RTI Laboratories, Inc.

Date: *23-Apr.-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: 1203903 revised

CASE NARRATIVE

Revision 04/23/2012: Revised to report LOQs in place of MDLs.

SAMPLE RECEIPT:
Samples were received at the RTI Laboratory, Livonia, MI via commercial delivery on 3/26/2012 in good condition. The sample set consisted of 27 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.

Analytical Sequence ID 47626:

- Sample ID 1203984-030Adup exhibited results outside acceptance limits for Acetone (200%) due to low sample concentration.

Air-Phase Petroleum Hydrocarbons Analyses:

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

Surrogate recoveries were within established control limits.

Analytical Sequence ID 47531:

- Sample ID 1203732-027Adup elevated RPD result for C9-C12 Aliphatic Hydrocarbons (200%) due to low sample concentration.

RTI Laboratories, Inc.

Date: *23-Apr.-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: 1203903 revised

CASE NARRATIVE

Sample ID 1203903-014 was initially analyzed at an 8000 times dilution. The analytical batch duplicate was analyzed on this sample at the same dilution. Review of sample data indicated that this dilution was not appropriate for the analyte concentrations – over dilution of the sample – and all compounds were designated to not report. Analytical batch duplicate QC was reported for the associated DUP without concomitant parent sample data reported on the analytical report (RPD reference values for the parent sample are included in the QC Summary report). This sample was re-analyzed at a lower dilution in a separate analytical batch with a different sample/sample duplicate combination. Sample data at this dilution appears on the analytical report.

Fixed Gases (Noncondensable Gases/Light Hydrocarbons) Analyses:

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

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

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

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

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

Date: 4/23/2012

RTI Laboratories - Definitions and Acronyms

WO#: 1203903

Date Reported: 4/17/2012
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
R	RPD outside accepted recovery limits
RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits

Shaw™
Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV077

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

Samples Shipment Date: 20 MAR 2012
Lab Destination: RTI Laboratories
Lab Contact: Mike Truchan
Project Contact: Pamela Moss
Carrier/Waybill No.: UPS/2323121334

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

1203903

Special Instructions:

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

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

1. Relinquished By (Signature/Affiliation) Date: Time:
2. Relinquished By (Signature/Affiliation) Date: Time:
3. Relinquished By (Signature/Affiliation) Date: Time:

1. Received By (Signature/Affiliation) Date: Time:
2. Received By (Signature/Affiliation) Date: Time:
3. Received By (Signature/Affiliation) Date: Time:

Comments:

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA1027	SVMW-07-050-GS-VA1027-REG	19 MAR 2012	13:30	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1157
VA1027	SVMW-07-050-GS-VA1027-REG	19 MAR 2012	13:30	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1028	SVMW-07-100-GS-VA1028-REG	19 MAR 2012	13:52	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1160
VA1028	SVMW-07-100-GS-VA1028-REG	19 MAR 2012	13:52	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1029	SVMW-07-100-GS-VA1029-FD	19 MAR 2012	13:52	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1159
VA1029	SVMW-07-100-GS-VA1029-FD	19 MAR 2012	13:52	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1030	SVMW-07-150-GS-VA1030-REG	19 MAR 2012	14:29	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by			N		1156

Shaw™
Shaw E & I, Inc. 1203903

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV077

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA1030	SVMW-07-150-GS-VA1030-REG	19 MAR 2012	14:29	1 L Tedlar Bag	1	None Required	MA DEP, VOCs / TPH by TO-15 Fixed Gases by ASTM D2504			N N		1199
VA1098	KAFB-106110-025-GS-VA1098-REG	19 MAR 2012	8:53	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1098	KAFB-106110-025-GS-VA1098-REG	19 MAR 2012	8:53	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		1196
VA1099	KAFB-106110-050-GS-VA1099-REG	19 MAR 2012	9:30	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1099	KAFB-106110-050-GS-VA1099-REG	19 MAR 2012	9:30	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		1193
VA1100	KAFB-106110-150-GS-VA1100-REG	19 MAR 2012	10:04	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1100	KAFB-106110-150-GS-VA1100-REG	19 MAR 2012	10:04	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		1202
VA1101	KAFB-106110-250-GS-VA1101-REG	19 MAR 2012	10:42	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1101	KAFB-106110-250-GS-VA1101-REG	19 MAR 2012	10:42	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		1203
VA1102	KAFB-106110-350-GS-VA1102-REG	19 MAR 2012	11:29	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1102	KAFB-106110-350-GS-VA1102-REG	19 MAR 2012	11:29	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		1200
VA1103	KAFB-106110-450-GS-VA1103-REG	19 MAR 2012	12:32	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1103	KAFB-106110-450-GS-VA1103-REG	19 MAR 2012	12:32	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1109	KAFB-106111-350-GS-VA1109-REG	19 MAR 2012	9:58	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		0763
VA1109	KAFB-106111-350-GS-VA1109-REG	19 MAR 2012	9:58	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1110	KAFB-106111-450-GS-VA1110-REG	19 MAR 2012	10:36	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0839
VA1110	KAFB-106111-450-GS-VA1110-REG	19 MAR 2012	10:36	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		1194
VA1124	KAFB-106114-025-GS-VA1124-REG	19 MAR 2012	14:06	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1124	KAFB-106114-025-GS-VA1124-REG	19 MAR 2012	14:06	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		1201
VA1125	KAFB-106114-050-GS-VA1125-REG	19 MAR 2012	14:50	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1125	KAFB-106114-050-GS-VA1125-REG	19 MAR 2012	14:50	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		1197
VA1126	KAFB-106114-150-GS-VA1126-REG	19 MAR 2012	15:26	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1126	KAFB-106114-150-GS-VA1126-REG	19 MAR 2012	15:26	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		1170
VA1127	KAFB-106114-250-GS-VA1127-REG	20 MAR 2012	9:14	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1127	KAFB-106114-250-GS-VA1127-REG	20 MAR 2012	9:14	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		0722
VA1128	KAFB-106114-350-GS-VA1128-REG	20 MAR 2012	9:52	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1128	KAFB-106114-350-GS-VA1128-REG	20 MAR 2012	9:52	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		

Shaw™
Shaw E & I, Inc. 1203903

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV077

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA1129	KAFB-106114-350-GS-VA1129-FD	20 MAR 2012	9:52	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1169
VA1129	KAFB-106114-350-GS-VA1129-FD	20 MAR 2012	9:52	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1130	KAFB-106114-450-GS-VA1130-REG	20 MAR 2012	10:39	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1171
VA1130	KAFB-106114-450-GS-VA1130-REG	20 MAR 2012	10:39	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1137	KAFB-106116-025-GS-VA1137-REG	19 MAR 2012	11:42	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0818
VA1137	KAFB-106116-025-GS-VA1137-REG	19 MAR 2012	11:42	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1138	KAFB-106116-050-GS-VA1138-REG	19 MAR 2012	12:22	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1138	KAFB-106116-050-GS-VA1138-REG	19 MAR 2012	12:22	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0805
VA1139	KAFB-106116-050-GS-VA1139-FD	19 MAR 2012	12:22	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0588
VA1139	KAFB-106116-050-GS-VA1139-FD	19 MAR 2012	12:22	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1140	KAFB-106116-150-GS-VA1140-REG	20 MAR 2012	9:30	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1195
VA1140	KAFB-106116-150-GS-VA1140-REG	20 MAR 2012	9:30	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1141	KAFB-106116-250-GS-VA1141-REG	20 MAR 2012	10:15	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1158
VA1141	KAFB-106116-250-GS-VA1141-REG	20 MAR 2012	10:15	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1142	KAFB-106116-350-GS-VA1142-REG	20 MAR 2012	10:54	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1198
VA1142	KAFB-106116-350-GS-VA1142-REG	20 MAR 2012	10:54	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1143	KAFB-106116-450-GS-VA1143-REG	20 MAR 2012	11:33	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1204
VA1143	KAFB-106116-450-GS-VA1143-REG	20 MAR 2012	11:33	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA8077-TB	FIELDQC-AQ-VA8077-TB-TB	19 MAR 2012	7:40	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15			N		0819

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

20 LBS **1 OF 5**
DWT: 20,14,13

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4113 2815

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

REF 1:140705
REF 2:BB010030

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

CUSTODY SEAL
DATE 3/20/12
SIGNATURE [illegible]

T - 10 Door: 1249
MI 48150
UPST 397589 MI 482 9-02

UPS GROUND

1Z10335E0341132815

P13D154 3225217 Mar 22 23:48:32 2012 US

SS2014 HIP 11.1.3 BTLP2844L 6059 N

in label pouch

Sample ID	Bottle
VA 1126	1197
VA 1125	1201
VA 1124	1194
VA 1127	1170
VA 1128	0722
VA 1130	1171
VA 8077-TB	0819
VA 1142	1198
VA 1143	1204
VA 1110	0839
VA 1141	1158
VA 1140	1195

1-800-554-9964

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

20 LBS 2 OF 5
DWT: 20,14,13

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4033 9023

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

REF 1:140705
REF 2:BB010030

RTI LABORATORIES
31628 GLENDALE ST

LIVONIA MI 48150

P: RED2 S: MPUR

DAG-4038
1Z10335E034033 9023
DET2DXH MILIV211 MAR 26 05:58:29 20
US 4821 HIP 11.1.3 OKILE810

BILLING: P/P

CUSTODY SEAL
DATE 3/20/12
SIGNATURE

Fold here and place in label pouch

Sample ID	Bottle #
VA1027	1157
VA1028	1160
VA1029	1159
VA1030	1156
VA1098	1199
VA1099	1196
VA1100	1193
VA1101	1202
VA1102	1203
VA1103	1200

Sample ID	Bottle #
VA1109	0763
VA1129	1169

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

12 LBS **3 OF 5**
DWT: 20,14,13

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4045 1839

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

REF 1:140705
REF 2:BB010030

BILLING: P/P

CUSTODY SEAL
DATE 3/20/12
SIGNATURE

WS 15.0.15 HP LaserJet 4 24.0

Fold here and place in label pouch

Sample ID	Bottle #
VA 1137	0818
VA 1138	0805
VA 1139	0588

6 Ted lar bags

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

8 LBS 4 OF 5
DWT: 24,13,15

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4150 7241

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

REF 1:140705
REF 2:BB010030

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

WS 15.0.15 HP LaserJet 4 24.0A 01/2012

Fold here and st

CUSTODY SEAL
DATE 3/20/12
SIGNATURE

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

RTI LABORATORIES
31628 GLENDALE ST
LIVONIA MI 48150

P: RED2 S: MPUR I: 3
DAG – 4038
1Z10335E034150 7241

T - 10 Door : 1249
MI 48150
UPST 397589 MI 482 9-02

UPS GROUND

1Z10335E0341507241

P13D154 3225217 Mar 22 23:48:28 2012 US
6059 N
SS2014 HIP 11.1.3 BTLP2844L

Tedlar Bags
(less 6)

3/26/12

"HM10 PRG"

Holding For Consignee p/u

ICN - Discovery: 27/MAR/2012

4821-H090-9607

RTI LABORATORIES

4823 HOLD

1Z10335E0341507241

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

6 LBS **5 OF 5**
DWT: 11,5,5

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4210 1258

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

REF 1:140705
REF 2:BB010030

BILLING: P/P

WS 15.0.15 HP LaserJet 4 24.0A 01/2012

Fold here and place in label pouch

Regulators

RTI LABORATORIES, INC.

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

Sample Receipt Checklist

Client Name **SHA04** Date and Time Receive **3/26/2012 12:00:00 PM**

Work Order Numbe **1203903** RcptNo: **1** Received by: **Armando Flores**

Completed by Reviewed by:

Completed Date: 3/28/2012 10:38:56 AM Reviewed Date: 3/29/2012 4:50:41 PM

Carrier name: UPS

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

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1203903-001A	Container-01 of 01	Bottle				
1203903-001B	Container-01 of 01	Bottle				
1203903-002A	Container-01 of 01	Bottle				
1203903-002B	Container-01 of 01	Bottle				
1203903-003A	Container-01 of 01	Bottle				
1203903-003B	Container-01 of 01	Bottle				
1203903-004A	Container-01 of 01	Bottle				
1203903-004B	Container-01 of 01	Bottle				
1203903-005A	Container-01 of 01	Bottle				
1203903-005B	Container-01 of 01	Bottle				
1203903-006A	Container-01 of 01	Bottle				
1203903-006B	Container-01 of 01	Bottle				
1203903-007A	Container-01 of 01	Bottle				
1203903-007B	Container-01 of 01	Bottle				
1203903-008A	Container-01 of 01	Bottle				
1203903-008B	Container-01 of 01	Bottle				
1203903-009A	Container-01 of 01	Bottle				
1203903-009B	Container-01 of 01	Bottle				
1203903-010A	Container-01 of 01	Bottle				
1203903-010B	Container-01 of 01	Bottle				
1203903-011A	Container-01 of 01	Bottle				
1203903-011B	Container-01 of 01	Bottle				
1203903-012A	Container-01 of 01	Bottle				
1203903-012B	Container-01 of 01	Bottle				
1203903-013A	Container-01 of 01	Bottle				
1203903-013B	Container-01 of 01	Bottle				
1203903-014A	Container-01 of 01	Bottle				
1203903-014B	Container-01 of 01	Bottle				
1203903-015A	Container-01 of 01	Bottle				
1203903-015B	Container-01 of 01	Bottle				
1203903-016A	Container-01 of 01	Bottle				
1203903-016B	Container-01 of 01	Bottle				
1203903-017A	Container-01 of 01	Bottle				
1203903-017B	Container-01 of 01	Bottle				

