23 ppbv	99
62) Benzyl chloride	19.18	91	827643	9.73 ppbv	98
63) 1,2-Dichlorobenzene	19.62	146	673111	9.63 ppbv	99
64) 1,2,4-Trichlorobenzene	22.77	180	94548	7.95 ppbv	98
65) Hexachlorobutadiene	22.97	225	226057	8.29 ppbv	99
66) Naphthalene	23.46	128	161656	8.59 ppbv	99

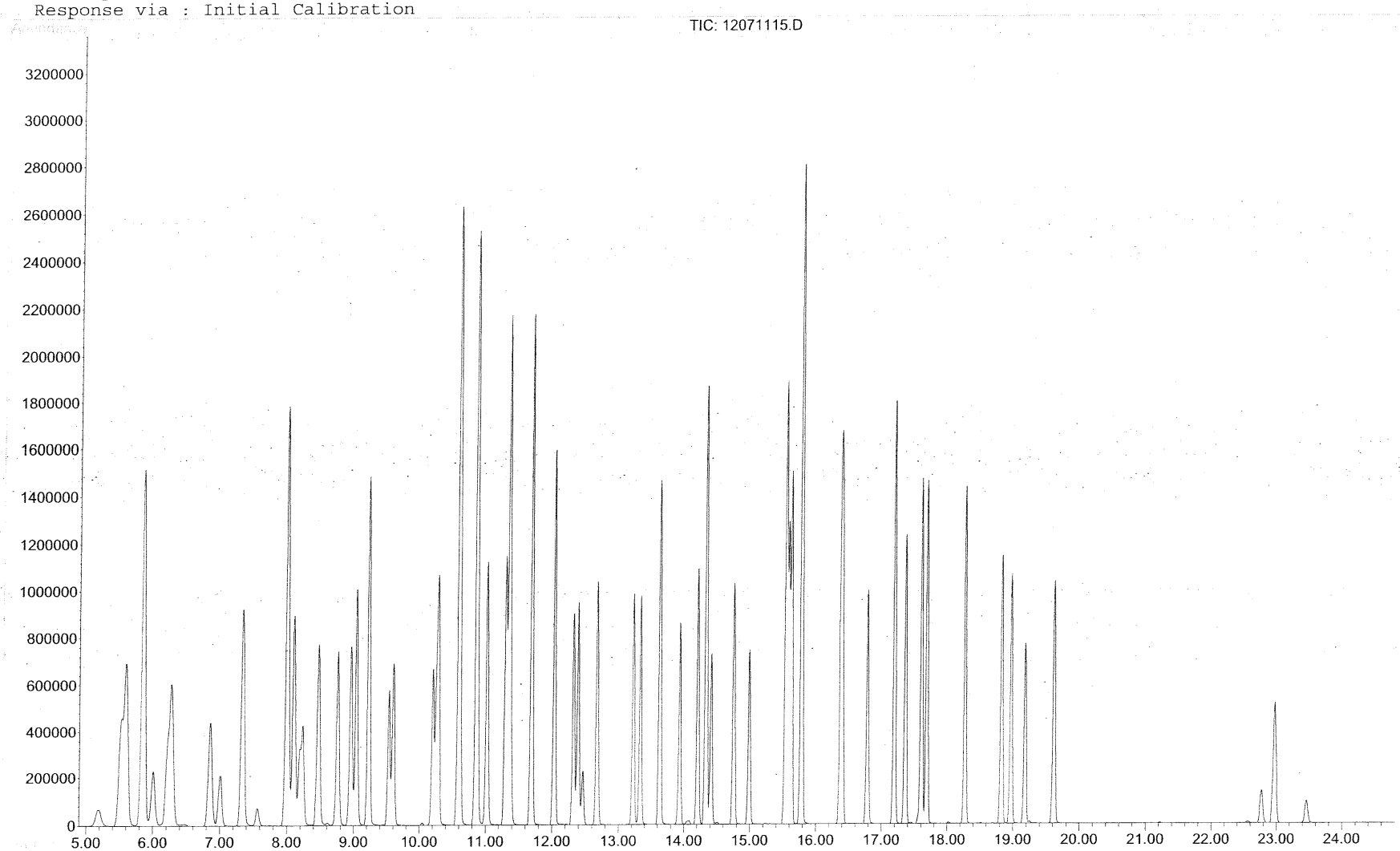
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\120711\12071115.D
Acq On : 8 Dec 2011 7:24 am
Sample : CCV VOA1 120711
Misc : CCV EPA TO15
MS Integration Params: CLME.P
Quant Time: Dec 9 10:07 2011

Vial: 2
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00
Quant Results File: 120711V1.RES

Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_111212A **Run No.:** 44856

Analytical Run Date: 12/12/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 44800 **Column ID:** 0.25mm, 1.4umFT

Column Length: 30m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 VOA1 121211	BFB_TUNE	TUNE	R44856	12/12/2011 10:56:00 AM	Robert Lynch		
CCV VOA1 121211	EPA_TO15	CCV	R44856	12/12/2011 11:53:00 AM	Robert Lynch		
RLVS VOA1 121211	EPA_TO15	RLVS	R44856	12/12/2011 2:02:00 PM	Robert Lynch		
MBLK VOA1 121211	EPA_TO15	MBLK	R44856	12/12/2011 2:51:00 PM	Charles O`Bryan		
1111882-011A	EPA_TO15	SAMP	R44856	12/12/2011 3:32:00 PM	Robert Lynch		
1111882-012A	EPA_TO15	SAMP	R44856	12/12/2011 4:14:00 PM	Robert Lynch		
1112148-001A	EPA_TO15	SAMP	R44856	12/12/2011 4:54:00 PM	Robert Lynch		
1112148-002A	EPA_TO15	SAMP	R44856	12/12/2011 5:36:00 PM	Robert Lynch		
1112148-003A	EPA_TO15	SAMP	R44856	12/12/2011 6:17:00 PM	Robert Lynch		
1112148-004A	EPA_TO15	SAMP	R44856	12/12/2011 6:58:00 PM	Robert Lynch		
1112148-004Adup	EPA_TO15	DUP	R44856	12/12/2011 7:39:00 PM	Charles O`Bryan		
1112148-009A	EPA_TO15	SAMP	R44856	12/12/2011 8:20:00 PM	Robert Lynch		
1112148-010A	EPA_TO15	SAMP	R44856	12/12/2011 9:02:00 PM	Robert Lynch		
1112148-011A	EPA_TO15	SAMP	R44856	12/12/2011 9:43:00 PM	Robert Lynch		
1112148-012A	EPA_TO15	SAMP	R44856	12/12/2011 10:24:00 PM	Robert Lynch		
1112148-013A	EPA_TO15	SAMP	R44856	12/12/2011 11:05:00 PM	Robert Lynch		
1112148-014A	EPA_TO15	SAMP	R44856	12/12/2011 11:47:00 PM	Robert Lynch		
1112148-015A	EPA_TO15	SAMP	R44856	12/13/2011 12:27:00 AM	Robert Lynch		
1112148-025A	EPA_TO15	SAMP	R44856	12/13/2011 1:49:00 AM	Robert Lynch		
1112148-026A	EPA_TO15	SAMP	R44856	12/13/2011 2:30:00 AM	Robert Lynch		
1112148-027A	EPA_TO15	SAMP	R44856	12/13/2011 3:12:00 AM	Robert Lynch		
RLVS2 VOA1 12121	EPA_TO15	RLVS	R44856	12/13/2011 3:54:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-12

RunNo 44856

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
882296	BFB1 VOA1 121211	BFB_TUNE	TUNE	\1\DATA\121211	12/12/2011 10:5	1	R44856		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		76.2	76.2		100	0	0	0	0	0	76%	50	120	0%	
175	M		7.1	7.1		100	0	0	0	0	0	7%	4	9	0%	
176	M		99.5	99.5		100	0	0	0	0	0	100%	93	101	0%	
177	M		6.9	6.9		100	0	0	0	0	0	7%	5	9	0%	
50	M		20.3	20.3		100	0	0	0	0	0	20%	8	40	0%	
75	M		44.5	44.5		100	0	0	0	0	0	45%	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
882297	CCV VOA1 121211	EPA_TO15	CCV	\1\DATA\121211	12/12/2011 11:5	1	R44856		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	10.88	10.88		9.6	0	0	0.107	1	0	113%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.52	10.52		10	0	0	0.211	1	0	105%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.38	11.38		9.8	0	0	0.108	1	0	116%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.09	10.09		9.8	0	0	0.2	1	0	103%	70	130	0%	
1,1-Dichloroethane	A	ppbv	11.18	11.18		9.7	0	0	0.111	1	0	115%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.54	11.54		9.9	0	0	0.097	1	0	117%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	10.64	10.64		9.1	0	0	0.271	1	0	117%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.86	9.86		9.8	0	0	0.245	1	0	101%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.02	10.02		9.6	0	0	0.186	1	0	104%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.44	10.44		9.7	0	0	0.208	1	0	108%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.64	10.64		9.7	0	0	0.196	1	0	110%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.22	10.22		9.8	0	0	0.224	1	0	104%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.66	9.66		9.7	0	0	0.24	1	0	100%	70	130	0%	
1,3-Butadiene	A	ppbv	12.38	12.38		9.8	0	0	0.152	1	0	126%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.31	10.31		9.7	0	0	0.202	1	0	106%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
882297	CCV VOA1 121211	EPA_TO15	CCV	\I\DATA\121211	12/12/2011 11:5	1	R44856		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.35	10.35		9.6	0	0	0.194	1	0	108%	70	130	0%	
1,4-Dioxane	A	ppbv	10.31	10.31		9.6	0	0	0.128	1	0	107%	70	130	0%	
2-Butanone	A	ppbv	10.13	10.13		9.9	0	0	0.287	1	0	102%	70	130	0%	
2-Hexanone	A	ppbv	10.63	10.63		9.8	0	0	0.135	1	0	108%	70	130	0%	
2-Propanol	A	ppbv	10.9	10.9		10.1	0	0	0.329	1	0	108%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.59	10.59		10	0	0	0.157	1	0	106%	70	130	0%	
Acetone	A	ppbv	11.08	11.08		10	0	0	0.43	1	0	111%	70	130	0%	
Benzene	A	ppbv	10.51	10.51		9.6	0	0	0.126	1	0	109%	70	130	0%	
Benzyl chloride	A	ppbv	11.28	11.28		9.7	0	0	0.155	1	0	116%	70	130	0%	
Bromodichloromethane	A	ppbv	10.25	10.25		9.6	0	0	0.156	1	0	107%	70	130	0%	
Bromoform	A	ppbv	10.05	10.05		9.6	0	0	0.197	1	0	105%	70	130	0%	
Bromomethane	A	ppbv	10.33	10.33		9.3	0	0	0.075	1	0	111%	70	130	0%	
Carbon disulfide	A	ppbv	11.43	11.43		9.7	0	0	0.093	1	0	118%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.54	10.54		9.5	0	0	0.114	1	0	111%	70	130	0%	
Chlorobenzene	A	ppbv	10.04	10.04		9.9	0	0	0.275	1	0	101%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.2	10.2		9.2	0	0	0.165	1	0	111%	70	130	0%	
Chloroethane	A	ppbv	10.47	10.47		9.8	0	0	0.063	1	0	107%	70	130	0%	
Chloroform	A	ppbv	11.13	11.13		9.4	0	0	0.126	1	0	118%	70	130	0%	
Chloromethane	A	ppbv	11.06	11.06		9.8	0	0	0.104	1	0	113%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.76	10.76		9.8	0	0	0.107	1	0	110%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.91	9.91		9.5	0	0	0.166	1	0	104%	70	130	0%	
Cyclohexane	A	ppbv	11.67	11.67		9.8	0	0	0.684	2	0	119%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	10.23	10.23		9.2	0	0	0.086	1	0	111%	70	130	0%	
Ethanol	A	ppbv	9.81	9.81		9.2	0	0	1.962	5	0	107%	70	130	0%	
Ethyl acetate	A	ppbv	10.48	10.48		9.8	0	0	0.157	1	0	107%	70	130	0%	
Ethylbenzene	A	ppbv	10.07	10.07		9.8	0	0	0.737	2	0	103%	70	130	0%	
Heptane	A	ppbv	11.13	11.13		9.9	0	0	0.249	1	0	112%	70	130	0%	
Hexachlorobutadiene	A	ppbv	10.64	10.64		9.4	0	0	0.374	2	0	113%	70	130	0%	
m,p-Xylene	A	ppbv	20.57	20.57		19.2	0	0	0.524	2	0	107%	70	130	0%	
Methylene chloride	A	ppbv	11.12	11.12		10	0	0	2.077	5	0	111%	70	130	0%	
n-Hexane	A	ppbv	11.47	11.47		10.1	0	0	0.692	2	0	114%	70	130	0%	
Naphthalene	A	ppbv	11.19	11.19		9.2	0	0	0.247	1	0	122%	70	130	0%	
o-Xylene	A	ppbv	10.21	10.21		10	0	0	0.258	1	0	102%	70	130	0%	
Propylene	A	ppbv	11.27	11.27		10.2	0	0	0.075	1	0	110%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
882297	CCV VOA1 121211	EPA_TO15	CCV	\1\DATA\121211	12/12/2011 11:5	1	R44856		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	10.04	10.04		9.8	0	0	0.263	1	0	102%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.51	10.51		9.9	0	0	0.228	1	0	106%	70	130	0%	
Tetrachloroethene	A	ppbv	10.29	10.29		9.6	0	0	0.148	1	0	107%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.21	11.21		10	0	0	0.201	1	0	112%	70	130	0%	
Toluene	A	ppbv	10.49	10.49		9.8	0	0	0.158	1	0	107%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.12	11.12		9.8	0	0	0.117	1	0	113%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.5	9.5		9.1	0	0	0.171	1	0	104%	70	130	0%	
Trichloroethene	A	ppbv	10.1	10.1		9.6	0	0	0.119	1	0	105%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.81	10.81		9.6	0	0	0.148	1	0	113%	70	130	0%	
Vinyl acetate	A	ppbv	11.11	11.11		9.9	0	0	0.266	1	0	112%	70	130	0%	
Vinyl chloride	A	ppbv	12.15	12.15		9.4	0	0	0.072	1	0	129%	70	130	0%	
Xylenes, Total	C	ppbv	30.78	30.78		29.2	0	0	0.782	3	0	105%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		1.25	0	0	0	0	0	1000%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.77	12.77		12.5	0	0	0	0	0	102%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
882298	RLVS VOA1 121211	EPA_TO15	RLVS	\1\DATA\121211	12/12/2011 2:02:	1	R44856		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	0.97	0.97		0.996	0	0	0.107	1	0	97%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.29	1.29		1	0	0	0.211	1	0	129%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.03	1.03		0.98	0	0	0.108	1	0	105%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.97	0.97		0.98	0	0	0.2	1	0	99%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.09	1.09		0.97	0	0	0.111	1	0	112%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.09	1.09		0.99	0	0	0.097	1	0	110%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.43	1.43		0.91	0	0	0.271	1	0	157%	70	130	0%	S
1,2,4-Trimethylbenzene	A	ppbv	1.33	1.33		0.98	0	0	0.245	1	0	136%	70	130	0%	S
1,2-Dibromoethane	A	ppbv	0.96	0.96		0.96	0	0	0.186	1	0	100%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.29	1.29		0.97	0	0	0.208	1	0	133%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	1.13	1.13		0.97	0	0	0.196	1	0	116%	70	130	0%	
1,2-Dichloropropane	A	ppbv	1.02	1.02		0.98	0	0	0.224	1	0	104%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121211\12121102.D
Acq On : 12 Dec 2011 11:53 am
Sample : CCV VOA1 121211
Misc : CCV EPA TO15
MS Integration Params: CLME.P

Vial: 2
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	92	0.00
2	T	Propylene	1.210	1.337	-10.5	93	-0.01
3	T	Dichlorodifluoromethane	3.234	3.595	-11.2	93	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.367	2.626	-10.9	91	0.00
5	T	Chloromethane	1.111	1.294	-16.5	94	0.00
6	T	Vinyl chloride	1.356	1.753	-29.3	92	0.00
7	T	1,3-Butadiene	1.043	1.317	-26.3	91	-0.01
8	T	Bromomethane	1.267	1.408	-11.1	91	0.00
9	T	Chloroethane	0.750	0.853	-13.7	92	0.00
10	T	Trichlorofluoromethane	2.606	2.935	-12.6	90	0.00
11	T	Ethanol	0.327	0.349	-6.7	79	0.00
12	T	Freon113	2.214	2.570	-16.1	87	0.00
13	T	1,1-Dichloroethene	1.735	2.022	-16.5	89	0.00
14	T	Acetone	1.666	1.846	-10.8	79	0.00
15	T	Carbon disulfide	3.296	3.883	-17.8	92	0.00
16	T	2-Propanol	1.615	1.742	-7.9	81	0.00
17	T	Methylene chloride	1.417	1.576	-11.2	88	0.00
18	T	tert-Butyl Methyl Ether	2.438	2.587	-6.1	76	0.00
19	T	trans-1,2-Dichloroethene	1.702	1.932	-13.5	86	0.00
20	T	n-Hexane	1.880	2.135	-13.6	85	0.00
21	T	1,1-Dichloroethane	2.017	2.325	-15.3	88	0.00
22	T	Vinyl acetate	2.647	2.971	-12.2	77	0.00
23	T	cis-1,2-Dichloroethene	1.189	1.306	-9.8	85	0.00
24	T	2-Butanone	1.782	1.824	-2.4	74	0.00
25	T	Ethyl acetate	2.392	2.560	-7.0	75	0.00
26	T	Tetrahydrofuran	1.046	1.172	-12.0	79	0.00
27	T	Chloroform	2.084	2.367	-13.6	85	0.00
28	T	1,1,1-Trichloroethane	1.971	2.234	-13.3	84	0.00
29	T	Cyclohexane	1.785	2.125	-19.0	86	0.00
30	T	Carbon tetrachloride	1.891	2.098	-10.9	84	0.00
31	T	Benzene	2.941	3.218	-9.4	79	0.00
32	T	1,2-Dichloroethane	1.142	1.253	-9.7	78	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	98	0.00
34	T	Heptane	0.666	0.749	-12.5	85	0.00
35	T	Trichloroethene	0.424	0.446	-5.2	84	0.00
36	T	1,2-Dichloropropane	0.337	0.352	-4.5	78	0.00
37	T	1,4-Dioxane	0.135	0.145	-7.4	83	0.00
38	T	Bromodichloromethane	0.580	0.619	-6.7	82	0.00
39	T	cis-1,3-Dichloropropene	0.500	0.521	-4.2	80	0.00
40	T	4-Methyl-2-pentanone	0.220	0.233	-5.9	81	0.00
41	T	Toluene	0.917	0.982	-7.1	82	0.00
42	T	trans-1,3-Dichloropropene	0.421	0.439	-4.3	81	0.00
43	T	1,1,2-Trichloroethane	0.320	0.329	-2.8	81	0.00
44	T	Tetrachloroethene	0.459	0.492	-7.2	85	0.00
45	T	2-Hexanone	0.434	0.471	-8.5	81	0.00
46	T	Chlorodibromomethane	0.472	0.491	-4.0	82	0.00
47	T	1,2-Dibromoethane	0.456	0.476	-4.4	82	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00
49	T	Chlorobenzene	0.917	0.930	-1.4	82	0.00
50	T	Ethylbenzene	1.485	1.525	-2.7	81	0.00
51	T	m,p-Xylene	1.100	1.178	-7.1	82	0.00
52	T	o-Xylene	1.071	1.093	-2.1	82	0.00
53	T	Styrene	0.777	0.795	-2.3	83	0.00
54	T	Bromoform	0.578	0.605	-4.7	85	0.00
55	S	4-Bromofluorobenzene	0.571	0.583	-2.1	102	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121211\12121102.D
Acq On : 12 Dec 2011 11:53 am
Sample : CCV VOA1 121211
Misc : CCV EPA TO15
MS Integration Params: CLME.P

Vial: 2
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.850	0.894	-5.2	85	0.00
57	T	4-Ethyltoluene	1.317	1.329	-0.9	85	0.00
58	T	1,3,5-Trimethylbenzene	1.097	1.092	0.5	85	0.00
59	T	1,2,4-Trimethylbenzene	1.050	1.057	-0.7	85	0.00
60	T	1,3-Dichlorobenzene	0.661	0.703	-6.4	87	0.00
61	T	1,4-Dichlorobenzene	0.612	0.660	-7.8	88	0.00
62	T	Benzyl chloride	0.745	0.866	-16.2	88	0.00
63	T	1,2-Dichlorobenzene	0.613	0.660	-7.7	87	0.00
64	T	1,2,4-Trichlorobenzene	0.104	0.122	-17.3	103	0.00
65	T	Hexachlorobutadiene	0.239	0.271	-13.4	99	0.00
66		Naphthalene	0.165	0.201	-21.8	108	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121211\12121102.D
Acq On : 12 Dec 2011 11:53 am
Sample : CCV VOA1 121211
Misc : CCV EPA TO15
MS Integration Params: CLME.P
Quant Time: Dec 12 12:18 2011

Vial: 2
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00
Quant Results File: 120711V1.RES

Quant Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Initial Calibration
DataAcq Meth : 120711V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.59	130	516547	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	1770725	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.54	117	1143613	12.50 ppbv	0.00

System Monitoring Compounds					
55) 4-Bromofluorobenzene	17.19	95	666832	12.77 ppbv	0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 102.16%		

Target Compounds					Qvalue
2) Propylene	5.51	41	563529	11.27 ppbv	98
3) Dichlorodifluoromethane	5.59	85	1366648	10.23 ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	1031053	10.54 ppbv #	78
5) Chloromethane	6.00	50	507852	11.06 ppbv	99
6) Vinyl chloride	6.21	62	681033	12.15 ppbv	99
7) 1,3-Butadiene	6.27	39	533464	12.38 ppbv	97
8) Bromomethane	6.85	94	541012	10.33 ppbv	99
9) Chloroethane	7.00	64	324462	10.47 ppbv	99
10) Trichlorofluoromethane	7.34	101	1164363	10.81 ppbv	98
11) Ethanol	7.56	45	132515	9.81 ppbv	99
12) Freon113	8.00	101	1040935	11.38 ppbv	91
13) 1,1-Dichloroethene	8.10	61	827206	11.54 ppbv	95
14) Acetone	8.18	43	762999	11.08 ppbv	99
15) Carbon disulfide	8.47	76	1556510	11.43 ppbv #	100
16) 2-Propanol	8.23	45	727189	10.90 ppbv	82
17) Methylene chloride	8.75	49	651368	11.12 ppbv	89
18) tert-Butyl Methyl Ether	8.95	73	1058548	10.51 ppbv #	92
19) trans-1,2-Dichloroethene	9.04	61	782256	11.12 ppbv	93
20) n-Hexane	9.23	57	890951	11.47 ppbv	97
21) 1,1-Dichloroethane	9.60	63	932149	11.18 ppbv	98
22) Vinyl acetate	9.53	43	1215611	11.11 ppbv	97
23) cis-1,2-Dichloroethene	10.28	96	528831	10.76 ppbv	94
24) 2-Butanone	10.25	43	746036	10.13 ppbv	96
25) Ethyl acetate	10.20	43	1036542	10.48 ppbv #	100
26) Tetrahydrofuran	10.59	42	484360	11.21 ppbv	92
27) Chloroform	10.61	83	958644	11.13 ppbv	100
28) 1,1,1-Trichloroethane	10.86	97	886440	10.88 ppbv	97
29) Cyclohexane	10.86	56	860748	11.67 ppbv	93
30) Carbon tetrachloride	11.02	117	823570	10.54 ppbv	98
31) Benzene	11.30	78	1276784	10.51 ppbv	98
32) 1,2-Dichloroethane	11.38	62	502414	10.64 ppbv	98
34) Heptane	11.35	43	1050738	11.13 ppbv	93
35) Trichloroethene	12.03	130	606538	10.10 ppbv	95
36) 1,2-Dichloropropane	12.39	63	488673	10.22 ppbv	96
37) 1,4-Dioxane	12.46	88	197193	10.31 ppbv	94
38) Bromodichloromethane	12.67	83	841978	10.25 ppbv	99
39) cis-1,3-Dichloropropene	13.23	75	701746	9.91 ppbv	98
40) 4-Methyl-2-pentanone	13.33	58	330240	10.59 ppbv	92
41) Toluene	13.63	91	1362691	10.49 ppbv	98
42) trans-1,3-Dichloropropene	13.93	75	566383	9.50 ppbv	99
43) 1,1,2-Trichloroethane	14.20	97	457080	10.09 ppbv	97
44) Tetrachloroethene	14.33	166	669570	10.29 ppbv	99
45) 2-Hexanone	14.41	43	653362	10.63 ppbv	98
46) Chlorodibromomethane	14.75	129	681902	10.20 ppbv	99
47) 1,2-Dibromoethane	14.99	107	647509	10.02 ppbv	100
49) Chlorobenzene	15.59	112	842573	10.04 ppbv	95
50) Ethylbenzene	15.63	91	1367076	10.07 ppbv	95
51) m,p-Xylene	15.78	91	2069279	20.57 ppbv	94
52) o-Xylene	16.38	91	999734	10.21 ppbv #	93

(#) = qualifier out of range (m) = manual integration
12121102.D 120711V1.M Tue Dec 13 13:59:17 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121211\12121102.D
Acq On : 12 Dec 2011 11:53 am
Sample : CCV VOA1 121211
Misc : CCV EPA TO15
MS Integration Params: CLME.P
Quant Time: Dec 12 12:18 2011

Vial: 2
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Quant Results File: 120711V1.RES

Quant Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Initial Calibration
DataAcq Meth : 120711V1

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
53)	Styrene	16.40	104	713204	10.04	ppbv		99
54)	Bromoform	16.78	173	531176	10.05	ppbv		98
56)	1,1,2,2-Tetrachloroethane	17.36	83	817994	10.52	ppbv	#	99
57)	4-Ethyltoluene	17.60	105	1191433	9.89	ppbv		96
58)	1,3,5-Trimethylbenzene	17.68	105	969440	9.66	ppbv		98
59)	1,2,4-Trimethylbenzene	18.27	105	947325	9.86	ppbv		98
60)	1,3-Dichlorobenzene	18.82	146	623511	10.31	ppbv		99
61)	1,4-Dichlorobenzene	18.97	146	579499	10.35	ppbv		99
62)	Benzyl chloride	19.18	91	768917	11.28	ppbv		98
63)	1,2-Dichlorobenzene	19.62	146	585680	10.44	ppbv		99
64)	1,2,4-Trichlorobenzene	22.77	180	101518	10.64	ppbv		97
65)	Hexachlorobutadiene	22.97	225	232838	10.64	ppbv		99
66)	Naphthalene	23.46	128	168952	11.19	ppbv		99

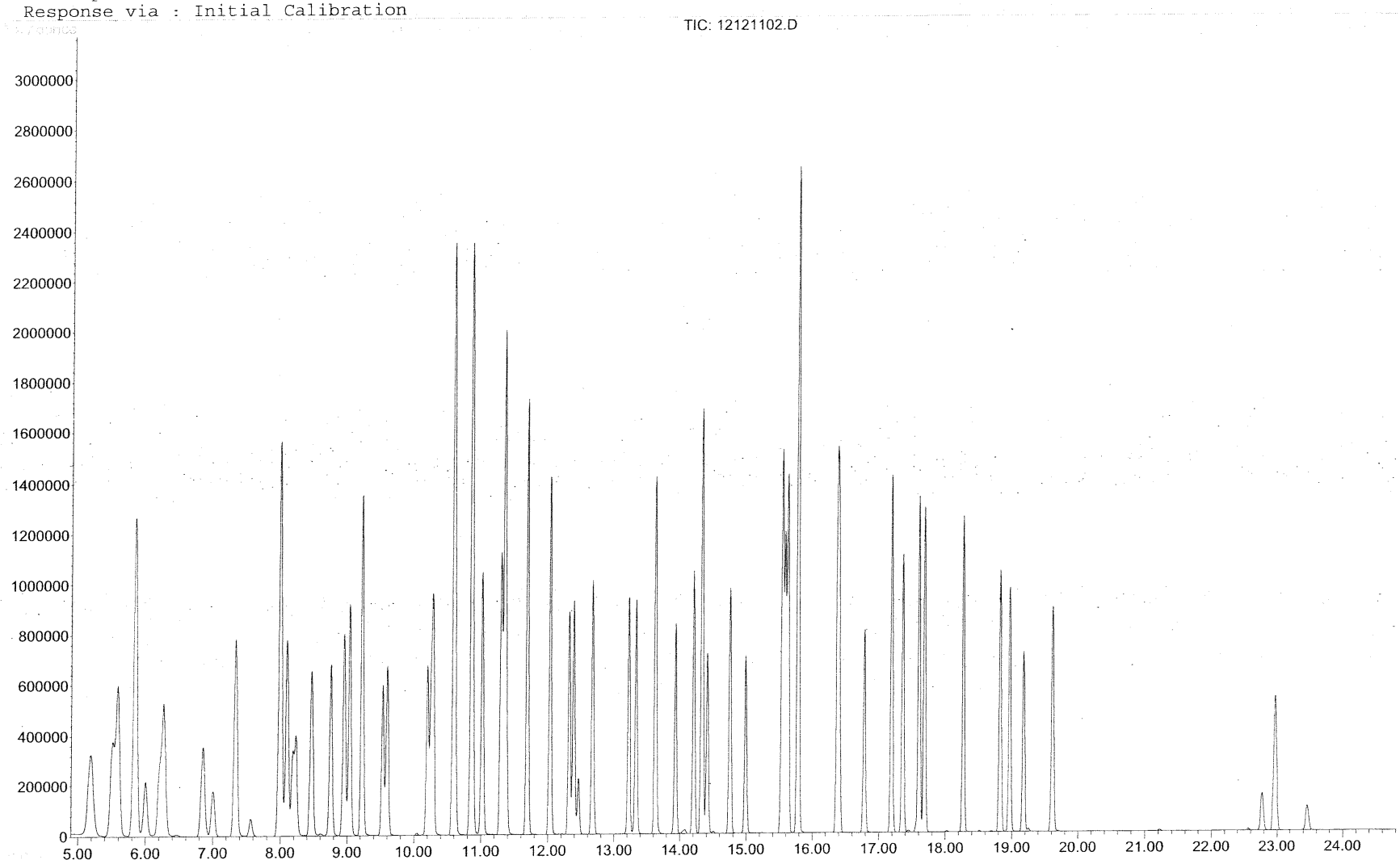
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121211\12121102.D
Acq On : 12 Dec 2011 11:53 am
Sample : CCV VOA1 121211
Misc : CCV EPA TO15
MS Integration Params: CLME.P
Quant Time: Dec 12 12:18 2011

Vial: 2
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00
Quant Results File: 120711V1.RES

Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_111213A **Run No.:** 44886

Analytical Run Date: 12/13/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 44800 **Column ID:** 0.25mm, 1.4umFT

Column Length: 30m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 VOA1 121311	BFB_TUNE	TUNE	R44886	12/13/2011 9:44:00 AM	Robert Lynch		
CCV VOA1 121311	EPA_TO15	CCV	R44886	12/13/2011 11:09:00 AM	Robert Lynch		
RLVS VOA1 121311	EPA_TO15	RLVS	R44886	12/13/2011 11:49:00 AM	Robert Lynch		
MBLK VOA1 121311	EPA_TO15	MBLK	R44886	12/13/2011 12:38:00 PM	Charles O'Bryan		
1112148-016A	EPA_TO15	SAMP	R44886	12/13/2011 2:07:00 PM	Robert Lynch		
1112148-030A	EPA_TO15	SAMP	R44886	12/13/2011 2:48:00 PM	Robert Lynch		
1112148-031A	EPA_TO15	SAMP	R44886	12/13/2011 3:30:00 PM	Robert Lynch		
1112148-032A	EPA_TO15	SAMP	R44886	12/13/2011 4:11:00 PM	Robert Lynch		
1112148-033A	EPA_TO15	SAMP	R44886	12/13/2011 4:52:00 PM	Robert Lynch		
1112148-034A	EPA_TO15	SAMP	R44886	12/13/2011 5:32:00 PM	Robert Lynch		
1112148-035A	EPA_TO15	SAMP	R44886	12/13/2011 6:13:00 PM	Robert Lynch		
1112148-024A	EPA_TO15	SAMP	R44886	12/13/2011 6:54:00 PM	Robert Lynch		Over diluted sample. Will re-run at lower dilution. Reported here to show that sample and duplicate were analyzed.
1112148-024Adup	EPA_TO15	SAMP	R44886	12/13/2011 7:35:00 PM	Charles O'Bryan		
1112148-005A	EPA_TO15	SAMP	R44886	12/13/2011 9:38:00 PM	Robert Lynch		
1112148-006A	EPA_TO15	SAMP	R44886	12/13/2011 10:19:00 PM	Robert Lynch		
1112148-008A	EPA_TO15	SAMP	R44886	12/13/2011 11:40:00 PM	Robert Lynch		
RLVS2 VOA1 12131	EPA_TO15	RLVS	R44886	12/14/2011 12:22:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-12

RunNo 44886

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
883140	BFB1 VOA1 121311	BFB_TUNE	TUNE	\1\DATA\121311	12/13/2011 9:44:	1	R44886		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		81	81		100	0	0	0	0	0	81%	50	120	0%	
175	M		7.2	7.2		100	0	0	0	0	0	7%	4	9	0%	
176	M		100.8	100.8		100	0	0	0	0	0	101%	93	101	0%	
177	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	
50	M		19.4	19.4		100	0	0	0	0	0	19%	8	40	0%	
75	M		44.1	44.1		100	0	0	0	0	0	44%	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
883141	CCV VOA1 121311	EPA_TO15	CCV	\1\DATA\121311	12/13/2011 11:0	1	R44886		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	11.57	11.57		9.6	0	0	0.107	1	0	121%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.79	10.79		10	0	0	0.211	1	0	108%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.8	11.8		9.8	0	0	0.108	1	0	120%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.84	10.84		9.8	0	0	0.2	1	0	111%	70	130	0%	
1,1-Dichloroethane	A	ppbv	11.59	11.59		9.7	0	0	0.111	1	0	119%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.92	11.92		9.9	0	0	0.097	1	0	120%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.56	9.56		9.1	0	0	0.271	1	0	105%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	10.16	10.16		9.8	0	0	0.245	1	0	104%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.77	10.77		9.6	0	0	0.186	1	0	112%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.26	10.26		9.7	0	0	0.208	1	0	106%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.4	11.4		9.7	0	0	0.196	1	0	118%	70	130	0%	
1,2-Dichloropropane	A	ppbv	11.12	11.12		9.8	0	0	0.224	1	0	113%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.18	10.18		9.7	0	0	0.24	1	0	105%	70	130	0%	
1,3-Butadiene	A	ppbv	12.53	12.53		9.8	0	0	0.152	1	0	128%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.37	10.37		9.7	0	0	0.202	1	0	107%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
883141	CCV VOA1 121311	EPA_TO15	CCV	\1\DATA\121311	12/13/2011 11:0	1	R44886		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.52	10.52		9.6	0	0	0.194	1	0	110%	70	130	0%	
1,4-Dioxane	A	ppbv	11.01	11.01		9.6	0	0	0.128	1	0	115%	70	130	0%	
2-Butanone	A	ppbv	10.73	10.73		9.9	0	0	0.287	1	0	108%	70	130	0%	
2-Hexanone	A	ppbv	11.21	11.21		9.8	0	0	0.135	1	0	114%	70	130	0%	
2-Propanol	A	ppbv	11.47	11.47		10.1	0	0	0.329	1	0	114%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	11.41	11.41		10	0	0	0.157	1	0	114%	70	130	0%	
Acetone	A	ppbv	11.64	11.64		10	0	0	0.43	1	0	116%	70	130	0%	
Benzene	A	ppbv	11.07	11.07		9.6	0	0	0.126	1	0	115%	70	130	0%	
Benzyl chloride	A	ppbv	11.21	11.21		9.7	0	0	0.155	1	0	116%	70	130	0%	
Bromodichloromethane	A	ppbv	11.09	11.09		9.6	0	0	0.156	1	0	116%	70	130	0%	
Bromoform	A	ppbv	10.33	10.33		9.6	0	0	0.197	1	0	108%	70	130	0%	
Bromomethane	A	ppbv	10.7	10.7		9.3	0	0	0.075	1	0	115%	70	130	0%	
Carbon disulfide	A	ppbv	11.61	11.61		9.7	0	0	0.093	1	0	120%	70	130	0%	
Carbon tetrachloride	A	ppbv	11.17	11.17		9.5	0	0	0.114	1	0	118%	70	130	0%	
Chlorobenzene	A	ppbv	10.7	10.7		9.9	0	0	0.275	1	0	108%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.92	10.92		9.2	0	0	0.165	1	0	119%	70	130	0%	
Chloroethane	A	ppbv	10.66	10.66		9.8	0	0	0.063	1	0	109%	70	130	0%	
Chloroform	A	ppbv	11.6	11.6		9.4	0	0	0.126	1	0	123%	70	130	0%	
Chloromethane	A	ppbv	11.24	11.24		9.8	0	0	0.104	1	0	115%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	11.11	11.11		9.8	0	0	0.107	1	0	113%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.69	10.69		9.5	0	0	0.166	1	0	113%	70	130	0%	
Cyclohexane	A	ppbv	12.29	12.29		9.8	0	0	0.684	2	0	125%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	10.67	10.67		9.2	0	0	0.086	1	0	116%	70	130	0%	
Ethanol	A	ppbv	10.48	10.48		9.2	0	0	1.962	5	0	114%	70	130	0%	
Ethyl acetate	A	ppbv	11.01	11.01		9.8	0	0	0.157	1	0	112%	70	130	0%	
Ethylbenzene	A	ppbv	10.85	10.85		9.8	0	0	0.737	2	0	111%	70	130	0%	
Heptane	A	ppbv	12.01	12.01		9.9	0	0	0.249	1	0	121%	70	130	0%	
Hexachlorobutadiene	A	ppbv	10.31	10.31		9.4	0	0	0.374	2	0	110%	70	130	0%	
m,p-Xylene	A	ppbv	22.3	22.3		19.2	0	0	0.524	2	0	116%	70	130	0%	
Methylene chloride	A	ppbv	11.49	11.49		10	0	0	2.077	5	0	115%	70	130	0%	
n-Hexane	A	ppbv	11.96	11.96		10.1	0	0	0.692	2	0	118%	70	130	0%	
Naphthalene	A	ppbv	10.28	10.28		9.2	0	0	0.247	1	0	112%	70	130	0%	
o-Xylene	A	ppbv	10.92	10.92		10	0	0	0.258	1	0	109%	70	130	0%	
Propylene	A	ppbv	11.5	11.5		10.2	0	0	0.075	1	0	113%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
883141	CCV VOA1 121311	EPA_TO15	CCV	\I\DATA\121311	12/13/2011 11:0	1	R44886		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	10.69	10.69		9.8	0	0	0.263	1	0	109%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	11.12	11.12		9.9	0	0	0.228	1	0	112%	70	130	0%	
Tetrachloroethene	A	ppbv	11.02	11.02		9.6	0	0	0.148	1	0	115%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.76	11.76		10	0	0	0.201	1	0	118%	70	130	0%	
Toluene	A	ppbv	11.33	11.33		9.8	0	0	0.158	1	0	116%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.57	11.57		9.8	0	0	0.117	1	0	118%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.5	10.5		9.1	0	0	0.171	1	0	115%	70	130	0%	
Trichloroethene	A	ppbv	10.8	10.8		9.6	0	0	0.119	1	0	113%	70	130	0%	
Trichlorofluoromethane	A	ppbv	11.37	11.37		9.6	0	0	0.148	1	0	118%	70	130	0%	
Vinyl acetate	A	ppbv	11.64	11.64		9.9	0	0	0.266	1	0	118%	70	130	0%	
Vinyl chloride	A	ppbv	11.12	11.12		9.4	0	0	0.072	1	0	118%	70	130	0%	
Xylenes, Total	C	ppbv	33.22	33.22		29.2	0	0	0.782	3	0	114%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		1.25	0	0	0	0	0	1000%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	13.02	13.02		12.5	0	0	0	0	0	104%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
883142	RLVS VOA1 121311	EPA_TO15	RLVS	\I\DATA\121311	12/13/2011 11:4	1	R44886		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	0.99	0.99		0.996	0	0	0.107	1	0	99%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.27	1.27		1	0	0	0.211	1	0	127%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.04	1.04		0.98	0	0	0.108	1	0	106%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.95	0.95		0.98	0	0	0.2	1	0	97%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.06	1.06		0.97	0	0	0.111	1	0	109%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.09	1.09		0.99	0	0	0.097	1	0	110%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.13	1.13		0.91	0	0	0.271	1	0	124%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	1.33	1.33		0.98	0	0	0.245	1	0	136%	70	130	0%	S
1,2-Dibromoethane	A	ppbv	0.96	0.96		0.96	0	0	0.186	1	0	100%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.22	1.22		0.97	0	0	0.208	1	0	126%	70	130	0%	
1,2-Dichloroethane	A	ppbv	1.13	1.13		0.97	0	0	0.196	1	0	116%	70	130	0%	
1,2-Dichloropropane	A	ppbv	1	1		0.98	0	0	0.224	1	0	102%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121311\12131103.D
Acq On : 13 Dec 2011 11:09 am
Sample : CCV VOA1 121311
Misc : CCV EPA TO15
MS Integration Params: CLME.P