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1203903-018A	Container-01 of 01	Bottle				
1203903-018B	Container-01 of 01	Bottle				
1203903-019A	Container-01 of 01	Bottle				
1203903-019B	Container-01 of 01	Bottle				
1203903-020A	Container-01 of 01	Bottle				
1203903-020B	Container-01 of 01	Bottle				
1203903-021A	Container-01 of 01	Bottle				
1203903-021B	Container-01 of 01	Bottle				
1203903-022A	Container-01 of 01	Bottle				
1203903-022B	Container-01 of 01	Bottle				
1203903-023A	Container-01 of 01	Bottle				
1203903-023B	Container-01 of 01	Bottle				
1203903-024A	Container-01 of 01	Bottle				
1203903-024B	Container-01 of 01	Bottle				
1203903-025A	Container-01 of 01	Bottle				
1203903-025B	Container-01 of 01	Bottle				
1203903-026A	Container-01 of 01	Bottle				
1203903-026B	Container-01 of 01	Bottle				
1203903-027A	Container-01 of 01	Bottle				

Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
Cardboard b	n/a	Good	Yes		3/20/2012	See COC

Adjusted? _____ Checked by _____

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

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

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

Client Instructions:

Date Contacted: Contacted By:

Regarding:

CorrectiveAction:

Comments:
UPS Nos.:
1Z10335E0341132815,
1Z10335E0340339023,
1Z10335E0340451839,
1Z10335E0341507241,
1Z10335E0342101258

RTI Laboratories - Workorder Sample Summary

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1203903-001A	VA1027		3/19/2012 1:30 PM	3/26/2012 12:00 PM	Air
1203903-001B	VA1027		3/19/2012 1:30 PM	3/26/2012 12:00 PM	Air
1203903-002A	VA1028		3/19/2012 1:52 PM	3/26/2012 12:00 PM	Air
1203903-002B	VA1028		3/19/2012 1:52 PM	3/26/2012 12:00 PM	Air
1203903-003A	VA1029		3/19/2012 1:52 PM	3/26/2012 12:00 PM	Air
1203903-003B	VA1029		3/19/2012 1:52 PM	3/26/2012 12:00 PM	Air
1203903-004A	VA1030		3/19/2012 2:29 PM	3/26/2012 12:00 PM	Air
1203903-004B	VA1030		3/19/2012 2:29 PM	3/26/2012 12:00 PM	Air
1203903-005A	VA1098		3/19/2012 8:53 AM	3/26/2012 12:00 PM	Air
1203903-005B	VA1098		3/19/2012 8:53 AM	3/26/2012 12:00 PM	Air
1203903-006A	VA1099		3/19/2012 9:30 AM	3/26/2012 12:00 PM	Air
1203903-006B	VA1099		3/19/2012 9:30 AM	3/26/2012 12:00 PM	Air
1203903-007A	VA1100		3/19/2012 10:04 AM	3/26/2012 12:00 PM	Air
1203903-007B	VA1100		3/19/2012 10:04 AM	3/26/2012 12:00 PM	Air
1203903-008A	VA1101		3/19/2012 10:42 AM	3/26/2012 12:00 PM	Air
1203903-008B	VA1101		3/19/2012 10:42 AM	3/26/2012 12:00 PM	Air
1203903-009A	VA1102		3/19/2012 11:29 AM	3/26/2012 12:00 PM	Air
1203903-009B	VA1102		3/19/2012 11:29 AM	3/26/2012 12:00 PM	Air
1203903-010A	VA1103		3/19/2012 12:32 PM	3/26/2012 12:00 PM	Air
1203903-010B	VA1103		3/19/2012 12:32 PM	3/26/2012 12:00 PM	Air
1203903-011A	VA1109		3/19/2012 9:58 AM	3/26/2012 12:00 PM	Air
1203903-011B	VA1109		3/19/2012 9:58 AM	3/26/2012 12:00 PM	Air
1203903-012A	VA1110		3/19/2012 10:36 AM	3/26/2012 12:00 PM	Air
1203903-012B	VA1110		3/19/2012 10:36 AM	3/26/2012 12:00 PM	Air
1203903-013A	VA1124		3/19/2012 2:06 PM	3/26/2012 12:00 PM	Air
1203903-013B	VA1124		3/19/2012 2:06 PM	3/26/2012 12:00 PM	Air
1203903-014A	VA1125		3/19/2012 2:50 PM	3/26/2012 12:00 PM	Air
1203903-014B	VA1125		3/19/2012 2:50 PM	3/26/2012 12:00 PM	Air
1203903-015A	VA1126		3/19/2012 3:26 PM	3/26/2012 12:00 PM	Air
1203903-015B	VA1126		3/19/2012 3:26 PM	3/26/2012 12:00 PM	Air
1203903-016A	VA1127		3/20/2012 9:14 AM	3/26/2012 12:00 PM	Air
1203903-016B	VA1127		3/20/2012 9:14 AM	3/26/2012 12:00 PM	Air
1203903-017A	VA1128		3/20/2012 9:52 AM	3/26/2012 12:00 PM	Air
1203903-017B	VA1128		3/20/2012 9:52 AM	3/26/2012 12:00 PM	Air
1203903-018A	VA1129		3/20/2012 9:52 AM	3/26/2012 12:00 PM	Air
1203903-018B	VA1129		3/20/2012 9:52 AM	3/26/2012 12:00 PM	Air
1203903-019A	VA1130		3/20/2012 10:39 AM	3/26/2012 12:00 PM	Air
1203903-019B	VA1130		3/20/2012 10:39 AM	3/26/2012 12:00 PM	Air
1203903-020A	VA1137		3/19/2012 11:42 AM	3/26/2012 12:00 PM	Air
1203903-020B	VA1137		3/19/2012 11:42 AM	3/26/2012 12:00 PM	Air
1203903-021A	VA1138		3/19/2012 12:22 PM	3/26/2012 12:00 PM	Air
1203903-021B	VA1138		3/19/2012 12:22 PM	3/26/2012 12:00 PM	Air
1203903-022A	VA1139		3/19/2012 12:22 PM	3/26/2012 12:00 PM	Air
1203903-022B	VA1139		3/19/2012 12:22 PM	3/26/2012 12:00 PM	Air
1203903-023A	VA1140		3/20/2012 9:30 AM	3/26/2012 12:00 PM	Air

RTI Laboratories - Workorder Sample Summary

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1203903-023B	VA1140		3/20/2012 9:30 AM	3/26/2012 12:00 PM	Air
1203903-024A	VA1141		3/20/2012 10:15 AM	3/26/2012 12:00 PM	Air
1203903-024B	VA1141		3/20/2012 10:15 AM	3/26/2012 12:00 PM	Air
1203903-025A	VA1142		3/20/2012 10:54 AM	3/26/2012 12:00 PM	Air
1203903-025B	VA1142		3/20/2012 10:54 AM	3/26/2012 12:00 PM	Air
1203903-026A	VA1143		3/20/2012 11:33 AM	3/26/2012 12:00 PM	Air
1203903-026B	VA1143		3/20/2012 11:33 AM	3/26/2012 12:00 PM	Air
1203903-027A	VA8077-TB		3/19/2012 7:40 AM	3/26/2012 12:00 PM	Air

RTI Laboratories - DATES REPORT

WO#: 1203903

Date Reported: 4/17/2012
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
1203903-001A	VA1027	3/19/2012 1:30 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/10/2012 2:51 PM
				EPA_TO15-Volatile Organic Compounds			4/10/2012 2:29 PM
1203903-001B	VA1027	3/19/2012 1:30 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/30/2012 11:29 AM
1203903-002A	VA1028	3/19/2012 1:52 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/10/2012 3:34 PM
				EPA_TO15-Volatile Organic Compounds			4/10/2012 3:15 PM
				EPA_TO15-Volatile Organic Compounds			4/10/2012 3:56 PM
1203903-002B	VA1028	3/19/2012 1:52 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/30/2012 11:45 AM
1203903-003A	VA1029	3/19/2012 1:52 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/11/2012 3:51 AM
				EPA_TO15-Volatile Organic Compounds			4/10/2012 4:41 PM
1203903-003B	VA1029	3/19/2012 1:52 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/30/2012 12:00 PM
1203903-004A	VA1030	3/19/2012 2:29 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/10/2012 7:26 PM
				EPA_TO15-Volatile Organic Compounds			4/10/2012 6:07 PM
1203903-004B	VA1030	3/19/2012 2:29 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/30/2012 12:15 PM
1203903-005A	VA1098	3/19/2012 8:53 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/10/2012 2:51 AM
				EPA_TO15-Volatile Organic Compounds			4/10/2012 8:54 PM
1203903-005B	VA1098	3/19/2012 8:53 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/30/2012 12:30 PM
1203903-006A	VA1099	3/19/2012 9:30 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/10/2012 1:22 PM
				EPA_TO15-Volatile Organic Compounds			4/10/2012 10:18 PM

RTI Laboratories - DATES REPORT

WO#: 1203903

Date Reported: 4/17/2012
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
1203903-006B	VA1099	3/19/2012 9:30 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/30/2012 12:45 PM
1203903-007A	VA1100	3/19/2012 10:04 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/11/2012 1:55 PM
				EPA_TO15-Volatile Organic Compounds			4/10/2012 10:59 PM
1203903-007B	VA1100	3/19/2012 10:04 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/30/2012 1:00 PM
1203903-008A	VA1101	3/19/2012 10:42 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/11/2012 12:02 AM
				EPA_TO15-Volatile Organic Compounds			4/10/2012 11:47 PM
1203903-008B	VA1101	3/19/2012 10:42 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/30/2012 1:14 PM
1203903-009A	VA1102	3/19/2012 11:29 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/9/2012 10:26 PM
				EPA_TO15-Volatile Organic Compounds			4/11/2012 12:35 AM
1203903-009B	VA1102	3/19/2012 11:29 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/30/2012 1:35 PM
1203903-010A	VA1103	3/19/2012 12:32 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/10/2012 2:08 AM
				EPA_TO15-Volatile Organic Compounds			4/8/2012 12:10 AM
1203903-010B	VA1103	3/19/2012 12:32 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/30/2012 1:50 PM
1203903-011A	VA1109	3/19/2012 9:58 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/9/2012 7:22 PM
				EPA_TO15-Volatile Organic Compounds			4/7/2012 5:34 PM
1203903-011B	VA1109	3/19/2012 9:58 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/30/2012 2:37 PM

RTI Laboratories - DATES REPORT

WO#: 1203903

Date Reported: 4/17/2012
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
1203903-012A	VA1110	3/19/2012 10:36 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/9/2012 8:54 PM
				EPA_TO15-Volatile Organic Compounds			4/7/2012 7:01 PM
1203903-012B	VA1110	3/19/2012 10:36 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/30/2012 2:53 PM
1203903-013A	VA1124	3/19/2012 2:06 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/10/2012 5:09 PM
				EPA_TO15-Volatile Organic Compounds			4/10/2012 5:22 PM
1203903-013B	VA1124	3/19/2012 2:06 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/30/2012 3:09 PM
1203903-014A	VA1125	3/19/2012 2:50 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/7/2012 4:20 PM
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/10/2012 2:04 PM
				EPA_TO15-Volatile Organic Compounds			4/10/2012 6:48 PM
1203903-014B	VA1125	3/19/2012 2:50 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/30/2012 3:24 PM
1203903-015A	VA1126	3/19/2012 3:26 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/11/2012 3:23 PM
				EPA_TO15-Volatile Organic Compounds			4/10/2012 7:30 PM
1203903-015B	VA1126	3/19/2012 3:26 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/30/2012 3:39 PM
1203903-016A	VA1127	3/20/2012 9:14 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/7/2012 6:35 PM
				EPA_TO15-Volatile Organic Compounds			4/11/2012 2:05 AM
1203903-016B	VA1127	3/20/2012 9:14 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/30/2012 3:57 PM
1203903-017A	VA1128	3/20/2012 9:52 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/10/2012 5:53 PM
				EPA_TO15-Volatile Organic Compounds			4/11/2012 3:34 AM

RTI Laboratories - DATES REPORT

WO#: 1203903

Date Reported: 4/17/2012
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
1203903-017B	VA1128	3/20/2012 9:52 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/30/2012 4:13 PM
1203903-018A	VA1129	3/20/2012 9:52 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/7/2012 8:52 PM
				EPA_TO15-Volatile Organic Compounds			4/11/2012 4:19 AM
1203903-018B	VA1129	3/20/2012 9:52 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/30/2012 4:29 PM
1203903-019A	VA1130	3/20/2012 10:39 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/10/2012 8:58 PM
				EPA_TO15-Volatile Organic Compounds			4/11/2012 5:42 AM
1203903-019B	VA1130	3/20/2012 10:39 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/30/2012 4:44 PM
1203903-020A	VA1137	3/19/2012 11:42 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/11/2012 12:51 AM
				EPA_TO15-Volatile Organic Compounds			4/7/2012 9:56 PM
				EPA_TO15-Volatile Organic Compounds			4/11/2012 4:01 PM
1203903-020B	VA1137	3/19/2012 11:42 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			4/2/2012 1:12 PM
1203903-021A	VA1138	3/19/2012 12:22 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/10/2012 1:25 AM
				EPA_TO15-Volatile Organic Compounds			4/7/2012 10:41 PM
1203903-021B	VA1138	3/19/2012 12:22 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			4/2/2012 1:31 PM
1203903-022A	VA1139	3/19/2012 12:22 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/9/2012 11:54 PM
				EPA_TO15-Volatile Organic Compounds			4/7/2012 11:25 PM
1203903-022B	VA1139	3/19/2012 12:22 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			4/2/2012 1:47 PM

RTI Laboratories - DATES REPORT

WO#: 1203903

Date Reported: 4/17/2012
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
1203903-023A	VA1140	3/20/2012 9:30 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/7/2012 7:21 PM
				EPA_TO15-Volatile Organic Compounds			4/11/2012 2:50 AM
1203903-023B	VA1140	3/20/2012 9:30 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			4/2/2012 2:39 PM
1203903-024A	VA1141	3/20/2012 10:15 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/7/2012 9:35 PM
				EPA_TO15-Volatile Organic Compounds			4/11/2012 5:01 AM
1203903-024B	VA1141	3/20/2012 10:15 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			4/2/2012 3:07 PM
1203903-025A	VA1142	3/20/2012 10:54 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/10/2012 9:41 PM
				EPA_TO15-Volatile Organic Compounds			4/11/2012 4:43 PM
1203903-025B	VA1142	3/20/2012 10:54 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			4/2/2012 3:29 PM
1203903-026A	VA1143	3/20/2012 11:33 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/11/2012 2:38 PM
				EPA_TO15-Volatile Organic Compounds			4/11/2012 5:24 PM
				EPA_TO15-Volatile Organic Compounds			4/12/2012 1:09 PM
1203903-026B	VA1143	3/20/2012 11:33 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			4/2/2012 3:49 PM
1203903-027A	VA8077-TB	3/19/2012 7:40 AM	Air				
				EPA_TO15-Volatile Organic Compounds			4/7/2012 3:20 PM
				EPA_TO15-Volatile Organic Compounds			4/10/2012 8:13 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 1:30:00 PM
Project:	Kirtland AFB		
Lab ID:	1203903-001	**Matrix:**	Air
Client Sample ID:	VA1027		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.15	0.10		%	1	3/30/2012 11:29 AM
Carbon Monoxide	ND	0.10	U	%	1	3/30/2012 11:29 AM
Methane	ND	0.50	U	%	1	3/30/2012 11:29 AM
Nitrogen	79	0.10		%	1	3/30/2012 11:29 AM
Oxygen	21	0.10		%	1	3/30/2012 11:29 AM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	4/10/2012 2:29 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	4/10/2012 2:29 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	4/10/2012 2:29 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	4/10/2012 2:29 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	4/10/2012 2:29 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	4/10/2012 2:29 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	4/10/2012 2:29 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	4/10/2012 2:29 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	4/10/2012 2:29 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	4/10/2012 2:29 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	4/10/2012 2:29 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	4/10/2012 2:29 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	4/10/2012 2:29 PM
1,3-Butadiene	ND	800	U	ppbv	800	4/10/2012 2:29 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	4/10/2012 2:29 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	4/10/2012 2:29 PM
2-Butanone	ND	800	U	ppbv	800	4/10/2012 2:29 PM
2-Hexanone	ND	800	U	ppbv	800	4/10/2012 2:29 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Acetone	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Benzene	4,600	800		ppbv	800	4/10/2012 2:29 PM
Benzyl chloride	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Bromodichloromethane	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Bromoform	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Bromomethane	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Carbon disulfide	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Carbon tetrachloride	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Chlorobenzene	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Chlorodibromomethane	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Chloroethane	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Chloroform	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Chloromethane	ND	800	U	ppbv	800	4/10/2012 2:29 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	4/10/2012 2:29 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	4/10/2012 2:29 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 1:30:00 PM
Project:	Kirtland AFB		
Lab ID:	1203903-001	**Matrix:**	Air
Client Sample ID:	VA1027		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	2,500	1,600		ppbv	800	4/10/2012 2:29 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Ethyl acetate	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Ethylbenzene	ND	1,600	U	ppbv	800	4/10/2012 2:29 PM
Heptane	3,000	800		ppbv	800	4/10/2012 2:29 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	4/10/2012 2:29 PM
m,p-Xylene	1,300	1,600	J	ppbv	800	4/10/2012 2:29 PM
Methylene chloride	ND	4,000	U	ppbv	800	4/10/2012 2:29 PM
n-Hexane	1,600	1,600		ppbv	800	4/10/2012 2:29 PM
Naphthalene	ND	800	U	ppbv	800	4/10/2012 2:29 PM
o-Xylene	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Propylene	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Styrene	ND	800	U	ppbv	800	4/10/2012 2:29 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Tetrachloroethene	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Tetrahydrofuran	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Toluene	6,800	800		ppbv	800	4/10/2012 2:29 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	4/10/2012 2:29 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Trichloroethene	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Vinyl acetate	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Vinyl chloride	ND	800	U	ppbv	800	4/10/2012 2:29 PM
Xylenes, Total	1,300	2,400	J	ppbv	800	4/10/2012 2:29 PM
Surr: 4-Bromofluorobenzene	95.9	70-130		%REC	800	4/10/2012 2:29 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	190,000	94,000		µg/m³	800	4/10/2012 2:51 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	4/10/2012 2:51 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	4/10/2012 2:51 PM
Surr: 4-Bromofluorobenzene	99.3	70-130		%REC	800	4/10/2012 2:51 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 1:52:00 PM
Project:	Kirtland AFB		
Lab ID:	1203903-002	**Matrix:**	Air
Client Sample ID:	VA1028		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	1.7	0.10		%	1	3/30/2012 11:45 AM
Carbon Monoxide	ND	0.10	U	%	1	3/30/2012 11:45 AM
Methane	ND	0.50	U	%	1	3/30/2012 11:45 AM
Nitrogen	79	0.10		%	1	3/30/2012 11:45 AM
Oxygen	19	0.10		%	1	3/30/2012 11:45 AM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	4/10/2012 3:15 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	4/10/2012 3:15 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	4/10/2012 3:15 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	4/10/2012 3:15 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	4/10/2012 3:15 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	4/10/2012 3:15 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	4/10/2012 3:15 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	4/10/2012 3:15 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	4/10/2012 3:15 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	4/10/2012 3:15 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	4/10/2012 3:15 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	4/10/2012 3:15 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	4/10/2012 3:15 PM
1,3-Butadiene	ND	800	U	ppbv	800	4/10/2012 3:15 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	4/10/2012 3:15 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	4/10/2012 3:15 PM
2-Butanone	ND	800	U	ppbv	800	4/10/2012 3:15 PM
2-Hexanone	ND	800	U	ppbv	800	4/10/2012 3:15 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Acetone	970	800		ppbv	800	4/10/2012 3:15 PM
Benzene	27,000	800		ppbv	800	4/10/2012 3:15 PM
Benzyl chloride	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Bromodichloromethane	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Bromoform	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Bromomethane	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Carbon disulfide	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Carbon tetrachloride	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Chlorobenzene	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Chlorodibromomethane	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Chloroethane	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Chloroform	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Chloromethane	ND	800	U	ppbv	800	4/10/2012 3:15 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	4/10/2012 3:15 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	4/10/2012 3:15 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 1:52:00 PM
Project:	Kirtland AFB		
Lab ID:	1203903-002	**Matrix:**	Air
Client Sample ID:	VA1028		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	82,000	16,000		ppbv	8000	4/10/2012 3:56 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Ethyl acetate	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Ethylbenzene	ND	1,600	U	ppbv	800	4/10/2012 3:15 PM
Heptane	16,000	800		ppbv	800	4/10/2012 3:15 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	4/10/2012 3:15 PM
m,p-Xylene	3,500	1,600		ppbv	800	4/10/2012 3:15 PM
Methylene chloride	ND	4,000	U	ppbv	800	4/10/2012 3:15 PM
n-Hexane	58,000	16,000		ppbv	8000	4/10/2012 3:56 PM
Naphthalene	ND	800	U	ppbv	800	4/10/2012 3:15 PM
o-Xylene	1,000	800		ppbv	800	4/10/2012 3:15 PM
Propylene	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Styrene	ND	800	U	ppbv	800	4/10/2012 3:15 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Tetrachloroethene	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Tetrahydrofuran	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Toluene	38,000	800		ppbv	800	4/10/2012 3:15 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	4/10/2012 3:15 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Trichloroethene	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Vinyl acetate	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Vinyl chloride	ND	800	U	ppbv	800	4/10/2012 3:15 PM
Xylenes, Total	4,500	2,400		ppbv	800	4/10/2012 3:15 PM
Surr: 4-Bromofluorobenzene	99.4	70-130		%REC	800	4/10/2012 3:15 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	3,900,000	940,000		µg/m³	8000	4/10/2012 3:34 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	4/10/2012 3:34 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	4/10/2012 3:34 PM
Surr: 4-Bromofluorobenzene	95.0	70-130		%REC	8000	4/10/2012 3:34 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 1:52:00 PM
Project:	Kirtland AFB		
Lab ID:	1203903-003	**Matrix:**	Air
Client Sample ID:	VA1029		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	1.5	0.10		%	1	3/30/2012 12:00 PM
Carbon Monoxide	ND	0.10	U	%	1	3/30/2012 12:00 PM
Methane	ND	0.50	U	%	1	3/30/2012 12:00 PM
Nitrogen	79	0.10		%	1	3/30/2012 12:00 PM
Oxygen	19	0.10		%	1	3/30/2012 12:00 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	4/10/2012 4:41 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	4/10/2012 4:41 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	4/10/2012 4:41 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	4/10/2012 4:41 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	4/10/2012 4:41 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	4/10/2012 4:41 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	4/10/2012 4:41 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	4/10/2012 4:41 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	4/10/2012 4:41 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	4/10/2012 4:41 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	4/10/2012 4:41 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	4/10/2012 4:41 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	4/10/2012 4:41 PM
1,3-Butadiene	ND	800	U	ppbv	800	4/10/2012 4:41 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	4/10/2012 4:41 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	4/10/2012 4:41 PM
2-Butanone	ND	800	U	ppbv	800	4/10/2012 4:41 PM
2-Hexanone	ND	800	U	ppbv	800	4/10/2012 4:41 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Acetone	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Benzene	20,000	800		ppbv	800	4/10/2012 4:41 PM
Benzyl chloride	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Bromodichloromethane	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Bromoform	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Bromomethane	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Carbon disulfide	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Carbon tetrachloride	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Chlorobenzene	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Chlorodibromomethane	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Chloroethane	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Chloroform	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Chloromethane	ND	800	U	ppbv	800	4/10/2012 4:41 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	4/10/2012 4:41 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	4/10/2012 4:41 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 1:52:00 PM
Project:	Kirtland AFB		
Lab ID:	1203903-003	**Matrix:**	Air
Client Sample ID:	VA1029		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	39,000	1,600		ppbv	800	4/10/2012 4:41 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Ethyl acetate	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Ethylbenzene	ND	1,600	U	ppbv	800	4/10/2012 4:41 PM
Heptane	14,000	800		ppbv	800	4/10/2012 4:41 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	4/10/2012 4:41 PM
m,p-Xylene	3,200	1,600		ppbv	800	4/10/2012 4:41 PM
Methylene chloride	ND	4,000	U	ppbv	800	4/10/2012 4:41 PM
n-Hexane	31,000	1,600		ppbv	800	4/10/2012 4:41 PM
Naphthalene	ND	800	U	ppbv	800	4/10/2012 4:41 PM
o-Xylene	900	800		ppbv	800	4/10/2012 4:41 PM
Propylene	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Styrene	ND	800	U	ppbv	800	4/10/2012 4:41 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Tetrachloroethene	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Tetrahydrofuran	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Toluene	32,000	800		ppbv	800	4/10/2012 4:41 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	4/10/2012 4:41 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Trichloroethene	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Vinyl acetate	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Vinyl chloride	ND	800	U	ppbv	800	4/10/2012 4:41 PM
Xylenes, Total	4,100	2,400		ppbv	800	4/10/2012 4:41 PM
Surr: 4-Bromofluorobenzene	97.2	70-130		%REC	800	4/10/2012 4:41 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	270,000	94,000		µg/m³	800	4/11/2012 3:51 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	4/11/2012 3:51 AM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	4/11/2012 3:51 AM
Surr: 4-Bromofluorobenzene	98.2	70-130		%REC	800	4/11/2012 3:51 AM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 2:29:00 PM
Project:	Kirtland AFB		
Lab ID:	1203903-004	**Matrix:**	Air
Client Sample ID:	VA1030		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	3.1	0.10		%	1	3/30/2012 12:15 PM
Carbon Monoxide	ND	0.10	U	%	1	3/30/2012 12:15 PM
Methane	ND	0.50	U	%	1	3/30/2012 12:15 PM
Nitrogen	79	0.10		%	1	3/30/2012 12:15 PM
Oxygen	17	0.10		%	1	3/30/2012 12:15 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	4/10/2012 6:07 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	4/10/2012 6:07 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	4/10/2012 6:07 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	4/10/2012 6:07 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	4/10/2012 6:07 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	4/10/2012 6:07 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	4/10/2012 6:07 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	4/10/2012 6:07 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	4/10/2012 6:07 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	4/10/2012 6:07 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	4/10/2012 6:07 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	4/10/2012 6:07 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	4/10/2012 6:07 PM
1,3-Butadiene	ND	800	U	ppbv	800	4/10/2012 6:07 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	4/10/2012 6:07 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	4/10/2012 6:07 PM
2-Butanone	ND	800	U	ppbv	800	4/10/2012 6:07 PM
2-Hexanone	ND	800	U	ppbv	800	4/10/2012 6:07 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Acetone	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Benzene	1,900	800		ppbv	800	4/10/2012 6:07 PM
Benzyl chloride	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Bromodichloromethane	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Bromoform	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Bromomethane	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Carbon disulfide	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Carbon tetrachloride	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Chlorobenzene	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Chlorodibromomethane	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Chloroethane	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Chloroform	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Chloromethane	ND	800	U	ppbv	800	4/10/2012 6:07 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	4/10/2012 6:07 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	4/10/2012 6:07 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 2:29:00 PM
Project:	Kirtland AFB		
Lab ID:	1203903-004	**Matrix:**	Air
Client Sample ID:	VA1030		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	2,800	1,600		ppbv	800	4/10/2012 6:07 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Ethyl acetate	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Ethylbenzene	ND	1,600	U	ppbv	800	4/10/2012 6:07 PM
Heptane	3,400	800		ppbv	800	4/10/2012 6:07 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	4/10/2012 6:07 PM
m,p-Xylene	1,600	1,600	J	ppbv	800	4/10/2012 6:07 PM
Methylene chloride	ND	4,000	U	ppbv	800	4/10/2012 6:07 PM
n-Hexane	2,100	1,600		ppbv	800	4/10/2012 6:07 PM
Naphthalene	ND	800	U	ppbv	800	4/10/2012 6:07 PM
o-Xylene	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Propylene	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Styrene	ND	800	U	ppbv	800	4/10/2012 6:07 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Tetrachloroethene	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Tetrahydrofuran	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Toluene	9,000	800		ppbv	800	4/10/2012 6:07 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	4/10/2012 6:07 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Trichloroethene	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Vinyl acetate	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Vinyl chloride	ND	800	U	ppbv	800	4/10/2012 6:07 PM
Xylenes, Total	1,600	2,400	J	ppbv	800	4/10/2012 6:07 PM
Surr: 4-Bromofluorobenzene	96.2	70-130		%REC	800	4/10/2012 6:07 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	160,000	47,000		µg/m³	400	4/10/2012 7:26 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	4/10/2012 7:26 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	4/10/2012 7:26 PM
Surr: 4-Bromofluorobenzene	99.8	70-130		%REC	400	4/10/2012 7:26 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 8:53:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-005	**Matrix:**	Air
Client Sample ID:	VA1098		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	1.2	0.10		%	1	3/30/2012 12:30 PM
Carbon Monoxide	ND	0.10	U	%	1	3/30/2012 12:30 PM
Methane	ND	0.50	U	%	1	3/30/2012 12:30 PM
Nitrogen	80	0.10		%	1	3/30/2012 12:30 PM
Oxygen	18	0.10		%	1	3/30/2012 12:30 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	4/10/2012 8:54 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	4/10/2012 8:54 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	4/10/2012 8:54 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	4/10/2012 8:54 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	4/10/2012 8:54 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	4/10/2012 8:54 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	4/10/2012 8:54 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	4/10/2012 8:54 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	4/10/2012 8:54 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	4/10/2012 8:54 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	4/10/2012 8:54 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	4/10/2012 8:54 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	4/10/2012 8:54 PM
1,3-Butadiene	ND	40	U	ppbv	40	4/10/2012 8:54 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	4/10/2012 8:54 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	4/10/2012 8:54 PM
2-Butanone	ND	40	U	ppbv	40	4/10/2012 8:54 PM
2-Hexanone	ND	40	U	ppbv	40	4/10/2012 8:54 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Acetone	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Benzene	120	40		ppbv	40	4/10/2012 8:54 PM
Benzyl chloride	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Bromodichloromethane	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Bromoform	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Bromomethane	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Carbon disulfide	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Carbon tetrachloride	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Chlorobenzene	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Chlorodibromomethane	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Chloroethane	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Chloroform	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Chloromethane	ND	40	U	ppbv	40	4/10/2012 8:54 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	4/10/2012 8:54 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	4/10/2012 8:54 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 8:53:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-005	**Matrix:**	Air
Client Sample ID:	VA1098		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	200	80		ppbv	40	4/10/2012 8:54 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Ethyl acetate	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Ethylbenzene	ND	80	U	ppbv	40	4/10/2012 8:54 PM
Heptane	220	40		ppbv	40	4/10/2012 8:54 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	4/10/2012 8:54 PM
m,p-Xylene	95	80		ppbv	40	4/10/2012 8:54 PM
Methylene chloride	ND	200	U	ppbv	40	4/10/2012 8:54 PM
n-Hexane	67	80	J	ppbv	40	4/10/2012 8:54 PM
Naphthalene	ND	40	U	ppbv	40	4/10/2012 8:54 PM
o-Xylene	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Propylene	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Styrene	ND	40	U	ppbv	40	4/10/2012 8:54 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Tetrachloroethene	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Tetrahydrofuran	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Toluene	620	40		ppbv	40	4/10/2012 8:54 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	4/10/2012 8:54 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Trichloroethene	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Vinyl acetate	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Vinyl chloride	ND	40	U	ppbv	40	4/10/2012 8:54 PM
Xylenes, Total	95	120	J	ppbv	40	4/10/2012 8:54 PM
Surr: 4-Bromofluorobenzene	94.5	70-130		%REC	40	4/10/2012 8:54 PM
Mass APH Air **Air-Phase Petroleum Hydrocarbons**	**Method:**					**Analyst: RD2**
C5-C8 Aliphatic Hydrocarbons	9,300	4,700		µg/m³	40	4/10/2012 2:51 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	4/10/2012 2:51 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	4/10/2012 2:51 AM
Surr: 4-Bromofluorobenzene	97.4	70-130		%REC	40	4/10/2012 2:51 AM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 9:30:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-006	**Matrix:**	Air
Client Sample ID:	VA1099		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	1.1	0.10		%	1	3/30/2012 12:45 PM
Carbon Monoxide	ND	0.10	U	%	1	3/30/2012 12:45 PM
Methane	ND	0.50	U	%	1	3/30/2012 12:45 PM
Nitrogen	80	0.10		%	1	3/30/2012 12:45 PM
Oxygen	19	0.10		%	1	3/30/2012 12:45 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	4/10/2012 10:18 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	4/10/2012 10:18 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	4/10/2012 10:18 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	4/10/2012 10:18 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	4/10/2012 10:18 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	4/10/2012 10:18 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	4/10/2012 10:18 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	4/10/2012 10:18 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	4/10/2012 10:18 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	4/10/2012 10:18 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	4/10/2012 10:18 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	4/10/2012 10:18 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	4/10/2012 10:18 PM
1,3-Butadiene	ND	40	U	ppbv	40	4/10/2012 10:18 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	4/10/2012 10:18 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	4/10/2012 10:18 PM
2-Butanone	ND	40	U	ppbv	40	4/10/2012 10:18 PM
2-Hexanone	ND	40	U	ppbv	40	4/10/2012 10:18 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Acetone	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Benzene	93	40		ppbv	40	4/10/2012 10:18 PM
Benzyl chloride	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Bromodichloromethane	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Bromoform	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Bromomethane	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Carbon disulfide	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Carbon tetrachloride	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Chlorobenzene	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Chlorodibromomethane	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Chloroethane	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Chloroform	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Chloromethane	ND	40	U	ppbv	40	4/10/2012 10:18 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	4/10/2012 10:18 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	4/10/2012 10:18 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 9:30:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-006	**Matrix:**	Air
Client Sample ID:	VA1099		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	150	80		ppbv	40	4/10/2012 10:18 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Ethyl acetate	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Ethylbenzene	ND	80	U	ppbv	40	4/10/2012 10:18 PM
Heptane	170	40		ppbv	40	4/10/2012 10:18 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	4/10/2012 10:18 PM
m,p-Xylene	84	80		ppbv	40	4/10/2012 10:18 PM
Methylene chloride	ND	200	U	ppbv	40	4/10/2012 10:18 PM
n-Hexane	48	80	J	ppbv	40	4/10/2012 10:18 PM
Naphthalene	ND	40	U	ppbv	40	4/10/2012 10:18 PM
o-Xylene	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Propylene	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Styrene	ND	40	U	ppbv	40	4/10/2012 10:18 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Tetrachloroethene	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Tetrahydrofuran	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Toluene	500	40		ppbv	40	4/10/2012 10:18 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	4/10/2012 10:18 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Trichloroethene	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Vinyl acetate	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Vinyl chloride	ND	40	U	ppbv	40	4/10/2012 10:18 PM
Xylenes, Total	84	120	J	ppbv	40	4/10/2012 10:18 PM
Surr: 4-Bromofluorobenzene	93.4	70-130		%REC	40	4/10/2012 10:18 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	6,000	940		µg/m³	8	4/10/2012 1:22 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	4/10/2012 1:22 PM
C9-C12 Aliphatic Hydrocarbons	310	1,500	J	µg/m³	8	4/10/2012 1:22 PM
Surr: 4-Bromofluorobenzene	99.5	70-130		%REC	8	4/10/2012 1:22 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 10:04:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-007	**Matrix:**	Air
Client Sample ID:	VA1100		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.47	0.10		%	1	3/30/2012 1:00 PM
Carbon Monoxide	ND	0.10	U	%	1	3/30/2012 1:00 PM
Methane	ND	0.50	U	%	1	3/30/2012 1:00 PM
Nitrogen	79	0.10		%	1	3/30/2012 1:00 PM
Oxygen	20	0.10		%	1	3/30/2012 1:00 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	4/10/2012 10:59 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	4/10/2012 10:59 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	76	40		ppbv	40	4/10/2012 10:59 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	4/10/2012 10:59 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	4/10/2012 10:59 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	4/10/2012 10:59 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	4/10/2012 10:59 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	4/10/2012 10:59 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	4/10/2012 10:59 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	4/10/2012 10:59 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	4/10/2012 10:59 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	4/10/2012 10:59 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	4/10/2012 10:59 PM
1,3-Butadiene	ND	40	U	ppbv	40	4/10/2012 10:59 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	4/10/2012 10:59 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	4/10/2012 10:59 PM
2-Butanone	ND	40	U	ppbv	40	4/10/2012 10:59 PM
2-Hexanone	ND	40	U	ppbv	40	4/10/2012 10:59 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Acetone	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Benzene	700	40		ppbv	40	4/10/2012 10:59 PM
Benzyl chloride	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Bromodichloromethane	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Bromoform	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Bromomethane	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Carbon disulfide	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Carbon tetrachloride	42	40		ppbv	40	4/10/2012 10:59 PM
Chlorobenzene	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Chlorodibromomethane	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Chloroethane	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Chloroform	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Chloromethane	ND	40	U	ppbv	40	4/10/2012 10:59 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	4/10/2012 10:59 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	4/10/2012 10:59 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 10:04:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-007	**Matrix:**	Air
Client Sample ID:	VA1100		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,000	80		ppbv	40	4/10/2012 10:59 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Ethyl acetate	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Ethylbenzene	ND	80	U	ppbv	40	4/10/2012 10:59 PM
Heptane	260	40		ppbv	40	4/10/2012 10:59 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	4/10/2012 10:59 PM
m,p-Xylene	120	80		ppbv	40	4/10/2012 10:59 PM
Methylene chloride	ND	200	U	ppbv	40	4/10/2012 10:59 PM
n-Hexane	600	80		ppbv	40	4/10/2012 10:59 PM
Naphthalene	ND	40	U	ppbv	40	4/10/2012 10:59 PM
o-Xylene	50	40		ppbv	40	4/10/2012 10:59 PM
Propylene	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Styrene	ND	40	U	ppbv	40	4/10/2012 10:59 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Tetrachloroethene	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Tetrahydrofuran	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Toluene	880	40		ppbv	40	4/10/2012 10:59 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	4/10/2012 10:59 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Trichloroethene	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Vinyl acetate	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Vinyl chloride	ND	40	U	ppbv	40	4/10/2012 10:59 PM
Xylenes, Total	170	120		ppbv	40	4/10/2012 10:59 PM
Surr: 4-Bromofluorobenzene	94.0	70-130		%REC	40	4/10/2012 10:59 PM
Mass APH Air **Air-Phase Petroleum Hydrocarbons**	**Method:**					**Analyst: RD2**
C5-C8 Aliphatic Hydrocarbons	52,000	23,000		µg/m³	200	4/11/2012 1:55 PM
C9-C10 Aromatic Hydrocarbons	ND	27,000	U	µg/m³	200	4/11/2012 1:55 PM