Vial: 3
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	90	0.00
2	T	Propylene	1.210	1.364	-12.7	94	0.00
3	T	Dichlorodifluoromethane	3.234	3.750	-16.0	95	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.367	2.682	-13.3	92	0.00
5	T	Chloromethane	1.111	1.315	-18.4	94	0.00
6	T	Vinyl chloride	1.356	1.605	-18.4	83	0.00
7	T	1,3-Butadiene	1.043	1.333	-27.8	91	0.00
8	T	Bromomethane	1.267	1.458	-15.1	93	0.00
9	T	Chloroethane	0.750	0.869	-15.9	93	0.00
10	T	Trichlorofluoromethane	2.606	3.086	-18.4	93	0.00
11	T	Ethanol	0.327	0.372	-13.8	83	0.00
12	T	Freon113	2.214	2.666	-20.4	89	0.00
13	T	1,1-Dichloroethene	1.735	2.089	-20.4	90	0.00
14	T	Acetone	1.666	1.939	-16.4	82	0.00
15	T	Carbon disulfide	3.296	3.943	-19.6	92	0.00
16	T	2-Propanol	1.615	1.834	-13.6	83	0.00
17	T	Methylene chloride	1.417	1.628	-14.9	89	0.00
18	T	tert-Butyl Methyl Ether	2.438	2.737	-12.3	79	0.00
19	T	trans-1,2-Dichloroethene	1.702	2.010	-18.1	88	0.00
20	T	n-Hexane	1.880	2.226	-18.4	88	0.00
21	T	1,1-Dichloroethane	2.017	2.411	-19.5	89	0.00
22	T	Vinyl acetate	2.647	3.113	-17.6	79	0.00
23	T	cis-1,2-Dichloroethene	1.189	1.348	-13.4	86	0.00
24	T	2-Butanone	1.782	1.931	-8.4	77	0.00
25	T	Ethyl acetate	2.392	2.688	-12.4	77	0.00
26	T	Tetrahydrofuran	1.046	1.229	-17.5	81	0.00
27	T	Chloroform	2.084	2.466	-18.3	87	0.00
28	T	1,1,1-Trichloroethane	1.971	2.376	-20.5	88	0.00
29	T	Cyclohexane	1.785	2.239	-25.4	89	0.00
30	T	Carbon tetrachloride	1.891	2.223	-17.6	87	0.00
31	T	Benzene	2.941	3.391	-15.3	81	0.00
32	T	1,2-Dichloroethane	1.142	1.343	-17.6	83	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	93	0.00
34	T	Heptane	0.666	0.808	-21.3	87	0.00
35	T	Trichloroethene	0.424	0.477	-12.5	85	0.00
36	T	1,2-Dichloropropane	0.337	0.383	-13.6	81	0.00
37	T	1,4-Dioxane	0.135	0.155	-14.8	85	0.00
38	T	Bromodichloromethane	0.580	0.670	-15.5	85	0.00
39	T	cis-1,3-Dichloropropene	0.500	0.562	-12.4	82	0.00
40	T	4-Methyl-2-pentanone	0.220	0.251	-14.1	83	0.00
41	T	Toluene	0.917	1.061	-15.7	84	0.00
42	T	trans-1,3-Dichloropropene	0.421	0.485	-15.2	85	0.00
43	T	1,1,2-Trichloroethane	0.320	0.354	-10.6	83	0.00
44	T	Tetrachloroethene	0.459	0.527	-14.8	87	0.00
45	T	2-Hexanone	0.434	0.496	-14.3	82	0.00
46	T	Chlorodibromomethane	0.472	0.526	-11.4	84	0.00
47	T	1,2-Dibromoethane	0.456	0.512	-12.3	84	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	98	0.00
49	T	Chlorobenzene	0.917	0.992	-8.2	85	0.00
50	T	Ethylbenzene	1.485	1.643	-10.6	85	0.00
51	T	m,p-Xylene	1.100	1.277	-16.1	86	0.00
52	T	o-Xylene	1.071	1.169	-9.2	85	0.00
53	T	Styrene	0.777	0.847	-9.0	85	0.00
54	T	Bromoform	0.578	0.622	-7.6	85	0.00
55	S	4-Bromofluorobenzene	0.571	0.594	-4.0	101	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121311\12131103.D
Acq On : 13 Dec 2011 11:09 am
Sample : CCV VOA1 121311
Misc : CCV EPA TO15
MS Integration Params: CLME.P

Vial: 3
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.850	0.917	-7.9	85	0.00
57	T	4-Ethyltoluene	1.317	1.396	-6.0	87	0.00
58	T	1,3,5-Trimethylbenzene	1.097	1.151	-4.9	87	0.00
59	T	1,2,4-Trimethylbenzene	1.050	1.089	-3.7	85	0.00
60	T	1,3-Dichlorobenzene	0.661	0.706	-6.8	85	0.00
61	T	1,4-Dichlorobenzene	0.612	0.670	-9.5	87	0.00
62	T	Benzyl chloride	0.745	0.862	-15.7	85	0.00
63	T	1,2-Dichlorobenzene	0.613	0.649	-5.9	83	0.00
64	T	1,2,4-Trichlorobenzene	0.104	0.110	-5.8	90	0.00
65	T	Hexachlorobutadiene	0.239	0.262	-9.6	93	0.00
66		Naphthalene	0.165	0.184	-11.5	96	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12131103.D 120711V1.M Wed Dec 14 16:23:07 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121311\12131103.D
Acq On : 13 Dec 2011 11:09 am
Sample : CCV VOA1 121311
Misc : CCV EPA TO15
MS Integration Params: CLME.P
Quant Time: Dec 13 11:34 2011

Vial: 3
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Quant Results File: 120711V1.RES

Quant Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Initial Calibration
DataAcq Meth : 120711V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.59	130	508119	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	1689791	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.54	117	1108567	12.50 ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.19	95	659036	13.02 ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 104.16%

Target Compounds					Qvalue
2) Propylene	5.53	41	565649	11.50 ppbv	98
3) Dichlorodifluoromethane	5.59	85	1402550	10.67 ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.86	135	1035816	10.76 ppbv #	78
5) Chloromethane	6.01	50	507717	11.24 ppbv	99
6) Vinyl chloride	6.22	62	613157	11.12 ppbv	99
7) 1,3-Butadiene	6.27	39	531107	12.53 ppbv	98
8) Bromomethane	6.85	94	551071	10.70 ppbv	99
9) Chloroethane	7.01	64	324952	10.66 ppbv	99
10) Trichlorofluoromethane	7.34	101	1204285	11.37 ppbv	98
11) Ethanol	7.57	45	139253	10.48 ppbv	99
12) Freon113	8.00	101	1062129	11.80 ppbv	90
13) 1,1-Dichloroethene	8.10	61	840583	11.92 ppbv	95
14) Acetone	8.19	43	788167	11.64 ppbv #	93
15) Carbon disulfide	8.47	76	1554896	11.61 ppbv #	100
16) 2-Propanol	8.24	45	752822	11.47 ppbv #	1
17) Methylene chloride	8.76	49	661743	11.49 ppbv	89
18) tert-Butyl Methyl Ether	8.96	73	1101589	11.12 ppbv #	92
19) trans-1,2-Dichloroethene	9.04	61	800517	11.57 ppbv	92
20) n-Hexane	9.23	57	913880	11.96 ppbv	97
21) 1,1-Dichloroethane	9.60	63	950566	11.59 ppbv	98
22) Vinyl acetate	9.53	43	1252568	11.64 ppbv	97
23) cis-1,2-Dichloroethene	10.29	96	536832	11.11 ppbv	93
24) 2-Butanone	10.25	43	777086	10.73 ppbv	96
25) Ethyl acetate	10.20	43	1070913	11.01 ppbv #	99
26) Tetrahydrofuran	10.59	42	499648	11.76 ppbv	93
27) Chloroform	10.61	83	982262	11.60 ppbv	99
28) 1,1,1-Trichloroethane	10.86	97	927031	11.57 ppbv	96
29) Cyclohexane	10.87	56	891991	12.29 ppbv	93
30) Carbon tetrachloride	11.02	117	858331	11.17 ppbv	98
31) Benzene	11.31	78	1323428	11.07 ppbv	98
32) 1,2-Dichloroethane	11.38	62	529428	11.40 ppbv	98
34) Heptane	11.35	43	1081735	12.01 ppbv	94
35) Trichloroethene	12.03	130	618931	10.80 ppbv	95
36) 1,2-Dichloropropane	12.39	63	507126	11.12 ppbv	96
37) 1,4-Dioxane	12.46	88	201011	11.01 ppbv	93
38) Bromodichloromethane	12.68	83	869248	11.09 ppbv	99
39) cis-1,3-Dichloropropene	13.22	75	722237	10.69 ppbv	98
40) 4-Methyl-2-pentanone	13.33	58	339382	11.41 ppbv	92
41) Toluene	13.63	91	1405131	11.33 ppbv	98
42) trans-1,3-Dichloropropene	13.94	75	596994	10.50 ppbv	98
43) 1,1,2-Trichloroethane	14.21	97	468508	10.84 ppbv	97
44) Tetrachloroethene	14.33	166	683915	11.02 ppbv	98
45) 2-Hexanone	14.41	43	657415	11.21 ppbv	97
46) Chlorodibromomethane	14.76	129	696981	10.92 ppbv	99
47) 1,2-Dibromoethane	14.99	107	664173	10.77 ppbv	100
49) Chlorobenzene	15.59	112	870897	10.70 ppbv #	94
50) Ethylbenzene	15.63	91	1427897	10.85 ppbv	94
51) m,p-Xylene	15.78	91	2175170	22.30 ppbv	94
52) o-Xylene	16.38	91	1037142	10.92 ppbv #	93

(#) = qualifier out of range (m) = manual integration
12131103.D 120711V1.M Wed Dec 14 16:23:00 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121311\12131103.D
Acq On : 13 Dec 2011 11:09 am
Sample : CCV VOA1 121311
Misc : CCV EPA TO15
MS Integration Params: CLME.P
Quant Time: Dec 13 11:34 2011

Vial: 3
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Quant Results File: 120711V1.RES

Quant Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Initial Calibration
DataAcq Meth : 120711V1

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
53) Styrene	16.40	104	736310	10.69 ppbv	99
54) Bromoform	16.79	173	529678	10.33 ppbv	98
56) 1,1,2,2-Tetrachloroethane	17.36	83	813609	10.79 ppbv #	99
57) 4-Ethyltoluene	17.61	105	1213539	10.39 ppbv	96
58) 1,3,5-Trimethylbenzene	17.69	105	990268	10.18 ppbv	97
59) 1,2,4-Trimethylbenzene	18.27	105	946828	10.16 ppbv	98
60) 1,3-Dichlorobenzene	18.83	146	607665	10.37 ppbv	99
61) 1,4-Dichlorobenzene	18.97	146	570586	10.52 ppbv	98
62) Benzyl chloride	19.18	91	741201	11.21 ppbv	98
63) 1,2-Dichlorobenzene	19.62	146	557936	10.26 ppbv	99
64) 1,2,4-Trichlorobenzene	22.77	180	88407	9.56 ppbv	99
65) Hexachlorobutadiene	22.97	225	218656	10.31 ppbv	99
66) Naphthalene	23.47	128	150475	10.28 ppbv	99

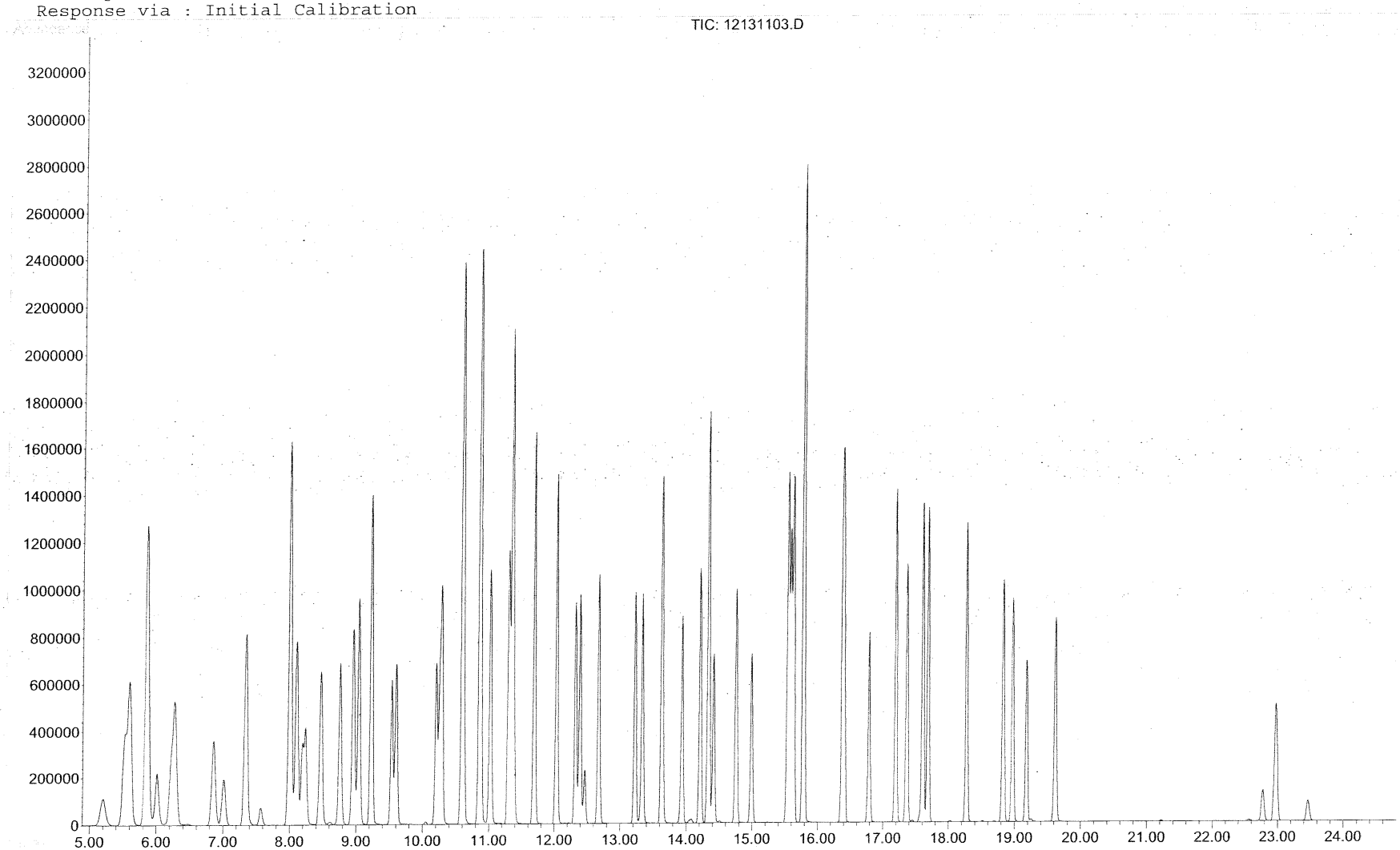
(#) = qualifier out of range (m) = manual integration
12131103.D 120711V1.M Wed Dec 14 16:23:00 2011

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121311\12131103.D
Acq On : 13 Dec 2011 11:09 am
Sample : CCV VOA1 121311
Misc : CCV EPA TO15
MS Integration Params: CLME.P
Quant Time: Dec 13 11:34 2011

Vial: 3
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00
Quant Results File: 120711V1.RES

Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_111221A **Run No.:** 45087

Analytical Run Date: 12/21/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

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

Column Length: 30m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 VOA1 122111	BFB_TUNE	TUNE	R45087	12/21/2011 2:14:00 PM	Charles O'Bryan		
1ppbv ICAL	EPA_TO15	ICAL	R45087	12/21/2011 3:46:00 PM	Charles O'Bryan		
10ppbv ICAL	EPA_TO15	ICAL	R45087	12/21/2011 4:31:00 PM	Charles O'Bryan		
12ppbv ICAL	EPA_TO15	ICAL	R45087	12/21/2011 5:15:00 PM	Charles O'Bryan		
15ppbv ICAL	EPA_TO15	ICAL	R45087	12/21/2011 6:00:00 PM	Charles O'Bryan		
20ppbv ICAL	EPA_TO15	ICAL	R45087	12/21/2011 6:45:00 PM	Charles O'Bryan		
30ppbv ICAL	EPA_TO15	ICAL	R45087	12/21/2011 7:31:00 PM	Charles O'Bryan		
50ppbv ICAL	EPA_TO15	ICAL	R45087	12/21/2011 8:19:00 PM	Charles O'Bryan		
BFB2 VOA1 122111	BFB_TUNE	TUNE	R45087	12/21/2011 9:02:00 PM	Charles O'Bryan		
ICV VOA1 122111	EPA_TO15	ICV	R45087	12/21/2011 10:31:00 PM	Charles O'Bryan		
RLVS1 VOA1 12201	EPA_TO15	RLVS	R45087	12/21/2011 11:17:00 PM	Charles O'Bryan		Several high molecular weight compounds exhibited percent recoveries above 30% with RLVS in duplicate analysis. Sample volumes exhausted, unable to re-analyze.
MBLK VOA1 122111	EPA_TO15	MBLK	R45087	12/22/2011 9:36:00 AM	Charles O'Bryan		
1112449-006A	EPA_TO15	SAMP	R45087	12/22/2011 10:20:00 AM	Robert Lynch		Project 1112449 showed to have a lot of CO2 in the air samples. Cannot run samples at any lower of a dilution due this. CO2 can interfere with analytical process if too much is present.
1112148-035A	EPA_TO15	SAMP	R45087	12/22/2011 11:12:00 AM	Charles O'Bryan		
1112148-028A	EPA_TO15	SAMP	R45087	12/22/2011 12:48:00 PM	Charles O'Bryan		
1112148-018A	EPA_TO15	SAMP	R45087	12/22/2011 1:33:00 PM	Charles O'Bryan		
1112148-018Adup	EPA_TO15	DUP	R45087	12/22/2011 2:17:00 PM	Charles O'Bryan		
1112148-029A	EPA_TO15	SAMP	R45087	12/22/2011 3:03:00 PM	Charles O'Bryan		
1112148-007A	EPA_TO15	SAMP	R45087	12/22/2011 3:50:00 PM	Charles O'Bryan		
1112148-024A	EPA_TO15	SAMP	R45087	12/22/2011 4:35:00 PM	Charles O'Bryan		
1112148-008A	EPA_TO15	SAMP	R45087	12/22/2011 5:26:00 PM	Charles O'Bryan		
1112148-017A	EPA_TO15	SAMP	R45087	12/22/2011 6:17:00 PM	Charles O'Bryan		
1112148-019A	EPA_TO15	SAMP	R45087	12/22/2011 7:03:00 PM	Charles O'Bryan		
1112148-020A	EPA_TO15	SAMP	R45087	12/22/2011 7:49:00 PM	Charles O'Bryan		
RLVS2 VOA1 12211	EPA_TO15	RLVS	R45087	12/22/2011 8:35:00 PM	Charles O'Bryan		Several high molecular weight compounds exhibited percent recoveries above 30% with RLVS in duplicate analysis. Sample volumes exhausted, unable to re-analyze.

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
887121	ICV VOA1 122111	EPA_TO15	ICV	\I\DATA\122111	12/21/2011 10:3	1	R45087		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	9.88	9.88		9.6	0	0	0.107	1	0	103%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	9.86	9.86		10	0	0	0.211	1	0	99%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.4	11.4		9.8	0	0	0.108	1	0	116%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	8.29	8.29		9.8	0	0	0.2	1	0	85%	70	130	0%	
1,1-Dichloroethane	A	ppbv	9.98	9.98		9.7	0	0	0.111	1	0	103%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.82	10.82		9.9	0	0	0.097	1	0	109%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	6.4	6.4		9.1	0	0	0.271	1	0	70%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.32	9.32		9.8	0	0	0.245	1	0	95%	70	130	0%	
1,2-Dibromoethane	A	ppbv	8.24	8.24		9.6	0	0	0.186	1	0	86%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.16	9.16		9.7	0	0	0.208	1	0	94%	70	130	0%	
1,2-Dichloroethane	A	ppbv	9.29	9.29		9.7	0	0	0.196	1	0	96%	70	130	0%	
1,2-Dichloropropane	A	ppbv	8.94	8.94		9.8	0	0	0.224	1	0	91%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9	9		9.7	0	0	0.24	1	0	93%	70	130	0%	
1,3-Butadiene	A	ppbv	11.43	11.43		9.8	0	0	0.152	1	0	117%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.26	9.26		9.7	0	0	0.202	1	0	95%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	9.19	9.19		9.6	0	0	0.194	1	0	96%	70	130	0%	
1,4-Dioxane	A	ppbv	9.08	9.08		9.6	0	0	0.128	1	0	95%	70	130	0%	
2-Butanone	A	ppbv	9.27	9.27		9.9	0	0	0.287	1	0	94%	70	130	0%	
2-Hexanone	A	ppbv	8.15	8.15		9.8	0	0	0.135	1	0	83%	70	130	0%	
2-Propanol	A	ppbv	9.51	9.51		10.1	0	0	0.329	1	0	94%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	8.81	8.81		10	0	0	0.157	1	0	88%	70	130	0%	
Acetone	A	ppbv	8.9	8.9		10	0	0	0.43	1	0	89%	70	130	0%	
Benzene	A	ppbv	9.48	9.48		9.6	0	0	0.126	1	0	99%	70	130	0%	
Benzyl chloride	A	ppbv	9.83	9.83		9.7	0	0	0.155	1	0	101%	70	130	0%	
Bromodichloromethane	A	ppbv	9.14	9.14		9.6	0	0	0.156	1	0	95%	70	130	0%	
Bromoform	A	ppbv	9.38	9.38		9.6	0	0	0.197	1	0	98%	70	130	0%	
Bromomethane	A	ppbv	9.81	9.81		9.3	0	0	0.075	1	0	105%	70	130	0%	
Carbon disulfide	A	ppbv	10.62	10.62		9.7	0	0	0.093	1	0	109%	70	130	0%	
Carbon tetrachloride	A	ppbv	10	10		9.5	0	0	0.114	1	0	105%	70	130	0%	
Chlorobenzene	A	ppbv	9.37	9.37		9.9	0	0	0.275	1	0	95%	70	130	0%	
Chlorodibromomethane	A	ppbv	8.53	8.53		9.2	0	0	0.165	1	0	93%	70	130	0%	
Chloroethane	A	ppbv	9.65	9.65		9.8	0	0	0.063	1	0	98%	70	130	0%	
Chloroform	A	ppbv	9.77	9.77		9.4	0	0	0.126	1	0	104%	70	130	0%	
Chloromethane	A	ppbv	8.29	8.29		9.8	0	0	0.104	1	0	85%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
887121	ICV VOA1 122111	EPA_TO15	ICV	\I\DATA\122111\	12/21/2011 10:3	1	R45087		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
cis-1,2-Dichloroethene	A	ppbv	10.28	10.28		9.8	0	0	0.107	1	0	105%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	8.7	8.7		9.5	0	0	0.166	1	0	92%	70	130	0%	
Cyclohexane	A	ppbv	10.23	10.23		9.8	0	0	0.684	2	0	104%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.38	9.38		9.2	0	0	0.086	1	0	102%	70	130	0%	
Ethanol	A	ppbv	8.99	8.99		9.2	0	0	1.962	5	0	98%	70	130	0%	
Ethyl acetate	A	ppbv	9.45	9.45		9.8	0	0	0.157	1	0	96%	70	130	0%	
Ethylbenzene	A	ppbv	9.44	9.44		9.8	0	0	0.737	2	0	96%	70	130	0%	
Heptane	A	ppbv	9.47	9.47		9.9	0	0	0.249	1	0	96%	70	130	0%	
Hexachlorobutadiene	A	ppbv	6.94	6.94		9.4	0	0	0.374	2	0	74%	70	130	0%	
m,p-Xylene	A	ppbv	19.52	19.52		19.2	0	0	0.524	2	0	102%	70	130	0%	
Methylene chloride	A	ppbv	10.31	10.31		10	0	0	2.077	5	0	103%	70	130	0%	
n-Hexane	A	ppbv	10.49	10.49		10.1	0	0	0.692	2	0	104%	70	130	0%	
Naphthalene	A	ppbv	6.48	6.48		9.2	0	0	0.247	1	0	70%	70	130	0%	
o-Xylene	A	ppbv	9.49	9.49		10	0	0	0.258	1	0	95%	70	130	0%	
Propylene	A	ppbv	9.97	9.97		10.2	0	0	0.075	1	0	98%	70	130	0%	
Styrene	A	ppbv	9.35	9.35		9.8	0	0	0.263	1	0	95%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	9.17	9.17		9.9	0	0	0.228	1	0	93%	70	130	0%	
Tetrachloroethene	A	ppbv	8.89	8.89		9.6	0	0	0.148	1	0	93%	70	130	0%	
Tetrahydrofuran	A	ppbv	8.86	8.86		10	0	0	0.201	1	0	89%	70	130	0%	
Toluene	A	ppbv	8.46	8.46		9.8	0	0	0.158	1	0	86%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.39	10.39		9.8	0	0	0.117	1	0	106%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	7.79	7.79		9.1	0	0	0.171	1	0	86%	70	130	0%	
Trichloroethene	A	ppbv	9.8	9.8		9.6	0	0	0.119	1	0	102%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.39	10.39		9.6	0	0	0.148	1	0	108%	70	130	0%	
Vinyl acetate	A	ppbv	10.15	10.15		9.9	0	0	0.266	1	0	103%	70	130	0%	
Vinyl chloride	A	ppbv	10.66	10.66		9.4	0	0	0.072	1	0	113%	70	130	0%	
Xylenes, Total	C	ppbv	29.01	29.01		29.2	0	0	0.782	3	0	99%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		1.25	0	0	0	0	0	1000%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.47	12.47		12.5	0	0	0	0	0	100%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\122111\12211111.D Vial: 2
Acq On : 21 Dec 2011 10:31 pm Operator: RACHEL HILL
Sample : ICV VOA1 122111 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\122111V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Dec 23 14:47:09 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	102	0.00
2	T	Propylene	1.181	1.157	2.0	103	0.00
3	T	Dichlorodifluoromethane	3.219	3.263	-1.4	106	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.441	2.639	-8.1	114	0.00
5	T	Chloromethane	0.985	0.890	9.6	86	0.00
6	T	Vinyl chloride	1.023	1.245	-21.7	93	0.00
7	T	1,3-Butadiene	0.952	1.115	-17.1	102	0.00
8	T	Bromomethane	1.382	1.455	-5.3	103	0.00
9	T	Chloroethane	0.788	0.824	-4.6	104	0.00
10	T	Trichlorofluoromethane	2.741	2.923	-6.6	102	0.00
11	T	Ethanol	0.301	0.291	3.3	110	0.00
12	T	Freon113	2.190	2.514	-14.8	106	0.00
13	T	1,1-Dichloroethene	1.723	1.879	-9.1	105	0.00
14	T	Acetone	1.493	1.323	11.4	99	0.00
15	T	Carbon disulfide	3.447	3.777	-9.6	104	0.00
16	T	2-Propanol	1.505	1.421	5.6	107	0.00
17	T	Methylene chloride	1.314	1.354	-3.0	106	0.00
18	T	tert-Butyl Methyl Ether	2.162	1.997	7.6	101	0.00
19	T	trans-1,2-Dichloroethene	1.611	1.708	-6.0	104	0.00
20	T	n-Hexane	1.749	1.815	-3.8	102	0.00
21	T	1,1-Dichloroethane	1.924	1.979	-2.9	100	0.00
22	T	Vinyl acetate	2.099	2.151	-2.5	102	0.00
23	T	cis-1,2-Dichloroethene	1.136	1.191	-4.8	102	0.00
24	T	2-Butanone	1.495	1.413	5.5	103	0.00
25	T	Ethyl acetate	2.007	1.943	3.2	107	0.00
26	T	Tetrahydrofuran	0.891	0.792	11.1	98	0.00
27	T	Chloroform	1.920	1.920	0.0	99	0.00
28	T	1,1,1-Trichloroethane	1.821	1.873	-2.9	102	0.00
29	T	Cyclohexane	1.646	1.718	-4.4	101	0.00
30	T	Carbon tetrachloride	1.771	1.864	-5.3	109	0.00
31	T	Benzene	2.643	2.605	1.4	106	0.00
32	T	1,2-Dichloroethane	0.991	0.948	4.3	105	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	109	0.00
34	T	Heptane	0.584	0.565	3.3	102	0.00
35	T	Trichloroethene	0.387	0.399	-3.1	114	0.00
36	T	1,2-Dichloropropane	0.289	0.267	7.6	108	0.00
37	T	1,4-Dioxane	0.121	0.115	5.0	117	0.00
38	T	Bromodichloromethane	0.518	0.499	3.7	109	0.00
39	T	cis-1,3-Dichloropropene	0.438	0.406	7.3	109	0.00
40	T	4-Methyl-2-pentanone	0.192	0.172	10.4	106	0.00
41	T	Toluene	0.809	0.708	12.5	104	0.00
42	T	trans-1,3-Dichloropropene	0.370	0.320	13.5	103	0.00
43	T	1,1,2-Trichloroethane	0.284	0.244	14.1	103	0.00
44	T	Tetrachloroethene	0.421	0.395	6.2	102	0.00
45	T	2-Hexanone	0.372	0.313	15.9	103	0.00
46	T	Chlorodibromomethane	0.423	0.373	11.8	103	0.00
47	T	1,2-Dibromoethane	0.408	0.355	13.0	102	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\122111\12211111.D Vial: 2
Acq On : 21 Dec 2011 10:31 pm Operator: RACHEL HILL
Sample : ICV VOA1 122111 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\122111V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Dec 23 14:47:09 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	Chlorobenzene	0.793	0.764	3.7	101	0.00
50	T	Ethylbenzene	1.271	1.246	2.0	102	0.00
51	T	m,p-Xylene	0.962	0.961	0.1	102	0.00
52	T	o-Xylene	0.920	0.890	3.3	101	0.00
53	T	Styrene	0.662	0.644	2.7	101	0.00
54	T	Bromoform	0.507	0.505	0.4	102	0.00
55	S	4-Bromofluorobenzene	0.581	0.584	-0.5	100	0.00
56	T	1,1,2,2-Tetrachloroethane	0.728	0.738	-1.4	99	0.00
57	T	4-Ethyltoluene	1.137	1.102	3.1	100	0.00
58	T	1,3,5-Trimethylbenzene	0.947	0.906	4.3	99	0.00
59	T	1,2,4-Trimethylbenzene	0.898	0.880	2.0	100	0.00
60	T	1,3-Dichlorobenzene	0.573	0.560	2.3	98	0.00
61	T	1,4-Dichlorobenzene	0.533	0.522	2.1	98	0.00
62	T	Benzyl chloride	0.670	0.649	3.1	96	0.00
63	T	1,2-Dichlorobenzene	0.532	0.516	3.0	96	0.00
64	T	1,2,4-Trichlorobenzene	0.094	0.068	27.7	84	0.00
65	T	Hexachlorobutadiene	0.223	0.167	25.1	86	0.00
66		Naphthalene	0.153	0.112	26.8	82	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122111\12211111.D Vial: 2
Acq On : 21 Dec 2011 10:31 pm Operator: RACHEL HILL
Sample : ICV VOA1 122111 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 23 14:47 2011 Quant Results File: 122111V1.RES

Quant Method : C:\HPCHEM\1\METHODS\122111V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Dec 23 14:47:09 2011
Response via : Initial Calibration
DataAcq Meth : 122111V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.60	130	756880	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	2666377	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.54	117	1533679	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.19	95	895518	12.56	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 100.48%

Target Compounds						Qvalue
2) Propylene	5.52	41	714881	9.99	ppbv	99
3) Dichlorodifluoromethane	5.60	85	1817712	9.32	ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	1517920	10.27	ppbv	88
5) Chloromethane	6.00	50	511696	8.58	ppbv	99
6) Vinyl chloride	6.22	62	708574	11.43	ppbv	100
7) 1,3-Butadiene	6.28	39	661855	11.49	ppbv	98
8) Bromomethane	6.86	94	819138	9.79	ppbv	99
9) Chloroethane	7.01	64	459292	9.63	ppbv	99
10) Trichlorofluoromethane	7.34	101	1698999	10.24	ppbv	100
11) Ethanol	7.57	45	161834	8.89	ppbv	99
12) Freon113	8.00	101	1491867	11.25	ppbv	95
13) 1,1-Dichloroethene	8.10	61	1126104	10.79	ppbv	99
14) Acetone	8.19	43	800992	8.86	ppbv	99
15) Carbon disulfide	8.47	76	2218438	10.63	ppbv #	100
16) 2-Propanol	8.24	45	869329	9.54	ppbv #	71
17) Methylene chloride	8.76	49	819993	10.31	ppbv	99
18) tert-Butyl Methyl Ether	8.96	73	1197193	9.15	ppbv	95
19) trans-1,2-Dichloroethene	9.04	61	1013540	10.39	ppbv	100
20) n-Hexane	9.22	57	1110170	10.48	ppbv	100
21) 1,1-Dichloroethane	9.60	63	1162146	9.98	ppbv	99
22) Vinyl acetate	9.53	43	1289635	10.15	ppbv	99
23) cis-1,2-Dichloroethene	10.29	96	706677	10.28	ppbv	99
24) 2-Butanone	10.25	43	846738	9.35	ppbv	97
25) Ethyl acetate	10.20	43	1153038	9.49	ppbv #	99
26) Tetrahydrofuran	10.58	42	479753	8.90	ppbv	96
27) Chloroform	10.61	83	1139148	9.80	ppbv	99
28) 1,1,1-Trichloroethane	10.86	97	1088778	9.87	ppbv	99
29) Cyclohexane	10.87	56	1019515	10.23	ppbv	97
30) Carbon tetrachloride	11.02	117	1072001	10.00	ppbv	100
31) Benzene	11.30	78	1514114	9.46	ppbv	99
32) 1,2-Dichloroethane	11.38	62	556886	9.28	ppbv	98
34) Heptane	11.35	43	1192798	9.57	ppbv	97
35) Trichloroethene	12.03	130	816668	9.90	ppbv	97
36) 1,2-Dichloropropane	12.39	63	559133	9.06	ppbv	96
37) 1,4-Dioxane	12.46	88	236192	9.13	ppbv	98
38) Bromodichloromethane	12.67	83	1022673	9.25	ppbv	100
39) cis-1,3-Dichloropropene	13.23	75	822942	8.82	ppbv	99
40) 4-Methyl-2-pentanone	13.34	58	367048	8.94	ppbv	95
41) Toluene	13.63	91	1479349	8.57	ppbv	99
42) trans-1,3-Dichloropropene	13.94	75	621658	7.87	ppbv	99
43) 1,1,2-Trichloroethane	14.20	97	509484	8.40	ppbv	97

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122111\12211111.D Vial: 2
Acq On : 21 Dec 2011 10:31 pm Operator: RACHEL HILL
Sample : ICV VOA1 122111 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 23 14:47 2011 Quant Results File: 122111V1.RES

Quant Method : C:\HPCHEM\1\METHODS\122111V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Dec 23 14:47:09 2011
Response via : Initial Calibration
DataAcq Meth : 122111V1