C9-C12 Aliphatic Hydrocarbons	ND	38,000	U	µg/m³	200	4/11/2012 1:55 PM
Surr: 4-Bromofluorobenzene	97.4	70-130		%REC	200	4/11/2012 1:55 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 10:42:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-008	**Matrix:**	Air
Client Sample ID:	VA1101		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.39	0.10		%	1	3/30/2012 1:14 PM
Carbon Monoxide	ND	0.10	U	%	1	3/30/2012 1:14 PM
Methane	ND	0.50	U	%	1	3/30/2012 1:14 PM
Nitrogen	79	0.10		%	1	3/30/2012 1:14 PM
Oxygen	20	0.10		%	1	3/30/2012 1:14 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	4/10/2012 11:47 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	4/10/2012 11:47 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	4/10/2012 11:47 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	4/10/2012 11:47 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	4/10/2012 11:47 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	4/10/2012 11:47 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	4/10/2012 11:47 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	4/10/2012 11:47 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	4/10/2012 11:47 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	4/10/2012 11:47 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	4/10/2012 11:47 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	4/10/2012 11:47 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	4/10/2012 11:47 PM
1,3-Butadiene	ND	400	U	ppbv	400	4/10/2012 11:47 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	4/10/2012 11:47 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	4/10/2012 11:47 PM
2-Butanone	ND	400	U	ppbv	400	4/10/2012 11:47 PM
2-Hexanone	ND	400	U	ppbv	400	4/10/2012 11:47 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Acetone	510	400		ppbv	400	4/10/2012 11:47 PM
Benzene	3,200	400		ppbv	400	4/10/2012 11:47 PM
Benzyl chloride	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Bromodichloromethane	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Bromoform	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Bromomethane	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Carbon disulfide	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Carbon tetrachloride	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Chlorobenzene	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Chlorodibromomethane	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Chloroethane	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Chloroform	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Chloromethane	ND	400	U	ppbv	400	4/10/2012 11:47 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	4/10/2012 11:47 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	4/10/2012 11:47 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 10:42:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-008	**Matrix:**	Air
Client Sample ID:	VA1101		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	2,700	800		ppbv	400	4/10/2012 11:47 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Ethyl acetate	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Ethylbenzene	ND	800	U	ppbv	400	4/10/2012 11:47 PM
Heptane	1,300	400		ppbv	400	4/10/2012 11:47 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	4/10/2012 11:47 PM
m,p-Xylene	430	800	J	ppbv	400	4/10/2012 11:47 PM
Methylene chloride	ND	2,000	U	ppbv	400	4/10/2012 11:47 PM
n-Hexane	1,800	800		ppbv	400	4/10/2012 11:47 PM
Naphthalene	ND	400	U	ppbv	400	4/10/2012 11:47 PM
o-Xylene	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Propylene	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Styrene	ND	400	U	ppbv	400	4/10/2012 11:47 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Tetrachloroethene	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Tetrahydrofuran	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Toluene	4,900	400		ppbv	400	4/10/2012 11:47 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	4/10/2012 11:47 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Trichloroethene	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Vinyl acetate	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Vinyl chloride	ND	400	U	ppbv	400	4/10/2012 11:47 PM
Xylenes, Total	430	1,200	J	ppbv	400	4/10/2012 11:47 PM
Surr: 4-Bromofluorobenzene	95.0	70-130		%REC	400	4/10/2012 11:47 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	110,000	47,000		µg/m³	400	4/11/2012 12:02 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	4/11/2012 12:02 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	4/11/2012 12:02 AM
Surr: 4-Bromofluorobenzene	97.5	70-130		%REC	400	4/11/2012 12:02 AM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 11:29:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-009	**Matrix:**	Air
Client Sample ID:	VA1102		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.20	0.10		%	1	3/30/2012 1:35 PM
Carbon Monoxide	ND	0.10	U	%	1	3/30/2012 1:35 PM
Methane	ND	0.50	U	%	1	3/30/2012 1:35 PM
Nitrogen	80	0.10		%	1	3/30/2012 1:35 PM
Oxygen	20	0.10		%	1	3/30/2012 1:35 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	4/11/2012 12:35 AM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	4/11/2012 12:35 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	4/11/2012 12:35 AM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	4/11/2012 12:35 AM
1,1-Dichloroethane	ND	400	U	ppbv	400	4/11/2012 12:35 AM
1,1-Dichloroethene	ND	400	U	ppbv	400	4/11/2012 12:35 AM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	4/11/2012 12:35 AM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	4/11/2012 12:35 AM
1,2-Dibromoethane	ND	400	U	ppbv	400	4/11/2012 12:35 AM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	4/11/2012 12:35 AM
1,2-Dichloroethane	ND	400	U	ppbv	400	4/11/2012 12:35 AM
1,2-Dichloropropane	ND	400	U	ppbv	400	4/11/2012 12:35 AM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	4/11/2012 12:35 AM
1,3-Butadiene	ND	400	U	ppbv	400	4/11/2012 12:35 AM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	4/11/2012 12:35 AM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	4/11/2012 12:35 AM
2-Butanone	ND	400	U	ppbv	400	4/11/2012 12:35 AM
2-Hexanone	ND	400	U	ppbv	400	4/11/2012 12:35 AM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Acetone	630	400		ppbv	400	4/11/2012 12:35 AM
Benzene	1,900	400		ppbv	400	4/11/2012 12:35 AM
Benzyl chloride	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Bromodichloromethane	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Bromoform	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Bromomethane	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Carbon disulfide	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Carbon tetrachloride	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Chlorobenzene	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Chlorodibromomethane	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Chloroethane	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Chloroform	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Chloromethane	ND	400	U	ppbv	400	4/11/2012 12:35 AM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	4/11/2012 12:35 AM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	4/11/2012 12:35 AM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 11:29:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-009	**Matrix:**	Air
Client Sample ID:	VA1102		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	5,100	800		ppbv	400	4/11/2012 12:35 AM
Dichlorodifluoromethane	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Ethyl acetate	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Ethylbenzene	ND	800	U	ppbv	400	4/11/2012 12:35 AM
Heptane	1,100	400		ppbv	400	4/11/2012 12:35 AM
Hexachlorobutadiene	ND	800	U	ppbv	400	4/11/2012 12:35 AM
m,p-Xylene	ND	800	U	ppbv	400	4/11/2012 12:35 AM
Methylene chloride	ND	2,000	U	ppbv	400	4/11/2012 12:35 AM
n-Hexane	4,600	800		ppbv	400	4/11/2012 12:35 AM
Naphthalene	ND	400	U	ppbv	400	4/11/2012 12:35 AM
o-Xylene	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Propylene	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Styrene	ND	400	U	ppbv	400	4/11/2012 12:35 AM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Tetrachloroethene	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Tetrahydrofuran	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Toluene	3,700	400		ppbv	400	4/11/2012 12:35 AM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	4/11/2012 12:35 AM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Trichloroethene	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Trichlorofluoromethane	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Vinyl acetate	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Vinyl chloride	ND	400	U	ppbv	400	4/11/2012 12:35 AM
Xylenes, Total	ND	1,200	U	ppbv	400	4/11/2012 12:35 AM
Surr: 4-Bromofluorobenzene	95.5	70-130		%REC	400	4/11/2012 12:35 AM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	560,000	94,000		µg/m³	800	4/9/2012 10:26 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	4/9/2012 10:26 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	4/9/2012 10:26 PM
Surr: 4-Bromofluorobenzene	97.1	70-130		%REC	800	4/9/2012 10:26 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 12:32:00 PM
Project:	Kirtland AFB		
Lab ID:	1203903-010	**Matrix:**	Air
Client Sample ID:	VA1103		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.84	0.10		%	1	3/30/2012 1:50 PM
Carbon Monoxide	ND	0.10	U	%	1	3/30/2012 1:50 PM
Methane	ND	0.50	U	%	1	3/30/2012 1:50 PM
Nitrogen	82	0.10		%	1	3/30/2012 1:50 PM
Oxygen	16	0.10		%	1	3/30/2012 1:50 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	4/8/2012 12:10 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	4/8/2012 12:10 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	4/8/2012 12:10 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	4/8/2012 12:10 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	4/8/2012 12:10 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	4/8/2012 12:10 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	4/8/2012 12:10 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	4/8/2012 12:10 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	4/8/2012 12:10 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	4/8/2012 12:10 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	4/8/2012 12:10 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	4/8/2012 12:10 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	4/8/2012 12:10 AM
1,3-Butadiene	ND	800	U	ppbv	800	4/8/2012 12:10 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	4/8/2012 12:10 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	4/8/2012 12:10 AM
2-Butanone	ND	800	U	ppbv	800	4/8/2012 12:10 AM
2-Hexanone	ND	800	U	ppbv	800	4/8/2012 12:10 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Acetone	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Benzene	2,700	800		ppbv	800	4/8/2012 12:10 AM
Benzyl chloride	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Bromodichloromethane	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Bromoform	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Bromomethane	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Carbon disulfide	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Carbon tetrachloride	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Chlorobenzene	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Chlorodibromomethane	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Chloroethane	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Chloroform	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Chloromethane	ND	800	U	ppbv	800	4/8/2012 12:10 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	4/8/2012 12:10 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	4/8/2012 12:10 AM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 12:32:00 PM
Project:	Kirtland AFB		
Lab ID:	1203903-010	**Matrix:**	Air
Client Sample ID:	VA1103		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	14,000	1,600		ppbv	800	4/8/2012 12:10 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Ethyl acetate	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Ethylbenzene	ND	1,600	U	ppbv	800	4/8/2012 12:10 AM
Heptane	5,200	800		ppbv	800	4/8/2012 12:10 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	4/8/2012 12:10 AM
m,p-Xylene	ND	1,600	U	ppbv	800	4/8/2012 12:10 AM
Methylene chloride	ND	4,000	U	ppbv	800	4/8/2012 12:10 AM
n-Hexane	15,000	1,600		ppbv	800	4/8/2012 12:10 AM
Naphthalene	ND	800	U	ppbv	800	4/8/2012 12:10 AM
o-Xylene	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Propylene	830	800		ppbv	800	4/8/2012 12:10 AM
Styrene	ND	800	U	ppbv	800	4/8/2012 12:10 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Tetrachloroethene	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Tetrahydrofuran	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Toluene	6,400	800		ppbv	800	4/8/2012 12:10 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	4/8/2012 12:10 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Trichloroethene	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Vinyl acetate	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Vinyl chloride	ND	800	U	ppbv	800	4/8/2012 12:10 AM
Xylenes, Total	ND	2,400	U	ppbv	800	4/8/2012 12:10 AM
Surr: 4-Bromofluorobenzene	94.7	70-130		%REC	800	4/8/2012 12:10 AM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,400,000	940,000		µg/m³	8000	4/10/2012 2:08 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	4/10/2012 2:08 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	4/10/2012 2:08 AM
Surr: 4-Bromofluorobenzene	97.7	70-130		%REC	8000	4/10/2012 2:08 AM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 9:58:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-011	**Matrix:**	Air
Client Sample ID:	VA1109		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.097	0.10	J	%	1	3/30/2012 2:37 PM
Carbon Monoxide	ND	0.10	U	%	1	3/30/2012 2:37 PM
Methane	ND	0.50	U	%	1	3/30/2012 2:37 PM
Nitrogen	79	0.10		%	1	3/30/2012 2:37 PM
Oxygen	20	0.10		%	1	3/30/2012 2:37 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	4/7/2012 5:34 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	4/7/2012 5:34 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	4/7/2012 5:34 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	4/7/2012 5:34 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	4/7/2012 5:34 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	4/7/2012 5:34 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	4/7/2012 5:34 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	4/7/2012 5:34 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	4/7/2012 5:34 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	4/7/2012 5:34 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	4/7/2012 5:34 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	4/7/2012 5:34 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	4/7/2012 5:34 PM
1,3-Butadiene	ND	800	U	ppbv	800	4/7/2012 5:34 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	4/7/2012 5:34 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	4/7/2012 5:34 PM
2-Butanone	ND	800	U	ppbv	800	4/7/2012 5:34 PM
2-Hexanone	ND	800	U	ppbv	800	4/7/2012 5:34 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Acetone	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Benzene	7,300	800		ppbv	800	4/7/2012 5:34 PM
Benzyl chloride	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Bromodichloromethane	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Bromoform	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Bromomethane	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Carbon disulfide	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Carbon tetrachloride	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Chlorobenzene	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Chlorodibromomethane	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Chloroethane	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Chloroform	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Chloromethane	ND	800	U	ppbv	800	4/7/2012 5:34 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	4/7/2012 5:34 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	4/7/2012 5:34 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 9:58:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-011	**Matrix:**	Air
Client Sample ID:	VA1109		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	15,000	1,600		ppbv	800	4/7/2012 5:34 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Ethyl acetate	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Ethylbenzene	ND	1,600	U	ppbv	800	4/7/2012 5:34 PM
Heptane	5,400	800		ppbv	800	4/7/2012 5:34 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	4/7/2012 5:34 PM
m,p-Xylene	1,700	1,600		ppbv	800	4/7/2012 5:34 PM
Methylene chloride	ND	4,000	U	ppbv	800	4/7/2012 5:34 PM
n-Hexane	14,000	1,600		ppbv	800	4/7/2012 5:34 PM
Naphthalene	ND	800	U	ppbv	800	4/7/2012 5:34 PM
o-Xylene	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Propylene	1,100	800		ppbv	800	4/7/2012 5:34 PM
Styrene	ND	800	U	ppbv	800	4/7/2012 5:34 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Tetrachloroethene	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Tetrahydrofuran	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Toluene	18,000	800		ppbv	800	4/7/2012 5:34 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	4/7/2012 5:34 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Trichloroethene	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Vinyl acetate	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Vinyl chloride	ND	800	U	ppbv	800	4/7/2012 5:34 PM
Xylenes, Total	1,700	2,400	J	ppbv	800	4/7/2012 5:34 PM
Surr: 4-Bromofluorobenzene	97.3	70-130		%REC	800	4/7/2012 5:34 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,700,000	190,000		µg/m³	1600	4/9/2012 7:22 PM
C9-C10 Aromatic Hydrocarbons	ND	210,000	U	µg/m³	1600	4/9/2012 7:22 PM
C9-C12 Aliphatic Hydrocarbons	ND	300,000	U	µg/m³	1600	4/9/2012 7:22 PM
Surr: 4-Bromofluorobenzene	99.2	70-130		%REC	1600	4/9/2012 7:22 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 10:36:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-012	**Matrix:**	Air
Client Sample ID:	VA1110		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.64	0.10		%	1	3/30/2012 2:53 PM
Carbon Monoxide	ND	0.10	U	%	1	3/30/2012 2:53 PM
Methane	ND	0.50	U	%	1	3/30/2012 2:53 PM
Nitrogen	80	0.10		%	1	3/30/2012 2:53 PM
Oxygen	18	0.10		%	1	3/30/2012 2:53 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
1,3-Butadiene	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
2-Butanone	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
2-Hexanone	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Acetone	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Benzene	150,000	8,000		ppbv	8000	4/7/2012 7:01 PM
Benzyl chloride	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Bromodichloromethane	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Bromoform	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Bromomethane	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Carbon disulfide	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Chlorobenzene	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Chloroethane	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Chloroform	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Chloromethane	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 10:36:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-012	**Matrix:**	Air
Client Sample ID:	VA1110		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	290,000	16,000		ppbv	8000	4/7/2012 7:01 PM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Ethyl acetate	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Ethylbenzene	ND	16,000	U	ppbv	8000	4/7/2012 7:01 PM
Heptane	90,000	8,000		ppbv	8000	4/7/2012 7:01 PM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	4/7/2012 7:01 PM
m,p-Xylene	13,000	16,000	J	ppbv	8000	4/7/2012 7:01 PM
Methylene chloride	ND	40,000	U	ppbv	8000	4/7/2012 7:01 PM
n-Hexane	220,000	16,000		ppbv	8000	4/7/2012 7:01 PM
Naphthalene	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
o-Xylene	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Propylene	9,600	8,000		ppbv	8000	4/7/2012 7:01 PM
Styrene	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Tetrachloroethene	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Toluene	220,000	8,000		ppbv	8000	4/7/2012 7:01 PM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Trichloroethene	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Vinyl acetate	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Vinyl chloride	ND	8,000	U	ppbv	8000	4/7/2012 7:01 PM
Xylenes, Total	13,000	24,000	J	ppbv	8000	4/7/2012 7:01 PM
Surr: 4-Bromofluorobenzene	97.1	70-130		%REC	8000	4/7/2012 7:01 PM
Mass APH Air		**Method:**				**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	8,600,000	2,300,000		µg/m³	20000	4/9/2012 8:54 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	U	µg/m³	20000	4/9/2012 8:54 PM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000	U	µg/m³	20000	4/9/2012 8:54 PM
Surr: 4-Bromofluorobenzene	97.2	70-130		%REC	20000	4/9/2012 8:54 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 2:06:00 PM
Project:	Kirtland AFB		
Lab ID:	1203903-013	**Matrix:**	Air
Client Sample ID:	VA1124		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.42	0.10		%	1	3/30/2012 3:09 PM
Carbon Monoxide	ND	0.10	U	%	1	3/30/2012 3:09 PM
Methane	ND	0.50	U	%	1	3/30/2012 3:09 PM
Nitrogen	79	0.10		%	1	3/30/2012 3:09 PM
Oxygen	20	0.10		%	1	3/30/2012 3:09 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	4/10/2012 5:22 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	4/10/2012 5:22 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	4/10/2012 5:22 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	4/10/2012 5:22 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	4/10/2012 5:22 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	4/10/2012 5:22 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	4/10/2012 5:22 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	4/10/2012 5:22 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	4/10/2012 5:22 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	4/10/2012 5:22 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	4/10/2012 5:22 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	4/10/2012 5:22 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	4/10/2012 5:22 PM
1,3-Butadiene	ND	40	U	ppbv	40	4/10/2012 5:22 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	4/10/2012 5:22 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	4/10/2012 5:22 PM
2-Butanone	ND	40	U	ppbv	40	4/10/2012 5:22 PM
2-Hexanone	ND	40	U	ppbv	40	4/10/2012 5:22 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Acetone	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Benzene	130	40		ppbv	40	4/10/2012 5:22 PM
Benzyl chloride	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Bromodichloromethane	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Bromoform	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Bromomethane	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Carbon disulfide	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Carbon tetrachloride	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Chlorobenzene	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Chlorodibromomethane	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Chloroethane	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Chloroform	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Chloromethane	ND	40	U	ppbv	40	4/10/2012 5:22 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	4/10/2012 5:22 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	4/10/2012 5:22 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 2:06:00 PM
Project:	Kirtland AFB		
Lab ID:	1203903-013	**Matrix:**	Air
Client Sample ID:	VA1124		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	380	80		ppbv	40	4/10/2012 5:22 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Ethyl acetate	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Ethylbenzene	ND	80	U	ppbv	40	4/10/2012 5:22 PM
Heptane	250	40		ppbv	40	4/10/2012 5:22 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	4/10/2012 5:22 PM
m,p-Xylene	100	80		ppbv	40	4/10/2012 5:22 PM
Methylene chloride	ND	200	U	ppbv	40	4/10/2012 5:22 PM
n-Hexane	160	80		ppbv	40	4/10/2012 5:22 PM
Naphthalene	ND	40	U	ppbv	40	4/10/2012 5:22 PM
o-Xylene	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Propylene	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Styrene	ND	40	U	ppbv	40	4/10/2012 5:22 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Tetrachloroethene	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Tetrahydrofuran	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Toluene	620	40		ppbv	40	4/10/2012 5:22 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	4/10/2012 5:22 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Trichloroethene	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Vinyl acetate	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Vinyl chloride	ND	40	U	ppbv	40	4/10/2012 5:22 PM
Xylenes, Total	100	120	J	ppbv	40	4/10/2012 5:22 PM
Surr: 4-Bromofluorobenzene	94.6	70-130		%REC	40	4/10/2012 5:22 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	47,000	23,000		µg/m³	200	4/10/2012 5:09 PM
C9-C10 Aromatic Hydrocarbons	ND	27,000	U	µg/m³	200	4/10/2012 5:09 PM
C9-C12 Aliphatic Hydrocarbons	ND	38,000	U	µg/m³	200	4/10/2012 5:09 PM
Surr: 4-Bromofluorobenzene	97.9	70-130		%REC	200	4/10/2012 5:09 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 2:50:00 PM
Project:	Kirtland AFB		
Lab ID:	1203903-014	**Matrix:**	Air
Client Sample ID:	VA1125		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.53	0.10		%	1	3/30/2012 3:24 PM
Carbon Monoxide	ND	0.10	U	%	1	3/30/2012 3:24 PM
Methane	ND	0.50	U	%	1	3/30/2012 3:24 PM
Nitrogen	80	0.10		%	1	3/30/2012 3:24 PM
Oxygen	19	0.10		%	1	3/30/2012 3:24 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	4/10/2012 6:48 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	4/10/2012 6:48 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	4/10/2012 6:48 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	4/10/2012 6:48 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	4/10/2012 6:48 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	4/10/2012 6:48 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	4/10/2012 6:48 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	4/10/2012 6:48 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	4/10/2012 6:48 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	4/10/2012 6:48 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	4/10/2012 6:48 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	4/10/2012 6:48 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	4/10/2012 6:48 PM
1,3-Butadiene	ND	40	U	ppbv	40	4/10/2012 6:48 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	4/10/2012 6:48 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	4/10/2012 6:48 PM
2-Butanone	ND	40	U	ppbv	40	4/10/2012 6:48 PM
2-Hexanone	ND	40	U	ppbv	40	4/10/2012 6:48 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Acetone	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Benzene	120	40		ppbv	40	4/10/2012 6:48 PM
Benzyl chloride	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Bromodichloromethane	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Bromoform	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Bromomethane	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Carbon disulfide	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Carbon tetrachloride	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Chlorobenzene	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Chlorodibromomethane	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Chloroethane	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Chloroform	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Chloromethane	ND	40	U	ppbv	40	4/10/2012 6:48 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	4/10/2012 6:48 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	4/10/2012 6:48 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 2:50:00 PM
Project:	Kirtland AFB		
Lab ID:	1203903-014	**Matrix:**	Air
Client Sample ID:	VA1125		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	530	80		ppbv	40	4/10/2012 6:48 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Ethyl acetate	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Ethylbenzene	ND	80	U	ppbv	40	4/10/2012 6:48 PM
Heptane	210	40		ppbv	40	4/10/2012 6:48 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	4/10/2012 6:48 PM
m,p-Xylene	110	80		ppbv	40	4/10/2012 6:48 PM
Methylene chloride	ND	200	U	ppbv	40	4/10/2012 6:48 PM
n-Hexane	180	80		ppbv	40	4/10/2012 6:48 PM
Naphthalene	ND	40	U	ppbv	40	4/10/2012 6:48 PM
o-Xylene	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Propylene	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Styrene	ND	40	U	ppbv	40	4/10/2012 6:48 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Tetrachloroethene	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Tetrahydrofuran	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Toluene	640	40		ppbv	40	4/10/2012 6:48 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	4/10/2012 6:48 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Trichloroethene	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Vinyl acetate	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Vinyl chloride	ND	40	U	ppbv	40	4/10/2012 6:48 PM
Xylenes, Total	110	120	J	ppbv	40	4/10/2012 6:48 PM
Surr: 4-Bromofluorobenzene	95.4	70-130		%REC	40	4/10/2012 6:48 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	16,000	4,700		µg/m³	40	4/10/2012 2:04 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	4/10/2012 2:04 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	4/10/2012 2:04 PM
Surr: 4-Bromofluorobenzene	97.6	70-130		%REC	40	4/10/2012 2:04 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 3:26:00 PM
Project:	Kirtland AFB		
Lab ID:	1203903-015	**Matrix:**	Air
Client Sample ID:	VA1126		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.55	0.10		%	1	3/30/2012 3:39 PM
Carbon Monoxide	ND	0.10	U	%	1	3/30/2012 3:39 PM
Methane	ND	0.50	U	%	1	3/30/2012 3:39 PM
Nitrogen	79	0.10		%	1	3/30/2012 3:39 PM
Oxygen	19	0.10		%	1	3/30/2012 3:39 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	4/10/2012 7:30 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	4/10/2012 7:30 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	4/10/2012 7:30 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	4/10/2012 7:30 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	4/10/2012 7:30 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	4/10/2012 7:30 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	4/10/2012 7:30 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	4/10/2012 7:30 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	4/10/2012 7:30 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	4/10/2012 7:30 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	4/10/2012 7:30 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	4/10/2012 7:30 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	4/10/2012 7:30 PM
1,3-Butadiene	ND	40	U	ppbv	40	4/10/2012 7:30 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	4/10/2012 7:30 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	4/10/2012 7:30 PM
2-Butanone	ND	40	U	ppbv	40	4/10/2012 7:30 PM
2-Hexanone	ND	40	U	ppbv	40	4/10/2012 7:30 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Acetone	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Benzene	120	40		ppbv	40	4/10/2012 7:30 PM
Benzyl chloride	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Bromodichloromethane	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Bromoform	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Bromomethane	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Carbon disulfide	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Carbon tetrachloride	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Chlorobenzene	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Chlorodibromomethane	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Chloroethane	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Chloroform	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Chloromethane	ND	40	U	ppbv	40	4/10/2012 7:30 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	4/10/2012 7:30 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	4/10/2012 7:30 PM