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44)	Tetrachloroethene	14.33	166	809862	9.01 ppbv	99
45)	2-Hexanone	14.41	43	654142	8.25 ppbv	99
46)	Chlorodibromomethane	14.75	129	780284	8.64 ppbv	100
47)	1,2-Dibromoethane	14.99	107	726614	8.35 ppbv	99
49)	Chlorobenzene	15.58	112	928091	9.54 ppbv	94
50)	Ethylbenzene	15.63	91	1498278	9.60 ppbv	95
51)	m,p-Xylene	15.78	91	2264051	19.19 ppbv	95
52)	o-Xylene	16.37	91	1091728	9.67 ppbv	94
53)	Styrene	16.40	104	774602	9.53 ppbv	100
54)	Bromoform	16.78	173	594408	9.55 ppbv	98
56)	1,1,2,2-Tetrachloroethane	17.36	83	905646	10.14 ppbv	99
57)	4-Ethyltoluene	17.60	105	1324461	9.50 ppbv	96
58)	1,3,5-Trimethylbenzene	17.69	105	1078351	9.28 ppbv	98
59)	1,2,4-Trimethylbenzene	18.27	105	1057777	9.60 ppbv	98
60)	1,3-Dichlorobenzene	18.83	146	666405	9.48 ppbv	99
61)	1,4-Dichlorobenzene	18.97	146	614297	9.39 ppbv	98
62)	Benzyl chloride	19.18	91	772392	9.40 ppbv	98
63)	1,2-Dichlorobenzene	19.62	146	613712	9.40 ppbv	99
64)	1,2,4-Trichlorobenzene	22.77	180	76344	6.65 ppbv	97
65)	Hexachlorobutadiene	22.96	225	192293	7.02 ppbv	99
66)	Naphthalene	23.46	128	126050	6.73 ppbv	97

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

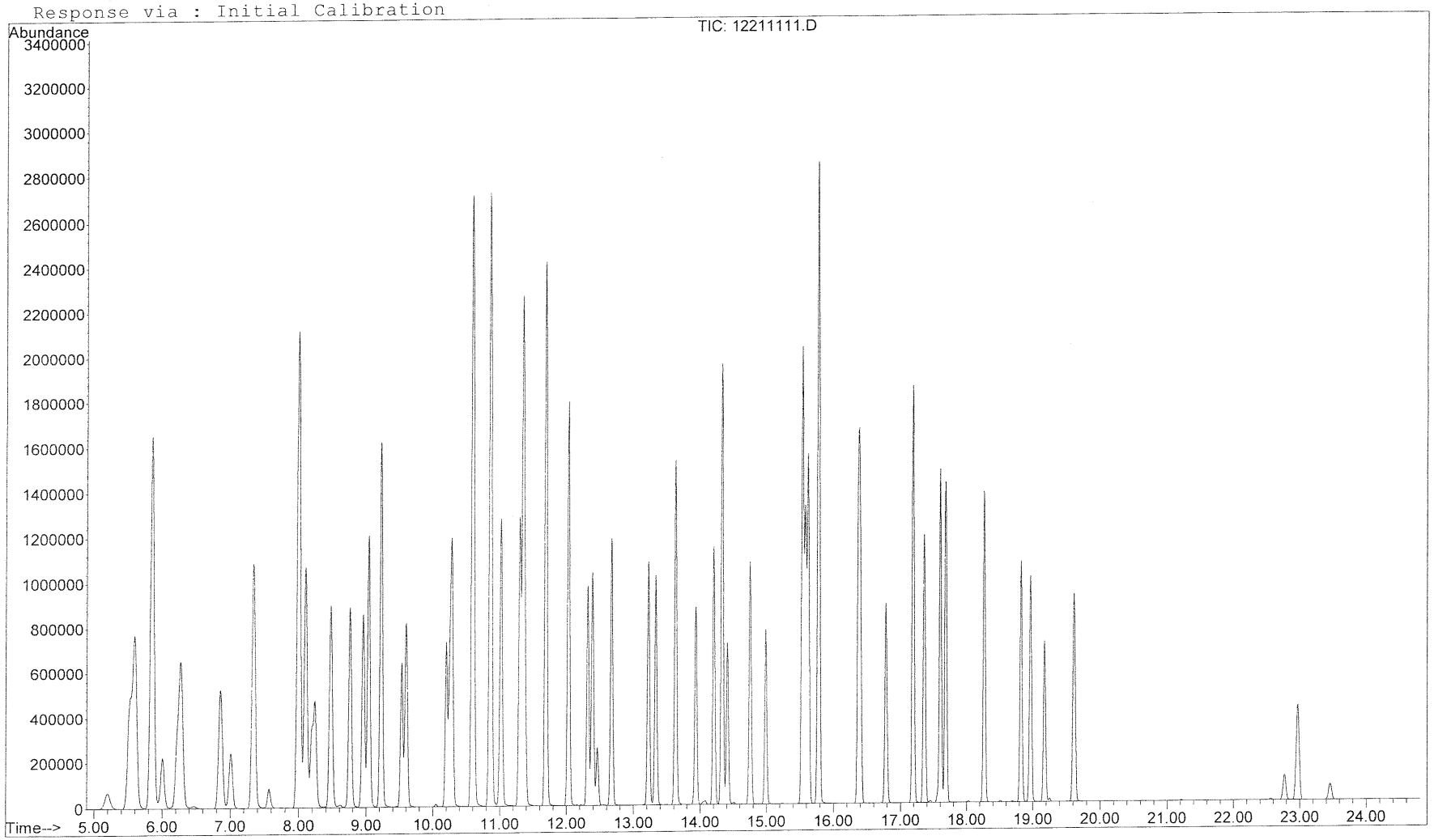
Quantitation Report

Data File : C:\HPCHEM\1\DATA\122111\12211111.D
Acq On : 21 Dec 2011 10:31 pm
Sample : ICV VOA1 122111
Misc : ICV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Dec 23 14:47 2011

Vial: 2
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Quant Results File: 122111V1.RES

Method : C:\HPCHEM\1\METHODS\122111V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Dec 23 14:47:09 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_111227A **Run No.:** 45160

Analytical Run Date: 12/27/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

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

Column Length: 30m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 VOA1 122711	BFB_TUNE	TUNE	R45160	12/27/2011 5:30:00 PM	Charles O`Bryan		
1ppbv ICAL	EPA_TO15	ICAL	R45160	12/27/2011 7:04:00 PM	Charles O`Bryan		
10ppbv ICAL	EPA_TO15	ICAL	R45160	12/27/2011 7:49:00 PM	Charles O`Bryan		
12ppbv ICAL	EPA_TO15	ICAL	R45160	12/27/2011 8:34:00 PM	Charles O`Bryan		
15ppbv ICAL	EPA_TO15	ICAL	R45160	12/27/2011 9:20:00 PM	Charles O`Bryan		
20ppbv ICAL	EPA_TO15	ICAL	R45160	12/27/2011 10:07:00 PM	Charles O`Bryan		
30ppbv ICAL	EPA_TO15	ICAL	R45160	12/27/2011 10:55:00 PM	Charles O`Bryan		
50ppbv ICAL	EPA_TO15	ICAL	R45160	12/27/2011 11:43:00 PM	Charles O`Bryan		
BFB2 VOA1 122711	BFB_TUNE	TUNE	R45160	12/28/2011 12:28:00 AM	Charles O`Bryan		
ICV VOA1 122711	EPA_TO15	ICV	R45160	12/28/2011 1:59:00 AM	Charles O`Bryan		
RLVS1 VOA1 12271	EPA_TO15	RLVS	R45160	12/28/2011 2:46:00 AM	Charles O`Bryan		
VOA1 MBLK 122711	EPA_TO15	MBLK	R45160	12/28/2011 3:38:00 AM	Charles O`Bryan		
1112148-021A	EPA_TO15	SAMP	R45160	12/28/2011 10:04:00 AM	Charles O`Bryan		
1112148-022A	EPA_TO15	SAMP	R45160	12/28/2011 10:51:00 AM	Charles O`Bryan		
1112148-023A	EPA_TO15	SAMP	R45160	12/28/2011 11:36:00 AM	Charles O`Bryan		
1112148-023Adup	EPA_TO15	DUP	R45160	12/28/2011 12:22:00 PM	Charles O`Bryan		
1112398-028A	EPA_TO15	SAMP	R45160	12/28/2011 1:08:00 PM	Charles O`Bryan		
1112398-006A	EPA_TO15	SAMP	R45160	12/28/2011 2:00:00 PM	Charles O`Bryan		
1112398-007A	EPA_TO15	SAMP	R45160	12/28/2011 2:52:00 PM	Charles O`Bryan		
1112398-008A	EPA_TO15	SAMP	R45160	12/28/2011 4:23:00 PM	Charles O`Bryan		
1112398-009A	EPA_TO15	SAMP	R45160	12/28/2011 5:09:00 PM	Charles O`Bryan		
1112398-012A	EPA_TO15	SAMP	R45160	12/28/2011 7:28:00 PM	Charles O`Bryan		
1112398-002A	EPA_TO15	SAMP	R45160	12/28/2011 9:05:00 PM	Charles O`Bryan		
1112398-003A	EPA_TO15	SAMP	R45160	12/28/2011 9:57:00 PM	Charles O`Bryan		
RLVS2 VOA1 12271	EPA_TO15	RLVS	R45160	12/28/2011 10:43:00 PM	Charles O`Bryan		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
888352	ICV VOA1 122711	EPA_TO15	ICV	\1\DATA\122711	12/28/2011 1:59:	1	R45160		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	10.04	10.04		9.6	0	0	0.107	1	0	105%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.16	10.16		10	0	0	0.211	1	0	102%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.46	10.46		9.8	0	0	0.108	1	0	107%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.76	9.76		9.8	0	0	0.2	1	0	100%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.06	10.06		9.7	0	0	0.111	1	0	104%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.3	10.3		9.9	0	0	0.097	1	0	104%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	7.95	7.95		9.1	0	0	0.271	1	0	87%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.71	9.71		9.8	0	0	0.245	1	0	99%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.73	9.73		9.6	0	0	0.186	1	0	101%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.91	9.91		9.7	0	0	0.208	1	0	102%	70	130	0%	
1,2-Dichloroethane	A	ppbv	9.48	9.48		9.7	0	0	0.196	1	0	98%	70	130	0%	
1,2-Dichloropropane	A	ppbv	9.89	9.89		9.8	0	0	0.224	1	0	101%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.39	9.39		9.7	0	0	0.24	1	0	97%	70	130	0%	
1,3-Butadiene	A	ppbv	10.67	10.67		9.8	0	0	0.152	1	0	109%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.9	9.9		9.7	0	0	0.202	1	0	102%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	9.77	9.77		9.6	0	0	0.194	1	0	102%	70	130	0%	
1,4-Dioxane	A	ppbv	10.05	10.05		9.6	0	0	0.128	1	0	105%	70	130	0%	
2-Butanone	A	ppbv	9.23	9.23		9.9	0	0	0.287	1	0	93%	70	130	0%	
2-Hexanone	A	ppbv	10.42	10.42		9.8	0	0	0.135	1	0	106%	70	130	0%	
2-Propanol	A	ppbv	10.4	10.4		10.1	0	0	0.329	1	0	103%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.58	10.58		10	0	0	0.157	1	0	106%	70	130	0%	
Acetone	A	ppbv	9.51	9.51		10	0	0	0.43	1	0	95%	70	130	0%	
Benzene	A	ppbv	9.51	9.51		9.6	0	0	0.126	1	0	99%	70	130	0%	
Benzyl chloride	A	ppbv	9.67	9.67		9.7	0	0	0.155	1	0	100%	70	130	0%	
Bromodichloromethane	A	ppbv	9.85	9.85		9.6	0	0	0.156	1	0	103%	70	130	0%	
Bromoform	A	ppbv	9.88	9.88		9.6	0	0	0.197	1	0	103%	70	130	0%	
Bromomethane	A	ppbv	9.64	9.64		9.3	0	0	0.075	1	0	104%	70	130	0%	
Carbon disulfide	A	ppbv	10.13	10.13		9.7	0	0	0.093	1	0	104%	70	130	0%	
Carbon tetrachloride	A	ppbv	9.6	9.6		9.5	0	0	0.114	1	0	101%	70	130	0%	
Chlorobenzene	A	ppbv	9.85	9.85		9.9	0	0	0.275	1	0	99%	70	130	0%	
Chlorodibromomethane	A	ppbv	9.93	9.93		9.2	0	0	0.165	1	0	108%	70	130	0%	
Chloroethane	A	ppbv	9.36	9.36		9.8	0	0	0.063	1	0	96%	70	130	0%	
Chloroform	A	ppbv	10.23	10.23		9.4	0	0	0.126	1	0	109%	70	130	0%	
Chloromethane	A	ppbv	9.24	9.24		9.8	0	0	0.104	1	0	94%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
888352	ICV VOA1 122711	EPA_TO15	ICV	\1\DATA\122711	12/28/2011 1:59:	1	R45160		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
cis-1,2-Dichloroethene	A	ppbv	10.07	10.07		9.8	0	0	0.107	1	0	103%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.64	9.64		9.5	0	0	0.166	1	0	101%	70	130	0%	
Cyclohexane	A	ppbv	10.97	10.97		9.8	0	0	0.684	2	0	112%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.42	9.42		9.2	0	0	0.086	1	0	102%	70	130	0%	
Ethanol	A	ppbv	9.66	9.66		9.2	0	0	1.962	5	0	105%	70	130	0%	
Ethyl acetate	A	ppbv	9.93	9.93		9.8	0	0	0.157	1	0	101%	70	130	0%	
Ethylbenzene	A	ppbv	9.81	9.81		9.8	0	0	0.737	2	0	100%	70	130	0%	
Heptane	A	ppbv	10.76	10.76		9.9	0	0	0.249	1	0	109%	70	130	0%	
Hexachlorobutadiene	A	ppbv	8.38	8.38		9.4	0	0	0.374	2	0	89%	70	130	0%	
m,p-Xylene	A	ppbv	18.98	18.98		19.2	0	0	0.524	2	0	99%	70	130	0%	
Methylene chloride	A	ppbv	10.07	10.07		10	0	0	2.077	5	0	101%	70	130	0%	
n-Hexane	A	ppbv	10.64	10.64		10.1	0	0	0.692	2	0	105%	70	130	0%	
Naphthalene	A	ppbv	8.5	8.5		9.2	0	0	0.247	1	0	92%	70	130	0%	
o-Xylene	A	ppbv	10.01	10.01		10	0	0	0.258	1	0	100%	70	130	0%	
Propylene	A	ppbv	10.52	10.52		10.2	0	0	0.075	1	0	103%	70	130	0%	
Styrene	A	ppbv	10.01	10.01		9.8	0	0	0.263	1	0	102%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	9.29	9.29		9.9	0	0	0.228	1	0	94%	70	130	0%	
Tetrachloroethene	A	ppbv	10.48	10.48		9.6	0	0	0.148	1	0	109%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.16	10.16		10	0	0	0.201	1	0	102%	70	130	0%	
Toluene	A	ppbv	9.78	9.78		9.8	0	0	0.158	1	0	100%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.25	10.25		9.8	0	0	0.117	1	0	105%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.13	9.13		9.1	0	0	0.171	1	0	100%	70	130	0%	
Trichloroethene	A	ppbv	9.97	9.97		9.6	0	0	0.119	1	0	104%	70	130	0%	
Trichlorofluoromethane	A	ppbv	9.73	9.73		9.6	0	0	0.148	1	0	101%	70	130	0%	
Vinyl acetate	A	ppbv	10.12	10.12		9.9	0	0	0.266	1	0	102%	70	130	0%	
Vinyl chloride	A	ppbv	12.03	12.03		9.4	0	0	0.072	1	0	128%	70	130	0%	
Xylenes, Total	C	ppbv	28.99	28.99		29.2	0	0	0.782	3	0	99%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		1.25	0	0	0	0	0	1000%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.64	12.64		12.5	0	0	0	0	0	101%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\122711\12271113.D Vial: 1
Acq On : 28 Dec 2011 1:59 am Operator: RACHEL HILL
Sample : ICV VOA1 122711 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\122711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Dec 28 11:48:33 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	116	0.00
2	T	Propylene	1.257	1.296	-3.1	115	0.00
3	T	Dichlorodifluoromethane	3.312	3.390	-2.4	110	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.450	2.635	-7.6	117	0.00
5	T	Chloromethane	1.147	1.115	2.8	106	0.00
6	T	Vinyl chloride	1.266	1.621	-28.0	171#	0.00
7	T	1,3-Butadiene	1.109	1.207	-8.8	122	0.00
8	T	Bromomethane	1.360	1.409	-3.6	118	0.00
9	T	Chloroethane	0.784	0.797	-1.7	112	0.00
10	T	Trichlorofluoromethane	2.722	2.760	-1.4	108	0.00
11	T	Ethanol	0.312	0.328	-5.1	121	0.00
12	T	Freon113	2.193	2.341	-6.7	105	0.00
13	T	1,1-Dichloroethene	1.743	1.814	-4.1	106	0.00
14	T	Acetone	1.691	1.608	4.9	97	0.00
15	T	Carbon disulfide	3.466	3.622	-4.5	110	0.00
16	T	2-Propanol	1.740	1.791	-2.9	114	0.00
17	T	Methylene chloride	1.347	1.357	-0.7	102	0.00
18	T	tert-Butyl Methyl Ether	2.434	2.284	6.2	93	0.00
19	T	trans-1,2-Dichloroethene	1.651	1.727	-4.6	104	0.00
20	T	n-Hexane	1.810	1.908	-5.4	104	0.00
21	T	1,1-Dichloroethane	2.026	2.100	-3.7	103	0.00
22	T	Vinyl acetate	2.464	2.518	-2.2	95	0.00
23	T	cis-1,2-Dichloroethene	1.175	1.208	-2.8	104	0.00
24	T	2-Butanone	1.777	1.656	6.8	93	0.00
25	T	Ethyl acetate	2.265	2.295	-1.3	104	0.00
26	T	Tetrahydrofuran	1.131	1.148	-1.5	102	0.00
27	T	Chloroform	2.022	2.111	-4.4	102	0.00
28	T	1,1,1-Trichloroethane	1.938	2.027	-4.6	101	0.00
29	T	Cyclohexane	1.701	1.904	-11.9	105	0.00
30	T	Carbon tetrachloride	1.920	1.941	-1.1	101	0.00
31	T	Benzene	2.853	2.825	1.0	95	0.00
32	T	1,2-Dichloroethane	1.079	1.055	2.2	96	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	117	0.00
34	T	Heptane	0.607	0.660	-8.7	103	0.00
35	T	Trichloroethene	0.408	0.424	-3.9	105	0.00
36	T	1,2-Dichloropropane	0.306	0.309	-1.0	103	0.00
37	T	1,4-Dioxane	0.150	0.157	-4.7	118	0.00
38	T	Bromodichloromethane	0.554	0.568	-2.5	106	0.00
39	T	cis-1,3-Dichloropropene	0.468	0.474	-1.3	107	0.00
40	T	4-Methyl-2-pentanone	0.238	0.252	-5.9	113	0.00
41	T	Toluene	0.865	0.863	0.2	105	0.00
42	T	trans-1,3-Dichloropropene	0.400	0.402	-0.5	108	0.00
43	T	1,1,2-Trichloroethane	0.307	0.305	0.7	108	0.00
44	T	Tetrachloroethene	0.449	0.490	-9.1	111	0.00
45	T	2-Hexanone	0.500	0.531	-6.2	115	0.00
46	T	Chlorodibromomethane	0.461	0.467	-1.3	108	0.00
47	T	1,2-Dibromoethane	0.441	0.447	-1.4	109	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	117	0.00
49	T	Chlorobenzene	0.872	0.867	0.6	109	0.00
50	T	Ethylbenzene	1.408	1.409	-0.1	109	0.00
51	T	m,p-Xylene	1.096	1.083	1.2	108	0.00
52	T	o-Xylene	1.026	1.027	-0.1	109	0.00
53	T	Styrene	0.783	0.800	-2.2	110	0.00
54	T	Bromoform	0.563	0.579	-2.8	112	0.00
55	S	4-Bromofluorobenzene	0.570	0.576	-1.1	118	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\122711\12271113.D Vial: 1
Acq On : 28 Dec 2011 1:59 am Operator: RACHEL HILL
Sample : ICV VOA1 122711 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\122711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Dec 28 11:48:33 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.806	0.819	-1.6	112	0.00
57	T	4-Ethyltoluene	1.274	1.250	1.9	112	0.00
58	T	1,3,5-Trimethylbenzene	1.064	1.030	3.2	111	0.00
59	T	1,2,4-Trimethylbenzene	1.004	0.996	0.8	113	0.00
60	T	1,3-Dichlorobenzene	0.640	0.653	-2.0	113	0.00
61	T	1,4-Dichlorobenzene	0.603	0.614	-1.8	113	0.00
62	T	Benzyl chloride	0.940	0.937	0.3	113	0.00
63	T	1,2-Dichlorobenzene	0.596	0.609	-2.2	113	0.00
64	T	1,2,4-Trichlorobenzene	0.138	0.121	12.3	110	0.00
65	T	Hexachlorobutadiene	0.310	0.277	10.6	110	0.00
66		Naphthalene	0.251	0.232	7.6	110	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122711\12271113.D
Acq On : 28 Dec 2011 1:59 am
Sample : ICV VOA1 122711
Misc : ICV EPA TO15
MS Integration Params: CLME.P
Quant Time: Dec 30 9:25 2011

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

Quant Results File: 122711V1.RES

Quant Method : C:\HPCHEM\1\METHODS\122711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Dec 28 11:48:33 2011
Response via : Initial Calibration
DataAcq Meth : 122711V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.59	130	755730	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	2585950	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.54	117	1698616	12.50 ppbv	0.00

System Monitoring Compounds					
55) 4-Bromofluorobenzene	17.19	95	978481	12.64 ppbv	0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 101.12%		

Target Compounds					Qvalue
2) Propylene	5.52	41	799432	10.52 ppbv	98
3) Dichlorodifluoromethane	5.59	85	1885685	9.42 ppbv	100
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	1513269	10.22 ppbv	86
5) Chloromethane	6.00	50	640614	9.24 ppbv	99
6) Vinyl chloride	6.21	62	921226	12.03 ppbv #	100
7) 1,3-Butadiene	6.28	39	715434	10.67 ppbv	98
8) Bromomethane	6.85	94	792374	9.64 ppbv	99
9) Chloroethane	7.01	64	443447	9.36 ppbv	100
10) Trichlorofluoromethane	7.34	101	1601952	9.73 ppbv	99
11) Ethanol	7.56	45	182333	9.66 ppbv	99
12) Freon113	8.00	101	1387001	10.46 ppbv	93
13) 1,1-Dichloroethene	8.10	61	1085743	10.30 ppbv	97
14) Acetone	8.19	43	971963	9.51 ppbv	98
15) Carbon disulfide	8.47	76	2123887	10.13 ppbv #	100
16) 2-Propanol	8.23	45	1093576	10.40 ppbv #	69
17) Methylene chloride	8.76	49	820632	10.07 ppbv	92
18) tert-Butyl Methyl Ether	8.95	73	1367058	9.29 ppbv	93
19) trans-1,2-Dichloroethene	9.04	61	1023392	10.25 ppbv	94
20) n-Hexane	9.23	57	1164832	10.64 ppbv	99
21) 1,1-Dichloroethane	9.60	63	1231745	10.06 ppbv	98
22) Vinyl acetate	9.53	43	1507377	10.12 ppbv	98
23) cis-1,2-Dichloroethene	10.28	96	715443	10.07 ppbv	96
24) 2-Butanone	10.25	43	991162	9.23 ppbv	98
25) Ethyl acetate	10.20	43	1359593	9.93 ppbv #	100
26) Tetrahydrofuran	10.59	42	694340	10.16 ppbv	95
27) Chloroform	10.61	83	1250658	10.23 ppbv	99
28) 1,1,1-Trichloroethane	10.86	97	1176578	10.04 ppbv	98
29) Cyclohexane	10.86	56	1127988	10.97 ppbv	95
30) Carbon tetrachloride	11.02	117	1115089	9.60 ppbv	99
31) Benzene	11.30	78	1639605	9.51 ppbv	99
32) 1,2-Dichloroethane	11.38	62	618461	9.48 ppbv	98
34) Heptane	11.35	43	1351261	10.76 ppbv	96
35) Trichloroethene	12.03	130	841303	9.97 ppbv	96
36) 1,2-Dichloropropane	12.39	63	626797	9.89 ppbv	96
37) 1,4-Dioxane	12.46	88	310903	10.05 ppbv	94
38) Bromodichloromethane	12.67	83	1129031	9.85 ppbv	99
39) cis-1,3-Dichloropropene	13.23	75	932501	9.64 ppbv	98
40) 4-Methyl-2-pentanone	13.33	58	521107	10.58 ppbv	93
41) Toluene	13.63	91	1749974	9.78 ppbv	99
42) trans-1,3-Dichloropropene	13.93	75	756645	9.13 ppbv	99
43) 1,1,2-Trichloroethane	14.20	97	619306	9.76 ppbv	97
44) Tetrachloroethene	14.33	166	972158	10.48 ppbv	99
45) 2-Hexanone	14.41	43	1077215	10.42 ppbv	99
46) Chlorodibromomethane	14.75	129	946859	9.93 ppbv	99
47) 1,2-Dibromoethane	14.99	107	886856	9.73 ppbv	100
49) Chlorobenzene	15.59	112	1166755	9.85 ppbv	95
50) Ethylbenzene	15.63	91	1876669	9.81 ppbv	96
51) m,p-Xylene	15.78	91	2825862	18.98 ppbv	96
52) o-Xylene	16.38	91	1396247	10.01 ppbv #	94

(#) = qualifier out of range (m) = manual integration
12271113.D 122711V1.M Mon Jan 02 10:57:25 2012

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122711\12271113.D Vial: 1
Acq On : 28 Dec 2011 1:59 am Operator: RACHEL HILL
Sample : ICV VOA1 122711 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 30 9:25 2011 Quant Results File: 122711V1.RES

Quant Method : C:\HPCHEM\1\METHODS\122711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Dec 28 11:48:33 2011
Response via : Initial Calibration
DataAcq Meth : 122711V1

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
53) Styrene	16.40	104	1065598	10.01 ppbv	98
54) Bromoform	16.78	173	755956	9.88 ppbv	99
56) 1,1,2,2-Tetrachloroethane	17.36	83	1113451	10.16 ppbv	99
57) 4-Ethyltoluene	17.60	105	1664750	9.62 ppbv	97
58) 1,3,5-Trimethylbenzene	17.68	105	1358118	9.39 ppbv	98
59) 1,2,4-Trimethylbenzene	18.27	105	1325788	9.71 ppbv	98
60) 1,3-Dichlorobenzene	18.82	146	860894	9.90 ppbv	99
61) 1,4-Dichlorobenzene	18.97	146	801406	9.77 ppbv	99
62) Benzyl chloride	19.18	91	1234692	9.67 ppbv	99
63) 1,2-Dichlorobenzene	19.61	146	802805	9.91 ppbv	99
64) 1,2,4-Trichlorobenzene	22.77	180	149449	7.95 ppbv	98
65) Hexachlorobutadiene	22.97	225	353561	8.38 ppbv	99
66) Naphthalene	23.46	128	289928	8.50 ppbv	99

(#) = qualifier out of range (m) = manual integration
12271113.D 122711V1.M Mon Jan 02 10:57:25 2012

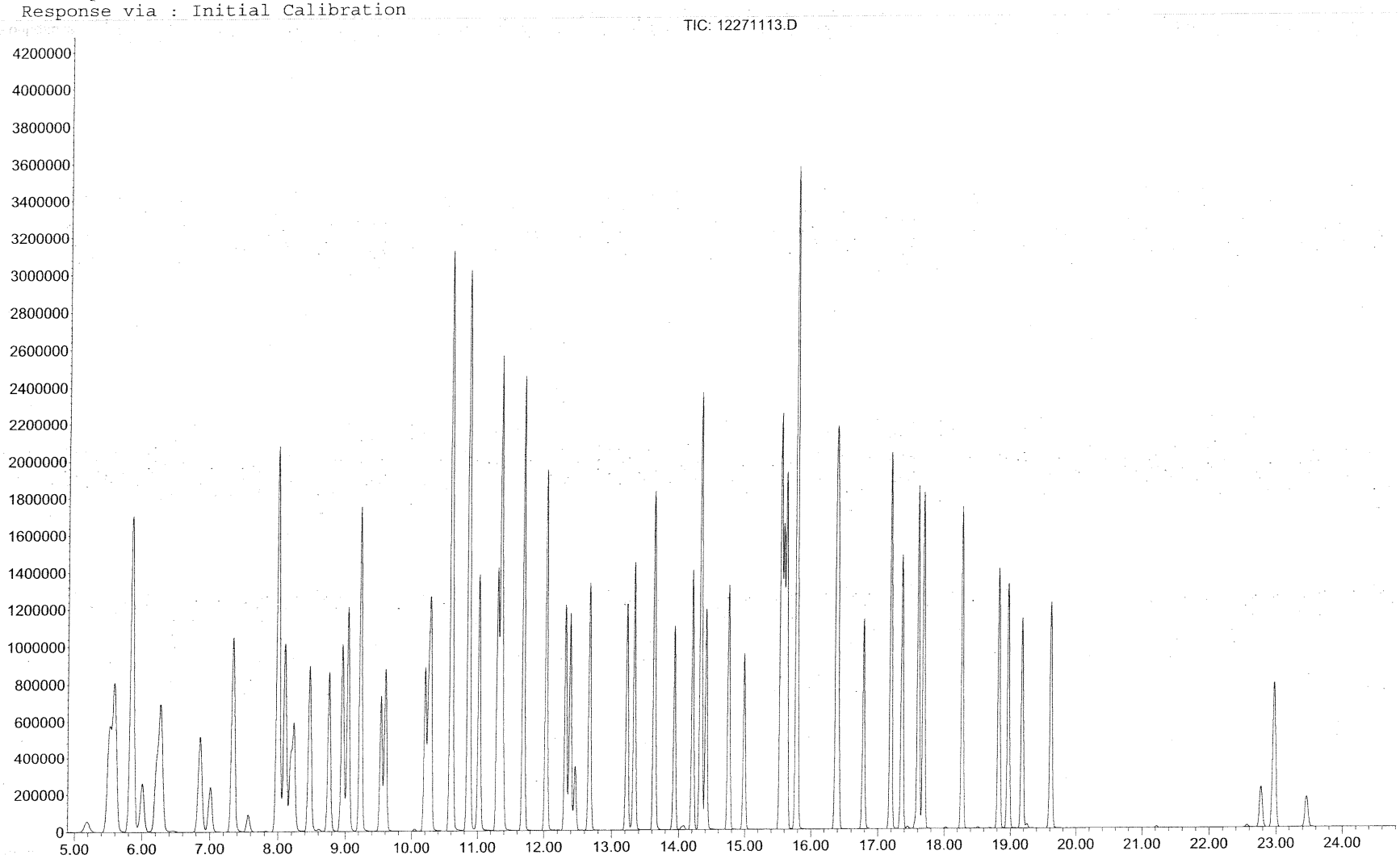
Quantitation Report

Data File : C:\HPCHEM\1\DATA\122711\12271113.D
Acq On : 28 Dec 2011 1:59 am
Sample : ICV VOA1 122711
Misc : ICV EPA TO15
MS Integration Params: CLME.P
Quant Time: Dec 30 9:25 2011

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

Quant Results File: 122711V1.RES

Method : C:\HPCHEM\1\METHODS\122711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Dec 28 11:48:33 2011
Response via : Initial Calibration



Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Initial Calibration

Calibration Files
2 =12071105.D 4 =12071106.D 5 =12071107.D
6 =12071108.D 7 =12071109.D 8 =12071110.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.257	1.311	1.254	1.200	1.156	1.105	1.210	5.74
3)	T	Dichlorodifluoromet	3.070	3.556	3.382	3.260	3.186	3.034	3.234	5.68
4)	T	1,2-Dichloro-1,2,2,	2.183	2.636	2.501	2.414	2.431	2.207	2.367	7.40
5)	T	Chloromethane	1.166	1.268	1.178	1.121	1.012	0.992	1.111	9.08
6)	T	Vinyl chloride	1.467	1.740	1.601	1.419	1.135	0.773	1.356	25.79
7)	T	1,3-Butadiene	1.119	1.324	1.194	1.152	1.048	0.833	1.043	22.60
8)	T	Bromomethane	1.179	1.414	1.329	1.302	1.179	1.174	1.267	7.30
9)	T	Chloroethane	0.734	0.847	0.789	0.773	0.684	0.680	0.750	7.91
10)	T	Trichlorofluorometh	2.507	3.003	2.737	2.720	2.391	2.370	2.606	8.70
11)	T	Ethanol	0.268	0.403	0.343	0.355	0.298	0.294	0.327	15.13
12)	T	Freon113	2.121	2.708	2.377	2.407	2.063	1.978	2.214	13.48
13)	T	1,1-Dichloroethene	1.737	2.086	1.816	1.813	1.562	1.522	1.735	11.21
14)	T	Acetone	1.740	2.138	1.706	1.763	1.420	1.395	1.666	15.50
15)	T	Carbon disulfide	3.299	3.853	3.496	3.435	3.001	2.923	3.296	9.99
16)	T	2-Propanol	1.488	1.983	1.685	1.695	1.471	1.439	1.615	11.85
17)	T	Methylene chloride	1.772	1.652	1.431	1.425	1.215	1.178	1.417	15.99
18)	T	tert-Butyl Methyl E	2.540	3.115	2.466	2.584	2.069	2.036	2.438	15.19
19)	T	trans-1,2-Dichloroe	1.691	2.049	1.778	1.800	1.535	1.496	1.702	11.40
20)	T	n-Hexane	1.891	2.293	1.986	1.997	1.696	1.647	1.880	12.58
21)	T	1,1-Dichloroethane	1.981	2.436	2.125	2.120	1.795	1.775	2.017	11.52
22)	T	Vinyl acetate	2.065	3.556	2.788	2.927	2.317	2.229	2.647	21.02
23)	T	cis-1,2-Dichloroeth	1.114	1.417	1.230	1.258	1.087	1.085	1.189	10.21
24)	T	2-Butanone	1.784	2.271	1.827	1.794	1.555	1.459	1.782	15.82
25)	T	Ethyl acetate	2.318	3.140	2.517	2.557	2.090	2.018	2.392	16.38
26)	T	Tetrahydrofuran	1.006	1.364	1.101	1.132	0.935	0.886	1.046	16.28
27)	T	Chloroform	2.064	2.567	2.222	2.234	1.919	1.811	2.084	13.53
28)	T	1,1,1-Trichloroetha	1.850	2.441	2.134	2.145	1.835	1.725	1.971	14.12
29)	T	Cyclohexane	1.852	2.267	1.969	1.955	1.640	1.485	1.785	18.01
30)	T	Carbon tetrachlorid	1.671	2.296	1.997	2.028	1.758	1.716	1.891	11.93
31)	T	Benzene	3.040	3.759	3.021	3.146	2.576	2.459	2.941	15.32
32)	T	1,2-Dichloroethane	1.179	1.466	1.178	1.214	0.991	0.960	1.142	15.44
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.680	0.864	0.741	0.734	0.628	0.567	0.666	20.08
35)	T	Trichloroethene	0.380	0.520	0.458	0.469	0.413	0.391	0.424	14.73
36)	T	1,2-Dichloropropane	0.320	0.438	0.354	0.372	0.308	0.293	0.337	16.47
37)	T	1,4-Dioxane	0.111	0.171	0.146	0.150	0.126	0.120	0.135	15.60
38)	T	Bromodichloromethan	0.515	0.738	0.619	0.641	0.547	0.522	0.580	15.56
39)	T	cis-1,3-Dichloropro	0.447	0.636	0.526	0.548	0.465	0.446	0.500	14.89
40)	T	4-Methyl-2-pentanon	0.181	0.281	0.235	0.245	0.208	0.199	0.220	15.97
41)	T	Toluene	0.865	1.171	0.962	1.019	0.856	0.802	0.917	15.84
42)	T	trans-1,3-Dichlorop	0.363	0.531	0.440	0.463	0.395	0.381	0.421	14.54
43)	T	1,1,2-Trichloroetha	0.294	0.398	0.330	0.351	0.301	0.289	0.320	13.44
44)	T	Tetrachloroethene	0.419	0.567	0.504	0.507	0.458	0.420	0.459	16.17
45)	T	2-Hexanone	0.378	0.564	0.460	0.478	0.404	0.385	0.434	16.42
46)	T	Chlorodibromomethan	0.401	0.584	0.493	0.528	0.456	0.441	0.472	14.35
47)	T	1,2-Dibromoethane	0.426	0.567	0.476	0.502	0.429	0.412	0.456	13.86
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.860	1.138	0.954	0.993	0.873	0.837	0.917	13.36
50)	T	Ethylbenzene	1.444	1.890	1.559	1.626	1.402	1.320	1.485	15.95
51)	T	m,p-Xylene	1.129	1.455	1.210	1.235	1.045	0.918	1.100	21.91
52)	T	o-Xylene	1.029	1.347	1.120	1.171	1.019	0.977	1.071	15.24
53)	T	Styrene	0.753	0.969	0.803	0.846	0.736	0.720	0.777	14.48
54)	T	Bromoform	0.524	0.714	0.606	0.634	0.557	0.537	0.578	13.86
55)	S	4-Bromofluorobenzen	0.654	0.576	0.567	0.568	0.548	0.542	0.571	6.92
56)	T	1,1,2,2-Tetrachloro	1.058	1.053	0.890	0.885	0.754	0.702	0.850	20.22
57)	T	4-Ethyltoluene	1.699	1.570	1.325	1.360	1.169	1.096	1.317	19.18

(#) = Out of Range ### Number of calibration levels exceeded format ###
120711V1.M Fri Dec 09 17:10:33 2011

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Initial Calibration

Calibration Files
2 =12071105.D 4 =12071106.D 5 =12071107.D
6 =12071108.D 7 =12071109.D 8 =12071110.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.470	1.292	1.099	1.112	0.967	0.910	1.097	20.46
59)	T	1,2,4-Trimethylbenz	1.420	1.246	1.064	1.063	0.922	0.856	1.050	21.35
60)	T	1,3-Dichlorobenzene	0.782	0.809	0.701	0.685	0.588	0.558	0.661	17.42
61)	T	1,4-Dichlorobenzene	0.686	0.754	0.642	0.643	0.558	0.524	0.612	15.85
62)	T	Benzyl chloride	0.504	0.992	0.836	0.845	0.731	0.691	0.745	21.62
63)	T	1,2-Dichlorobenzene	0.754	0.760	0.637	0.628	0.547	0.509	0.613	19.05
64)	T	1,2,4-Trichlorobenz	0.106	0.119	0.100	0.110	0.096	0.096	0.104	7.95
65)	T	Hexachlorobutadiene	0.308	0.275	0.231	0.243	0.204	0.202	0.239	16.74
66)		Naphthalene	0.158	0.188	0.166	0.176	0.153	0.153	0.165	7.69