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WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 3:26:00 PM
Project:	Kirtland AFB		
Lab ID:	1203903-015	**Matrix:**	Air
Client Sample ID:	VA1126		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	210	80		ppbv	40	4/10/2012 7:30 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Ethyl acetate	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Ethylbenzene	ND	80	U	ppbv	40	4/10/2012 7:30 PM
Heptane	200	40		ppbv	40	4/10/2012 7:30 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	4/10/2012 7:30 PM
m,p-Xylene	110	80		ppbv	40	4/10/2012 7:30 PM
Methylene chloride	ND	200	U	ppbv	40	4/10/2012 7:30 PM
n-Hexane	89	80		ppbv	40	4/10/2012 7:30 PM
Naphthalene	ND	40	U	ppbv	40	4/10/2012 7:30 PM
o-Xylene	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Propylene	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Styrene	ND	40	U	ppbv	40	4/10/2012 7:30 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Tetrachloroethene	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Tetrahydrofuran	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Toluene	640	40		ppbv	40	4/10/2012 7:30 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	4/10/2012 7:30 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Trichloroethene	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Vinyl acetate	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Vinyl chloride	ND	40	U	ppbv	40	4/10/2012 7:30 PM
Xylenes, Total	110	120	J	ppbv	40	4/10/2012 7:30 PM
Surr: 4-Bromofluorobenzene	93.8	70-130		%REC	40	4/10/2012 7:30 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	7,300	940		µg/m³	8	4/11/2012 3:23 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	4/11/2012 3:23 PM
C9-C12 Aliphatic Hydrocarbons	860	1,500	J	µg/m³	8	4/11/2012 3:23 PM
Surr: 4-Bromofluorobenzene	98.5	70-130		%REC	8	4/11/2012 3:23 PM