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Initial Calibration
Total Cpnds : 66

PK#		Compound Name	QIon	Exp RT	Rel RT	Cal	#Qual	A/H	ID
1	I	Bromochloromethane	130	10.60	1.000	A	2	A	B
2	T	Propylene	41	5.53	0.522	A	2	A	B
3	T	Dichlorodifluoromethane	85	5.60	0.528	A	3	A	B
4	T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.85	0.552	A	2	A	B
5	T	Chloromethane	50	6.01	0.567	A	3	A	B
6	T	Vinyl chloride	62	6.22	0.587	A	2	A	B
7	T	1,3-Butadiene	39	6.28	0.593	A	2	A	B
8	T	Bromomethane	94	6.86	0.648	A	3	A	B
9	T	Chloroethane	64	7.01	0.661	A	3	A	B
10	T	Trichlorofluoromethane	101	7.34	0.693	A	3	A	B
11	T	Ethanol	45	7.57	0.714	A	2	A	B
12	T	Freon113	101	8.00	0.755	A	2	A	B
13	T	1,1-Dichloroethene	61	8.10	0.765	A	2	A	B
14	T	Acetone	43	8.19	0.773	A	2	A	B
15	T	Carbon disulfide	76	8.47	0.800	A	3	A	B
16	T	2-Propanol	45	8.24	0.777	A	2	A	B
17	T	Methylene chloride	49	8.76	0.827	A	2	A	B
18	T	tert-Butyl Methyl Ether	73	8.96	0.845	A	2	A	B
19	T	trans-1,2-Dichloroethene	61	9.04	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	9.60	0.906	A	3	A	B
22	T	Vinyl acetate	43	9.53	0.900	A	2	A	B
23	T	cis-1,2-Dichloroethene	96	10.28	0.970	A	3	A	B
24	T	2-Butanone	43	10.25	0.967	A	2	A	B
25	T	Ethyl acetate	43	10.20	0.962	A	3	A	B
26	T	Tetrahydrofuran	42	10.58	0.999	A	2	A	B
27	T	Chloroform	83	10.61	1.001	A	2	A	B
28	T	1,1,1-Trichloroethane	97	10.86	1.025	A	3	A	B
29	T	Cyclohexane	56	10.87	1.026	A	2	A	B
30	T	Carbon tetrachloride	117	11.02	1.040	A	3	A	B
31	T	Benzene	78	11.30	1.067	A	3	A	B
32	T	1,2-Dichloroethane	62	11.38	1.074	A	3	A	B
33	I	1,4-Difluorobenzene	114	11.69	1.000	A	2	A	B
34	T	Heptane	43	11.35	0.970	A	3	A	B
35	T	Trichloroethene	130	12.03	1.029	A	3	A	B
36	T	1,2-Dichloropropane	63	12.39	1.059	A	3	A	B
37	T	1,4-Dioxane	88	12.46	1.066	A	2	A	B
38	T	Bromodichloromethane	83	12.67	1.084	A	2	A	B
39	T	cis-1,3-Dichloropropene	75	13.23	1.131	A	2	A	B
40	T	4-Methyl-2-pentanone	58	13.34	1.140	A	3	A	B
41	T	Toluene	91	13.63	1.165	A	2	A	B
42	T	trans-1,3-Dichloropropene	75	13.93	1.191	A	3	A	B
43	T	1,1,2-Trichloroethane	97	14.20	1.215	A	3	A	B
44	T	Tetrachloroethene	166	14.33	1.225	A	3	A	B
45	T	2-Hexanone	43	14.41	1.233	A	2	A	B
46	T	Chlorodibromomethane	129	14.75	1.262	A	2	A	B
47	T	1,2-Dibromoethane	107	14.99	1.282	A	2	A	B
48	I	Chlorobenzene-d5	117	15.54	1.000	A	2	A	B
49	T	Chlorobenzene	112	15.58	1.003	A	3	A	B
50	T	Ethylbenzene	91	15.63	1.005	A	2	A	B
51	T	m,p-Xylene	91	15.78	1.015	A	2	A	B
52	T	o-Xylene	91	16.37	1.054	A	2	A	B
53	T	Styrene	104	16.40	1.055	A	3	A	B
54	T	Bromoform	173	16.78	1.080	A	3	A	B
55	S	4-Bromofluorobenzene	95	17.19	1.106	A	2	A	B
56	T	1,1,2,2-Tetrachloroethane	83	17.36	1.117	A	2	A	B
57	T	4-Ethyltoluene	105	17.60	1.133	A	1	A	B
58	T	1,3,5-Trimethylbenzene	105	17.69	1.138	A	2	A	B
59	T	1,2,4-Trimethylbenzene	105	18.27	1.175	A	2	A	B
60	T	1,3-Dichlorobenzene	146	18.82	1.211	A	3	A	B
61	T	1,4-Dichlorobenzene	146	18.97	1.220	A	3	A	B
62	T	Benzyl chloride	91	19.18	1.234	A	2	A	B
63	T	1,2-Dichlorobenzene	146	19.61	1.262	A	3	A	B
64	T	1,2,4-Trichlorobenzene	180	22.77	1.465	A	3	A	B
65	T	Hexachlorobutadiene	225	22.97	1.478	A	2	A	B
66		Naphthalene	128	23.46	1.509	A	2	A	B

```
Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
  A/H = Area or Height
ID  R = R.T.  B = R.T. & Q  Q = Qvalue L = Largest  A = All
-----------------------------------------------------------------------------
          120711V1.M     Fri Dec 09 17:10:35 2011
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Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\120711\12071113.D
Acq On : 7 Dec 2011 10:31 pm
Sample : ICV VOA1 120711
Misc : ICV EPA TO15
MS Integration Params: CLME.P

Vial: 2
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	112	0.00
2	T	Propylene	1.210	1.282	-6.0	110	0.00
3	T	Dichlorodifluoromethane	3.234	3.432	-6.1	108	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.367	2.528	-6.8	108	0.00
5	T	Chloromethane	1.111	1.234	-11.1	109	0.00
6	T	Vinyl chloride	1.356	1.681	-24.0	108	0.00
7	T	1,3-Butadiene	1.043	1.269	-21.7	108	0.00
8	T	Bromomethane	1.267	1.417	-11.8	112	0.00
9	T	Chloroethane	0.750	0.860	-14.7	114	0.00
10	T	Trichlorofluoromethane	2.606	2.994	-14.9	112	0.00
11	T	Ethanol	0.327	0.409	-25.1	114	0.00
12	T	Freon113	2.214	2.735	-23.5	113	0.00
13	T	1,1-Dichloroethene	1.735	2.076	-19.7	112	0.00
14	T	Acetone	1.666	2.084	-25.1	109	0.00
15	T	Carbon disulfide	3.296	3.857	-17.0	112	0.00
16	T	2-Propanol	1.615	1.948	-20.6	110	0.00
17	T	Methylene chloride	1.417	1.610	-13.6	109	0.00
18	T	tert-Butyl Methyl Ether	2.438	3.015	-23.7	109	0.00
19	T	trans-1,2-Dichloroethene	1.702	2.019	-18.6	111	0.00
20	T	n-Hexane	1.880	2.248	-19.6	110	0.00
21	T	1,1-Dichloroethane	2.017	2.407	-19.3	111	0.00
22	T	Vinyl acetate	2.647	3.432	-29.7	108	0.00
23	T	cis-1,2-Dichloroethene	1.189	1.402	-17.9	111	0.00
24	T	2-Butanone	1.782	2.262	-26.9	112	0.00
25	T	Ethyl acetate	2.392	2.931	-22.5	105	0.00
26	T	Tetrahydrofuran	1.046	1.293	-23.6	106	0.00
27	T	Chloroform	2.084	2.473	-18.7	108	0.00
28	T	1,1,1-Trichloroethane	1.971	2.370	-20.2	109	0.00
29	T	Cyclohexane	1.785	2.221	-24.4	110	0.00
30	T	Carbon tetrachloride	1.891	2.229	-17.9	109	0.00
31	T	Benzene	2.941	3.621	-23.1	108	0.00
32	T	1,2-Dichloroethane	1.142	1.377	-20.6	105	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	113	0.00
34	T	Heptane	0.666	0.829	-24.5	108	0.00
35	T	Trichloroethene	0.424	0.508	-19.8	110	0.00
36	T	1,2-Dichloropropane	0.337	0.417	-23.7	107	0.00
37	T	1,4-Dioxane	0.135	0.166	-23.0	109	0.00
38	T	Bromodichloromethane	0.580	0.703	-21.2	107	0.00
39	T	cis-1,3-Dichloropropene	0.500	0.612	-22.4	109	0.00
40	T	4-Methyl-2-pentanone	0.220	0.269	-22.3	108	0.00
41	T	Toluene	0.917	1.124	-22.6	108	0.00
42	T	trans-1,3-Dichloropropene	0.421	0.507	-20.4	108	0.00
43	T	1,1,2-Trichloroethane	0.320	0.382	-19.4	108	0.00
44	T	Tetrachloroethene	0.459	0.555	-20.9	110	0.00
45	T	2-Hexanone	0.434	0.534	-23.0	107	0.00
46	T	Chlorodibromomethane	0.472	0.563	-19.3	109	0.00
47	T	1,2-Dibromoethane	0.456	0.544	-19.3	108	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	112	0.00
49	T	Chlorobenzene	0.917	1.101	-20.1	109	0.00
50	T	Ethylbenzene	1.485	1.806	-21.6	107	0.00
51	T	m,p-Xylene	1.100	1.394	-26.7	108	0.00
52	T	o-Xylene	1.071	1.340	-25.1	112	0.00
53	T	Styrene	0.777	0.957	-23.2	111	0.00
54	T	Bromoform	0.578	0.695	-20.2	109	0.00
55	S	4-Bromofluorobenzene	0.571	0.584	-2.3	114	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\120711\12071113.D
Acq On : 7 Dec 2011 10:31 pm
Sample : ICV VOA1 120711
Misc : ICV EPA TO15
MS Integration Params: CLME.P

Vial: 2
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.850	0.997	-17.3	106	0.00
57	T	4-Ethyltoluene	1.317	1.514	-15.0	108	0.00
58	T	1,3,5-Trimethylbenzene	1.097	1.254	-14.3	109	0.00
59	T	1,2,4-Trimethylbenzene	1.050	1.195	-13.8	108	0.00
60	T	1,3-Dichlorobenzene	0.661	0.761	-15.1	106	0.00
61	T	1,4-Dichlorobenzene	0.612	0.709	-15.8	106	0.00
62	T	Benzyl chloride	0.745	0.919	-23.4	104	0.00
63	T	1,2-Dichlorobenzene	0.613	0.705	-15.0	104	0.00
64	T	1,2,4-Trichlorobenzene	0.104	0.105	-1.0	100	0.00
65	T	Hexachlorobutadiene	0.239	0.243	-1.7	99	0.00
66		Naphthalene	0.165	0.166	-0.6	99	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12071113.D 120711V1.M Fri Dec 09 17:10:47 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\120711\12071113.D
Acq On : 7 Dec 2011 10:31 pm
Sample : ICV VOA1 120711
Misc : ICV EPA TO15
MS Integration Params: CLME.P
Quant Time: Dec 9 10:07 2011

Vial: 2
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Quant Results File: 120711V1.RES

Quant Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Initial Calibration
DataAcq Meth : 120711V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.59	130	631942	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	2044313	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.54	117	1276095	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.19	95	745868	12.80	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 102.40%

Target Compounds						Qvalue
2) Propylene	5.53	41	661020	10.81	ppbv	99
3) Dichlorodifluoromethane	5.60	85	1596459	9.76	ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	1214014	10.14	ppbv #	79
5) Chloromethane	6.01	50	592800	10.55	ppbv	99
6) Vinyl chloride	6.22	62	798833	11.65	ppbv	99
7) 1,3-Butadiene	6.28	39	628594	11.92	ppbv	97
8) Bromomethane	6.86	94	666165	10.40	ppbv	99
9) Chloroethane	7.01	64	400087	10.56	ppbv	100
10) Trichlorofluoromethane	7.34	101	1453238	11.03	ppbv	99
11) Ethanol	7.57	45	190004	11.50	ppbv	99
12) Freon113	8.00	101	1354979	12.11	ppbv	93
13) 1,1-Dichloroethene	8.10	61	1039126	11.85	ppbv	96
14) Acetone	8.19	43	1053361	12.50	ppbv	99
15) Carbon disulfide	8.47	76	1891667	11.35	ppbv #	100
16) 2-Propanol	8.23	45	994518	12.18	ppbv	83
17) Methylene chloride	8.76	49	813945	11.36	ppbv	92
18) tert-Butyl Methyl Ether	8.96	73	1508813	12.24	ppbv	93
19) trans-1,2-Dichloroethene	9.04	61	1000529	11.63	ppbv	94
20) n-Hexane	9.23	57	1148022	12.08	ppbv	98
21) 1,1-Dichloroethane	9.60	63	1180145	11.57	ppbv	99
22) Vinyl acetate	9.53	43	1717577	12.84	ppbv	98
23) cis-1,2-Dichloroethene	10.28	96	694768	11.56	ppbv	95
24) 2-Butanone	10.25	43	1131899	12.57	ppbv	93
25) Ethyl acetate	10.20	43	1452386	12.01	ppbv #	99
26) Tetrahydrofuran	10.59	42	653864	12.37	ppbv	94
27) Chloroform	10.61	83	1225302	11.63	ppbv	99
28) 1,1,1-Trichloroethane	10.86	97	1150351	11.55	ppbv	98
29) Cyclohexane	10.87	56	1100351	12.19	ppbv	94
30) Carbon tetrachloride	11.02	117	1070444	11.20	ppbv	99
31) Benzene	11.30	78	1757522	11.82	ppbv	99
32) 1,2-Dichloroethane	11.38	62	675500	11.70	ppbv	98
34) Heptane	11.35	43	1343040	12.32	ppbv	95
35) Trichloroethene	12.03	130	797005	11.50	ppbv	95
36) 1,2-Dichloropropane	12.39	63	668241	12.11	ppbv	96
37) 1,4-Dioxane	12.46	88	260119	11.78	ppbv	94
38) Bromodichloromethane	12.67	83	1103170	11.63	ppbv	99
39) cis-1,3-Dichloropropene	13.22	75	951161	11.63	ppbv	98
40) 4-Methyl-2-pentanone	13.33	58	440651	12.24	ppbv	93
41) Toluene	13.63	91	1801268	12.01	ppbv	98
42) trans-1,3-Dichloropropene	13.94	75	754694	10.97	ppbv	99
43) 1,1,2-Trichloroethane	14.21	97	612303	11.71	ppbv	97
44) Tetrachloroethene	14.33	166	871999	11.61	ppbv	99
45) 2-Hexanone	14.41	43	855222	12.05	ppbv	98
46) Chlorodibromomethane	14.76	129	902839	11.69	ppbv	99
47) 1,2-Dibromoethane	14.99	107	854853	11.45	ppbv	100
49) Chlorobenzene	15.58	112	1112384	11.88	ppbv	95
50) Ethylbenzene	15.62	91	1806719	11.92	ppbv	96
51) m,p-Xylene	15.78	91	2732021	24.33	ppbv	95
52) o-Xylene	16.37	91	1367859	12.52	ppbv	95

(#) = qualifier out of range (m) = manual integration
12071113.D 120711V1.M Fri Dec 09 17:10:45 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\120711\12071113.D
Acq On : 7 Dec 2011 10:31 pm
Sample : ICV VOA1 120711
Misc : ICV EPA TO15
MS Integration Params: CLME.P
Quant Time: Dec 9 10:07 2011

Vial: 2
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Quant Results File: 120711V1.RES

Quant Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Initial Calibration
DataAcq Meth : 120711V1

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
53) Styrene	16.40	104	957747	12.08 ppbv	100
54) Bromoform	16.78	173	680758	11.54 ppbv	98
56) 1,1,2,2-Tetrachloroethane	17.36	83	1018093	11.73 ppbv	99
57) 4-Ethyltoluene	17.60	105	1514617	11.26 ppbv	97
58) 1,3,5-Trimethylbenzene	17.69	105	1241716	11.09 ppbv	98
59) 1,2,4-Trimethylbenzene	18.27	105	1195241	11.15 ppbv	98
60) 1,3-Dichlorobenzene	18.83	146	753321	11.17 ppbv	99
61) 1,4-Dichlorobenzene	18.97	146	694515	11.12 ppbv	99
62) Benzyl chloride	19.18	91	909576	11.95 ppbv	98
63) 1,2-Dichlorobenzene	19.62	146	698456	11.16 ppbv	99
64) 1,2,4-Trichlorobenzene	22.77	180	97962	9.21 ppbv	98
65) Hexachlorobutadiene	22.97	225	233477	9.56 ppbv	99
66) Naphthalene	23.46	128	155683	9.24 ppbv	98

(#) = qualifier out of range (m) = manual integration
12071113.D 120711V1.M Fri Dec 09 17:10:45 2011

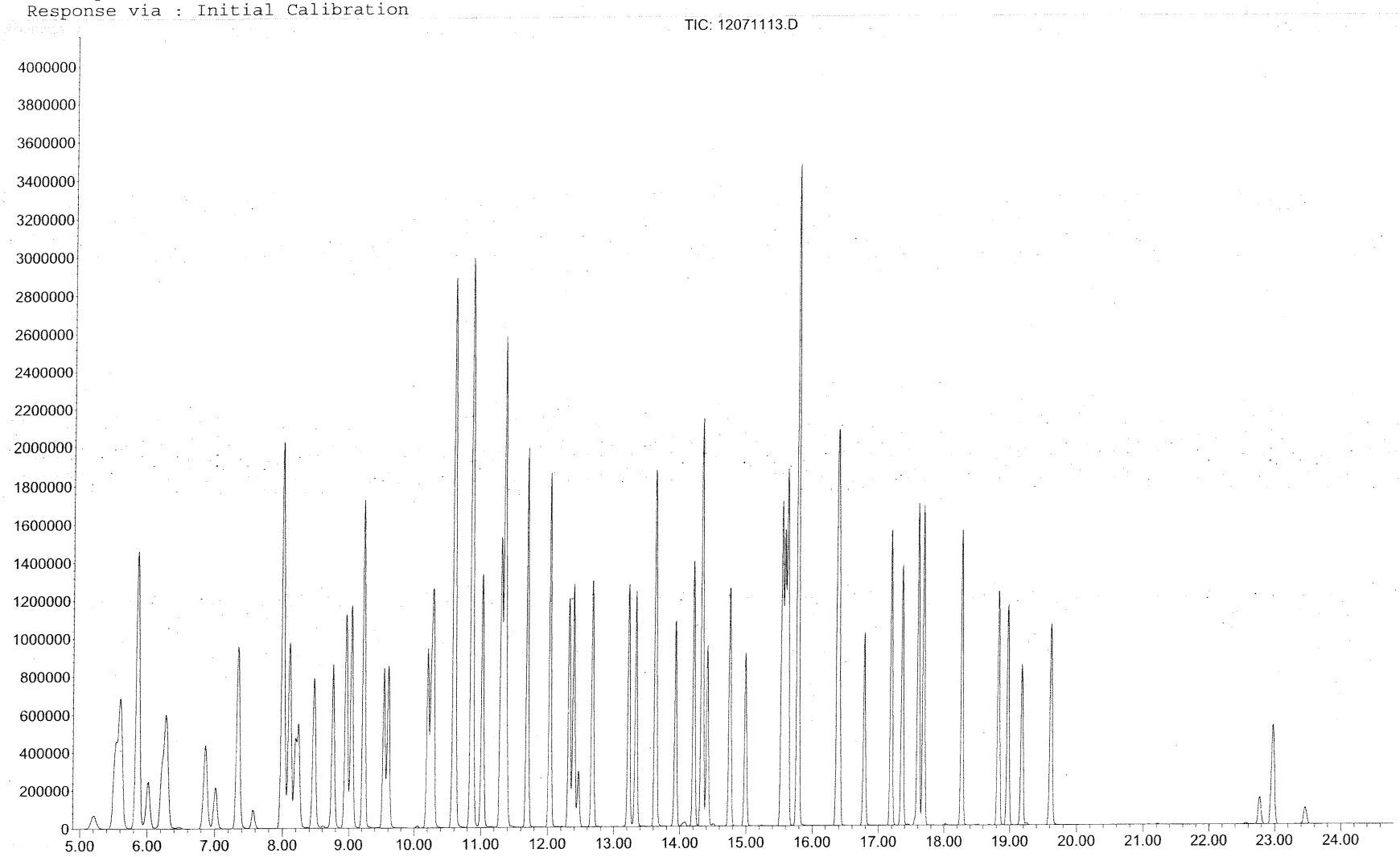
Quantitation Report

Data File : C:\HPCHEM\1\DATA\120711\12071113.D
Acq On : 7 Dec 2011 10:31 pm
Sample : ICV VOA1 120711
Misc : ICV EPA TO15
MS Integration Params: CLME.P
Quant Time: Dec 9 10:07 2011

Vial: 2
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Quant Results File: 120711V1.RES

Method : C:\HPCHEM\1\METHODS\120711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Dec 08 12:11:06 2011
Response via : Initial Calibration



Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\122111V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Dec 23 14:47:09 2011
Response via : Initial Calibration

Calibration Files
2 =12211102.D 4 =12211104.D 5 =12211105.D
6 =12211106.D 7 =12211107.D 8 =12211108.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.146	1.147	1.194	1.206	1.174	1.136	1.181	3.85
3)	T	Dichlorodifluoromet	2.985	3.136	3.269	3.414	3.259	3.101	3.219	4.77
4)	T	1,2-Dichloro-1,2,2,	2.407	2.369	2.492	2.710	2.444	2.305	2.441	5.46
5)	T	Chloromethane	0.750	1.054	1.056	0.982	1.036	0.977	0.985	11.03
6)	T	Vinyl chloride	1.007	1.363	1.360	1.069	0.921	0.726	1.023	25.96
7)	T	1,3-Butadiene	1.014	1.119	1.114	1.095	1.013	0.671	0.952	21.97
8)	T	Bromomethane	1.311	1.442	1.285	1.489	1.348	1.288	1.382	7.03
9)	T	Chloroethane	0.730	0.812	0.750	0.824	0.788	0.753	0.788	5.85
10)	T	Trichlorofluorometh	2.677	2.914	2.560	2.901	2.749	2.565	2.741	5.37
11)	T	Ethanol	0.326	0.270	0.269	0.321	0.318	0.301	0.301	8.63
12)	T	Freon113	2.321	2.417	2.066	2.335	2.296	2.014	2.190	9.15
13)	T	1,1-Dichloroethene	1.698	1.827	1.616	1.784	1.779	1.621	1.723	4.76
14)	T	Acetone	1.932	1.357	1.231	1.458	1.472	1.353	1.493	15.57
15)	T	Carbon disulfide	3.195	3.718	3.307	3.698	3.513	3.225	3.447	6.20
16)	T	2-Propanol	1.559	1.353	1.384	1.576	1.523	1.436	1.505	8.15
17)	T	Methylene chloride	1.585	1.307	1.198	1.269	1.309	1.196	1.314	9.97
18)	T	tert-Butyl Methyl E	2.660	2.013	1.756	2.150	2.154	2.005	2.162	13.53
19)	T	trans-1,2-Dichloroe	1.647	1.668	1.504	1.618	1.665	1.529	1.611	4.14
20)	T	n-Hexane	1.858	1.817	1.653	1.729	1.828	1.657	1.749	4.86
21)	T	1,1-Dichloroethane	1.980	2.010	1.805	1.849	1.956	1.832	1.924	4.84
22)	T	Vinyl acetate	1.771	2.159	1.970	2.197	2.340	2.157	2.099	9.51
23)	T	cis-1,2-Dichloroeth	1.109	1.189	1.041	1.112	1.186	1.107	1.136	5.28
24)	T	2-Butanone	1.736	1.402	1.355	1.537	1.570	1.371	1.495	9.88
25)	T	Ethyl acetate	2.280	1.854	1.801	2.012	2.103	1.840	2.007	9.13
26)	T	Tetrahydrofuran	1.007	0.822	0.813	0.921	0.902	0.832	0.891	8.06
27)	T	Chloroform	2.003	1.979	1.843	1.954	1.973	1.798	1.920	4.03
28)	T	1,1,1-Trichloroetha	1.848	1.880	1.781	1.865	1.897	1.713	1.821	3.76
29)	T	Cyclohexane	1.893	1.738	1.632	1.682	1.708	1.467	1.646	10.16
30)	T	Carbon tetrachlorid	1.678	1.741	1.687	1.782	1.870	1.741	1.771	4.80
31)	T	Benzene	3.173	2.501	2.338	2.560	2.684	2.470	2.643	10.36
32)	T	1,2-Dichloroethane	1.162	0.919	0.886	0.964	1.015	0.932	0.991	9.67
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.627	0.606	0.573	0.630	0.635	0.521	0.584	9.58
35)	T	Trichloroethene	0.358	0.383	0.367	0.413	0.435	0.376	0.387	7.09
36)	T	1,2-Dichloropropane	0.304	0.270	0.252	0.300	0.317	0.275	0.289	8.21
37)	T	1,4-Dioxane	0.116	0.108	0.108	0.128	0.131	0.117	0.121	10.03
38)	T	Bromodichloromethan	0.496	0.498	0.484	0.546	0.575	0.497	0.518	6.42
39)	T	cis-1,3-Dichloropro	0.423	0.406	0.392	0.454	0.483	0.426	0.438	8.02
40)	T	4-Methyl-2-pentanon	0.181	0.177	0.176	0.205	0.211	0.185	0.192	8.52
41)	T	Toluene	0.894	0.745	0.722	0.840	0.883	0.762	0.809	8.35
42)	T	trans-1,3-Dichlorop	0.334	0.340	0.339	0.388	0.410	0.363	0.370	9.44
43)	T	1,1,2-Trichloroetha	0.281	0.259	0.254	0.298	0.316	0.275	0.284	8.35
44)	T	Tetrachloroethene	0.401	0.421	0.416	0.456	0.480	0.397	0.421	8.48
45)	T	2-Hexanone	0.379	0.332	0.340	0.398	0.402	0.349	0.372	8.28
46)	T	Chlorodibromomethan	0.385	0.394	0.387	0.454	0.478	0.419	0.423	8.76
47)	T	1,2-Dibromoethane	0.402	0.379	0.374	0.426	0.453	0.393	0.408	7.08
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.819	0.752	0.727	0.831	0.852	0.766	0.793	5.74
50)	T	Ethylbenzene	1.421	1.220	1.179	1.352	1.353	1.182	1.271	7.91
51)	T	m,p-Xylene	1.090	0.942	0.926	1.024	0.986	0.802	0.962	10.20
52)	T	o-Xylene	1.019	0.875	0.861	0.985	0.983	0.861	0.920	7.84
53)	T	Styrene	0.659	0.636	0.636	0.712	0.719	0.638	0.662	5.63
54)	T	Bromoform	0.485	0.493	0.488	0.544	0.551	0.493	0.507	5.48
55)	S	4-Bromofluorobenzen	0.632	0.583	0.580	0.584	0.570	0.562	0.581	4.27
56)	T	1,1,2,2-Tetrachloro	0.903	0.739	0.714	0.752	0.726	0.629	0.728	12.63
57)	T	4-Ethyltoluene	1.521	1.091	1.062	1.148	1.111	0.984	1.137	15.61

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\122111V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Dec 23 14:47:09 2011
Response via : Initial Calibration

Calibration Files
2 =12211102.D 4 =12211104.D 5 =12211105.D
6 =12211106.D 7 =12211107.D 8 =12211108.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.292	0.909	0.881	0.947	0.925	0.818	0.947	16.75
59)	T	1,2,4-Trimethylbenz	1.213	0.876	0.851	0.904	0.869	0.764	0.898	16.31
60)	T	1,3-Dichlorobenzene	0.729	0.568	0.555	0.577	0.558	0.496	0.573	12.91
61)	T	1,4-Dichlorobenzene	0.646	0.532	0.510	0.545	0.524	0.472	0.533	10.35
62)	T	Benzyl chloride		0.674	0.666	0.702	0.690	0.616	0.670	4.92
63)	T	1,2-Dichlorobenzene	0.698	0.536	0.513	0.530	0.516	0.455	0.532	14.72
64)	T	1,2,4-Trichlorobenz	0.125	0.081	0.082	0.090	0.092	0.092	0.094	17.15
65)	T	Hexachlorobutadiene	0.367	0.194	0.188	0.204	0.197	0.190	0.223	28.78
66)		Naphthalene	0.194	0.136	0.136	0.149	0.151	0.150	0.153	13.98

(#) = Out of Range ### Number of calibration levels exceeded format ###
122111V1.M Tue Dec 27 12:30:33 2011

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\122111V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Dec 23 14:47:09 2011
Response via : Initial Calibration
Total Cpnds : 66

PK#		Compound Name	QIon	Exp RT	Rel RT	Cal	#Qual	A/H	ID
1	I	Bromochloromethane	130	10.60	1.000	A	2	A	B
2	T	Propylene	41	5.53	0.522	A	2	A	B
3	T	Dichlorodifluoromethane	85	5.60	0.528	A	3	A	B
4	T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.85	0.552	A	2	A	B
5	T	Chloromethane	50	6.01	0.567	A	3	A	B
6	T	Vinyl chloride	62	6.22	0.587	A	2	A	B
7	T	1,3-Butadiene	39	6.28	0.593	A	2	A	B
8	T	Bromomethane	94	6.86	0.648	A	3	A	B
9	T	Chloroethane	64	7.01	0.661	A	3	A	B
10	T	Trichlorofluoromethane	101	7.34	0.693	A	3	A	B
11	T	Ethanol	45	7.57	0.714	A	2	A	B
12	T	Freon113	101	8.00	0.755	A	2	A	B
13	T	1,1-Dichloroethene	61	8.10	0.765	A	2	A	B
14	T	Acetone	43	8.19	0.773	A	2	A	B
15	T	Carbon disulfide	76	8.47	0.800	A	3	A	B
16	T	2-Propanol	45	8.24	0.777	A	2	A	B
17	T	Methylene chloride	49	8.76	0.827	A	2	A	B
18	T	tert-Butyl Methyl Ether	73	8.96	0.845	A	2	A	B
19	T	trans-1,2-Dichloroethene	61	9.04	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	9.60	0.906	A	3	A	B
22	T	Vinyl acetate	43	9.53	0.900	A	2	A	B
23	T	cis-1,2-Dichloroethene	96	10.28	0.970	A	3	A	B
24	T	2-Butanone	43	10.25	0.967	A	2	A	B
25	T	Ethyl acetate	43	10.20	0.962	A	3	A	B
26	T	Tetrahydrofuran	42	10.58	0.999	A	2	A	B
27	T	Chloroform	83	10.61	1.001	A	2	A	B
28	T	1,1,1-Trichloroethane	97	10.86	1.025	A	3	A	B
29	T	Cyclohexane	56	10.87	1.026	A	2	A	B
30	T	Carbon tetrachloride	117	11.02	1.040	A	3	A	B
31	T	Benzene	78	11.30	1.067	A	3	A	B
32	T	1,2-Dichloroethane	62	11.38	1.074	A	3	A	B
33	I	1,4-Difluorobenzene	114	11.69	1.000	A	2	A	B
34	T	Heptane	43	11.35	0.970	A	3	A	B
35	T	Trichloroethene	130	12.03	1.029	A	3	A	B
36	T	1,2-Dichloropropane	63	12.39	1.059	A	3	A	B
37	T	1,4-Dioxane	88	12.46	1.066	A	2	A	B
38	T	Bromodichloromethane	83	12.67	1.084	A	2	A	B
39	T	cis-1,3-Dichloropropene	75	13.23	1.131	A	2	A	B
40	T	4-Methyl-2-pentanone	58	13.34	1.140	A	3	A	B
41	T	Toluene	91	13.63	1.165	A	2	A	B
42	T	trans-1,3-Dichloropropene	75	13.93	1.191	A	3	A	B
43	T	1,1,2-Trichloroethane	97	14.20	1.215	A	3	A	B
44	T	Tetrachloroethene	166	14.33	1.225	A	3	A	B
45	T	2-Hexanone	43	14.41	1.233	A	2	A	B
46	T	Chlorodibromomethane	129	14.75	1.262	A	2	A	B
47	T	1,2-Dibromoethane	107	14.99	1.282	A	2	A	B
48	I	Chlorobenzene-d5	117	15.54	1.000	A	2	A	B
49	T	Chlorobenzene	112	15.58	1.003	A	3	A	B
50	T	Ethylbenzene	91	15.63	1.005	A	2	A	B
51	T	m,p-Xylene	91	15.78	1.015	A	2	A	B
52	T	o-Xylene	91	16.37	1.054	A	2	A	B
53	T	Styrene	104	16.40	1.055	A	3	A	B
54	T	Bromoform	173	16.78	1.080	A	3	A	B
55	S	4-Bromofluorobenzene	95	17.19	1.106	A	2	A	B
56	T	1,1,2,2-Tetrachloroethane	83	17.36	1.117	A	2	A	B
57	T	4-Ethyltoluene	105	17.60	1.133	A	1	A	B
58	T	1,3,5-Trimethylbenzene	105	17.69	1.138	A	2	A	B
59	T	1,2,4-Trimethylbenzene	105	18.27	1.175	A	2	A	B
60	T	1,3-Dichlorobenzene	146	18.82	1.211	A	3	A	B
61	T	1,4-Dichlorobenzene	146	18.97	1.220	A	3	A	B
62	T	Benzyl chloride	91	19.18	1.234	A	2	A	B
63	T	1,2-Dichlorobenzene	146	19.61	1.262	A	3	A	B
64	T	1,2,4-Trichlorobenzene	180	22.77	1.465	A	3	A	B
65	T	Hexachlorobutadiene	225	22.97	1.478	A	2	A	B
66		Naphthalene	128	23.46	1.509	A	2	A	B

```
Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
  A/H = Area or Height
ID  R = R.T.  B = R.T. & Q  Q = Qvalue L = Largest  A = All
-----------------------------------------------------------------------
          122111V1.M     Tue Dec 27 12:30:36 2011
```

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\122711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Dec 28 11:48:33 2011
Response via : Initial Calibration

Calibration Files
2 =12271104.D 4 =12271105.D 5 =12271106.D
6 =12271107.D 7 =12271108.D 8 =12271109.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.164	1.308	1.378	1.216	1.242	1.182	1.257	6.15
3)	T	Dichlorodifluoromet	2.924	3.556	3.674	3.312	3.276	3.114	3.312	7.61
4)	T	1,2-Dichloro-1,2,2,	2.123	2.597	2.696	2.570	2.459	2.366	2.450	7.87
5)	T	Chloromethane	1.403	1.210	1.215	1.000	1.104	0.977	1.147	12.69
6)	T	Vinyl chloride	0.798	1.095	1.671	1.517	1.535	1.259	1.266	25.50
7)	T	1,3-Butadiene	0.938	1.147	1.231	1.139	1.153	1.066	1.109	8.29
8)	T	Bromomethane	1.111	1.381	1.381	1.409	1.365	1.407	1.360	8.38
9)	T	Chloroethane	0.656	0.826	0.796	0.784	0.800	0.790	0.784	7.63
10)	T	Trichlorofluorometh	2.349	2.963	2.725	2.823	2.775	2.690	2.722	6.89
11)	T	Ethanol	0.278	0.313	0.325	0.304	0.344	0.310	0.312	6.95
12)	T	Freon113	2.098	2.581	2.191	2.297	2.298	1.992	2.193	10.38
13)	T	1,1-Dichloroethene	1.640	1.978	1.698	1.731	1.790	1.646	1.743	6.64
14)	T	Acetone	1.857	1.907	1.647	1.601	1.667	1.548	1.691	8.09
15)	T	Carbon disulfide	3.119	3.800	3.512	3.524	3.559	3.341	3.466	6.07
16)	T	2-Propanol	1.455	1.813	1.939	1.679	1.849	1.642	1.740	9.24
17)	T	Methylene chloride	1.564	1.530	1.285	1.281	1.300	1.202	1.347	10.42
18)	T	tert-Butyl Methyl E	2.618	2.840	2.246	2.348	2.372	2.296	2.434	8.85
19)	T	trans-1,2-Dichloroe	1.573	1.925	1.619	1.664	1.654	1.534	1.651	7.81
20)	T	n-Hexane	1.759	2.126	1.822	1.788	1.838	1.650	1.810	8.57
21)	T	1,1-Dichloroethane	1.952	2.360	2.011	1.949	2.009	1.918	2.026	7.47
22)	T	Vinyl acetate	2.082	3.076	2.415	2.382	2.481	2.346	2.464	13.39
23)	T	cis-1,2-Dichloroeth	1.071	1.347	1.156	1.144	1.197	1.146	1.175	7.22
24)	T	2-Butanone	1.868	2.054	1.728	1.664	1.802	1.545	1.777	9.90
25)	T	Ethyl acetate	2.372	2.539	2.208	2.192	2.308	2.136	2.265	6.74
26)	T	Tetrahydrofuran	1.033	1.300	1.229	1.106	1.176	1.009	1.131	9.57
27)	T	Chloroform	2.033	2.395	2.117	2.003	2.054	1.778	2.022	10.49
28)	T	1,1,1-Trichloroetha	1.839	2.327	2.018	1.945	2.010	1.738	1.938	11.03
29)	T	Cyclohexane	1.818	2.089	1.797	1.732	1.702	1.418	1.701	14.70
30)	T	Carbon tetrachlorid	1.689	2.223	1.921	1.870	2.080	1.849	1.920	9.27
31)	T	Benzene	3.055	3.423	2.725	2.703	2.878	2.592	2.853	10.51
32)	T	1,2-Dichloroethane	1.156	1.268	1.056	1.014	1.084	0.972	1.079	9.54
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.635	0.746	0.779	0.613	0.616	0.437	0.607	22.56
35)	T	Trichloroethene	0.362	0.470	0.514	0.406	0.436	0.342	0.408	17.21
36)	T	1,2-Dichloropropane	0.311	0.352	0.361	0.296	0.314	0.246	0.306	13.81
37)	T	1,4-Dioxane	0.115	0.155	0.189	0.148	0.161	0.135	0.150	15.41
38)	T	Bromodichloromethan	0.515	0.630	0.680	0.549	0.580	0.453	0.554	14.84
39)	T	cis-1,3-Dichloropro	0.438	0.516	0.569	0.452	0.486	0.393	0.468	12.95
40)	T	4-Methyl-2-pentanon	0.187	0.261	0.305	0.240	0.258	0.198	0.238	17.16
41)	T	Toluene	0.890	0.963	1.043	0.845	0.892	0.706	0.865	14.20
42)	T	trans-1,3-Dichlorop	0.351	0.435	0.494	0.388	0.419	0.345	0.400	13.26
43)	T	1,1,2-Trichloroetha	0.292	0.331	0.371	0.298	0.323	0.262	0.307	12.31
44)	T	Tetrachloroethene	0.417	0.515	0.577	0.452	0.484	0.362	0.449	19.15
45)	T	2-Hexanone	0.381	0.540	0.658	0.506	0.547	0.416	0.500	18.73
46)	T	Chlorodibromomethan	0.397	0.504	0.572	0.458	0.496	0.399	0.461	14.59
47)	T	1,2-Dibromoethane	0.415	0.477	0.546	0.429	0.463	0.374	0.441	13.64
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.877	0.926	1.007	0.834	0.945	0.782	0.872	11.13
50)	T	Ethylbenzene	1.528	1.514	1.644	1.370	1.512	1.209	1.408	14.21
51)	T	m,p-Xylene	1.174	1.167	1.285	1.034	1.101	0.815	1.096	14.70
52)	T	o-Xylene	1.083	1.096	1.203	1.006	1.118	0.894	1.026	14.07
53)	T	Styrene	0.731	0.846	0.936	0.776	0.872	0.706	0.783	14.02
54)	T	Bromoform	0.512	0.604	0.676	0.555	0.624	0.510	0.563	13.36
55)	S	4-Bromofluorobenzen	0.624	0.571	0.587	0.559	0.568	0.534	0.570	5.18
56)	T	1,1,2,2-Tetrachloro	1.005	0.853	0.960	0.759	0.814	0.652	0.806	18.48
57)	T	4-Ethyltoluene	1.697	1.297	1.437	1.172	1.290	1.052	1.274	19.12

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\122711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Dec 28 11:48:33 2011
Response via : Initial Calibration

Calibration Files
2 =12271104.D 4 =12271105.D 5 =12271106.D
6 =12271107.D 7 =12271108.D 8 =12271109.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.424	1.083	1.211	0.971	1.082	0.869	1.064	19.72
59)	T	1,2,4-Trimethylbenz	1.339	1.030	1.147	0.924	1.002	0.816	1.004	19.42
60)	T	1,3-Dichlorobenzene	0.789	0.673	0.758	0.599	0.640	0.517	0.640	17.12
61)	T	1,4-Dichlorobenzene	0.709	0.635	0.722	0.575	0.606	0.492	0.603	15.61
62)	T	Benzyl chloride		0.968	1.141	0.901	0.932	0.759	0.940	14.62
63)	T	1,2-Dichlorobenzene	0.765	0.627	0.721	0.555	0.572	0.461	0.596	19.50
64)	T	1,2,4-Trichlorobenz	0.150	0.128	0.188	0.122	0.129	0.112	0.138	19.98
65)	T	Hexachlorobutadiene	0.451	0.293	0.401	0.268	0.277	0.230	0.310	26.68
66)		Naphthalene	0.218	0.246	0.347	0.235	0.245	0.216	0.251	19.43

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\122711V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Dec 28 11:48:33 2011
Response via : Initial Calibration
Total Cpnds : 66

PK#		Compound Name	QIon	Exp RT	Rel RT	Cal	#Qual	A/H	ID
1	I	Bromochloromethane	130	10.59	1.000	A	2	A	B
2	T	Propylene	41	5.52	0.521	A	2	A	B
3	T	Dichlorodifluoromethane	85	5.59	0.528	A	3	A	B
4	T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.85	0.552	A	2	A	B
5	T	Chloromethane	50	6.01	0.567	A	3	A	B
6	T	Vinyl chloride	62	6.22	0.587	A	2	A	B
7	T	1,3-Butadiene	39	6.27	0.592	A	2	A	B
8	T	Bromomethane	94	6.86	0.648	A	3	A	B
9	T	Chloroethane	64	7.01	0.661	A	3	A	B
10	T	Trichlorofluoromethane	101	7.34	0.693	A	3	A	B
11	T	Ethanol	45	7.57	0.714	A	2	A	B
12	T	Freon113	101	8.00	0.755	A	2	A	B
13	T	1,1-Dichloroethene	61	8.10	0.765	A	2	A	B
14	T	Acetone	43	8.19	0.773	A	2	A	B
15	T	Carbon disulfide	76	8.47	0.800	A	3	A	B
16	T	2-Propanol	45	8.24	0.778	A	2	A	B
17	T	Methylene chloride	49	8.76	0.827	A	2	A	B
18	T	tert-Butyl Methyl Ether	73	8.96	0.845	A	2	A	B
19	T	trans-1,2-Dichloroethene	61	9.04	0.853	A	2	A	B
20	T	n-Hexane	57	9.23	0.871	A	3	A	B
21	T	1,1-Dichloroethane	63	9.60	0.906	A	3	A	B
22	T	Vinyl acetate	43	9.53	0.900	A	2	A	B
23	T	cis-1,2-Dichloroethene	96	10.29	0.971	A	3	A	B
24	T	2-Butanone	43	10.25	0.967	A	2	A	B
25	T	Ethyl acetate	43	10.20	0.963	A	3	A	B
26	T	Tetrahydrofuran	42	10.59	1.000	A	2	A	B
27	T	Chloroform	83	10.61	1.001	A	2	A	B
28	T	1,1,1-Trichloroethane	97	10.86	1.025	A	3	A	B
29	T	Cyclohexane	56	10.87	1.026	A	2	A	B
30	T	Carbon tetrachloride	117	11.02	1.040	A	3	A	B
31	T	Benzene	78	11.30	1.067	A	3	A	B
32	T	1,2-Dichloroethane	62	11.38	1.074	A	3	A	B
33	I	1,4-Difluorobenzene	114	11.69	1.000	A	2	A	B
34	T	Heptane	43	11.35	0.971	A	3	A	B
35	T	Trichloroethene	130	12.03	1.029	A	3	A	B
36	T	1,2-Dichloropropane	63	12.39	1.059	A	3	A	B
37	T	1,4-Dioxane	88	12.46	1.066	A	2	A	B
38	T	Bromodichloromethane	83	12.68	1.084	A	2	A	B
39	T	cis-1,3-Dichloropropene	75	13.23	1.131	A	2	A	B
40	T	4-Methyl-2-pentanone	58	13.33	1.140	A	3	A	B
41	T	Toluene	91	13.63	1.166	A	2	A	B
42	T	trans-1,3-Dichloropropene	75	13.94	1.192	A	3	A	B
43	T	1,1,2-Trichloroethane	97	14.21	1.215	A	3	A	B
44	T	Tetrachloroethene	166	14.33	1.226	A	3	A	B
45	T	2-Hexanone	43	14.41	1.233	A	2	A	B
46	T	Chlorodibromomethane	129	14.76	1.262	A	2	A	B
47	T	1,2-Dibromoethane	107	14.99	1.282	A	2	A	B
48	I	Chlorobenzene-d5	117	15.54	1.000	A	2	A	B
49	T	Chlorobenzene	112	15.59	1.003	A	3	A	B
50	T	Ethylbenzene	91	15.63	1.005	A	2	A	B
51	T	m,p-Xylene	91	15.78	1.015	A	2	A	B
52	T	o-Xylene	91	16.37	1.054	A	2	A	B
53	T	Styrene	104	16.40	1.055	A	3	A	B
54	T	Bromoform	173	16.79	1.080	A	3	A	B
55	S	4-Bromofluorobenzene	95	17.19	1.106	A	2	A	B
56	T	1,1,2,2-Tetrachloroethane	83	17.36	1.117	A	2	A	B
57	T	4-Ethyltoluene	105	17.61	1.133	A	1	A	B
58	T	1,3,5-Trimethylbenzene	105	17.69	1.138	A	2	A	B
59	T	1,2,4-Trimethylbenzene	105	18.27	1.176	A	2	A	B
60	T	1,3-Dichlorobenzene	146	18.83	1.211	A	3	A	B
61	T	1,4-Dichlorobenzene	146	18.97	1.220	A	3	A	B
62	T	Benzyl chloride	91	19.18	1.234	A	2	A	B
63	T	1,2-Dichlorobenzene	146	19.62	1.262	A	3	A	B
64	T	1,2,4-Trichlorobenzene	180	22.77	1.465	A	3	A	B
65	T	Hexachlorobutadiene	225	22.97	1.478	A	2	A	B
66		Naphthalene	128	23.46	1.509	A	2	A	B