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Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/20/2012 9:14:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-016	**Matrix:**	Air
Client Sample ID:	VA1127		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	2.3	0.10		%	1	3/30/2012 3:57 PM
Carbon Monoxide	ND	0.10	U	%	1	3/30/2012 3:57 PM
Methane	ND	0.50	U	%	1	3/30/2012 3:57 PM
Nitrogen	81	0.10		%	1	3/30/2012 3:57 PM
Oxygen	16	0.10		%	1	3/30/2012 3:57 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	4/11/2012 2:05 AM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	4/11/2012 2:05 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	4/11/2012 2:05 AM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	4/11/2012 2:05 AM
1,1-Dichloroethane	ND	400	U	ppbv	400	4/11/2012 2:05 AM
1,1-Dichloroethene	ND	400	U	ppbv	400	4/11/2012 2:05 AM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	4/11/2012 2:05 AM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	4/11/2012 2:05 AM
1,2-Dibromoethane	ND	400	U	ppbv	400	4/11/2012 2:05 AM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	4/11/2012 2:05 AM
1,2-Dichloroethane	ND	400	U	ppbv	400	4/11/2012 2:05 AM
1,2-Dichloropropane	ND	400	U	ppbv	400	4/11/2012 2:05 AM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	4/11/2012 2:05 AM
1,3-Butadiene	ND	400	U	ppbv	400	4/11/2012 2:05 AM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	4/11/2012 2:05 AM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	4/11/2012 2:05 AM
2-Butanone	ND	400	U	ppbv	400	4/11/2012 2:05 AM
2-Hexanone	ND	400	U	ppbv	400	4/11/2012 2:05 AM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Acetone	620	400		ppbv	400	4/11/2012 2:05 AM
Benzene	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Benzyl chloride	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Bromodichloromethane	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Bromoform	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Bromomethane	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Carbon disulfide	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Carbon tetrachloride	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Chlorobenzene	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Chlorodibromomethane	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Chloroethane	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Chloroform	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Chloromethane	ND	400	U	ppbv	400	4/11/2012 2:05 AM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	4/11/2012 2:05 AM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	4/11/2012 2:05 AM

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WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/20/2012 9:14:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-016	**Matrix:**	Air
Client Sample ID:	VA1127		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	2,000	800		ppbv	400	4/11/2012 2:05 AM
Dichlorodifluoromethane	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Ethyl acetate	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Ethylbenzene	ND	800	U	ppbv	400	4/11/2012 2:05 AM
Heptane	400	400		ppbv	400	4/11/2012 2:05 AM
Hexachlorobutadiene	ND	800	U	ppbv	400	4/11/2012 2:05 AM
m,p-Xylene	ND	800	U	ppbv	400	4/11/2012 2:05 AM
Methylene chloride	ND	2,000	U	ppbv	400	4/11/2012 2:05 AM
n-Hexane	ND	800	U	ppbv	400	4/11/2012 2:05 AM
Naphthalene	ND	400	U	ppbv	400	4/11/2012 2:05 AM
o-Xylene	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Propylene	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Styrene	ND	400	U	ppbv	400	4/11/2012 2:05 AM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Tetrachloroethene	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Tetrahydrofuran	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Toluene	1,400	400		ppbv	400	4/11/2012 2:05 AM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	4/11/2012 2:05 AM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Trichloroethene	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Trichlorofluoromethane	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Vinyl acetate	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Vinyl chloride	ND	400	U	ppbv	400	4/11/2012 2:05 AM
Xylenes, Total	ND	1,200	U	ppbv	400	4/11/2012 2:05 AM
Surr: 4-Bromofluorobenzene	93.8	70-130		%REC	400	4/11/2012 2:05 AM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	180,000	94,000		µg/m³	800	4/7/2012 6:35 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	4/7/2012 6:35 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	4/7/2012 6:35 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	800	4/7/2012 6:35 PM