```
Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
  A/H = Area or Height
ID  R = R.T.  B = R.T. & Q  Q = Qvalue L = Largest  A = All
-----------------------------------------------------------------------
          122711V1.M     Mon Jan 02 11:28:29 2012
```

RTI Laboratories

Run ID: VOA9_111213A **Run No.:** 44881

Analytical Run Date: 12/13/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 44926 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB 121311 VOA9	BFB_TUNE	TUNE	R44881	12/13/2011 9:33:00 AM	Robert Lynch		
CCV 121311 VOA9	MA_APH	CCV	R44881	12/13/2011 10:17:00 AM	Robert Lynch		
RLVS 121311 VOA9	MA_APH	RLVS	R44881	12/13/2011 11:04:00 AM	Robert Lynch		
Blank 121311 VOA	MA_APH	MBLK	R44881	12/13/2011 12:03:00 PM	Charles O`Bryan		
1111752-044A	MA_APH	SAMP	R44881	12/13/2011 12:48:00 PM	Robert Lynch		
1111882-009A	MA_APH	SAMP	R44881	12/13/2011 1:31:00 PM	Robert Lynch		
1111882-010A	MA_APH	SAMP	R44881	12/13/2011 2:15:00 PM	Robert Lynch		
1111882-011A	MA_APH	SAMP	R44881	12/13/2011 2:58:00 PM	Robert Lynch		
1111882-011Adup2	MA_APH	DUP	R44881	12/13/2011 3:41:00 PM	Charles O`Bryan		
1112148-023A	MA_APH	SAMP	R44881	12/13/2011 10:11:00 PM	Robert Lynch		
RLVS2 121311 VOA	MA_APH	RLVS	R44881	12/13/2011 10:54:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-12

RunNo 44881

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
882974	BFB 121311 VOA9	BFB_TUNE	TUNE	\1\DATA\121311	12/13/2011 9:33:	1	R44881		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		60.3	60.3		100	0	0	0	0	0	60%	50	120	0%	
175	M		7.1	7.1		100	0	0	0	0	0	7%	4	9	0%	
176	M		96.1	96.1		100	0	0	0	0	0	96%	93	101	0%	
177	M		6.4	6.4		100	0	0	0	0	0	6%	5	9	0%	
50	M		26.6	26.6		100	0	0	0	0	0	27%	8	40	0%	
75	M		50.5	50.5		100	0	0	0	0	0	51%	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
882990	CCV 121311 VOA9	MA_APH	CCV	\1\DATA\121311	12/13/2011 10:1	1	R44881		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	249.46	249.46		234	0	0	0	0	0	107%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	281.43	281.43		266	0	0	0	0	0	106%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	418.28	418.28		378	0	0	0	0	0	111%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	88.52	88.52		89.5	0	0	0	0	0	99%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121311\12131102.D
Acq On : 13 Dec 2011 10:17 am
Sample : CCV 121311 VOA9
Misc : CCV MA APH
MS Integration Params: rteint.p
Quant Time: Dec 14 9:11 2011

Vial: 1
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 120811V9.RES

Quant Method : C:\HPCHEM\1\METHODS\120811V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Dec 09 15:12:44 2011
Response via : Initial Calibration
DataAcq Meth : 112911V9

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	672658	12.50 ug/m3	-0.02

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.33	95	453032	88.52 ug/m3	-0.02

Spiked Amount 89.500 Range 70 - 130 Recovery = 98.91%

Target Compounds

					Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	3029386	32.90 ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2324962	38.53 ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	2924357	43.40 ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2263257	37.74 ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2866443	44.18 ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3363160	52.03 ug/m3	100
7) C5-C8 Aliphatic HC - TOTA	7.19	TIC	16771565m	249.46 ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	4198903	59.94 ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	4074099	59.95 ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	3980897	66.83 ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	3809697	66.15 ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.63	TIC	4093310	78.98 ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.45	TIC	3352660	87.83 ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	23509566m	418.28 ug/m3	
15) C9-C10 Aromatic HC	17.97	120	247384	54.05 ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	262764	53.67 ug/m3	100
17) C9-C10 Aromatic HC {3}	18.90	120	386611	55.24 ug/m3	100
18) C9-C10 Aromatic HC {4}	20.01	120	90373	62.24 ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	300805	55.85 ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	218101	62.36 ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.96	TIC	1506038m	281.43 ug/m3	

(#) = qualifier out of range (m) = manual integration
12131102.D 120811V9.M Thu Dec 15 14:24:12 2011

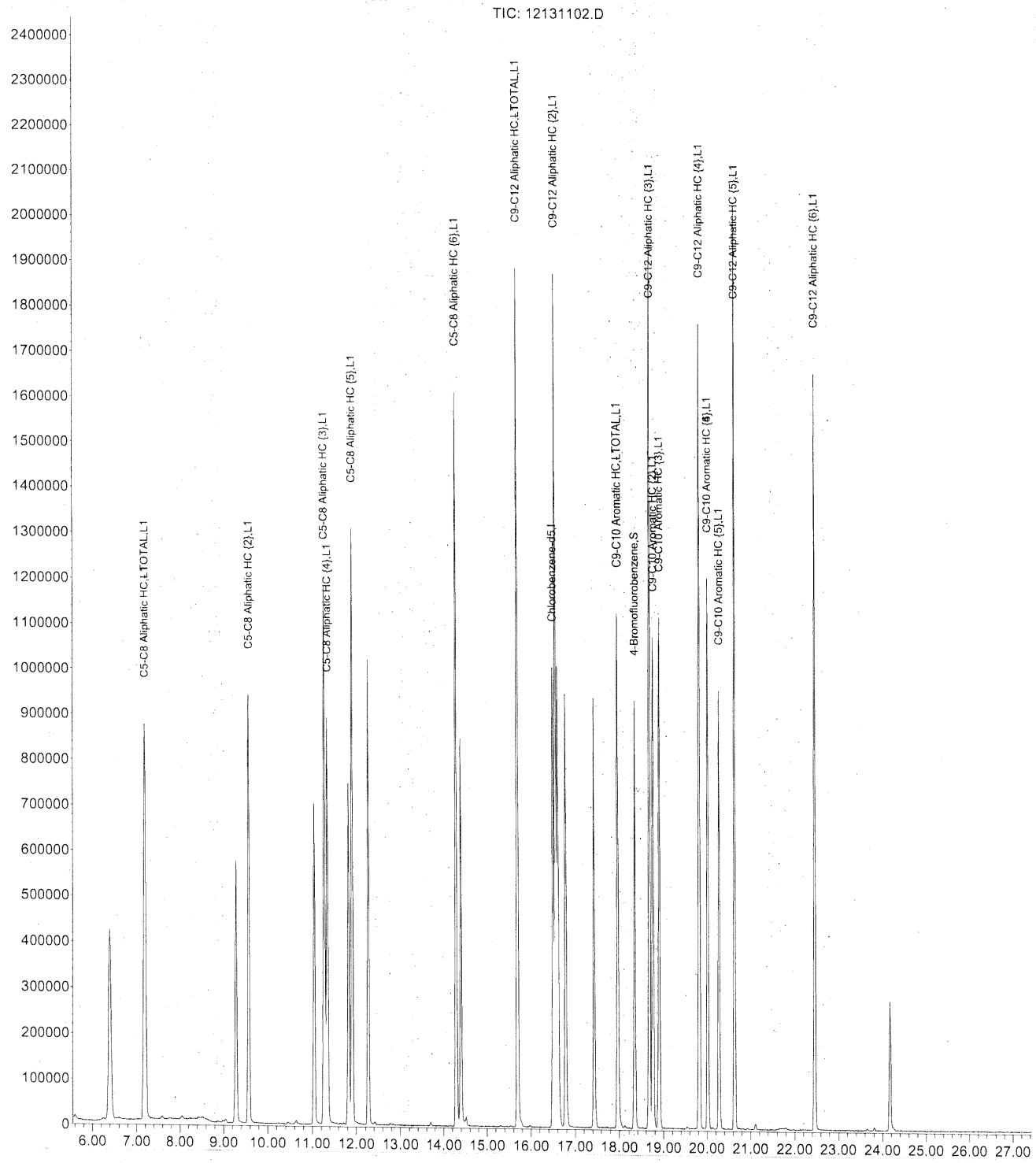
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121311\12131102.D
Acq On : 13 Dec 2011 10:17 am
Sample : CCV 121311 VOA9
Misc : CCV MA APH
MS Integration Params: rteint.p
Quant Time: Dec 14 9:11 2011

Vial: 1
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 120811V9.RES

Method : C:\HPCHEM\1\METHODS\120811V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Dec 09 15:12:44 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_111214A **Run No.:** 44921

Analytical Run Date: 12/14/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 44926 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 121411 VOA9	BFB_TUNE	TUNE	R44921	12/14/2011 9:25:00 AM	Robert Lynch		
CCV 121411 VOA9	MA_APH	CCV	R44921	12/14/2011 10:09:00 AM	Robert Lynch		
RLVS 121411 VOA9	MA_APH	RLVS	R44921	12/14/2011 10:52:00 AM	Robert Lynch		
Blank 121411 VOA	MA_APH	MBLK	R44921	12/14/2011 11:45:00 AM	Charles O`Bryan		
1112148-001A	MA_APH	SAMP	R44921	12/14/2011 12:28:00 PM	Robert Lynch		
1112148-002A	MA_APH	SAMP	R44921	12/14/2011 1:12:00 PM	Robert Lynch		
1112148-003A	MA_APH	SAMP	R44921	12/14/2011 1:55:00 PM	Robert Lynch		
1112148-004A	MA_APH	SAMP	R44921	12/14/2011 2:39:00 PM	Robert Lynch		
1112148-009A	MA_APH	SAMP	R44921	12/14/2011 3:22:00 PM	Robert Lynch		
1112148-009Adup	MA_APH	DUP	R44921	12/14/2011 4:06:00 PM	Charles O`Bryan		
1112148-010A	MA_APH	SAMP	R44921	12/14/2011 5:41:00 PM	Robert Lynch		
1112148-005A	MA_APH	SAMP	R44921	12/14/2011 8:00:00 PM	Robert Lynch		
1112148-006A	MA_APH	SAMP	R44921	12/14/2011 8:42:00 PM	Robert Lynch		
1112148-007A	MA_APH	SAMP	R44921	12/14/2011 9:28:00 PM	Robert Lynch		
1112148-008A	MA_APH	SAMP	R44921	12/14/2011 10:18:00 PM	Robert Lynch		
1112148-021A	MA_APH	SAMP	R44921	12/14/2011 11:02:00 PM	Robert Lynch		
1112148-022A	MA_APH	SAMP	R44921	12/14/2011 11:46:00 PM	Robert Lynch		
1111882-013A	MA_APH	SAMP	R44921	12/15/2011 12:36:00 AM	Robert Lynch		
RLVS2 121411 VOA	MA_APH	RLVS	R44921	12/15/2011 4:11:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-12

RunNo 44921

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
883947	BFB1 121411 VOA9	BFB_TUNE	TUNE	\I\DATA\121411	12/14/2011 9:25:	1	R44921		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		58.3	58.3		100	0	0	0	0	0	58%	50	120	0%	
175	M		7.4	7.4		100	0	0	0	0	0	7%	4	9	0%	
176	M		95.4	95.4		100	0	0	0	0	0	95%	93	101	0%	
177	M		6.8	6.8		100	0	0	0	0	0	7%	5	9	0%	
50	M		26	26		100	0	0	0	0	0	26%	8	40	0%	
75	M		50.4	50.4		100	0	0	0	0	0	50%	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
883948	CCV 121411 VOA9	MA_APH	CCV	\I\DATA\121411	12/14/2011 10:0	1	R44921		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	217.79	217.79		234	0	0	0	0	0	93%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	250.37	250.37		266	0	0	0	0	0	94%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	361.68	361.68		378	0	0	0	0	0	96%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	92.29	92.29		89.5	0	0	0	0	0	103%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121411\12141102.D
Acq On : 14 Dec 2011 10:09 am
Sample : CCV 121411 VOA9
Misc : CCV MA APH
MS Integration Params: rteint.p
Quant Time: Dec 15 13:19 2011

Vial: 1
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 120811V9.RES

Quant Method : C:\HPCHEM\1\METHODS\120811V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Dec 09 15:12:44 2011
Response via : Initial Calibration
DataAcq Meth : 120811V9

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	644649	12.50 ug/m3	-0.02

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.33	95	452675	92.29 ug/m3	-0.01

Spiked Amount 89.500 Range 70 - 130 Recovery = 103.12%

Target Compounds					Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2644443	28.72 ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2023467	33.53 ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	2581055	38.31 ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	1964702	32.76 ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2502435	38.57 ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	2926313	45.28 ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	14642415m	217.79 ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	3624797	51.74 ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	3386987	49.84 ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	3488672	58.57 ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	3357741	58.31 ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.63	TIC	3610353	69.67 ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.46	TIC	2859850	74.92 ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	20328400m	361.68 ug/m3	
15) C9-C10 Aromatic HC	17.97	120	222102	48.53 ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	232655	47.52 ug/m3	100
17) C9-C10 Aromatic HC {3}	18.90	120	342965	49.00 ug/m3	100
18) C9-C10 Aromatic HC {4}	20.02	120	79474	54.74 ug/m3	100
19) C9-C10 Aromatic HC {5}	20.27	120	266671	49.51 ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	195925	56.02 ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1339792m	250.37 ug/m3	

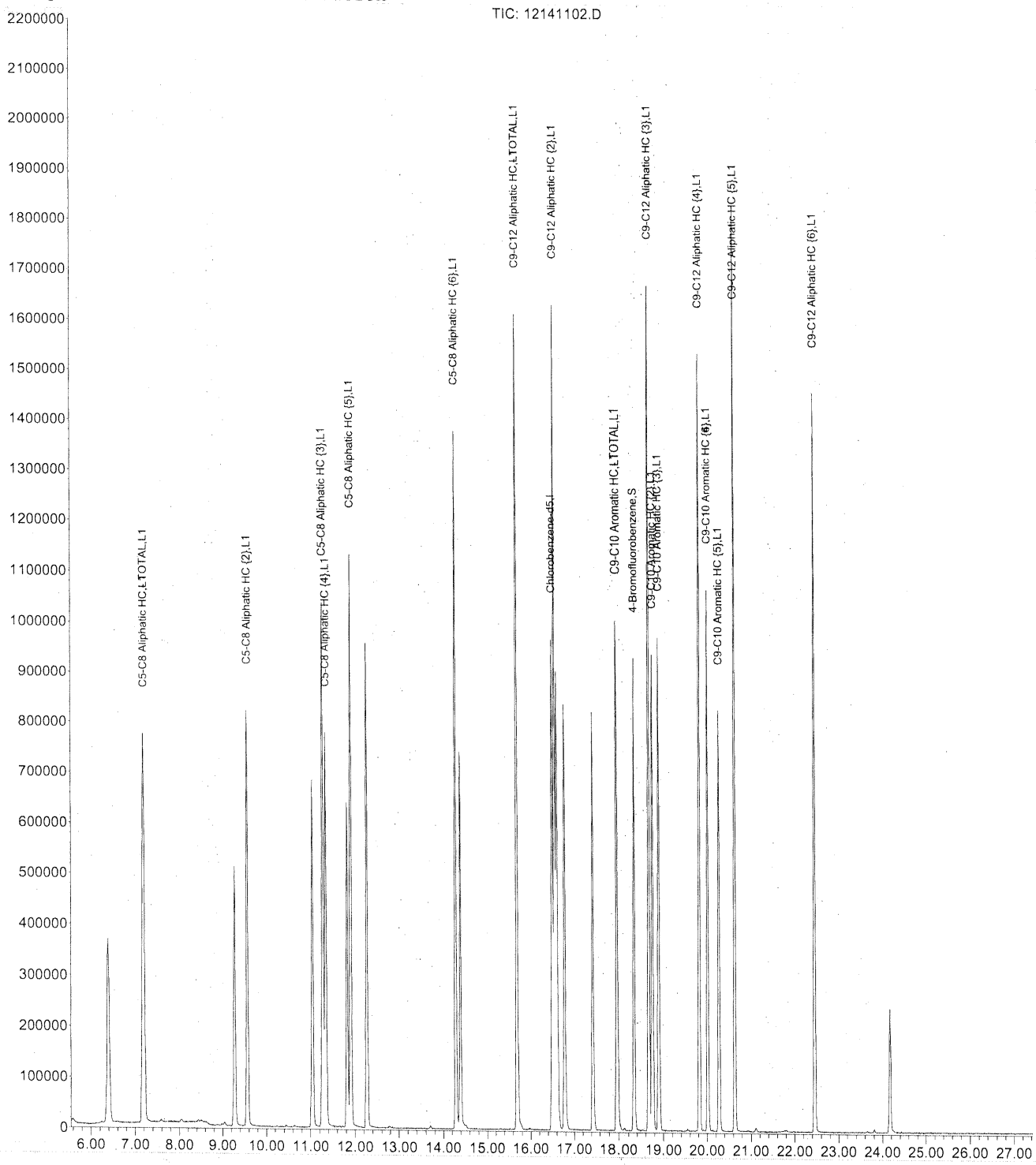
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121411\12141102.D
Acq On : 14 Dec 2011 10:09 am
Sample : CCV 121411 VOA9
Misc : CCV MA APH
MS Integration Params: rteint.p
Quant Time: Dec 15 13:19 2011

Vial: 1
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 120811V9.RES

Method : C:\HPCHEM\1\METHODS\120811V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Dec 09 15:12:44 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_111215A **Run No.:** 44957

Analytical Run Date: 12/15/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 44926 **Column ID:**

Column Length:

Run Comments: RLVS is timed-out, due to power loss. Ran as soon as possible next day to show that instrument was still analyzing within appropriate parameters.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 121511 VOA9	BFB_TUNE	TUNE	R44957	12/15/2011 7:17:00 AM	Robert Lynch		
CCV 121511 VOA9	MA_APH	CCV	R44957	12/15/2011 8:00:00 AM	Robert Lynch		
RLVS 121511 VOA9	MA_APH	RLVS	R44957	12/15/2011 8:46:00 AM	Robert Lynch		
Blank 121511 VOA	MA_APH	MBLK	R44957	12/15/2011 9:36:00 AM	Charles O`Bryan		
1112148-011A	MA_APH	SAMP	R44957	12/15/2011 10:19:00 AM	Robert Lynch		
1112148-012A	MA_APH	SAMP	R44957	12/15/2011 11:02:00 AM	Robert Lynch		
1112148-012Adup	MA_APH	DUP	R44957	12/15/2011 11:45:00 AM	Charles O`Bryan		
1112148-013A	MA_APH	SAMP	R44957	12/15/2011 12:28:00 PM	Robert Lynch		
1112148-014A	MA_APH	SAMP	R44957	12/15/2011 1:11:00 PM	Robert Lynch		
1112148-015A	MA_APH	SAMP	R44957	12/15/2011 1:54:00 PM	Robert Lynch		
1112148-030A	MA_APH	SAMP	R44957	12/15/2011 3:20:00 PM	Robert Lynch		
1112148-031A	MA_APH	SAMP	R44957	12/15/2011 4:03:00 PM	Robert Lynch		
1112148-032A	MA_APH	SAMP	R44957	12/15/2011 4:46:00 PM	Robert Lynch		
RLVS2 121511 VOA	MA_APH	RLVS	R44957	12/16/2011 12:58:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-12

RunNo 44957

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
884631	BFB1 121511 VOA9	BFB_TUNE	TUNE	\1\DATA\121511`12/15/2011 7:17:		1	R44957		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		58.9	58.9		100	0	0	0	0	0	59%	50	120	0%	
175	M		7.5	7.5		100	0	0	0	0	0	8%	4	9	0%	
176	M		96.1	96.1		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		26.3	26.3		100	0	0	0	0	0	26%	8	40	0%	
75	M		51.3	51.3		100	0	0	0	0	0	51%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.6	6.6		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
884632	CCV 121511 VOA9	MA_APH	CCV	\1\DATA\121511`12/15/2011 8:00:		1	R44957		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	250.99	250.99		234	0	0	0	0	0	107%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	288.64	288.64		266	0	0	0	0	0	109%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	416.36	416.36		378	0	0	0	0	0	110%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	92.72	92.72		89.5	0	0	0	0	0	104%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121511\12151102.D
Acq On : 15 Dec 2011 8:00 am
Sample : CCV 121511 VOA9
Misc : CCV MA APH
MS Integration Params: rteint.p
Quant Time: Dec 16 13:05 2011

Vial: 1
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 120811V9.RES

Quant Method : C:\HPCHEM\1\METHODS\120811V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Dec 09 15:12:44 2011
Response via : Initial Calibration
DataAcq Meth : 120811V9

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	658685	12.50 ug/m3	-0.02

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.34	95	464661	92.72 ug/m3	-0.01

Spiked Amount 89.500 Range 70 - 130 Recovery = 103.60%

Target Compounds

					Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2980799	32.37 ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2322824	38.49 ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	3024850	44.89 ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2250859	37.53 ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2914224	44.91 ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3380418	52.30 ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	16873974m	250.99 ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	4199040	59.94 ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	4083201	60.08 ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	3990921	67.00 ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	3855756	66.95 ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.63	TIC	4055900	78.26 ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.46	TIC	3217099	84.28 ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	23401917m	416.36 ug/m3	
15) C9-C10 Aromatic HC	17.97	120	254679	55.64 ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	266834	54.50 ug/m3	100
17) C9-C10 Aromatic HC {3}	18.90	120	398114	56.88 ug/m3	100
18) C9-C10 Aromatic HC {4}	20.02	120	93723	64.55 ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	308444	57.27 ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	222798	63.71 ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1544592m	288.64 ug/m3	

(#) = qualifier out of range (m) = manual integration
12151102.D 120811V9.M Fri Dec 16 17:28:50 2011

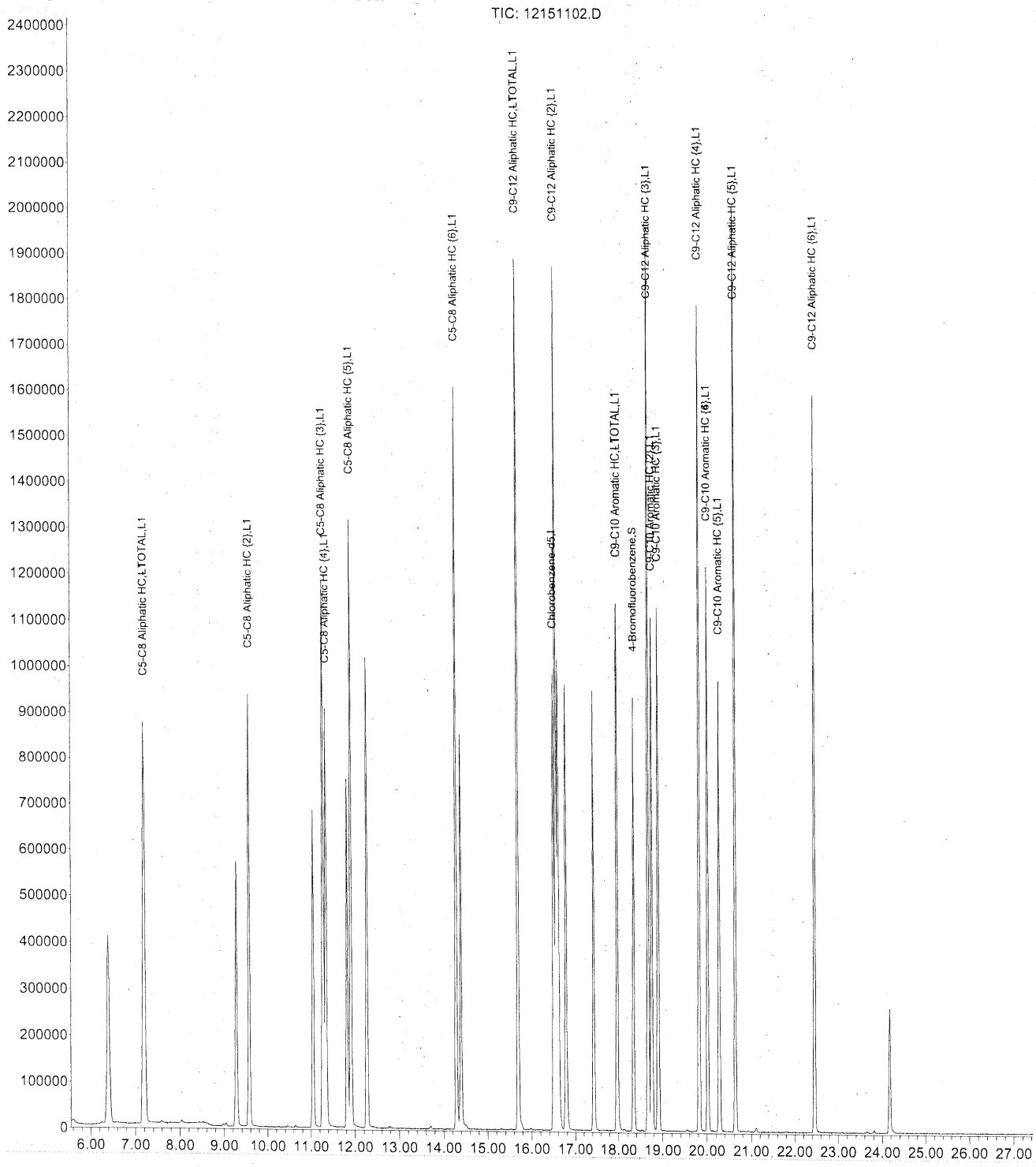
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121511\12151102.D
Acq On : 15 Dec 2011 8:00 am
Sample : CCV 121511 VOA9
Misc : CCV MA APH
MS Integration Params: rteint.p
Quant Time: Dec 16 13:05 2011

Vial: 1
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 120811V9.RES

Method : C:\HPCHEM\1\METHODS\120811V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Dec 09 15:12:44 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_111216A **Run No.:** 45016

Analytical Run Date: 12/16/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 44926 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB 121611 VOA9	BFB_TUNE	TUNE	R45016	12/16/2011 12:01:00 PM	Robert Lynch		
CCV 121611 VOA9	MA_APH	CCV	R45016	12/16/2011 1:45:00 PM	Robert Lynch		
RLVS1 121611 VOA	MA_APH	RLVS	R45016	12/16/2011 3:06:00 PM	Robert Lynch		
MBLK 121611 VOA9	MA_APH	MBLK	R45016	12/16/2011 4:01:00 PM	Charles O`Bryan		
1112148-035A	MA_APH	SAMP	R45016	12/16/2011 4:44:00 PM	Robert Lynch		
1112398-006A	MA_APH	SAMP	R45016	12/16/2011 6:25:00 PM	Robert Lynch		
1112398-007A	MA_APH	SAMP	R45016	12/16/2011 7:15:00 PM	Robert Lynch		
1112398-010A	MA_APH	SAMP	R45016	12/16/2011 8:49:00 PM	Robert Lynch		
1112398-010Adup	MA_APH	DUP	R45016	12/16/2011 9:32:00 PM	Charles O`Bryan		
1112398-011A	MA_APH	SAMP	R45016	12/16/2011 10:16:00 PM	Robert Lynch		
1112398-012A	MA_APH	SAMP	R45016	12/16/2011 11:00:00 PM	Robert Lynch		
1112398-001A	MA_APH	SAMP	R45016	12/16/2011 11:43:00 PM	Robert Lynch		
RLVS2 121611 VOA	MA_APH	RLVS	R45016	12/17/2011 3:22:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-12

RunNo 45016

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
885645	BFB 121611 VOA9	BFB_TUNE	TUNE	\I\DATA\121611\	12/16/2011 12:0	1	R45016		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		57	57		100	0	0	0	0	0	57%	50	120	0%	
175	M		7.1	7.1		100	0	0	0	0	0	7%	4	9	0%	
176	M		96.9	96.9		100	0	0	0	0	0	97%	93	101	0%	
177	M		6.8	6.8		100	0	0	0	0	0	7%	5	9	0%	
50	M		27	27		100	0	0	0	0	0	27%	8	40	0%	
75	M		50.9	50.9		100	0	0	0	0	0	51%	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
885646	CCV 121611 VOA9	MA_APH	CCV	\I\DATA\121611\	12/16/2011 1:45:	1	R45016		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	198.64	198.64		234	0	0	0	0	0	85%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	222.38	222.38		266	0	0	0	0	0	84%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	320.67	320.67		378	0	0	0	0	0	85%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	95.32	95.32		89.5	0	0	0	0	0	107%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121611\12161102.D
Acq On : 16 Dec 2011 1:45 pm
Sample : CCV 121611 VOA9
Misc : CCV MA APH
MS Integration Params: rteint.p
Quant Time: Dec 19 15:45 2011

Vial: 1
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 120811V9.RES

Quant Method : C:\HPCHEM\1\METHODS\120811V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Dec 09 15:12:44 2011
Response via : Initial Calibration
DataAcq Meth : 120811V9

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	693445	12.50 ug/m3	-0.02

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.33	95	502918	95.32 ug/m3	-0.01

Spiked Amount 89.500 Range 70 - 130 Recovery = 106.50%

Target Compounds

					Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2498701	27.14 ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	1827977	30.29 ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	2367281	35.13 ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	1760690	29.36 ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2259741	34.83 ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	2640540	40.85 ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	13354930m	198.64 ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	3156433	45.05 ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.55	TIC	2992287	44.03 ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	3116277	52.32 ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	2999606	52.09 ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.63	TIC	3183665	61.43 ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.46	TIC	2575345	67.47 ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	18023613m	320.67 ug/m3	
15) C9-C10 Aromatic HC	17.97	120	192600	42.08 ug/m3	100
16) C9-C10 Aromatic HC {2}	18.75	120	206928	42.26 ug/m3	100
17) C9-C10 Aromatic HC {3}	18.90	120	307728	43.97 ug/m3	100
18) C9-C10 Aromatic HC {4}	20.01	120	71078	48.95 ug/m3	100
19) C9-C10 Aromatic HC {5}	20.27	120	239566	44.48 ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	172116	49.21 ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1190016m	222.38 ug/m3	

(#) = qualifier out of range (m) = manual integration
12161102.D 120811V9.M Tue Dec 20 14:49:20 2011

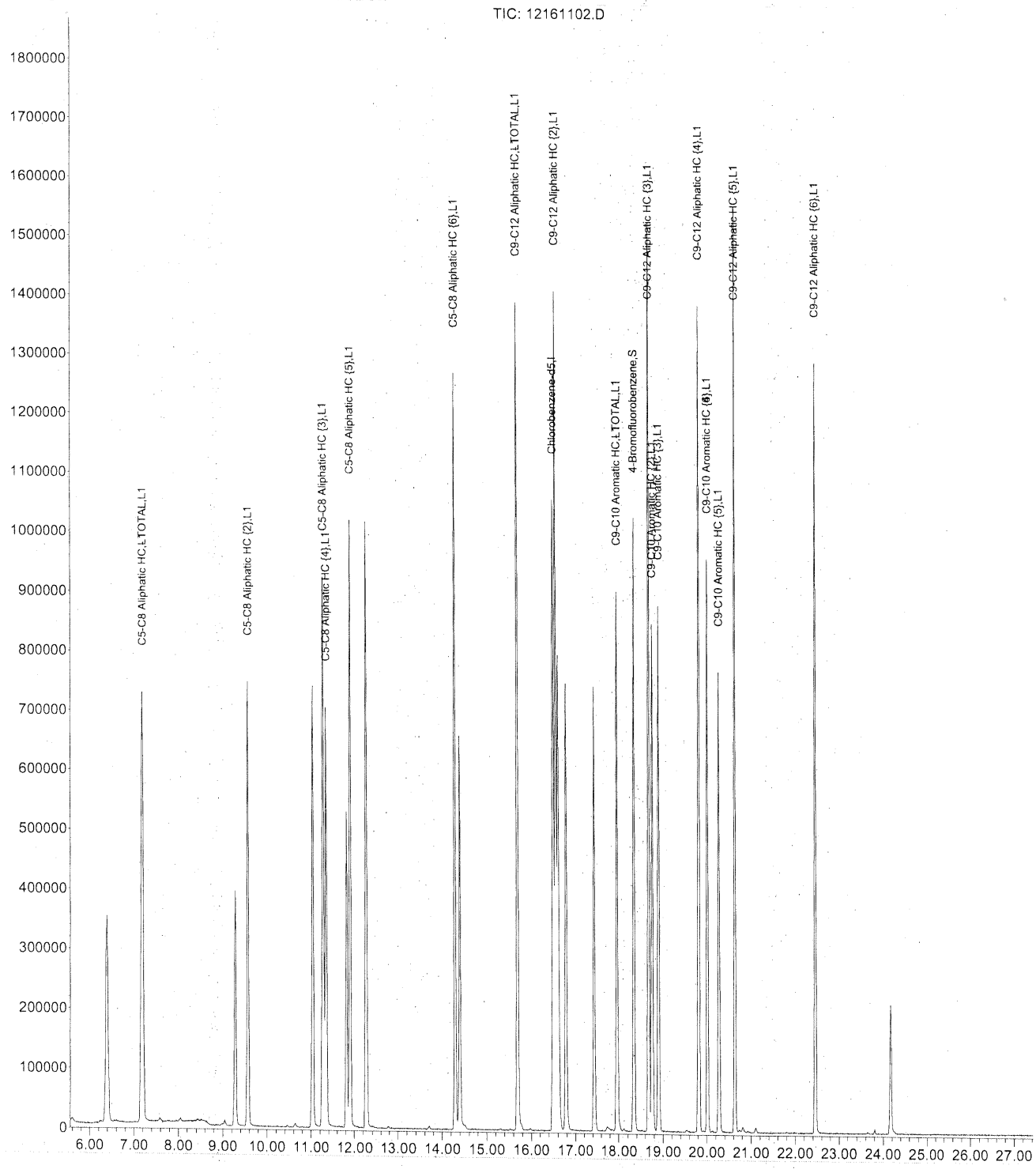
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121611\12161102.D
Acq On : 16 Dec 2011 1:45 pm
Sample : CCV 121611 VOA9
Misc : CCV MA APH
MS Integration Params: rteint.p
Quant Time: Dec 19 15:45 2011

Vial: 1
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 120811V9.RES

Method : C:\HPCHEM\1\METHODS\120811V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Dec 09 15:12:44 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_111219A **Run No.:** 45018

Analytical Run Date: 12/19/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 44926 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 121911 VOA9	BFB_TUNE	TUNE	R45018	12/19/2011 9:22:00 AM	Robert Lynch		
CCV 121911 VOA9	MA_APH	CCV	R45018	12/19/2011 10:08:00 AM	Robert Lynch		
RLVS1 121911 VOA	MA_APH	RLVS	R45018	12/19/2011 10:53:00 AM	Robert Lynch		
MBLK 121911 VOA9	MA_APH	MBLK	R45018	12/19/2011 11:45:00 AM	Charles O'Bryan		
1112148-033A	MA_APH	SAMP	R45018	12/19/2011 12:35:00 PM	Robert Lynch		
1112148-034A	MA_APH	SAMP	R45018	12/19/2011 1:19:00 PM	Robert Lynch		
1112148-025A	MA_APH	SAMP	R45018	12/19/2011 2:04:00 PM	Robert Lynch		
1112148-026A	MA_APH	SAMP	R45018	12/19/2011 2:49:00 PM	Robert Lynch		
1112148-016A	MA_APH	SAMP	R45018	12/19/2011 5:09:00 PM	Robert Lynch		
1112398-013A	MA_APH	SAMP	R45018	12/19/2011 5:53:00 PM	Robert Lynch		Over-diluted sample. Will re-analyze at lower dilution. Reported here to show that sample and duplicate were analyzed.
1112398-013Adup	MA_APH	DUP	R45018	12/19/2011 6:37:00 PM	Charles O'Bryan		
1112398-017A	MA_APH	SAMP	R45018	12/19/2011 9:33:00 PM	Robert Lynch		
1112398-019A	MA_APH	SAMP	R45018	12/19/2011 11:01:00 PM	Robert Lynch		
RLVS2 121911 VOA	MA_APH	RLVS	R45018	12/20/2011 3:23:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-12

RunNo 45018

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
885826	BFB1 121911 VOA9	BFB_TUNE	TUNE	\1\DATA\121911\	12/19/2011 9:22:	1	R45018		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		58	58		100	0	0	0	0	0	58%	50	120	0%	
175	M		7.3	7.3		100	0	0	0	0	0	7%	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		26.2	26.2		100	0	0	0	0	0	26%	8	40	0%	
75	M		50.5	50.5		100	0	0	0	0	0	51%	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
885827	CCV 121911 VOA9	MA_APH	CCV	\1\DATA\121911\	12/19/2011 10:0	1	R45018		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	225.44	225.44		234	0	0	0	0	0	96%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	252.26	252.26		266	0	0	0	0	0	95%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	367.02	367.02		378	0	0	0	0	0	97%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	93.09	93.09		89.5	0	0	0	0	0	104%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121911\12191102.D
Acq On : 19 Dec 2011 10:08 am
Sample : CCV 121911 VOA9
Misc : CCV MA APH
MS Integration Params: rteint.p
Quant Time: Dec 20 14:35 2011

Vial: 1
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 120811V9.RES

Quant Method : C:\HPCHEM\1\METHODS\120811V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Dec 09 15:12:44 2011
Response via : Initial Calibration
DataAcq Meth : 120811V9

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	641248	12.50 ug/m3	-0.02

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.33	95	454197	93.09 ug/m3	-0.01

Spiked Amount 89.500 Range 70 - 130 Recovery = 104.01%

Target Compounds

					Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2765404	30.03 ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.56	TIC	2125209	35.22 ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	2638991	39.17 ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2052868	34.23 ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2581957	39.79 ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	2991894	46.29 ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	15156323m	225.44 ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	3621738	51.70 ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.55	TIC	3564042	52.44 ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	3533534	59.32 ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	3398746	59.02 ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.63	TIC	3620674	69.86 ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.45	TIC	2889872	75.71 ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	20628606m	367.02 ug/m3	
15) C9-C10 Aromatic HC	17.97	120	221549	48.41 ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	237867	48.58 ug/m3	100
17) C9-C10 Aromatic HC {3}	18.90	120	345751	49.40 ug/m3	100
18) C9-C10 Aromatic HC {4}	20.01	120	81195	55.92 ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	271342	50.38 ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	192202	54.96 ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1349906m	252.26 ug/m3	

(#) = qualifier out of range (m) = manual integration
12191102.D 120811V9.M Tue Dec 20 14:53:29 2011

Quantitation Report

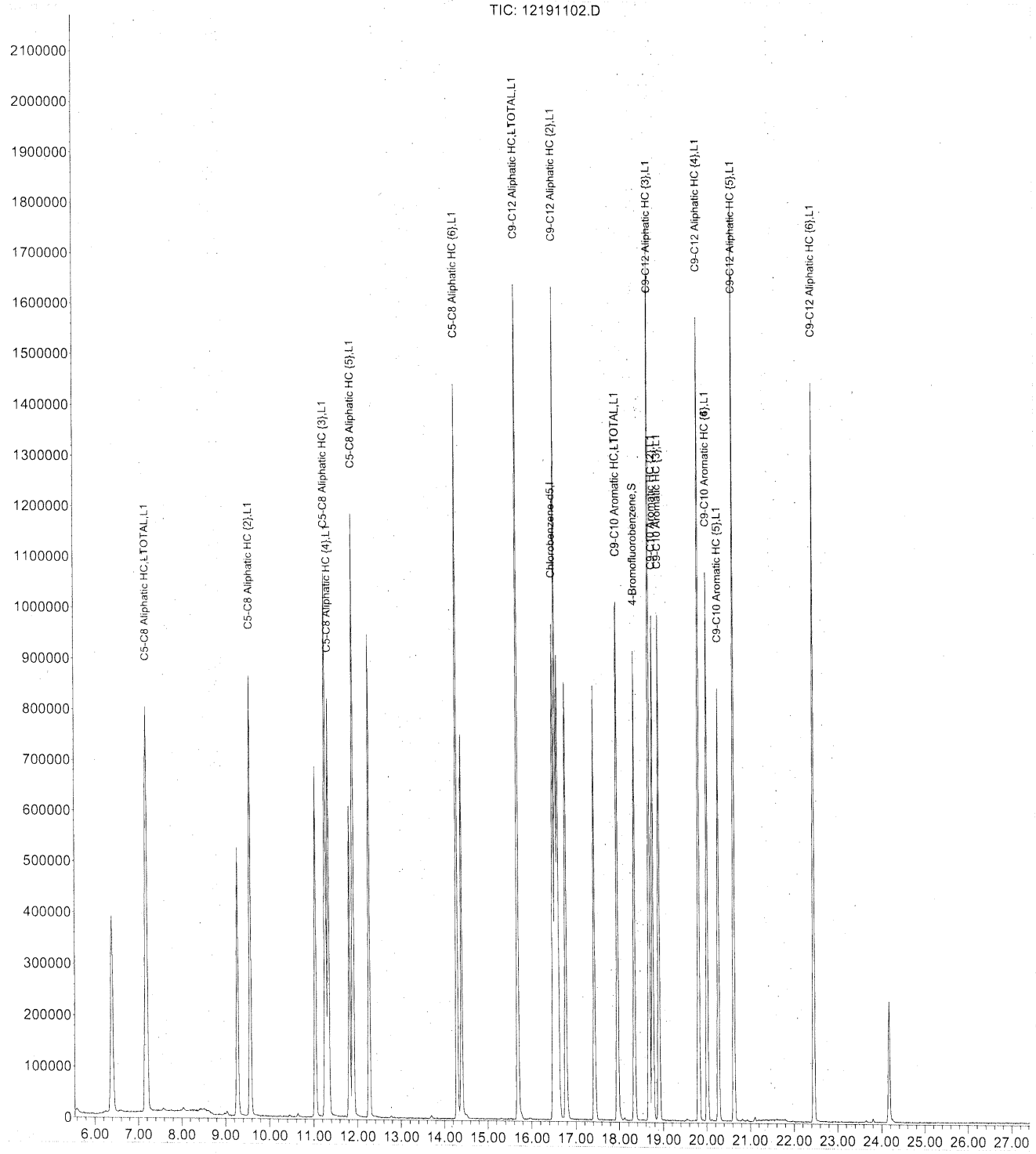
Data File : C:\HPCHEM\1\DATA\121911\12191102.D
Acq On : 19 Dec 2011 10:08 am
Sample : CCV 121911 VOA9
Misc : CCV MA APH
MS Integration Params: rteint.p
Quant Time: Dec 20 14:35 2011

Vial: 1
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 120811V9.RES

Method : C:\HPCHEM\1\METHODS\120811V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Dec 09 15:12:44 2011
Response via : Initial Calibration

TIC: 12191102.D



RTI Laboratories

Run ID: VOA9_111221A **Run No.:** 45089

Analytical Run Date: 12/21/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 45089 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 122111 VOA9	BFB_TUNE	TUNE	R45089	12/21/2011 11:47:00 AM	Robert Lynch		