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WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/20/2012 9:52:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-017	**Matrix:**	Air
Client Sample ID:	VA1128		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.39	0.10		%	1	3/30/2012 4:13 PM
Carbon Monoxide	ND	0.10	U	%	1	3/30/2012 4:13 PM
Methane	ND	0.50	U	%	1	3/30/2012 4:13 PM
Nitrogen	80	0.10		%	1	3/30/2012 4:13 PM
Oxygen	19	0.10		%	1	3/30/2012 4:13 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	4/11/2012 3:34 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	4/11/2012 3:34 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	4/11/2012 3:34 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	4/11/2012 3:34 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	4/11/2012 3:34 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	4/11/2012 3:34 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	4/11/2012 3:34 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	4/11/2012 3:34 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	4/11/2012 3:34 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	4/11/2012 3:34 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	4/11/2012 3:34 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	4/11/2012 3:34 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	4/11/2012 3:34 AM
1,3-Butadiene	ND	800	U	ppbv	800	4/11/2012 3:34 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	4/11/2012 3:34 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	4/11/2012 3:34 AM
2-Butanone	ND	800	U	ppbv	800	4/11/2012 3:34 AM
2-Hexanone	ND	800	U	ppbv	800	4/11/2012 3:34 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Acetone	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Benzene	22,000	800		ppbv	800	4/11/2012 3:34 AM
Benzyl chloride	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Bromodichloromethane	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Bromoform	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Bromomethane	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Carbon disulfide	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Carbon tetrachloride	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Chlorobenzene	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Chlorodibromomethane	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Chloroethane	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Chloroform	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Chloromethane	ND	800	U	ppbv	800	4/11/2012 3:34 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	4/11/2012 3:34 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	4/11/2012 3:34 AM

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WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/20/2012 9:52:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-017	**Matrix:**	Air
Client Sample ID:	VA1128		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	21,000	1,600		ppbv	800	4/11/2012 3:34 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Ethyl acetate	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Ethylbenzene	ND	1,600	U	ppbv	800	4/11/2012 3:34 AM
Heptane	4,800	800		ppbv	800	4/11/2012 3:34 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	4/11/2012 3:34 AM
m,p-Xylene	860	1,600	J	ppbv	800	4/11/2012 3:34 AM
Methylene chloride	ND	4,000	U	ppbv	800	4/11/2012 3:34 AM
n-Hexane	15,000	1,600		ppbv	800	4/11/2012 3:34 AM
Naphthalene	ND	800	U	ppbv	800	4/11/2012 3:34 AM
o-Xylene	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Propylene	1,800	800		ppbv	800	4/11/2012 3:34 AM
Styrene	ND	800	U	ppbv	800	4/11/2012 3:34 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Tetrachloroethene	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Tetrahydrofuran	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Toluene	16,000	800		ppbv	800	4/11/2012 3:34 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	4/11/2012 3:34 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Trichloroethene	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Vinyl acetate	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Vinyl chloride	ND	800	U	ppbv	800	4/11/2012 3:34 AM
Xylenes, Total	860	2,400	J	ppbv	800	4/11/2012 3:34 AM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	800	4/11/2012 3:34 AM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,400,000	190,000		µg/m³	1600	4/10/2012 5:53 PM
C9-C10 Aromatic Hydrocarbons	ND	210,000	U	µg/m³	1600	4/10/2012 5:53 PM
C9-C12 Aliphatic Hydrocarbons	ND	300,000	U	µg/m³	1600	4/10/2012 5:53 PM
Surr: 4-Bromofluorobenzene	99.5	70-130		%REC	1600	4/10/2012 5:53 PM

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WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/20/2012 9:52:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-018	**Matrix:**	Air
Client Sample ID:	VA1129		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.13	0.10		%	1	3/30/2012 4:29 PM
Carbon Monoxide	ND	0.10	U	%	1	3/30/2012 4:29 PM
Methane	ND	0.50	U	%	1	3/30/2012 4:29 PM
Nitrogen	79	0.10		%	1	3/30/2012 4:29 PM
Oxygen	20	0.10		%	1	3/30/2012 4:29 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	4/11/2012 4:19 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	4/11/2012 4:19 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	4/11/2012 4:19 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	4/11/2012 4:19 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	4/11/2012 4:19 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	4/11/2012 4:19 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	4/11/2012 4:19 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	4/11/2012 4:19 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	4/11/2012 4:19 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	4/11/2012 4:19 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	4/11/2012 4:19 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	4/11/2012 4:19 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	4/11/2012 4:19 AM
1,3-Butadiene	ND	800	U	ppbv	800	4/11/2012 4:19 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	4/11/2012 4:19 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	4/11/2012 4:19 AM
2-Butanone	ND	800	U	ppbv	800	4/11/2012 4:19 AM
2-Hexanone	ND	800	U	ppbv	800	4/11/2012 4:19 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Acetone	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Benzene	14,000	800		ppbv	800	4/11/2012 4:19 AM
Benzyl chloride	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Bromodichloromethane	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Bromoform	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Bromomethane	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Carbon disulfide	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Carbon tetrachloride	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Chlorobenzene	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Chlorodibromomethane	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Chloroethane	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Chloroform	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Chloromethane	ND	800	U	ppbv	800	4/11/2012 4:19 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	4/11/2012 4:19 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	4/11/2012 4:19 AM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/20/2012 9:52:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-018	**Matrix:**	Air
Client Sample ID:	VA1129		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	15,000	1,600		ppbv	800	4/11/2012 4:19 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Ethyl acetate	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Ethylbenzene	ND	1,600	U	ppbv	800	4/11/2012 4:19 AM
Heptane	3,200	800		ppbv	800	4/11/2012 4:19 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	4/11/2012 4:19 AM
m,p-Xylene	ND	1,600	U	ppbv	800	4/11/2012 4:19 AM
Methylene chloride	ND	4,000	U	ppbv	800	4/11/2012 4:19 AM
n-Hexane	10,000	1,600		ppbv	800	4/11/2012 4:19 AM
Naphthalene	ND	800	U	ppbv	800	4/11/2012 4:19 AM
o-Xylene	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Propylene	1,100	800		ppbv	800	4/11/2012 4:19 AM
Styrene	ND	800	U	ppbv	800	4/11/2012 4:19 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Tetrachloroethene	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Tetrahydrofuran	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Toluene	11,000	800		ppbv	800	4/11/2012 4:19 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	4/11/2012 4:19 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Trichloroethene	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Vinyl acetate	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Vinyl chloride	ND	800	U	ppbv	800	4/11/2012 4:19 AM
Xylenes, Total	ND	2,400	U	ppbv	800	4/11/2012 4:19 AM
Surr: 4-Bromofluorobenzene	95.8	70-130		%REC	800	4/11/2012 4:19 AM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,200,000	94,000		µg/m³	800	4/7/2012 8:52 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	4/7/2012 8:52 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	4/7/2012 8:52 PM
Surr: 4-Bromofluorobenzene	98.2	70-130		%REC	800	4/7/2012 8:52 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/20/2012 10:39:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-019	**Matrix:**	Air
Client Sample ID:	VA1130		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.24	0.10		%	1	3/30/2012 4:44 PM
Carbon Monoxide	ND	0.10	U	%	1	3/30/2012 4:44 PM
Methane	ND	0.50	U	%	1	3/30/2012 4:44 PM
Nitrogen	79	0.10		%	1	3/30/2012 4:44 PM
Oxygen	20	0.10		%	1	3/30/2012 4:44 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
1,1,2,2-Tetrachloroethane	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
1,1,2-Trichloroethane	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
1,1-Dichloroethane	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
1,1-Dichloroethene	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
1,2,4-Trichlorobenzene	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
1,2,4-Trimethylbenzene	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
1,2-Dibromoethane	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
1,2-Dichlorobenzene	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
1,2-Dichloroethane	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
1,2-Dichloropropane	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
1,3,5-Trimethylbenzene	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
1,3-Butadiene	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
1,3-Dichlorobenzene	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
1,4-Dichlorobenzene	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
2-Butanone	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
2-Hexanone	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
4-Methyl-2-pentanone	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Acetone	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Benzene	250,000	20,000		ppbv	20000	4/11/2012 5:42 AM
Benzyl chloride	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Bromodichloromethane	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Bromoform	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Bromomethane	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Carbon disulfide	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Carbon tetrachloride	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Chlorobenzene	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Chlorodibromomethane	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Chloroethane	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Chloroform	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Chloromethane	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
cis-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
cis-1,3-dichloropropene	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/20/2012 10:39:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-019	**Matrix:**	Air
Client Sample ID:	VA1130		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	650,000	40,000		ppbv	20000	4/11/2012 5:42 AM
Dichlorodifluoromethane	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Ethyl acetate	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Ethylbenzene	ND	40,000	U	ppbv	20000	4/11/2012 5:42 AM
Heptane	460,000	20,000		ppbv	20000	4/11/2012 5:42 AM
Hexachlorobutadiene	ND	40,000	U	ppbv	20000	4/11/2012 5:42 AM
m,p-Xylene	34,000	40,000	J	ppbv	20000	4/11/2012 5:42 AM
Methylene chloride	ND	100,000	U	ppbv	20000	4/11/2012 5:42 AM
n-Hexane	620,000	40,000		ppbv	20000	4/11/2012 5:42 AM
Naphthalene	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
o-Xylene	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Propylene	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Styrene	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
tert-Butyl Methyl Ether	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Tetrachloroethene	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Tetrahydrofuran	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Toluene	400,000	20,000		ppbv	20000	4/11/2012 5:42 AM
trans-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
trans-1,3-dichloropropene	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Trichloroethene	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Trichlorofluoromethane	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Vinyl acetate	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Vinyl chloride	ND	20,000	U	ppbv	20000	4/11/2012 5:42 AM
Xylenes, Total	34,000	60,000	J	ppbv	20000	4/11/2012 5:42 AM
Surr: 4-Bromofluorobenzene	94.2	70-130		%REC	20000	4/11/2012 5:42 AM
Mass APH Air		**Method:**				**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	19,000,000	2,300,000		µg/m³	20000	4/10/2012 8:58 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	U	µg/m³	20000	4/10/2012 8:58 PM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000	U	µg/m³	20000	4/10/2012 8:58 PM
Surr: 4-Bromofluorobenzene	96.7	70-130		%REC	20000	4/10/2012 8:58 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 11:42:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-020	**Matrix:**	Air
Client Sample ID:	VA1137		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.14	0.10		%	1	4/2/2012 1:12 PM
Carbon Monoxide	ND	0.10	U	%	1	4/2/2012 1:12 PM
Methane	ND	0.50	U	%	1	4/2/2012 1:12 PM
Nitrogen	79	0.10		%	1	4/2/2012 1:12 PM
Oxygen	21	0.10		%	1	4/2/2012 1:12 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	4/7/2012 9:56 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	4/7/2012 9:56 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	4/7/2012 9:56 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	4/7/2012 9:56 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	4/7/2012 9:56 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	4/7/2012 9:56 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	4/7/2012 9:56 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	4/7/2012 9:56 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	4/7/2012 9:56 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	4/7/2012 9:56 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	4/7/2012 9:56 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	4/7/2012 9:56 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	4/7/2012 9:56 PM
1,3-Butadiene	ND	800	U	ppbv	800	4/7/2012 9:56 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	4/7/2012 9:56 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	4/7/2012 9:56 PM
2-Butanone	ND	800	U	ppbv	800	4/7/2012 9:56 PM
2-Hexanone	ND	800	U	ppbv	800	4/7/2012 9:56 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	4/7/2012 9:56 PM
Acetone	970	800		ppbv	800	4/7/2012 9:56 PM
Benzene	20,000	800		ppbv	800	4/7/2012 9:56 PM
Benzyl chloride	ND	800	U	ppbv	800	4/7/2012 9:56 PM
Bromodichloromethane	ND	800	U	ppbv	800	4/7/2012 9:56 PM
Bromoform	ND	800	U	ppbv	800	4/7/2012 9:56 PM
Bromomethane	ND	800	U	ppbv	800	4/7/2012 9:56 PM
Carbon disulfide	ND	800	U	ppbv	800	4/7/2012 9:56 PM
Carbon tetrachloride	ND	800	U	ppbv	800	4/7/2012 9:56 PM
Chlorobenzene	ND	800	U	ppbv	800	4/7/2012 9:56 PM
Chlorodibromomethane	ND	800	U	ppbv	800	4/7/2012 9:56 PM
Chloroethane	ND	800	U	ppbv	800	4/7/2012 9:56 PM
Chloroform	ND	800	U	ppbv	800	4/7/2012 9:56 PM
Chloromethane	ND	800	U	ppbv	800	4/7/2012 9:56 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	4/7/2012 9:56 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	4/7/2012 9:56 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 11:42:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-020	**Matrix:**	Air
Client Sample ID:	VA1137		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	41,000	16,000		ppbv	8000	4/11/2012 4:01 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	4/7/2012 9:56 PM
Ethyl acetate	ND	800	U	ppbv	800	4/7/2012 9:56 PM
Ethylbenzene	1,300	1,600	J	ppbv	800	4/7/2012 9:56 PM
Heptane	21,000	800		ppbv	800	4/7/2012 9:56 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	4/7/2012 9:56 PM
m,p-Xylene	3,300	1,600		ppbv	800	4/7/2012 9:56 PM
Methylene chloride	ND	4,000	U	ppbv	800	4/7/2012 9:56 PM
n-Hexane	31,000	1,600		ppbv	800	4/7/2012 9:56 PM
Naphthalene	ND	800	U	ppbv	800	4/7/2012 9:56 PM
o-Xylene	900	800		ppbv	800	4/7/2012 9:56 PM
Propylene	1,300	800		ppbv	800	4/7/2012 9:56 PM
Styrene	ND	800	U	ppbv	800	4/7/2012 9:56 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	4/7/2012 9:56 PM
Tetrachloroethene	ND	800	U	ppbv	800	4/7/2012 9:56 PM
Tetrahydrofuran	ND	800	U	ppbv	800	4/7/2012 9:56 PM
Toluene	35,000	800		ppbv	800	4/7/2012 9:56 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	4/7/2012 9:56 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	4/7/2012 9:56 PM
Trichloroethene	ND	800	U	ppbv	800	4/7/2012 9:56 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	4/7/2012 9:56 PM
Vinyl acetate	ND	800	U	ppbv	800	4/7/2012 9:56 PM
Vinyl chloride	ND	800	U	ppbv	800	4/7/2012 9:56 PM
Xylenes, Total	4,200	2,400		ppbv	800	4/7/2012 9:56 PM
Surr: 4-Bromofluorobenzene	96.3	70-130		%REC	800	4/7/2012 9:56 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	750,000	47,000		µg/m³	400	4/11/2012 12:51 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	4/11/2012 12:51 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	4/11/2012 12:51 AM
Surr: 4-Bromofluorobenzene	97.9	70-130		%REC	400	4/11/2012 12:51 AM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 12:22:00 PM
Project:	Kirtland AFB		
Lab ID:	1203903-021	**Matrix:**	Air
Client Sample ID:	VA1138		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.37	0.10		%	1	4/2/2012 1:31 PM
Carbon Monoxide	ND	0.10	U	%	1	4/2/2012 1:31 PM
Methane	ND	0.50	U	%	1	4/2/2012 1:31 PM
Nitrogen	79	0.10		%	1	4/2/2012 1:31 PM
Oxygen	20	0.10		%	1	4/2/2012 1:31 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	4/7/2012 10:41 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	4/7/2012 10:41 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	4/7/2012 10:41 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	4/7/2012 10:41 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	4/7/2012 10:41 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	4/7/2012 10:41 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	4/7/2012 10:41 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	4/7/2012 10:41 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	4/7/2012 10:41 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	4/7/2012 10:41 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	4/7/2012 10:41 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	4/7/2012 10:41 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	4/7/2012 10:41 PM
1,3-Butadiene	ND	800	U	ppbv	800	4/7/2012 10:41 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	4/7/2012 10:41 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	4/7/2012 10:41 PM
2-Butanone	ND	800	U	ppbv	800	4/7/2012 10:41 PM
2-Hexanone	ND	800	U	ppbv	800	4/7/2012 10:41 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Acetone	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Benzene	5,700	800		ppbv	800	4/7/2012 10:41 PM
Benzyl chloride	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Bromodichloromethane	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Bromoform	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Bromomethane	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Carbon disulfide	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Carbon tetrachloride	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Chlorobenzene	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Chlorodibromomethane	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Chloroethane	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Chloroform	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Chloromethane	ND	800	U	ppbv	800	4/7/2012 10:41 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	4/7/2012 10:41 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	4/7/2012 10:41 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 12:22:00 PM
Project:	Kirtland AFB		
Lab ID:	1203903-021	**Matrix:**	Air
Client Sample ID:	VA1138		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	12,000	1,600		ppbv	800	4/7/2012 10:41 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Ethyl acetate	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Ethylbenzene	1,600	1,600		ppbv	800	4/7/2012 10:41 PM
Heptane	15,000	800		ppbv	800	4/7/2012 10:41 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	4/7/2012 10:41 PM
m,p-Xylene	4,200	1,600		ppbv	800	4/7/2012 10:41 PM
Methylene chloride	ND	4,000	U	ppbv	800	4/7/2012 10:41 PM
n-Hexane	6,100	1,600		ppbv	800	4/7/2012 10:41 PM
Naphthalene	ND	800	U	ppbv	800	4/7/2012 10:41 PM
o-Xylene	1,300	800		ppbv	800	4/7/2012 10:41 PM
Propylene	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Styrene	ND	800	U	ppbv	800	4/7/2012 10:41 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Tetrachloroethene	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Tetrahydrofuran	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Toluene	26,000	800		ppbv	800	4/7/2012 10:41 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	4/7/2012 10:41 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Trichloroethene	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Vinyl acetate	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Vinyl chloride	ND	800	U	ppbv	800	4/7/2012 10:41 PM
Xylenes, Total	5,500	2,400		ppbv	800	4/7/2012 10:41 PM
Surr: 4-Bromofluorobenzene	95.4	70-130		%REC	800	4/7/2012 10:41 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	770,000	94,000		µg/m³	800	4/10/2012 1:25 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	4/10/2012 1:25 AM
C9-C12 Aliphatic Hydrocarbons	120,000	150,000	J	µg/m³	800	4/10/2012 1:25 AM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	800	4/10/2012 1:25 AM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 12:22:00 PM
Project:	Kirtland AFB		
Lab ID:	1203903-022	**Matrix:**	Air
Client Sample ID:	VA1139		

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	4/2/2012 1:47 PM
Carbon Monoxide	ND	0.10	U	%	1	4/2/2012 1:47 PM
Methane	ND	0.50	U	%	1	4/2/2012 1:47 PM
Nitrogen	81	0.10		%	1	4/2/2012 1:47 PM
Oxygen	18	0.10		%	1	4/2/2012 1:47 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	4/7/2012 11:25 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	4/7/2012 11:25 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	4/7/2012 11:25 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	4/7/2012 11:25 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	4/7/2012 11:25 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	4/7/2012 11:25 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	4/7/2012 11:25 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	4/7/2012 11:25 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	4/7/2012 11:25 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	4/7/2012 11:25 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	4/7/2012 11:25 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	4/7/2012 11:25 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	4/7/2012 11:25 PM
1,3-Butadiene	ND	800	U	ppbv	800	4/7/2012 11:25 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	4/7/2012 11:25 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	4/7/2012 11:25 PM
2-Butanone	ND	800	U	ppbv	800	4/7/2012 11:25 PM
2-Hexanone	ND	800	U	ppbv	800	4/7/2012 11:25 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Acetone	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Benzene	9,300	800		ppbv	800	4/7/2012 11:25 PM
Benzyl chloride	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Bromodichloromethane	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Bromoform	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Bromomethane	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Carbon disulfide	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Carbon tetrachloride	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Chlorobenzene	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Chlorodibromomethane	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Chloroethane	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Chloroform	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Chloromethane	ND	800	U	ppbv	800	4/7/2012 11:25 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	4/7/2012 11:25 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	4/7/2012 11:25 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 12:22:00 PM
Project:	Kirtland AFB		
Lab ID:	1203903-022	**Matrix:**	Air
Client Sample ID:	VA1139		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	23,000	1,600		ppbv	800	4/7/2012 11:25 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Ethyl acetate	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Ethylbenzene	2,200	1,600		ppbv	800	4/7/2012 11:25 PM
Heptane	24,000	800		ppbv	800	4/7/2012 11:25 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	4/7/2012 11:25 PM
m,p-Xylene	5,600	1,600		ppbv	800	4/7/2012 11:25 PM
Methylene chloride	ND	4,000	U	ppbv	800	4/7/2012 11:25 PM
n-Hexane	11,000	1,600		ppbv	800	4/7/2012 11:25 PM
Naphthalene	ND	800	U	ppbv	800	4/7/2012 11:25 PM
o-Xylene	1,700	800		ppbv	800	4/7/2012 11:25 PM
Propylene	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Styrene	ND	800	U	ppbv	800	4/7/2012 11:25 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Tetrachloroethene	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Tetrahydrofuran	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Toluene	35,000	800		ppbv	800	4/7/2012 11:25 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	4/7/2012 11:25 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Trichloroethene	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Vinyl acetate	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Vinyl chloride	ND	800	U	ppbv	800	4/7/2012 11:25 PM
Xylenes, Total	7,300	2,400		ppbv	800	4/7/2012 11:25 PM
Surr: 4-Bromofluorobenzene	95.4	70-130		%REC	800	4/7/2012 11:25 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,300,000	94,000		µg/m³	800	4/9/2012 11:54 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	4/9/2012 11:54 PM
C9-C12 Aliphatic Hydrocarbons	59,000	150,000	J	µg/m³	800	4/9/2012 11:54 PM
Surr: 4-Bromofluorobenzene	99.3	70-130		%REC	800	4/9/2012 11:54 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/20/2012 9:30:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-023	**Matrix:**	Air
Client Sample ID:	VA1140		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.53	0.10		%	1	4/2/2012 2:39 PM
Carbon Monoxide	ND	0.10	U	%	1	4/2/2012 2:39 PM
Methane	ND	0.50	U	%	1	4/2/2012 2:39 PM
Nitrogen	81	0.10		%	1	4/2/2012 2:39 PM
Oxygen	18	0.10		%	1	4/2/2012 2:39 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	4/11/2012 2:50 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	4/11/2012 2:50 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	4/11/2012 2:50 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	4/11/2012 2:50 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	4/11/2012 2:50 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	4/11/2012 2:50 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	4/11/2012 2:50 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	4/11/2012 2:50 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	4/11/2012 2:50 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	4/11/2012 2:50 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	4/11/2012 2:50 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	4/11/2012 2:50 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	4/11/2012 2:50 AM
1,3-Butadiene	ND	800	U	ppbv	800	4/11/2012 2:50 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	4/11/2012 2:50 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	4/11/2012 2:50 AM
2-Butanone	ND	800	U	ppbv	800	4/11/2012 2:50 AM
2-Hexanone	ND	800	U	ppbv	800	4/11/2012 2:50 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Acetone	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Benzene	2,700	800		ppbv	800	4/11/2012 2:50 AM
Benzyl chloride	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Bromodichloromethane	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Bromoform	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Bromomethane	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Carbon disulfide	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Carbon tetrachloride	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Chlorobenzene	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Chlorodibromomethane	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Chloroethane	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Chloroform	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Chloromethane	ND	800	U	ppbv	800	4/11/2012 2:50 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	4/11/2012 2:50 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	4/11/2012 2:50 AM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/20/2012 9:30:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-023	**Matrix:**	Air
Client Sample ID:	VA1140		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	5,600	1,600		ppbv	800	4/11/2012 2:50 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Ethyl acetate	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Ethylbenzene	ND	1,600	U	ppbv	800	4/11/2012 2:50 AM
Heptane	5,600	800		ppbv	800	4/11/2012 2:50 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	4/11/2012 2:50 AM
m,p-Xylene	1,600	1,600	J	ppbv	800	4/11/2012 2:50 AM
Methylene chloride	ND	4,000	U	ppbv	800	4/11/2012 2:50 AM
n-Hexane	3,200	1,600		ppbv	800	4/11/2012 2:50 AM
Naphthalene	ND	800	U	ppbv	800	4/11/2012 2:50 AM
o-Xylene	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Propylene	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Styrene	ND	800	U	ppbv	800	4/11/2012 2:50 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Tetrachloroethene	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Tetrahydrofuran	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Toluene	10,000	800		ppbv	800	4/11/2012 2:50 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	4/11/2012 2:50 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Trichloroethene	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Vinyl acetate	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Vinyl chloride	ND	800	U	ppbv	800	4/11/2012 2:50 AM
Xylenes, Total	1,600	2,400	J	ppbv	800	4/11/2012 2:50 AM
Surr: 4-Bromofluorobenzene	96.3	70-130		%REC	800	4/11/2012 2:50 AM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	290,000	94,000		µg/m³	800	4/7/2012 7:21 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	4/7/2012 7:21 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	4/7/2012 7:21 PM
Surr: 4-Bromofluorobenzene	99.1	70-130		%REC	800	4/7/2012 7:21 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/20/2012 10:15:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-024	**Matrix:**	Air
Client Sample ID:	VA1141		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.61	0.10		%	1	4/2/2012 3:07 PM
Carbon Monoxide	ND	0.10	U	%	1	4/2/2012 3:07 PM
Methane	ND	0.50	U	%	1	4/2/2012 3:07 PM
Nitrogen	81	0.10		%	1	4/2/2012 3:07 PM
Oxygen	18	0.10		%	1	4/2/2012 3:07 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
1,3-Butadiene	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
2-Butanone	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
2-Hexanone	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Acetone	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Benzene	96,000	8,000		ppbv	8000	4/11/2012 5:01 AM
Benzyl chloride	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Bromodichloromethane	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Bromoform	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Bromomethane	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Carbon disulfide	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Chlorobenzene	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Chloroethane	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Chloroform	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Chloromethane	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/20/2012 10:15:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-024	**Matrix:**	Air
Client Sample ID:	VA1141		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	320,000	16,000		ppbv	8000	4/11/2012 5:01 AM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Ethyl acetate	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Ethylbenzene	ND	16,000	U	ppbv	8000	4/11/2012 5:01 AM
Heptane	180,000	8,000		ppbv	8000	4/11/2012 5:01 AM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	4/11/2012 5:01 AM
m,p-Xylene	10,000	16,000	J	ppbv	8000	4/11/2012 5:01 AM
Methylene chloride	ND	40,000	U	ppbv	8000	4/11/2012 5:01 AM
n-Hexane	250,000	16,000		ppbv	8000	4/11/2012 5:01 AM
Naphthalene	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
o-Xylene	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Propylene	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Styrene	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Tetrachloroethene	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Toluene	150,000	8,000		ppbv	8000	4/11/2012 5:01 AM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Trichloroethene	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Vinyl acetate	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Vinyl chloride	ND	8,000	U	ppbv	8000	4/11/2012 5:01 AM
Xylenes, Total	10,000	24,000	J	ppbv	8000	4/11/2012 5:01 AM
Surr: 4-Bromofluorobenzene	96.0	70-130		%REC	8000	4/11/2012 5:01 AM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	8,600,000	940,000		µg/m³	8000	4/7/2012 9:35 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	4/7/2012 9:35 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	4/7/2012 9:35 PM
Surr: 4-Bromofluorobenzene	95.7	70-130		%REC	8000	4/7/2012 9:35 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/20/2012 10:54:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-025	**Matrix:**	Air
Client Sample ID:	VA1142		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.78	0.10		%	1	4/2/2012 3:29 PM
Carbon Monoxide	ND	0.10	U	%	1	4/2/2012 3:29 PM
Methane	ND	0.50	U	%	1	4/2/2012 3:29 PM
Nitrogen	81	0.10		%	1	4/2/2012 3:29 PM
Oxygen	18	0.10		%	1	4/2/2012 3:29 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
1,1,2,2-Tetrachloroethane	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
1,1,2-Trichloroethane	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