MASS ICAL Level	MA_APH	ICAL	R45089	12/21/2011 1:12:00 PM	Robert Lynch		
MASS ICAL Level	MA_APH	ICAL	R45089	12/21/2011 1:54:00 PM	Robert Lynch		
MASS ICAL Level	MA_APH	ICAL	R45089	12/21/2011 2:37:00 PM	Robert Lynch		
MASS ICAL Level	MA_APH	ICAL	R45089	12/21/2011 3:20:00 PM	Robert Lynch		
MASS ICAL Level	MA_APH	ICAL	R45089	12/21/2011 4:04:00 PM	Robert Lynch		
MASS ICAL Level	MA_APH	ICAL	R45089	12/21/2011 4:48:00 PM	Robert Lynch		
MASS ICAL Level	MA_APH	ICAL	R45089	12/21/2011 5:33:00 PM	Robert Lynch		
BFB2 122111 VOA9	BFB_TUNE	TUNE	R45089	12/21/2011 6:15:00 PM	Robert Lynch		
ICV 122111 VOA9	MA_APH	CCV	R45089	12/21/2011 6:58:00 PM	Robert Lynch		
RLVS 122111 VOA9	MA_APH	RLVS	R45089	12/21/2011 8:40:00 PM	Robert Lynch		
1112398-002A	MA_APH	SAMP	R45089	12/21/2011 10:45:00 PM	Robert Lynch		
1112398-003A	MA_APH	SAMP	R45089	12/21/2011 11:34:00 PM	Robert Lynch		
1112398-004A	MA_APH	SAMP	R45089	12/22/2011 12:19:00 AM	Robert Lynch		
1112398-005A	MA_APH	SAMP	R45089	12/22/2011 1:08:00 AM	Robert Lynch		
1112398-018A	MA_APH	SAMP	R45089	12/22/2011 2:40:00 AM	Robert Lynch		
1112398-018Adup	MA_APH	DUP	R45089	12/22/2011 3:22:00 AM	Charles O`Bryan		
1112398-020A	MA_APH	SAMP	R45089	12/22/2011 4:08:00 AM	Robert Lynch		
1112148-024A	MA_APH	SAMP	R45089	12/22/2011 9:13:00 AM	Robert Lynch		
Blank 122111 VOA	MA_APH	MBLK	R45089	12/22/2011 10:02:00 AM	Charles O`Bryan		Accidentally ran blank after RLVS without bottle attached to autosampler. Re-analyzed here.
1112148-027A	MA_APH	SAMP	R45089	12/22/2011 10:44:00 AM	Robert Lynch		
1112148-028A	MA_APH	SAMP	R45089	12/22/2011 11:28:00 AM	Robert Lynch		
1112148-029A	MA_APH	SAMP	R45089	12/22/2011 12:12:00 PM	Robert Lynch		
1112148-017A	MA_APH	SAMP	R45089	12/22/2011 12:55:00 PM	Robert Lynch		
1112148-019A	MA_APH	SAMP	R45089	12/22/2011 1:39:00 PM	Robert Lynch		
1112148-020A	MA_APH	SAMP	R45089	12/22/2011 2:23:00 PM	Robert Lynch		
RLVS2 122111 VOA	MA_APH	RLVS	R45089	12/22/2011 3:05:00 PM	Robert Lynch		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
887156	BFB2 122111 VOA9	BFB_TUNE	TUNE	\I\DATA\122111	12/21/2011 6:15:	1	R45089		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		59	59		100	0	0	0	0	0	59%	50	120	0%	
175	M		7.2	7.2		100	0	0	0	0	0	7%	4	9	0%	
176	M		95.6	95.6		100	0	0	0	0	0	96%	93	101	0%	
177	M		6.3	6.3		100	0	0	0	0	0	6%	5	9	0%	
50	M		26.6	26.6		100	0	0	0	0	0	27%	8	40	0%	
75	M		52	52		100	0	0	0	0	0	52%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.6	6.6		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
887164	ICV 122111 VOA9	MA_APH	CCV	\I\DATA\122111	12/21/2011 6:58:	1	R45089		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	241.66	241.66		234	0	0	0	0	0	103%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	274.22	274.22		266	0	0	0	0	0	103%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	401.07	401.07		378	0	0	0	0	0	106%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	91.3	91.3		89.5	0	0	0	0	0	102%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
887165	RLVS 122111 VOA9	MA_APH	RLVS	\I\DATA\122111	12/21/2011 8:40:	1	R45089		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122111\12211112.D
Acq On : 21 Dec 2011 6:58 pm
Sample : ICV 122111 VOA9
Misc : CCV MA APH
MS Integration Params: rteint.p
Quant Time: Dec 22 9:48 2011

Vial: 11
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 122111V9.RES

Quant Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
Response via : Initial Calibration
DataAcq Meth : 122111V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	684592	12.50	ug/m3	-0.02

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.33	95	505320	91.30	ug/m3	-0.01

Spiked Amount 89.500 Range 70 - 130 Recovery = 102.01%

Target Compounds

						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2954719	31.62	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2292203	36.78	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	2984140	43.08	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	2213504	35.37	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2891384	43.28	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3375915	50.85	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	16711865m	241.66	ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	4067070	57.38	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	3969804	57.56	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	3963061	64.25	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	3772037	63.58	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.63	TIC	3996399	75.24	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.46	TIC	3260396	84.48	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	23028767m	401.07	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	249447	52.72	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	263328	52.19	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.90	120	387215	53.47	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.02	120	90691	60.94	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	301653	54.61	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	218245	61.18	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1510579m	274.22	ug/m3	

(#) = qualifier out of range (m) = manual integration
12211112.D 122111V9.M Thu Dec 22 18:30:45 2011

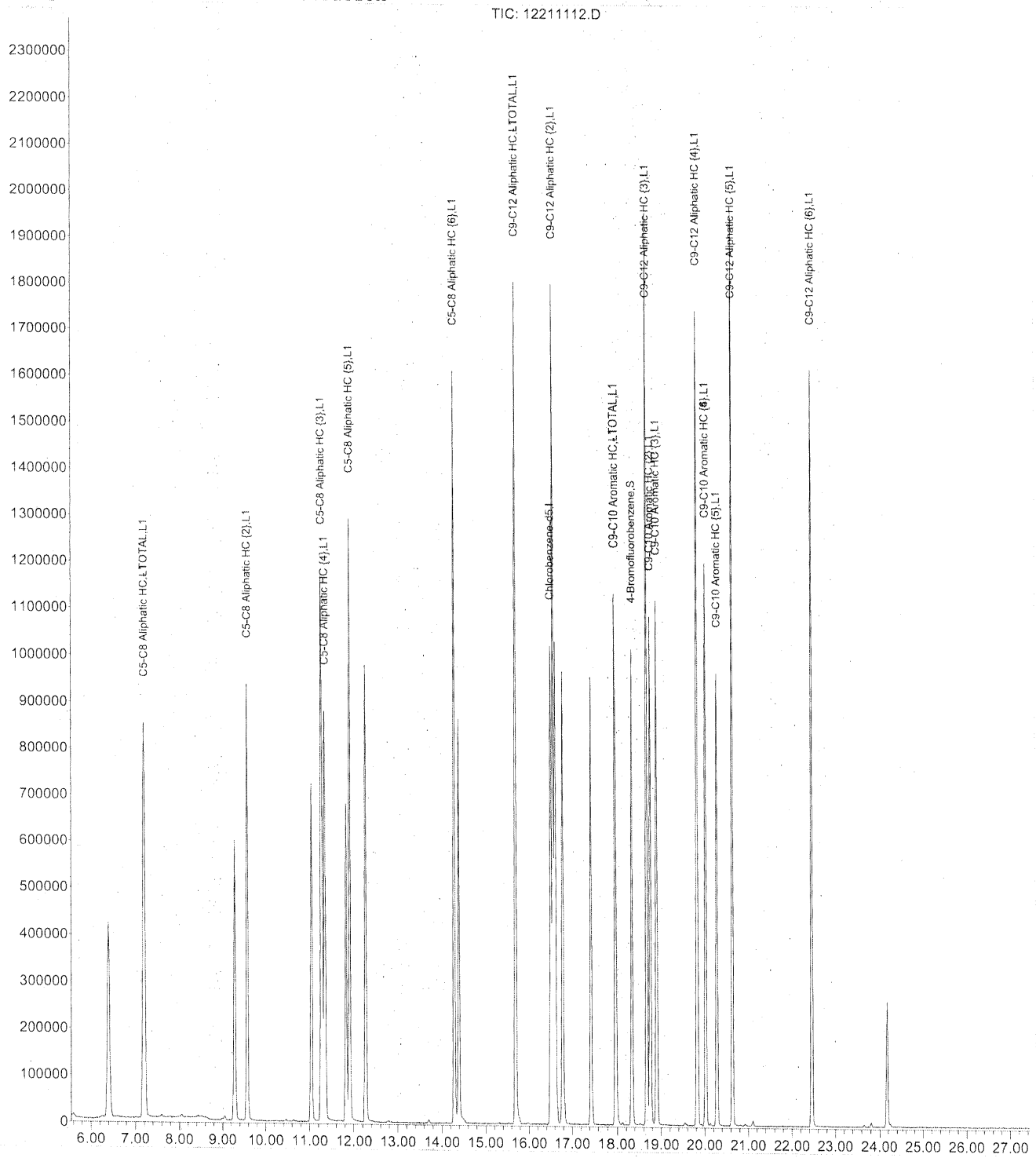
Quantitation Report

Data File : C:\HPCHEM\1\DATA\122111\12211112.D
Acq On : 21 Dec 2011 6:58 pm
Sample : ICV 122111 VOA9
Misc : CCV MA APH
MS Integration Params: rteint.p
Quant Time: Dec 22 9:48 2011

Vial: 11
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 122111V9.RES

Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_111222A **Run No.:** 45120

Analytical Run Date: 12/22/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 45089 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 122211 VOA9	BFB_TUNE	TUNE	R45120	12/22/2011 3:47:00 PM	Robert Lynch		
CCV 122211 VOA9	MA_APH	CCV	R45120	12/22/2011 4:30:00 PM	Robert Lynch		
RLVS 122211 VOA9	MA_APH	RLVS	R45120	12/22/2011 5:14:00 PM	Robert Lynch		
Blank 122211 VOA	MA_APH	MBLK	R45120	12/22/2011 6:15:00 PM	Charles O'Bryan		
1112398-024A	MA_APH	SAMP	R45120	12/22/2011 7:01:00 PM	Robert Lynch		
1112696-028A	MA_APH	SAMP	R45120	12/22/2011 9:50:00 PM	Robert Lynch		Sample was over-diluted. Will re-run at lower dilution. Reported here to show that sample and duplicate were analyzed.
1112696-028Adup	MA_APH	DUP	R45120	12/22/2011 10:33:00 PM	Charles O'Bryan		
1112696-003A	MA_APH	SAMP	R45120	12/23/2011 2:05:00 AM	Robert Lynch		
1112696-005A	MA_APH	SAMP	R45120	12/23/2011 3:31:00 AM	Robert Lynch		
1112148-018A	MA_APH	SAMP	R45120	12/23/2011 9:13:00 AM	Robert Lynch		
1112398-008A	MA_APH	SAMP	R45120	12/23/2011 9:55:00 AM	Robert Lynch		
1112398-009A	MA_APH	SAMP	R45120	12/23/2011 10:37:00 AM	Robert Lynch		
1112398-013A	MA_APH	SAMP	R45120	12/23/2011 11:20:00 AM	Robert Lynch		
RLVS 122211 VOA9	MA_APH	RLVS	R45120	12/23/2011 3:43:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-12

RunNo 45120

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
887794	BFB1 122211 VOA9	BFB_TUNE	TUNE	\1\DATA\122211\	12/22/2011 3:47:	1	R45120		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		59.3	59.3		100	0	0	0	0	0	59%	50	120	0%	
175	M		7.5	7.5		100	0	0	0	0	0	8%	4	9	0%	
176	M		96.1	96.1		100	0	0	0	0	0	96%	93	101	0%	
177	M		6.4	6.4		100	0	0	0	0	0	6%	5	9	0%	
50	M		26.6	26.6		100	0	0	0	0	0	27%	8	40	0%	
75	M		52.2	52.2		100	0	0	0	0	0	52%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.6	6.6		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
887795	CCV 122211 VOA9	MA_APH	CCV	\1\DATA\122211\	12/22/2011 4:30:	1	R45120		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	226.12	226.12		234	0	0	0	0	0	97%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	261.36	261.36		266	0	0	0	0	0	98%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	373.55	373.55		378	0	0	0	0	0	99%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	89.16	89.16		89.5	0	0	0	0	0	100%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122211\12221102.D
Acq On : 22 Dec 2011 4:30 pm
Sample : CCV 122211 VOA9
Misc : CCV MA APH
MS Integration Params: rteint.p
Quant Time: Dec 27 13:30 2011

Vial: 2
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 122111V9.RES

Quant Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
Response via : Initial Calibration
DataAcq Meth : 122111V9

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	673359	12.50 ug/m3	-0.02

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.33	95	485347	89.16 ug/m3	-0.02
Spiked Amount 89.500	Range 70 - 130		Recovery = 99.62%		

Target Compounds

					Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2743579	29.36 ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2146850	34.45 ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	2842072	41.03 ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2072548	33.11 ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2680809	40.13 ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3151668	47.47 ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	15637526m	226.12 ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	3757447	53.01 ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	3726266	54.03 ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	3693058	59.87 ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	3560423	60.01 ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.63	TIC	3741770	70.45 ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.45	TIC	2969519	76.94 ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	21448483m	373.55 ug/m3	
15) C9-C10 Aromatic HC	17.97	120	237784	50.25 ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	252255	49.99 ug/m3	100
17) C9-C10 Aromatic HC {3}	18.90	120	369267	50.99 ug/m3	100
18) C9-C10 Aromatic HC {4}	20.01	120	85497	57.45 ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	287770	52.10 ug/m3	100
20) C9-C10 Aromatic HC {6}	20.01	134	207124	58.06 ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.96	TIC	1439697m	261.36 ug/m3	

(#) = qualifier out of range (m) = manual integration
12221102.D 122111V9.M Tue Dec 27 15:12:20 2011

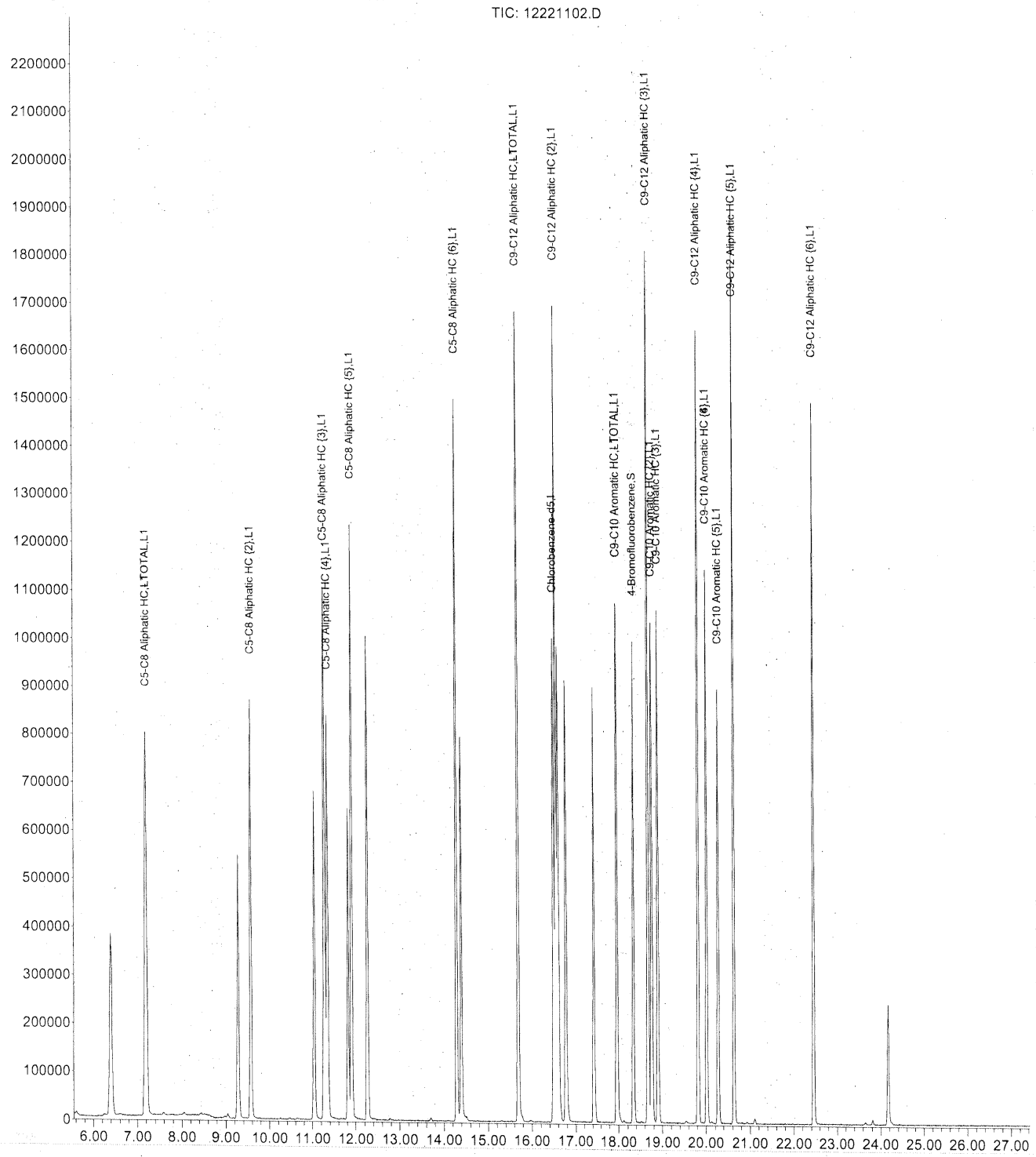
Quantitation Report

Data File : C:\HPCHEM\1\DATA\122211\12221102.D
Acq On : 22 Dec 2011 4:30 pm
Sample : CCV 122211 VOA9
Misc : CCV MA APH
MS Integration Params: rteint.p
Quant Time: Dec 27 13:30 2011

Vial: 2
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 122111V9.RES

Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
Response via : Initial Calibration



Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\120811V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Dec 09 15:12:44 2011
Response via : Initial Calibration

Calibration Files
1 =12081105.D 2 =12081106.D 3 =12081107.D
4 =12081108.D 5 =12081109.D 6 =12081110.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	L1	C5-C8 Aliphatic HC	1.003	0.912	0.926	0.941	0.909	0.887	0.921	E5	4.72
2)	L1	C5-C8 Aliphatic HC	5.976	5.755	5.905	6.139	5.955	6.207	6.034	E4	3.16
3)	L1	C5-C8 Aliphatic HC	6.811	6.430	6.479	6.826	6.683	6.891	6.738	E4	3.29
4)	L1	C5-C8 Aliphatic HC	5.994	5.696	5.938	6.058	5.892	6.171	5.997	E4	3.00
5)	L1	C5-C8 Aliphatic HC	6.468	6.159	6.305	6.645	6.547	6.640	6.489	E4	2.96
6)	L1	C5-C8 Aliphatic HC	6.411	6.156	6.253	6.592	6.560	6.753	6.463	E4	3.18
7)	L1	C5-C8 Aliphatic HC	6.813	6.444	6.571	6.852	6.705	6.843	6.723	E4	2.37
8)	L1	C9-C12 Aliphatic HC	6.988	6.737	6.809	7.226	7.179	7.209	7.006	E4	2.88
9)	L1	C9-C12 Aliphatic HC	6.716	6.269	6.575	6.908	7.114	7.095	6.796	E4	4.43
10)	L1	C9-C12 Aliphatic HC	5.898	5.717	5.862	6.172	6.134	6.132	5.957	E4	3.13
11)	L1	C9-C12 Aliphatic HC	5.752	5.495	5.608	5.947	5.822	5.969	5.759	E4	2.99
12)	L1	C9-C12 Aliphatic HC	5.043	4.950	5.034	5.384	5.315	5.385	5.182	E4	3.48
13)	L1	C9-C12 Aliphatic HC	3.552	3.506	3.707	3.900	3.978	4.069	3.817	E4	5.97
14)	L1	C9-C12 Aliphatic HC	5.516	5.319	5.473	5.788	5.786	5.843	5.621	E4	3.47
15)	L1	C9-C10 Aromatic HC	4.384	4.282	4.358	4.694	4.604	4.831	4.577	E3	5.25
16)	L1	C9-C10 Aromatic HC	4.786	4.607	4.675	4.896	4.924	5.139	4.896	E3	4.77
17)	L1	C9-C10 Aromatic HC	6.862	6.622	6.645	7.117	7.008	7.347	6.999	E3	4.42
18)	L1	C9-C10 Aromatic HC	1.377	1.345	1.386	1.473	1.471	1.555	1.452	E3	5.90
19)	L1	C9-C10 Aromatic HC	5.254	5.062	5.142	5.452	5.384	5.633	5.386	E3	4.78
20)	L1	C9-C10 Aromatic HC	3.327	3.292	3.314	3.553	3.556	3.698	3.497	E3	5.36
21)	L1	C9-C10 Aromatic HC	5.197	5.043	5.090	5.416	5.363	5.637	5.351	E3	4.85
22)		C5-C8 Aliphatic	6.813	6.444	6.571	6.852	6.705	6.843	6.723	E4	2.37
23)	L1	non C5-C8	7.058	6.318	6.447	6.698	6.556	6.525	6.576	E4	3.70
24)	L1	non C5-C8 {2}	4.078	3.970	3.994	4.192	3.941	4.217	4.098	E4	3.36
25)	L1	non C5-C8 {3}	2.923	2.907	2.950	2.892	2.952	2.921	2.950	E4	2.39
26)	L1	non C5-C8 {4}	5.108	4.788	4.869	5.117	4.843	5.078	4.989	E4	2.97
27)	L1	non C5-C8 {5}	4.242	4.277	4.316	4.197	4.304	4.128	4.274	E4	2.39
28)	L1	non C5-C8 {6}	4.654	4.585	4.827	5.094	4.997	5.215	4.956	E4	5.61
29)	L1	non C5-C8 - TOTAL	4.057	4.170	4.314	4.503	4.499	4.745	4.462	E4	7.02
30)		C9-C12 Aliphatic	5.516	5.319	5.473	5.788	5.786	5.843	5.621	E4	3.47
31)	L1	non C9-C12	4.212	4.311	4.243	4.112	4.161	4.144	4.265	E4	4.49
32)	L1	non C9-C12 {2}	4.702	4.196	4.485	4.577	4.570	4.856	4.573	E4	4.46
33)	L1	non C9-C12 {3}	4.644	4.575	4.651	4.940	4.843	5.045	4.830	E4	4.39
34)	L1	non C9-C12 {4}	4.538	4.433	4.500	4.769	4.698	4.890	4.683	E4	4.28
35)	L1	non C9-C12 {5}	2.575	2.653	2.672	2.668	2.714	2.742	2.706	E4	3.94
36)	L1	non C9-C12 - TOTAL	3.262	3.224	3.263	3.346	3.341	3.479	3.348	E4	3.36
37)	L1	C9-C10 Aromatic	5.197	5.043	5.090	5.416	5.363	5.637	5.351	E3	4.85
38)	L1	C9-C10 Aromatic {2}	5.197	5.043	5.090	5.416	5.363	5.637	5.351	E3	4.85
39)	L1	C9-C10 Aromatic - T	5.197	5.043	5.090	5.416	5.363	5.637	5.351	E3	4.85
40)	I	Chlorobenzene-d5	----------ISTD----------								
41)	S	4-Bromofluorobenzen	0.094	0.095	0.095	0.095	0.094	0.096	0.095		1.05

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

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\120811V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Dec 09 15:12:44 2011
Response via : Initial Calibration
Total Cpnds : 41

PK#	Compound Name	QIon	Exp RT	Rel RT	Cal	#Qual	A/H	ID
1 L1	C5-C8 Aliphatic HC	TIC	7.21	1.000	A	0	A	B
2 L1	C5-C8 Aliphatic HC {2}	TIC	9.59	1.000	A	0	A	B
3 L1	C5-C8 Aliphatic HC {3}	TIC	11.30	1.000	A	0	A	B
4 L1	C5-C8 Aliphatic HC {4}	TIC	11.37	1.000	A	0	A	B
5 L1	C5-C8 Aliphatic HC {5}	TIC	11.93	1.000	A	0	A	B
6 L1	C5-C8 Aliphatic HC {6}	TIC	14.31	1.000	A	0	A	B
7 L1	C5-C8 Aliphatic HC - TOTAL	TIC	7.00	1.000	A	0	A	B
8 L1	C9-C12 Aliphatic HC	TIC	15.71	1.000	A	0	A	B
9 L1	C9-C12 Aliphatic HC {2}	TIC	16.58	1.000	A	0	A	B
10 L1	C9-C12 Aliphatic HC {3}	TIC	18.69	1.000	A	0	A	B
11 L1	C9-C12 Aliphatic HC {4}	TIC	19.84	1.000	A	0	A	B
12 L1	C9-C12 Aliphatic HC {5}	TIC	20.66	1.000	A	0	A	B
13 L1	C9-C12 Aliphatic HC {6}	TIC	22.48	1.000	A	0	A	B
14 L1	C9-C12 Aliphatic HC - TOTAL	TIC	15.71	1.000	A	0	A	B
15 L1	C9-C10 Aromatic HC	120	17.99	1.000	A	0	A	B
16 L1	C9-C10 Aromatic HC {2}	120	18.78	1.000	A	0	A	B
17 L1	C9-C10 Aromatic HC {3}	120	18.92	1.000	A	0	A	B
18 L1	C9-C10 Aromatic HC {4}	120	20.04	1.000	A	0	A	B
19 L1	C9-C10 Aromatic HC {5}	120	20.30	1.000	A	0	A	B
20 L1	C9-C10 Aromatic HC {6}	134	20.04	1.000	A	0	A	B
21 L1	C9-C10 Aromatic HC - TOTAL	TIC	17.99	1.000	A	0	A	B
22	C5-C8 Aliphatic	TIC	7.00	1.000	A	0	A	B
23 L1	non C5-C8	TIC	6.41	1.000	A	0	A	B
24 L1	non C5-C8 {2}	TIC	9.30	1.000	A	0	A	B
25 L1	non C5-C8 {3}	TIC	11.07	1.000	A	0	A	B
26 L1	non C5-C8 {4}	TIC	11.84	1.000	A	0	A	B
27 L1	non C5-C8 {5}	TIC	12.29	1.000	A	0	A	B
28 L1	non C5-C8 {6}	TIC	14.42	1.000	A	0	A	B
29 L1	non C5-C8 - TOTAL	TIC	6.41	1.000	A	0	A	B
30	C9-C12 Aliphatic	TIC	16.54	1.000	A	0	A	B
31 L1	non C9-C12	TIC	16.52	1.000	A	0	A	B
32 L1	non C9-C12 {2}	TIC	16.63	1.000	A	0	A	B
33 L1	non C9-C12 {3}	TIC	16.80	1.000	A	0	A	B
34 L1	non C9-C12 {4}	TIC	17.45	1.000	A	0	A	B
35 L1	non C9-C12 {5}	TIC	18.35	1.000	A	0	A	B
36 L1	non C9-C12 - TOTAL	TIC	16.52	1.000	A	0	A	B
37 L1	C9-C10 Aromatic	120	17.62	1.000	A	0	A	B
38 L1	C9-C10 Aromatic {2}	134	17.62	1.000	A	0	A	B
39 L1	C9-C10 Aromatic - TOTAL	134	0.00	1.000	A	1	A	B
40 I	Chlorobenzene-d5	117	16.52	1.000	A	2	A	B
41 S	4-Bromofluorobenzene	95	18.35	1.111	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

120811V9.M Thu Dec 15 14:22:36 2011

Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
Response via : Initial Calibration

Calibration Files
1 =12211104.D 2 =12211105.D 3 =12211106.D
4 =12211107.D 5 =12211108.D 6 =12211109.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	L1	C5-C8 Aliphatic HC	1.052	0.954	0.944	0.892	0.925	0.893	0.934	E5	6.26
2)	L1	C5-C8 Aliphatic HC	6.778	6.189	6.231	5.699	6.146	6.276	6.231	E4	5.07
3)	L1	C5-C8 Aliphatic HC	7.480	6.910	6.886	6.356	6.869	7.059	6.927	E4	4.77
4)	L1	C5-C8 Aliphatic HC	6.802	6.218	6.278	5.691	6.171	6.232	6.259	E4	5.28
5)	L1	C5-C8 Aliphatic HC	7.202	6.653	6.612	6.161	6.744	6.760	6.680	E4	4.57
6)	L1	C5-C8 Aliphatic HC	7.030	6.541	6.592	6.200	6.729	6.832	6.639	E4	3.95
7)	L1	C5-C8 Aliphatic HC	7.503	6.897	6.895	6.413	6.901	6.939	6.915	E4	4.58
8)	L1	C9-C12 Aliphatic HC	7.545	7.018	7.041	6.684	7.225	7.228	7.088	E4	3.91
9)	L1	C9-C12 Aliphatic HC	7.469	6.964	6.636	6.505	6.937	6.943	6.896	E4	4.44
10)	L1	C9-C12 Aliphatic HC	6.728	6.045	6.229	5.811	6.215	6.308	6.168	E4	5.08
11)	L1	C9-C12 Aliphatic HC	6.388	5.837	5.918	5.525	5.932	6.136	5.933	E4	4.58
12)	L1	C9-C12 Aliphatic HC	5.635	5.208	5.295	5.019	5.374	5.513	5.311	E4	4.04
13)	L1	C9-C12 Aliphatic HC	4.086	3.678	3.732	3.642	3.912	4.093	3.860	E4	4.80
14)	L1	C9-C12 Aliphatic HC	6.160	5.651	5.678	5.405	5.796	5.907	5.742	E4	4.22
15)	L1	C9-C10 Aromatic HC	4.986	4.566	4.674	4.320	4.687	4.943	4.732	E3	5.17
16)	L1	C9-C10 Aromatic HC	5.347	4.865	4.966	4.561	5.003	5.285	5.046	E3	5.64
17)	L1	C9-C10 Aromatic HC	7.798	7.010	7.097	6.618	7.145	7.528	7.242	E3	5.43
18)	L1	C9-C10 Aromatic HC	1.557	1.393	1.462	1.371	1.490	1.587	1.488	E3	5.67
19)	L1	C9-C10 Aromatic HC	5.899	5.251	5.468	4.998	5.452	5.778	5.523	E3	5.96
20)	L1	C9-C10 Aromatic HC	3.743	3.385	3.519	3.249	3.538	3.782	3.567	E3	5.72
21)	L1	C9-C10 Aromatic HC	5.865	5.292	5.422	5.004	5.435	5.777	5.509	E3	5.64
22)		C5-C8 Aliphatic	7.503	6.897	6.895	6.413	6.901	6.939	6.915	E4	4.58
23)	L1	non C5-C8	7.123	6.562	6.573	6.496	6.673	6.636	6.659	E4	3.19
24)	L1	non C5-C8 {2}	4.824	4.269	4.233	3.723	4.096	4.137	4.210	E4	7.74
25)	L1	non C5-C8 {3}	2.674	2.925	2.850	2.770	2.891	3.011	2.861	E4	3.85
26)	L1	non C5-C8 {4}	5.695	5.188	5.097	4.389	4.948	4.980	5.046	E4	7.63
27)	L1	non C5-C8 {5}	3.712	4.466	4.189	3.941	4.282	4.529	4.193	E4	6.83
28)	L1	non C5-C8 {6}	5.488	5.131	5.147	4.552	5.136	5.206	5.134	E4	5.57
29)	L1	non C5-C8 - TOTAL	4.020	4.417	4.398	4.119	4.574	4.777	4.454	E4	7.11
30)		C9-C12 Aliphatic	6.160	5.651	5.678	5.405	5.796	5.907	5.742	E4	4.22
31)	L1	non C9-C12	3.803	4.247	4.309	3.944	4.196	4.558	4.206	E4	6.12
32)	L1	non C9-C12 {2}	5.496	4.847	4.988	4.544	4.498	4.577	4.821	E4	7.21
33)	L1	non C9-C12 {3}	5.447	4.893	4.967	4.529	4.936	5.149	5.011	E4	5.67
34)	L1	non C9-C12 {4}	5.234	4.719	4.783	4.390	4.812	4.984	4.843	E4	5.45
35)	L1	non C9-C12 {5}	2.518	2.864	2.796	2.696	2.867	3.061	2.828	E4	6.46
36)	L1	non C9-C12 - TOTAL	3.354	3.436	3.462	3.200	3.393	3.536	3.420	E4	3.55
37)	L1	C9-C10 Aromatic	5.865	5.292	5.422	5.004	5.435	5.777	5.509	E3	5.64
38)	L1	C9-C10 Aromatic {2}	5.865	5.292	5.422	5.004	5.435	5.777	5.509	E3	5.64
39)	L1	C9-C10 Aromatic - T	5.865	5.292	5.422	5.004	5.435	5.777	5.509	E3	5.64
40)	I	Chlorobenzene-d5	----------ISTD----------								
41)	S	4-Bromofluorobenzen	0.100	0.100	0.101	0.101	0.100	0.101	0.101		1.04

(#) = Out of Range ### Number of calibration levels exceeded format ###
122111V9.M Thu Dec 22 18:30:14 2011

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
Response via : Initial Calibration
Total Cpnds : 41

PK#		Compound Name	QIon	Exp RT	Rel RT	Cal	#Qual	A/H	ID
1	L1	C5-C8 Aliphatic HC	TIC	7.21	1.000	A	0	A	B
2	L1	C5-C8 Aliphatic HC {2}	TIC	9.59	1.000	A	0	A	B
3	L1	C5-C8 Aliphatic HC {3}	TIC	11.30	1.000	A	0	A	B
4	L1	C5-C8 Aliphatic HC {4}	TIC	11.37	1.000	A	0	A	B
5	L1	C5-C8 Aliphatic HC {5}	TIC	11.93	1.000	A	0	A	B
6	L1	C5-C8 Aliphatic HC {6}	TIC	14.31	1.000	A	0	A	B
7	L1	C5-C8 Aliphatic HC - TOTAL	TIC	7.00	1.000	A	0	A	B
8	L1	C9-C12 Aliphatic HC	TIC	15.71	1.000	A	0	A	B
9	L1	C9-C12 Aliphatic HC {2}	TIC	16.58	1.000	A	0	A	B
10	L1	C9-C12 Aliphatic HC {3}	TIC	18.69	1.000	A	0	A	B
11	L1	C9-C12 Aliphatic HC {4}	TIC	19.84	1.000	A	0	A	B
12	L1	C9-C12 Aliphatic HC {5}	TIC	20.66	1.000	A	0	A	B
13	L1	C9-C12 Aliphatic HC {6}	TIC	22.48	1.000	A	0	A	B
14	L1	C9-C12 Aliphatic HC - TOTAL	TIC	15.71	1.000	A	0	A	B
15	L1	C9-C10 Aromatic HC	120	17.99	1.000	A	0	A	B
16	L1	C9-C10 Aromatic HC {2}	120	18.78	1.000	A	0	A	B
17	L1	C9-C10 Aromatic HC {3}	120	18.92	1.000	A	0	A	B
18	L1	C9-C10 Aromatic HC {4}	120	20.04	1.000	A	0	A	B
19	L1	C9-C10 Aromatic HC {5}	120	20.30	1.000	A	0	A	B
20	L1	C9-C10 Aromatic HC {6}	134	20.04	1.000	A	0	A	B
21	L1	C9-C10 Aromatic HC - TOTAL	TIC	17.99	1.000	A	0	A	B
22		C5-C8 Aliphatic	TIC	7.00	1.000	A	0	A	B
23	L1	non C5-C8	TIC	6.41	1.000	A	0	A	B
24	L1	non C5-C8 {2}	TIC	9.30	1.000	A	0	A	B
25	L1	non C5-C8 {3}	TIC	11.07	1.000	A	0	A	B
26	L1	non C5-C8 {4}	TIC	11.84	1.000	A	0	A	B
27	L1	non C5-C8 {5}	TIC	12.29	1.000	A	0	A	B
28	L1	non C5-C8 {6}	TIC	14.42	1.000	A	0	A	B
29	L1	non C5-C8 - TOTAL	TIC	6.41	1.000	A	0	A	B
30		C9-C12 Aliphatic	TIC	16.54	1.000	A	0	A	B
31	L1	non C9-C12	TIC	16.52	1.000	A	0	A	B
32	L1	non C9-C12 {2}	TIC	16.63	1.000	A	0	A	B
33	L1	non C9-C12 {3}	TIC	16.80	1.000	A	0	A	B
34	L1	non C9-C12 {4}	TIC	17.45	1.000	A	0	A	B
35	L1	non C9-C12 {5}	TIC	18.35	1.000	A	0	A	B
36	L1	non C9-C12 - TOTAL	TIC	16.52	1.000	A	0	A	B
37	L1	C9-C10 Aromatic	120	17.62	1.000	A	0	A	B
38	L1	C9-C10 Aromatic {2}	134	17.62	1.000	A	0	A	B
39	L1	C9-C10 Aromatic - TOTAL	134	0.00	1.000	A	1	A	B
40	I	Chlorobenzene-d5	117	16.52	1.000	A	2	A	B
41	S	4-Bromofluorobenzene	95	18.35	1.111	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

122111V9.M Thu Dec 22 18:30:16 2011

RTI Laboratories

Run ID: GC-TCD 1_111216A **Run No.:** 45077

Analytical Run Date: 12/16/2011 **InstrumentID:** GC-TCD 1

Analyst: Mike Budziak **Column:** GC-TCD 1

Calibration ID: **Column ID:** 100/120mesh x 1mm ID

Column Length: 2m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
mblk	ASTM-D2504	MBLK	R45077	12/16/2011 11:17:00 AM	Charles O`Bryan		
ccv std 1-2 a	ASTM-D2504	CCV	R45077	12/16/2011 12:13:00 PM	Robert Lynch		
lcs	ASTM-D2504	LCS	R45077	12/16/2011 12:55:00 PM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R45077	12/16/2011 1:14:00 PM	Robert Lynch		
1112148-001b	ASTM-D2504	SAMP	R45077	12/16/2011 1:56:00 PM	Robert Lynch		
1112148-002b	ASTM-D2504	SAMP	R45077	12/16/2011 2:17:00 PM	Robert Lynch		
1112148-003b	ASTM-D2504	SAMP	R45077	12/16/2011 2:45:00 PM	Robert Lynch		
1112148-004b	ASTM-D2504	SAMP	R45077	12/16/2011 3:08:00 PM	Robert Lynch		
1112148-005b	ASTM-D2504	SAMP	R45077	12/16/2011 3:32:00 PM	Robert Lynch		
1112148-006b	ASTM-D2504	SAMP	R45077	12/16/2011 3:52:00 PM	Robert Lynch		
1112148-006bdup	ASTM-D2504	DUP	R45077	12/16/2011 4:12:00 PM	Charles O`Bryan		
ccv std 1-2 b	ASTM-D2504	CCV	R45077	12/16/2011 4:57:00 PM	Robert Lynch		
crql std 2% b	ASTM-D2504	CRQL	R45077	12/16/2011 5:16:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-12

RunNo 45077

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
886915	mblk	ASTM-D2504	MBLK	.TA\121611\1216	12/16/2011 11:1	1	R45077		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
886916	ccv std 1-2 a	ASTM-D2504	CCV	.TA\121611\1216	12/16/2011 12:1	1	R45077		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.872	2.872		2.5	0	0	0.025	0.1	0	115%	85	115	0%	
Carbon Monoxide	A	%	2.796	2.796		2.5	0	0	0.025	0.1	0	112%	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	%	2.131	2.131		2	0	0	0.025	0.5	0	107%	85	115	0%	
Nitrogen	A	%	2.684	2.684		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Oxygen	A	%	2.703	2.703		2.5	0	0	0.025	0.1	0	108%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
886917	lcs	ASTM-D2504	LCS	.TA\121611\1216	12/16/2011 12:5	1	R45077		0	886916	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.871	2.871		2.5	0	2.872	0.025	0.1	0	115%	70	130	0%	
Carbon Monoxide	A	%	2.796	2.796		2.5	0	2.796	0.025	0.1	0	112%	70	130	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Methane	A	%	2.13	2.13		2	0	2.131	0.025	0.5	0	107%	70	130	0%	
Nitrogen	A	%	2.681	2.681		2.5	0	2.684	0.025	0.1	0	107%	70	130	0%	
Oxygen	A	%	2.701	2.701		2.5	0	2.703	0.025	0.1	0	108%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
886926	ccv std 1-2 b	ASTM-D2504	CCV	.TA\121611\1216	12/16/2011 4:57:	1	R45077		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.868	2.868		2.5	0	0	0.025	0.1	0	115%	85	115	0%	
Carbon Monoxide	A	%	2.797	2.797		2.5	0	0	0.025	0.1	0	112%	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	%	2.133	2.133		2	0	0	0.025	0.5	0	107%	85	115	0%	
Nitrogen	A	%	2.69	2.69		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Oxygen	A	%	2.701	2.701		2.5	0	0	0.025	0.1	0	108%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
886927	crql std 2% b	ASTM-D2504	CRQL	.TA\121611\1216	12/16/2011 5:16:	1	R45077		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.343	0.343		0.3	0	0	0.025	0.1	0	114%	80	120	0%	
Carbon Monoxide	A	%	0.144	0.144		0.14	0	0	0.025	0.1	0	103%	80	120	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	80	120	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	80	120	0%	
Methane	A	%	0.107	0.107		0.09	0	0	0.025	0.5	0	119%	80	120	0%	
Nitrogen	A	%	1.386	1.386		1.39	0	0	0.025	0.1	0	100%	80	120	0%	
Oxygen	A	%	0.077	0.077		0.08	0	0	0.025	0.1	0	96%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\121611\12161102.D Vial: 1
Acq On : 16 Dec 2011 12:13 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.703	-8.1	0	0.04
2	Nitrogen	2.500	2.684	-7.4	0	0.03
3	Carbon Monoxide	2.500	2.796	-11.8	0	0.00
4	Methane	2.000	2.131	-6.5	0	-0.01
5	Carbon dioxide	2.500	2.872	-14.9	0	-0.04

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\121611\12161102.D Vial: 1
Acq On : 16 Dec 2011 12:13 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Dec 22 13:56:03 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121611\12161102.D Vial: 1
Acq On : 16 Dec 2011 12:13 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 22 11:09 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	387715	2.703 %
2)	Nitrogen	2.33	462352	2.684 %
3)	Carbon Monoxide	3.02	440394	2.796 %
4)	Methane	6.23	276046	2.131 %
5)	Carbon dioxide	11.14	522907	2.872 %

(f)=RT Delta > 1/2 Window (m)=manual int.
12161102.D 030511.M Thu Dec 22 13:55:34 2011 TESTCAL

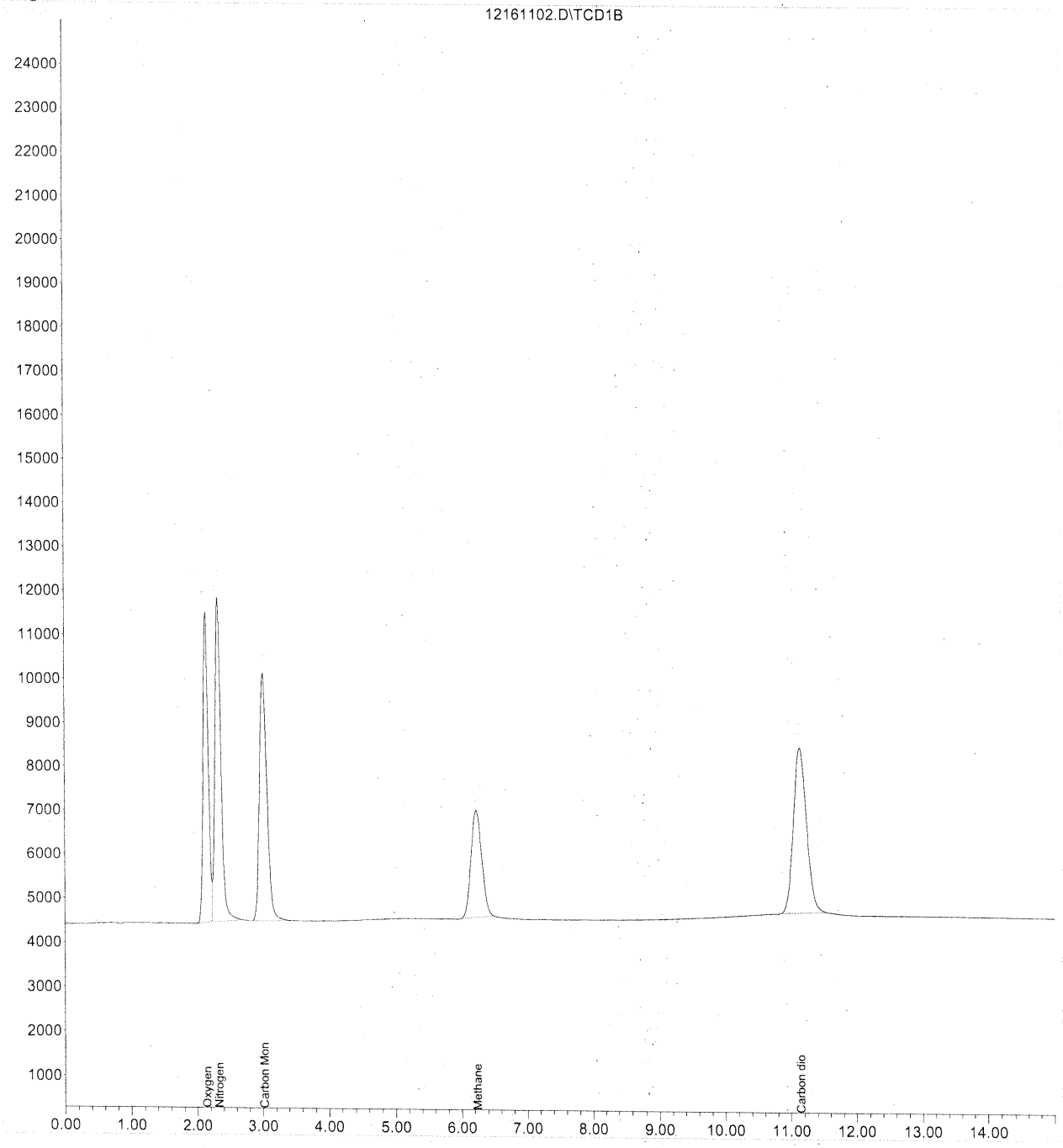
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121611\12161102.D
Acq On : 16 Dec 2011 12:13 pm
Sample : ccv std 1-2 a
Misc : CCV ASTM-D2504
IntFile : EVENTS.E
Quant Time: Dec 22 11:09 2011 Quant Results File: 030511.RES

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\121611\12161112.D Vial: 1
Acq On : 16 Dec 2011 4:57 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.701	-8.0	0	0.04
2	Nitrogen	2.500	2.690	-7.6	0	0.03
3	Carbon Monoxide	2.500	2.797	-11.9	0	0.00
4	Methane	2.000	2.133	-6.7	0	-0.01
5	Carbon dioxide	2.500	2.868	-14.7	0	-0.03

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\121611\12161112.D Vial: 1
Acq On : 16 Dec 2011 4:57 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Dec 22 13:56:22 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121611\12161112.D Vial: 1
Acq On : 16 Dec 2011 4:57 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 22 11:23 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
Target Compounds				
1)	Oxygen	2.14	387417	2.701 %
2)	Nitrogen	2.33	463319	2.690 %
3)	Carbon Monoxide	3.02	440609	2.797 %
4)	Methane	6.24	276367	2.133 %
5)	Carbon dioxide	11.14	522092	2.868 %

(f)=RT Delta > 1/2 Window (m)=manual int.
12161112.D 030511.M Thu Dec 22 13:55:36 2011 TESTCAL

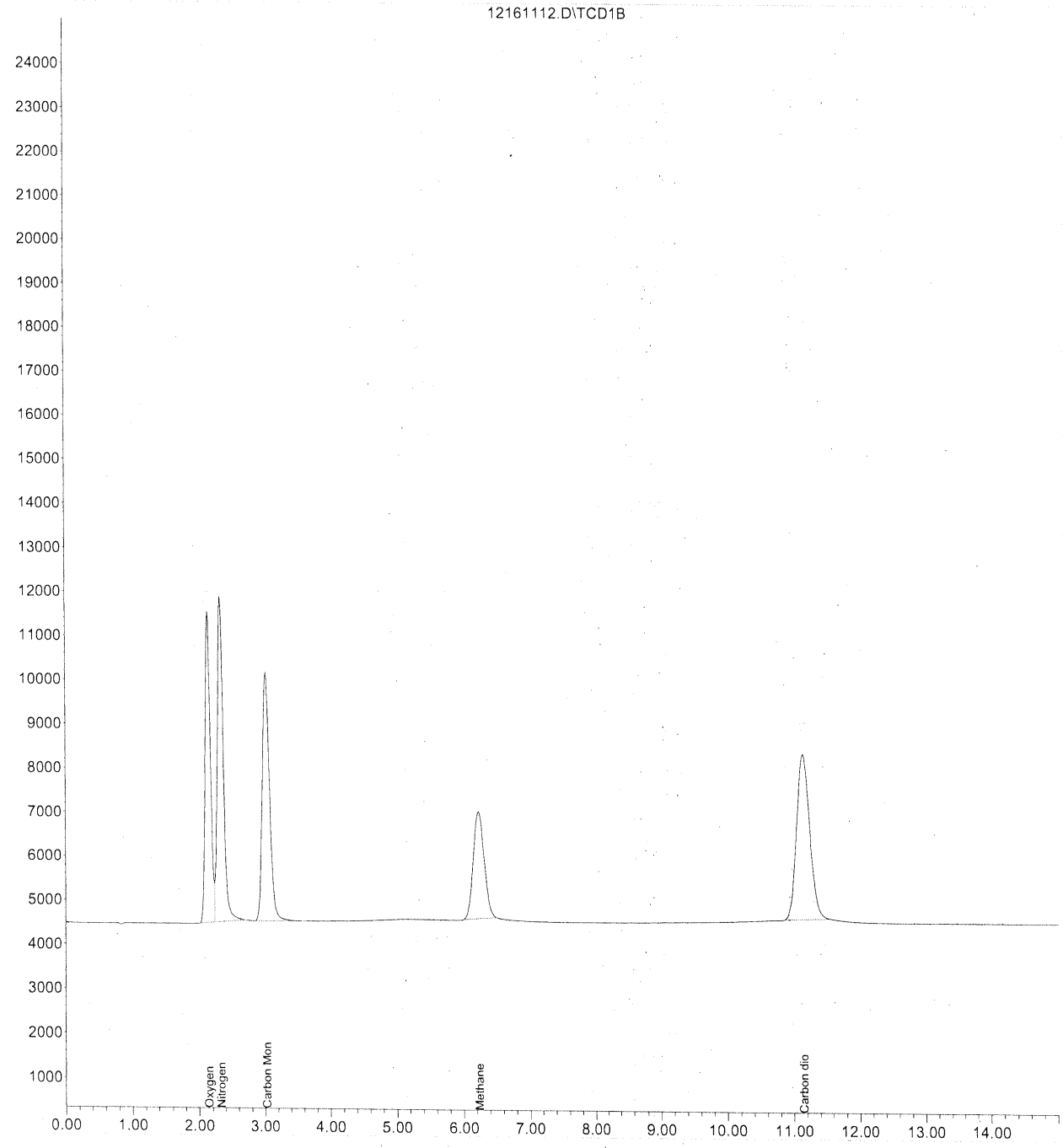
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121611\12161112.D
Acq On : 16 Dec 2011 4:57 pm
Sample : ccv std 1-2 b
Misc : CCV ASTM-D2504
IntFile : EVENTS.E
Quant Time: Dec 22 11:23 2011 Quant Results File: 030511.RES

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-TCD 1_111220A **Run No.:** 45081

Analytical Run Date: 12/20/2011 **InstrumentID:** GC-TCD 1

Analyst: Mike Budziak **Column:** GC-TCD 1

Calibration ID: **Column ID:** 100/120mesh x 1mm ID

Column Length: 2m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
mblk	ASTM-D2504	MBLK	R45081	12/20/2011 12:01:00 PM	Charles O`Bryan		
ccv std 1-2 a	ASTM-D2504	CCV	R45081	12/20/2011 12:22:00 PM	Robert Lynch		
lcs	ASTM-D2504	LCS	R45081	12/20/2011 1:10:00 PM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R45081	12/20/2011 1:29:00 PM	Robert Lynch		
1112148-007b	ASTM-D2504	SAMP	R45081	12/20/2011 2:09:00 PM	Robert Lynch		
1112148-008b	ASTM-D2504	SAMP	R45081	12/20/2011 2:31:00 PM	Robert Lynch		
1112148-009b	ASTM-D2504	SAMP	R45081	12/20/2011 3:26:00 PM	Robert Lynch		
1112148-010b	ASTM-D2504	SAMP	R45081	12/20/2011 3:50:00 PM	Robert Lynch		
1112148-011b	ASTM-D2504	SAMP	R45081	12/20/2011 4:22:00 PM	Robert Lynch		
1112148-012b	ASTM-D2504	SAMP	R45081	12/20/2011 4:45:00 PM	Robert Lynch		
1112148-013b	ASTM-D2504	SAMP	R45081	12/20/2011 5:17:00 PM	Robert Lynch		
1112148-014b	ASTM-D2504	SAMP	R45081	12/20/2011 6:00:00 PM	Robert Lynch		
1112148-015b	ASTM-D2504	SAMP	R45081	12/20/2011 6:20:00 PM	Robert Lynch		
1112148-016b	ASTM-D2504	SAMP	R45081	12/20/2011 6:54:00 PM	Robert Lynch		
1112148-016bdup	ASTM-D2504	DUP	R45081	12/20/2011 7:31:00 PM	Charles O`Bryan		
ccv std 1-2 b	ASTM-D2504	CCV	R45081	12/20/2011 8:01:00 PM	Robert Lynch		
1112148-017b	ASTM-D2504	SAMP	R45081	12/20/2011 8:21:00 PM	Robert Lynch		
1112148-018b	ASTM-D2504	SAMP	R45081	12/20/2011 8:41:00 PM	Robert Lynch		
1112148-019b	ASTM-D2504	SAMP	R45081	12/20/2011 8:59:00 PM	Robert Lynch		
1112148-020b	ASTM-D2504	SAMP	R45081	12/20/2011 9:17:00 PM	Robert Lynch		
1112148-021b	ASTM-D2504	SAMP	R45081	12/20/2011 9:44:00 PM	Robert Lynch		
1112148-022b	ASTM-D2504	SAMP	R45081	12/20/2011 10:20:00 PM	Robert Lynch		
ccv std 1-2 c	ASTM-D2504	CCV	R45081	12/20/2011 10:40:00 PM	Robert Lynch		
crql std 2% c	ASTM-D2504	CRQL	R45081	12/20/2011 11:58:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-12

RunNo 45081

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
886967	mblk	ASTM-D2504	MBLK	.TA\122011\1220	12/20/2011 12:0	1	R45081		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
886968	ccv std 1-2 a	ASTM-D2504	CCV	.TA\122011\1220	12/20/2011 12:2	1	R45081		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.861	2.861		2.5	0	0	0.025	0.1	0	114%	85	115	0%	
Carbon Monoxide	A	%	2.769	2.769		2.5	0	0	0.025	0.1	0	111%	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	%	2.086	2.086		2	0	0	0.025	0.5	0	104%	85	115	0%	
Nitrogen	A	%	2.656	2.656		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Oxygen	A	%	2.674	2.674		2.5	0	0	0.025	0.1	0	107%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
886969	lcs	ASTM-D2504	LCS	.TA\122011\1220	12/20/2011 1:10:	1	R45081		0	886968	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.972	2.972		2.5	0	2.861	0.025	0.1	0	119%	70	130	4%	
Carbon Monoxide	A	%	2.787	2.787		2.5	0	2.769	0.025	0.1	0	111%	70	130	1%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Methane	A	%	2.101	2.101		2	0	2.086	0.025	0.5	0	105%	70	130	1%	
Nitrogen	A	%	2.671	2.671		2.5	0	2.656	0.025	0.1	0	107%	70	130	1%	
Oxygen	A	%	2.692	2.692		2.5	0	2.674	0.025	0.1	0	108%	70	130	1%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
886980	1112148-016b (Container-01 of 01)	ASTM-D2504	SAMP	.TA\122011\1220	12/20/2011 6:54:	1	R45081		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Nitrogen	A	%	82.289	82.289		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	16.781	16.781		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
886981	1112148-016bdup	ASTM-D2504	DUP	.TA\122011\1220	12/20/2011 7:31:	1	R45081		0	886980	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.861	0.861		0	0	0.869	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	%	82.253	82.253		0	0	82.289	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	16.764	16.764		0	0	16.781	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
886982	ccv std 1-2 b	ASTM-D2504	CCV	.TA\122011\1220	12/20/2011 8:01:	1	R45081		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.827	2.827		2.5	0	0	0.025	0.1	0	113%	85	115	0%	
Carbon Monoxide	A	%	2.762	2.762		2.5	0	0	0.025	0.1	0	110%	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	%	2.104	2.104		2	0	0	0.025	0.5	0	105%	85	115	0%	
Nitrogen	A	%	2.769	2.769		2.5	0	0	0.025	0.1	0	111%	85	115	0%	
Oxygen	A	%	2.705	2.705		2.5	0	0	0.025	0.1	0	108%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
886988	1112148-022b (Container-01 of 01)	ASTM-D2504	SAMP	.TA\122011\1220	12/20/2011 10:2	1	R45081		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.081	0.081		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	%	78.091	78.091		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	21.622	21.622		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
886989	ccv std 1-2 c	ASTM-D2504	CCV	.TA\122011\1220	12/20/2011 10:4	1	R45081		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.785	2.785		2.5	0	0	0.025	0.1	0	111%	85	115	0%	
Carbon Monoxide	A	%	2.723	2.723		2.5	0	0	0.025	0.1	0	109%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	2.081	2.081		2	0	0	0.025	0.5	0	104%	85	115	0%	
Nitrogen	A	%	2.752	2.752		2.5	0	0	0.025	0.1	0	110%	85	115	0%	
Oxygen	A	%	2.663	2.663		2.5	0	0	0.025	0.1	0	107%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
886990	crql std 2% c	ASTM-D2504	CRQL	.TA\122011\1220	12/20/2011 11:5	1	R45081		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.346	0.346		0.3	0	0	0.025	0.1	0	115%	80	120	0%	
Carbon Monoxide	A	%	0.145	0.145		0.14	0	0	0.025	0.1	0	104%	80	120	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	80	120	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	80	120	0%	
Methane	A	%	0.106	0.106		0.09	0	0	0.025	0.5	0	118%	80	120	0%	
Nitrogen	A	%	1.369	1.369		1.39	0	0	0.025	0.1	0	98%	80	120	0%	
Oxygen	A	%	0.075	0.075		0.08	0	0	0.025	0.1	0	94%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122011\12201102.D Vial: 1
Acq On : 20 Dec 2011 12:22 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.674	-7.0	0	0.04
2	Nitrogen	2.500	2.656	-6.2	0	0.03
3	Carbon Monoxide	2.500	2.769	-10.8	0	0.00
4	Methane	2.000	2.086	-4.3	0	0.00
5	Carbon dioxide	2.500	2.861	-14.4	0	-0.03

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\122011\12201102.D Vial: 1
Acq On : 20 Dec 2011 12:22 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Dec 22 14:07:08 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122011\12201102.D Vial: 1
Acq On : 20 Dec 2011 12:22 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 18:53 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	383471	2.674 %
2)	Nitrogen	2.33	457481	2.656 %
3)	Carbon Monoxide	3.02	436050	2.769 %
4)	Methane	6.24	269702	2.086 %
5)	Carbon dioxide	11.14	520881	2.861 %

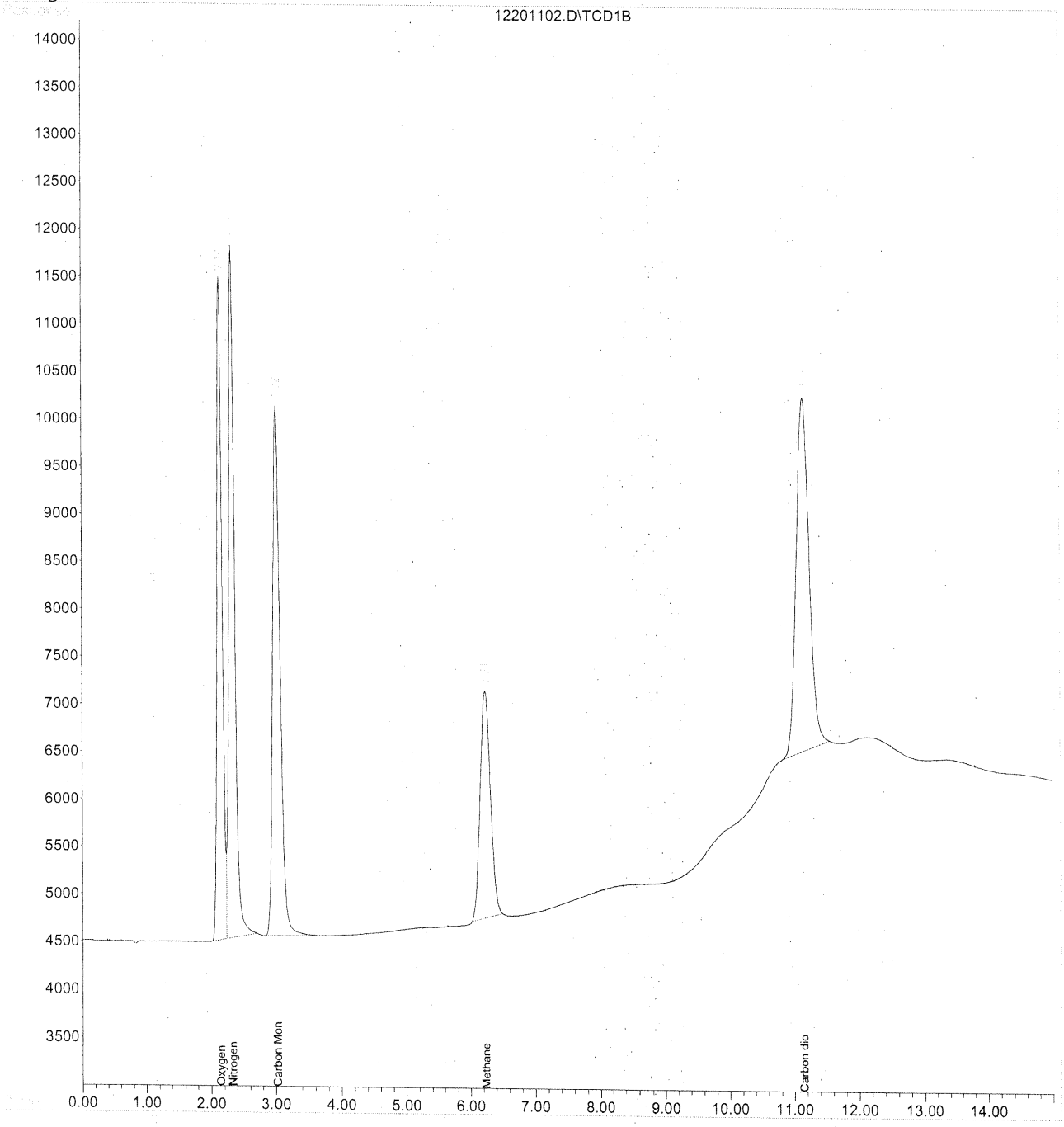
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122011\12201102.D
Acq On : 20 Dec 2011 12:22 pm
Sample : ccv std 1-2 a
Misc : CCV ASTM-D2504
IntFile : EVENTS.E
Quant Time: Dec 20 18:53 2011 Quant Results File: 030511.RES

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122011\12201116.D Vial: 1
Acq On : 20 Dec 2011 8:01 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.705	-8.2	0	0.04
2	Nitrogen	2.500	2.769	-10.8	0	0.03
3	Carbon Monoxide	2.500	2.762	-10.5	0	0.00
4	Methane	2.000	2.104	-5.2	0	0.00
5	Carbon dioxide	2.500	2.827	-13.1	0	-0.03

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\122011\12201116.D Vial: 1
Acq On : 20 Dec 2011 8:01 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Dec 22 14:07:28 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122011\12201116.D Vial: 1
Acq On : 20 Dec 2011 8:01 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 22 11:28 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	387919	2.705 %
2)	Nitrogen	2.33	477010	2.769 %
3)	Carbon Monoxide	3.02	434952	2.762 %
4)	Methane	6.24	272309	2.104 %
5)	Carbon dioxide	11.15	514478	2.827 %

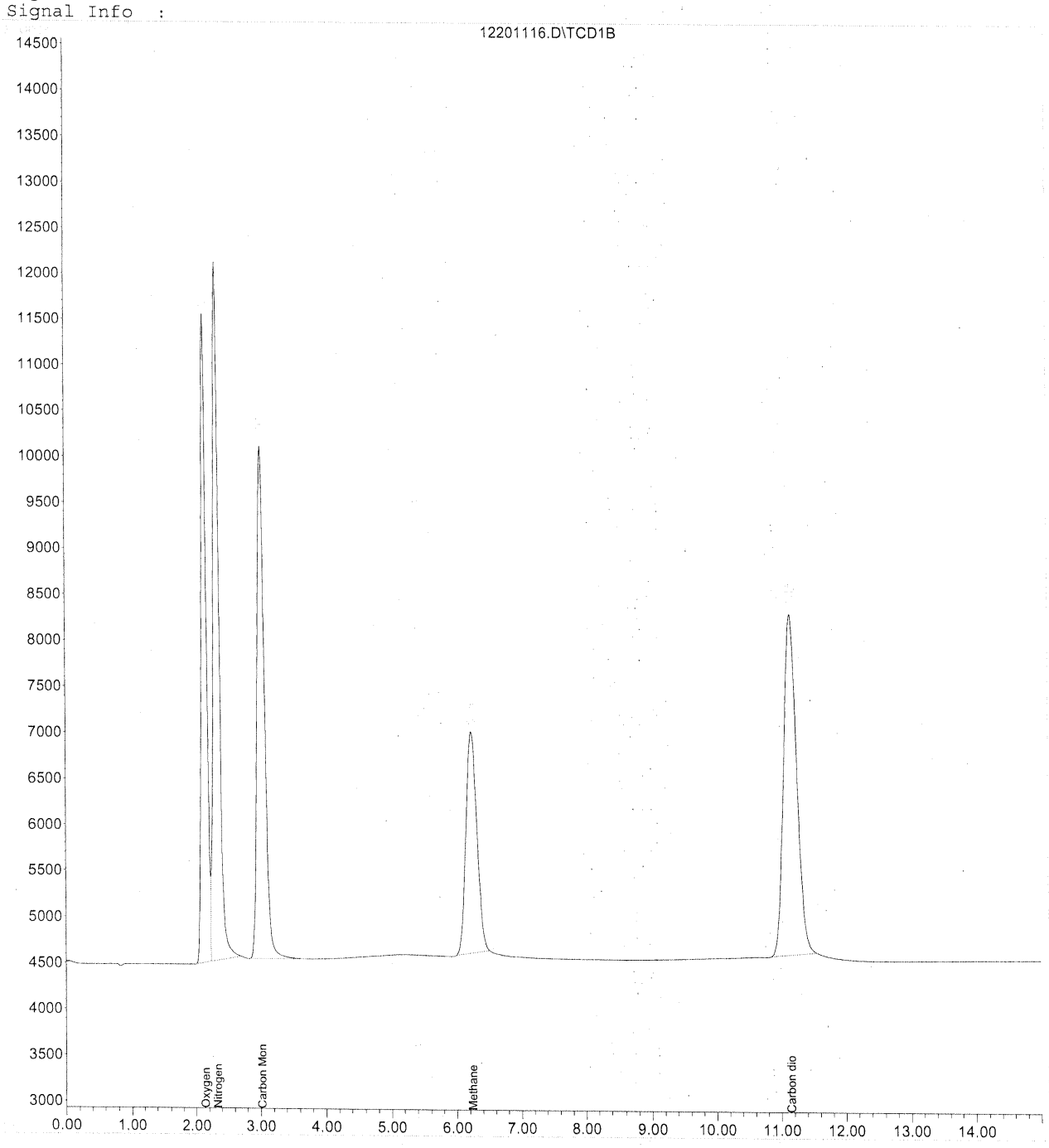
(f)=RT Delta > 1/2 Window (m)=manual int.
12201116.D 030511.M Thu Dec 22 14:05:49 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122011\12201116.D Vial: 1
Acq On : 20 Dec 2011 8:01 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Dec 22 11:28 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122011\12201123.D Vial: 1
Acq On : 20 Dec 2011 10:40 pm Operator:
Sample : ccv std 1-2 c Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.663	-6.5	0	0.04
2	Nitrogen	2.500	2.752	-10.1	0	0.03
3	Carbon Monoxide	2.500	2.723	-8.9	0	0.00
4	Methane	2.000	2.081	-4.0	0	-0.01
5	Carbon dioxide	2.500	2.785	-11.4	0	-0.03

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\122011\12201123.D Vial: 1
Acq On : 20 Dec 2011 10:40 pm Operator:
Sample : ccv std 1-2 c Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Dec 22 14:07:42 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122011\12201123.D Vial: 1
Acq On : 20 Dec 2011 10:40 pm Operator:
Sample : ccv std 1-2 c Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 22 11:28 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Oxygen	2.14	381920	2.663	%
2)	Nitrogen	2.33	474022	2.752	%
3)	Carbon Monoxide	3.02	428878	2.723	%
4)	Methane	6.23	268971	2.081	%
5)	Carbon dioxide	11.14	506426	2.785	%

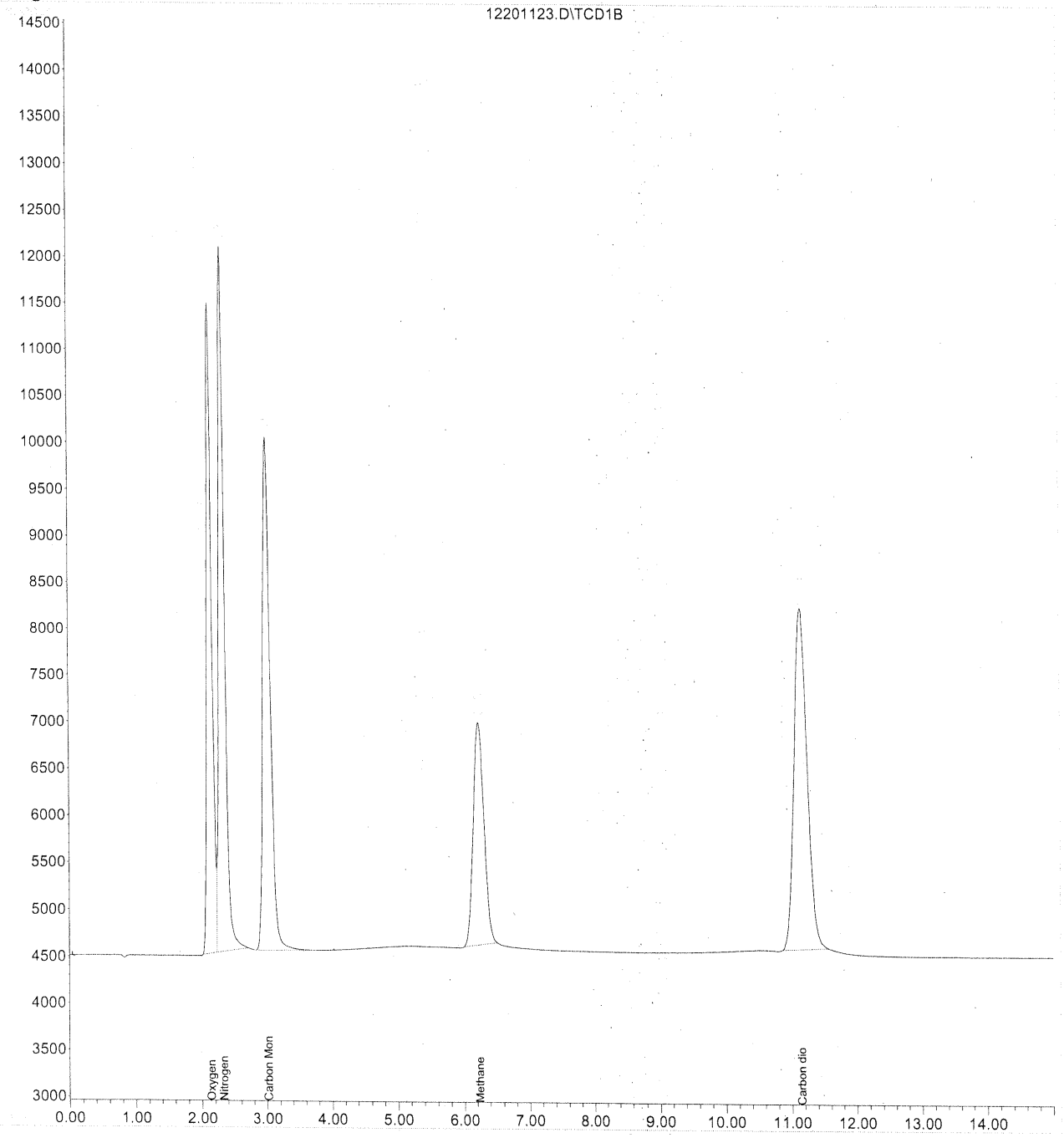
(f)=RT Delta > 1/2 Window (m)=manual int.
12201123.D 030511.M Thu Dec 22 14:05:54 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122011\12201123.D Vial: 1
Acq On : 20 Dec 2011 10:40 pm Operator:
Sample : ccv std 1-2 c Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Dec 22 11:28 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-TCD 1_111221A **Run No.:** 45080

Analytical Run Date: 12/21/2011 **InstrumentID:** GC-TCD 1

Analyst: Mike Budziak **Column:** GC-TCD 1

Calibration ID: **Column ID:** 100/120mesh x 1mm ID

Column Length: 2m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
mblk	ASTM-D2504	MBLK	R45080	12/21/2011 10:58:00 AM	Charles O`Bryan		
ccv std 1-2 a	ASTM-D2504	CCV	R45080	12/21/2011 11:31:00 AM	Robert Lynch		
lcs	ASTM-D2504	LCS	R45080	12/21/2011 11:49:00 AM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R45080	12/21/2011 12:19:00 PM	Robert Lynch		
1112148-023b	ASTM-D2504	SAMP	R45080	12/21/2011 1:09:00 PM	Robert Lynch		
1112148-024b	ASTM-D2504	SAMP	R45080	12/21/2011 1:30:00 PM	Robert Lynch		
1112148-025b	ASTM-D2504	SAMP	R45080	12/21/2011 1:53:00 PM	Robert Lynch		
1112148-026b	ASTM-D2504	SAMP	R45080	12/21/2011 2:29:00 PM	Robert Lynch		
1112148-027b	ASTM-D2504	SAMP	R45080	12/21/2011 2:49:00 PM	Robert Lynch		
1112148-028b	ASTM-D2504	SAMP	R45080	12/21/2011 3:57:00 PM	Robert Lynch		
1112148-029b	ASTM-D2504	SAMP	R45080	12/21/2011 4:17:00 PM	Robert Lynch		
1112148-030b	ASTM-D2504	SAMP	R45080	12/21/2011 4:37:00 PM	Robert Lynch		
1112148-031b	ASTM-D2504	SAMP	R45080	12/21/2011 4:56:00 PM	Robert Lynch		
1112148-032b	ASTM-D2504	SAMP	R45080	12/21/2011 5:16:00 PM	Robert Lynch		
1112148-032bdup	ASTM-D2504	DUP	R45080	12/21/2011 5:37:00 PM	Charles O`Bryan		
ccv std 1-2 b	ASTM-D2504	CCV	R45080	12/21/2011 5:57:00 PM	Robert Lynch		
1112148-033b	ASTM-D2504	SAMP	R45080	12/21/2011 6:17:00 PM	Robert Lynch		
1112148-034b	ASTM-D2504	SAMP	R45080	12/21/2011 6:36:00 PM	Robert Lynch		
1112148-035b	ASTM-D2504	SAMP	R45080	12/21/2011 6:54:00 PM	Robert Lynch		
ccv std 1-2 c	ASTM-D2504	CCV	R45080	12/21/2011 7:16:00 PM	Robert Lynch		
crql std 2% c	ASTM-D2504	CRQL	R45080	12/21/2011 7:32:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-12

RunNo 45080

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
886928	mblk	ASTM-D2504	MBLK	.TA\122111\1221	12/21/2011 10:5	1	R45080		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
886929	ccv std 1-2 a	ASTM-D2504	CCV	.TA\122111\1221	12/21/2011 11:3	1	R45080		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.82	2.82		2.5	0	0	0.025	0.1	0	113%	85	115	0%	
Carbon Monoxide	A	%	2.8	2.8		2.5	0	0	0.025	0.1	0	112%	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	%	2.056	2.056		2	0	0	0.025	0.5	0	103%	85	115	0%	
Nitrogen	A	%	2.842	2.842		2.5	0	0	0.025	0.1	0	114%	85	115	0%	
Oxygen	A	%	2.705	2.705		2.5	0	0	0.025	0.1	0	108%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
886930	lcs	ASTM-D2504	LCS	.TA\122111\1221	12/21/2011 11:4	1	R45080		0	886929	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.784	2.784		2.5	0	2.82	0.025	0.1	0	111%	70	130	1%	
Carbon Monoxide	A	%	2.71	2.71		2.5	0	2.8	0.025	0.1	0	108%	70	130	3%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Methane	A	%	2.068	2.068		2	0	2.056	0.025	0.5	0	103%	70	130	1%	
Nitrogen	A	%	2.634	2.634		2.5	0	2.842	0.025	0.1	0	105%	70	130	8%	
Oxygen	A	%	2.616	2.616		2.5	0	2.705	0.025	0.1	0	105%	70	130	3%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
886941	1112148-032b (Container-01 of 01)	ASTM-D2504	SAMP	.TA\122111\1221	12/21/2011 5:16:	1	R45080		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Nitrogen	A	%	77.106	77.106		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	20.715	20.715		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
886942	1112148-032bdup	ASTM-D2504	DUP	.TA\122111\1221	12/21/2011 5:37:	1	R45080		0	886941	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.122	0.122		0	0	0.122	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	%	77.362	77.362		0	0	77.106	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	20.809	20.809		0	0	20.715	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
886943	ccv std 1-2 b	ASTM-D2504	CCV	.TA\122111\1221	12/21/2011 5:57:	1	R45080		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.795	2.795		2.5	0	0	0.025	0.1	0	112%	85	115	0%	
Carbon Monoxide	A	%	2.73	2.73		2.5	0	0	0.025	0.1	0	109%	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	%	2.084	2.084		2	0	0	0.025	0.5	0	104%	85	115	0%	
Nitrogen	A	%	2.656	2.656		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Oxygen	A	%	2.647	2.647		2.5	0	0	0.025	0.1	0	106%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
886946	1112148-035b (Container-01 of 01)	ASTM-D2504	SAMP	.TA\122111\1221	12/21/2011 6:54:	1	R45080		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Nitrogen	A	%	77.538	77.538		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	19.807	19.807		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
886947	ccv std 1-2 c	ASTM-D2504	CCV	.TA\122111\1221	12/21/2011 7:16:	1	R45080		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.817	2.817		2.5	0	0	0.025	0.1	0	113%	85	115	0%	
Carbon Monoxide	A	%	2.746	2.746		2.5	0	0	0.025	0.1	0	110%	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	%	2.088	2.088		2	0	0	0.025	0.5	0	104%	85	115	0%	
Nitrogen	A	%	2.638	2.638		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Oxygen	A	%	2.651	2.651		2.5	0	0	0.025	0.1	0	106%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
886948	crql std 2% c	ASTM-D2504	CRQL	.TA\122111\1221	12/21/2011 7:32:	1	R45080		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.343	0.343		0.3	0	0	0.025	0.1	0	114%	80	120	0%	
Carbon Monoxide	A	%	0.147	0.147		0.14	0	0	0.025	0.1	0	105%	80	120	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	80	120	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	80	120	0%	
Methane	A	%	0.106	0.106		0.09	0	0	0.025	0.5	0	118%	80	120	0%	
Nitrogen	A	%	1.377	1.377		1.39	0	0	0.025	0.1	0	99%	80	120	0%	
Oxygen	A	%	0.077	0.077		0.08	0	0	0.025	0.1	0	96%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122111\12211102.D Vial: 1
Acq On : 21 Dec 2011 11:31 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.705	-8.2	0	0.04
2	Nitrogen	2.500	2.842	-13.7	0	0.02
3	Carbon Monoxide	2.500	2.800	-12.0	0	-0.01
4	Methane	2.000	2.056	-2.8	0	-0.02
5	Carbon dioxide	2.500	2.820	-12.8	0	-0.04

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\122111\12211102.D Vial: 1
Acq On : 21 Dec 2011 11:31 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Dec 22 14:13:49 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122111\12211102.D
Acq On : 21 Dec 2011 11:31 am
Sample : ccv std 1-2 a
Misc : CCV ASTM-D2504
IntFile : events.e
Quant Time: Dec 21 18:05 2011 Quant Results File: 030511.RES

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	387911	2.705 %
2)	Nitrogen	2.32	489539	2.842 %
3)	Carbon Monoxide	3.01	440964	2.800 %
4)	Methane	6.23	265453	2.056 %
5)	Carbon dioxide	11.14	513027	2.820 %

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

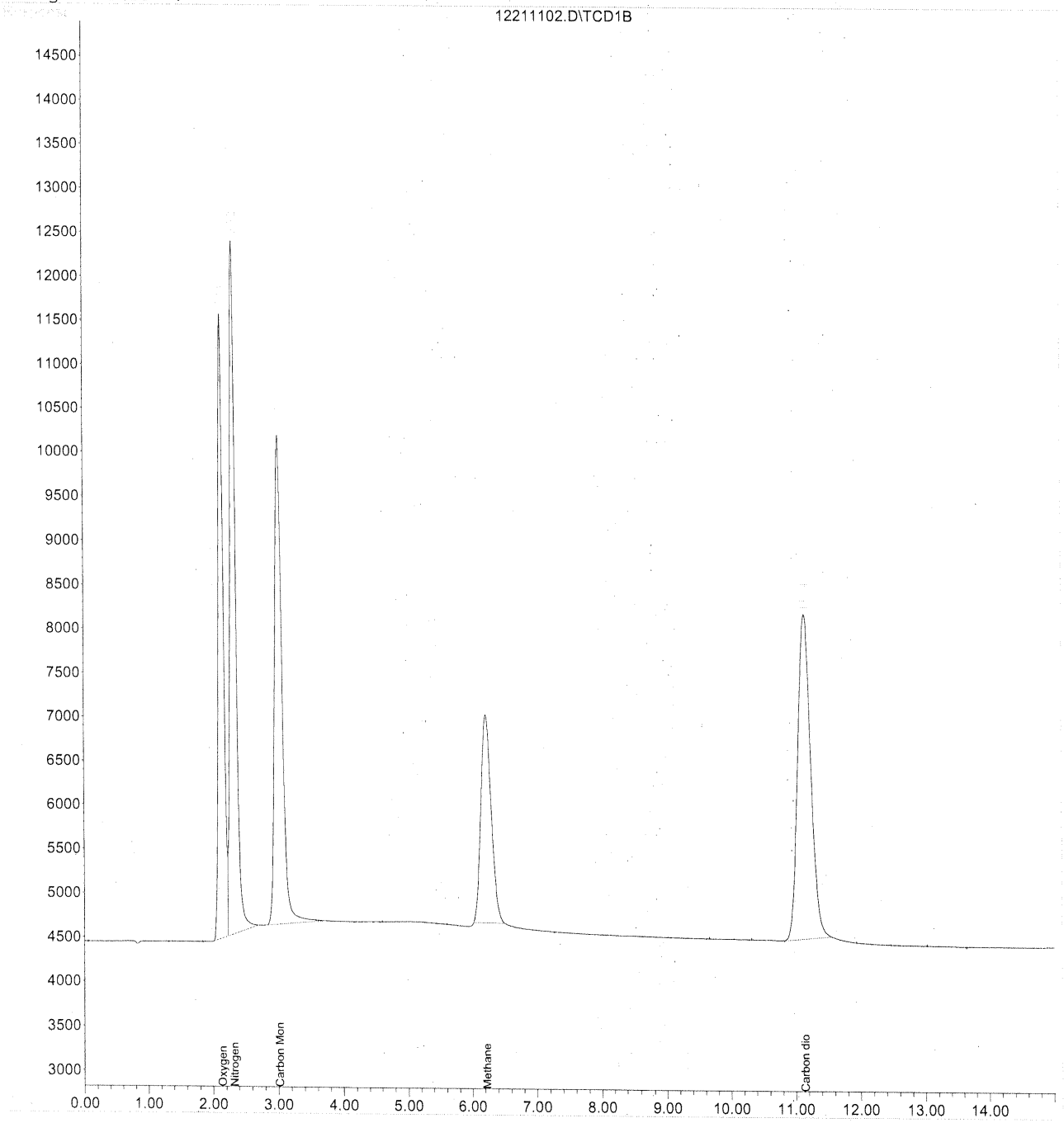
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122111\12211102.D
Acq On : 21 Dec 2011 11:31 am
Sample : ccv std 1-2 a
Misc : CCV ASTM-D2504
IntFile : EVENTS.E
Quant Time: Dec 21 18:05 2011 Quant Results File: 030511.RES

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122111\12211116.D Vial: 1
Acq On : 21 Dec 2011 5:57 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.647	-5.9	0	0.04
2	Nitrogen	2.500	2.656	-6.2	0	0.02
3	Carbon Monoxide	2.500	2.730	-9.2	0	-0.01
4	Methane	2.000	2.084	-4.2	0	-0.02
5	Carbon dioxide	2.500	2.795	-11.8	0	-0.04

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\122111\12211116.D Vial: 1
Acq On : 21 Dec 2011 5:57 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Dec 22 14:14:21 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122111\12211116.D Vial: 1
Acq On : 21 Dec 2011 5:57 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 22 11:56 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	379634	2.647 %
2)	Nitrogen	2.32	457546	2.656 %
3)	Carbon Monoxide	3.01	429973	2.730 %
4)	Methane	6.23	269461	2.084 %
5)	Carbon dioxide	11.14	508319	2.795 %

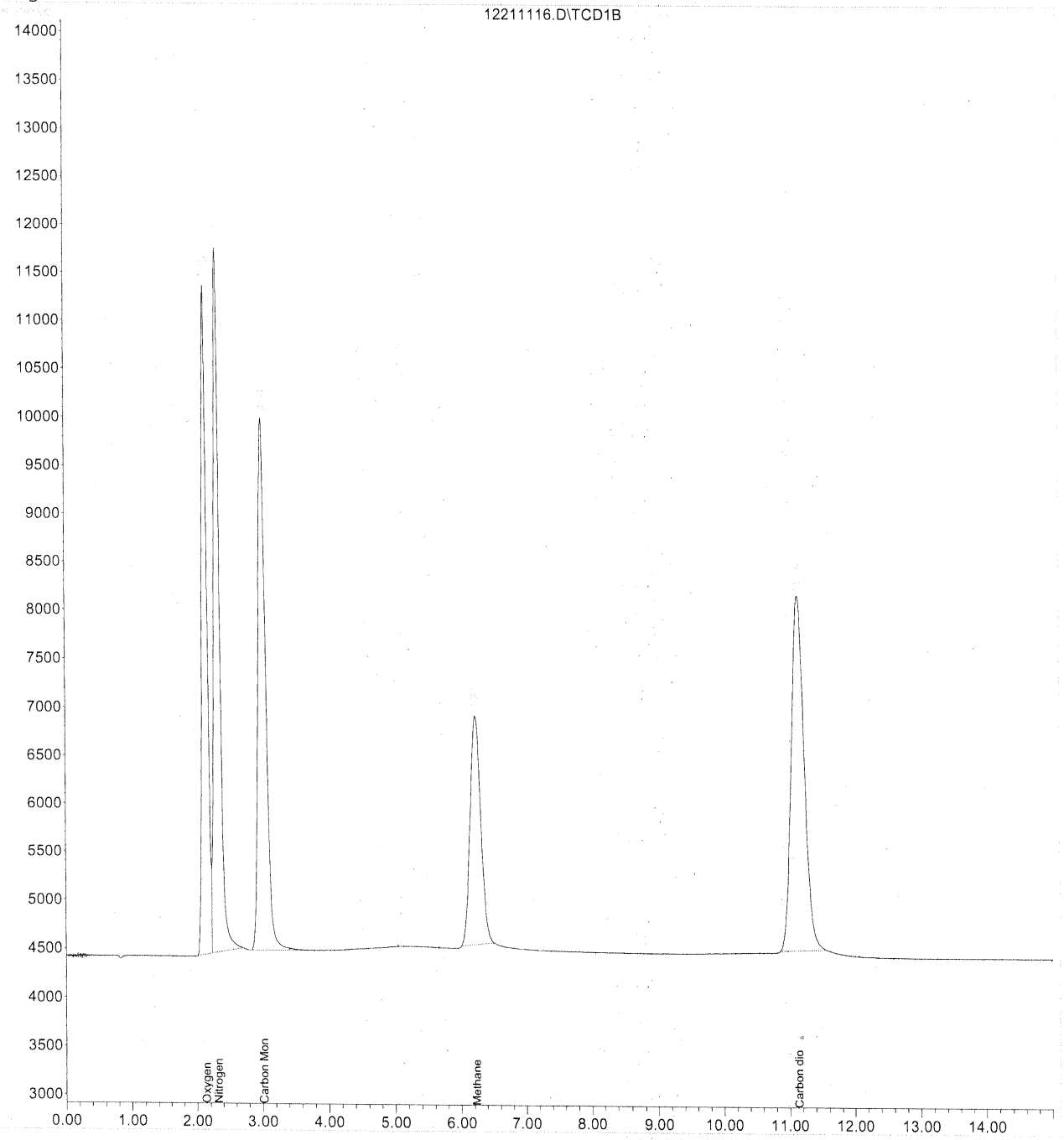
(f)=RT Delta > 1/2 Window (m)=manual int.
12211116.D 030511.M Thu Dec 22 14:13:04 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122111\12211116.D Vial: 1
Acq On : 21 Dec 2011 5:57 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Dec 22 11:56 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122111\12211120.D Vial: 1
Acq On : 21 Dec 2011 7:16 pm Operator:
Sample : ccv std 1-2 c Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.651	-6.0	0	0.04
2	Nitrogen	2.500	2.638	-5.5	0	0.02
3	Carbon Monoxide	2.500	2.746	-9.8	0	-0.01
4	Methane	2.000	2.088	-4.4	0	-0.02
5	Carbon dioxide	2.500	2.817	-12.7	0	-0.04

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\122111\12211120.D Vial: 1
Acq On : 21 Dec 2011 7:16 pm Operator:
Sample : ccv std 1-2 c Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Dec 22 14:14:38 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122111\12211120.D
Acq On : 21 Dec 2011 7:16 pm
Sample : ccv std 1-2 c
Misc : CCV ASTM-D2504
IntFile : events.e
Quant Time: Dec 21 19:31 2011 Quant Results File: 030511.RES

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	380165	2.651 %
2)	Nitrogen	2.32	454489	2.638 %
3)	Carbon Monoxide	3.02	432428	2.746 %
4)	Methane	6.23	270071	2.088 %
5)	Carbon dioxide	11.14	512470	2.817 %

(f)=RT Delta > 1/2 Window (m)=manual int.
12211120.D 030511.M Thu Dec 22 14:13:07 2011 TESTCAL

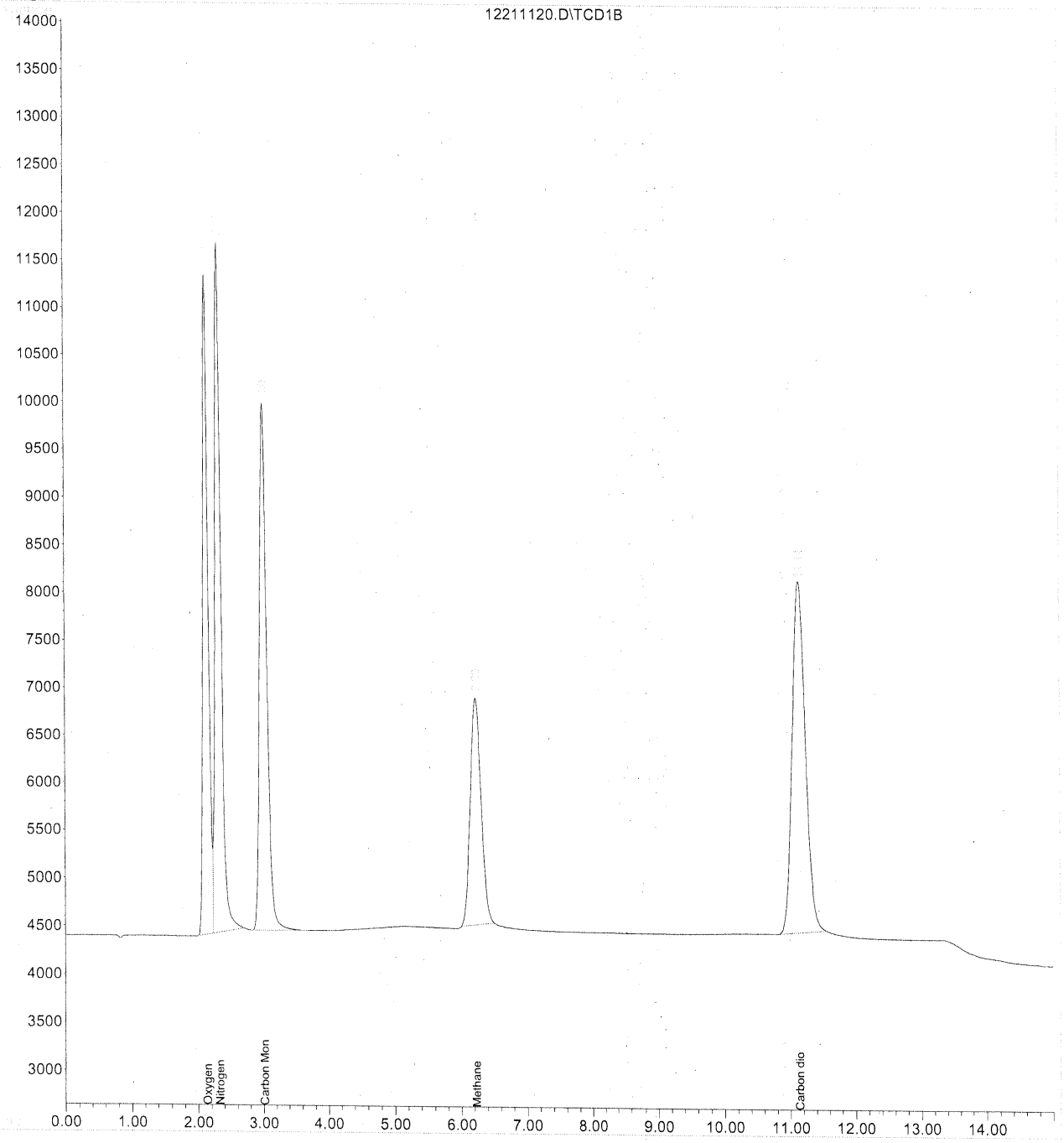
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122111\12211120.D
Acq On : 21 Dec 2011 7:16 pm
Sample : ccv std 1-2 c
Misc : CCV ASTM-D2504
IntFile : EVENTS.E
Quant Time: Dec 21 19:31 2011 Quant Results File: 030511.RES

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Response Factor Report GC/TCD

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011

Calibration Files
1 =03051102.D 2 =03051103.D 3 =03051104.D
4 =03051105.D 5 =03051106.D 6 =03051107.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1)	Oxygen	1.450	1.444	1.427	1.365	1.324	2.791	1.624 E5	32.03
2)	Nitrogen	1.748	1.695	1.678	1.586	1.522	2.053	1.723 E5	9.90
3)	Carbon Monoxide	1.690	1.628	1.621	1.517	1.472	1.522	1.575 E5	5.32
4)	Methane	1.422	1.364	1.344	1.267	1.212	1.210	1.303 E5	6.66
5)	Carbon dioxide	2.121	2.009	2.012	1.874	1.813	1.842	1.945 E5	6.21

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

030511.M Thu Oct 20 10:42:38 2011 TESTCAL

Compound List Report GC/TCD

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Initial Calibration
Total Cpnds : 5

PK#	Type	Compound Name	Exp RT	Rel RT	Cal	A/H	ID
1		Oxygen	2.10	1.000	Q	A	R
2		Nitrogen	2.30	1.000	A	A	R
3		Carbon Monoxide	3.03	1.000	A	A	R
4		Methane	6.25	1.000	Q	A	R
5		Carbon dioxide	11.18	1.000	Q	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

030511.M Thu Oct 20 10:42:24 2011 TESTCAL

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\030511\03051110.D Vial: 1
Acq On : 5 Mar 2011 8:05 am Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICAL ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.652	-6.1	0	0.04
2	Nitrogen	2.500	2.834	-13.4	0	0.03
3	Carbon Monoxide	2.500	2.540	-1.6	0	0.00
4	Methane	2.000	1.986	0.7	0	0.00
5	Carbon dioxide	2.500	2.596	-3.8	0	0.00

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\030511\03051110.D Vial: 1
Acq On : 5 Mar 2011 8:05 am Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICAL ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Oct 20 10:35:49 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\030511\03051110.D Vial: 1
Acq On : 5 Mar 2011 8:05 am Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICAL ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jun 16 9:53 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Thu May 12 16:13:25 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

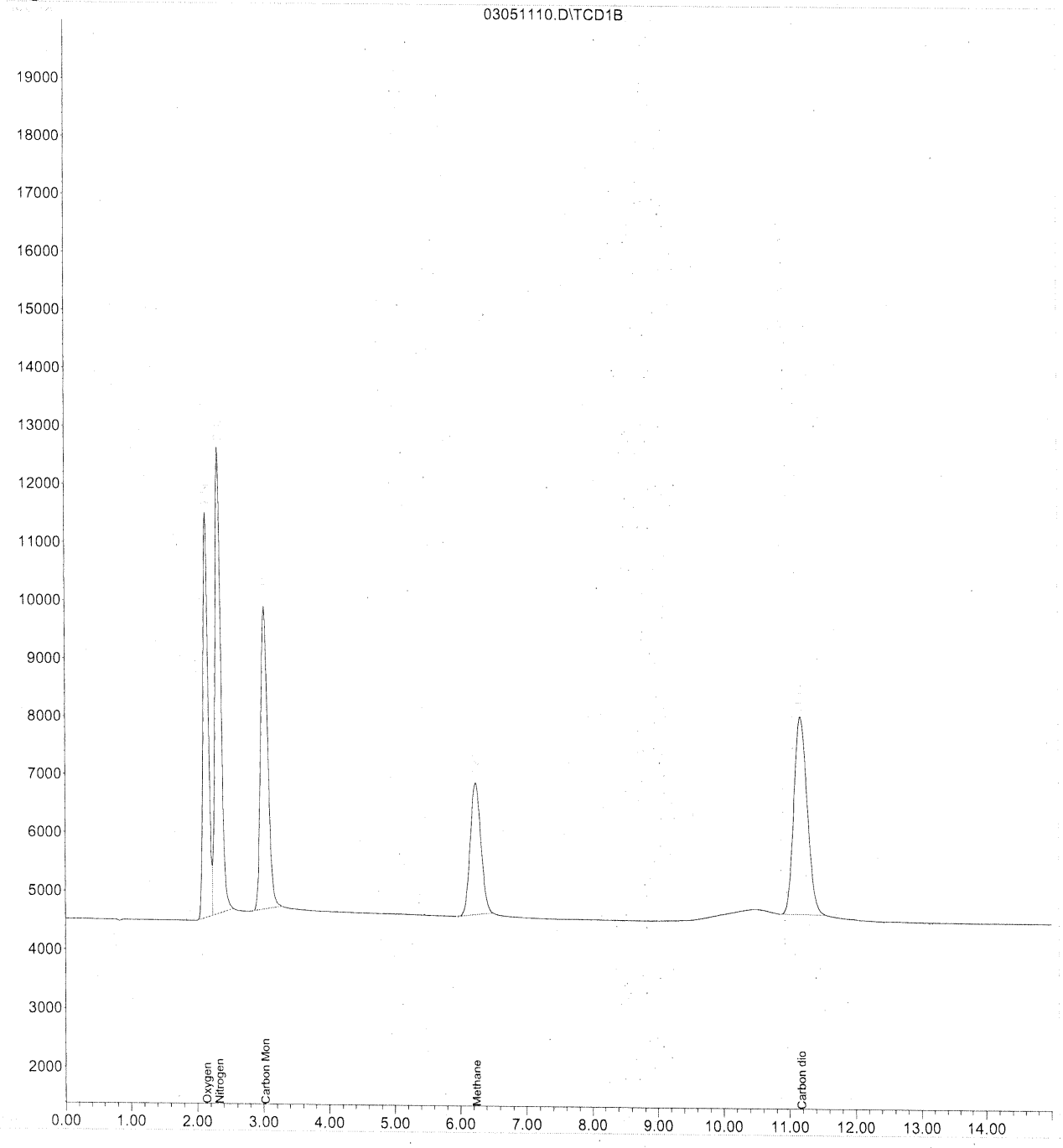
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	380291	2.652 %
2)	Nitrogen	2.33	488166	2.834 %
3)	Carbon Monoxide	3.02	400088	2.540 %
4)	Methane	6.25	255799	1.986 %
5)	Carbon dioxide	11.18	470903	2.596 %

(f)=RT Delta > 1/2 Window (m)=manual int.
03051110.D 030511.M Thu Oct 20 10:28:42 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\030511\03051110.D
Acq On : 5 Mar 2011 8:05 am
Sample : ICV STD 1-2
Misc : ICAL ASTM-D2504
IntFile : EVENTS.E
Quant Time: Jun 16 9:53 2011 Quant Results File: 030511.RES

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :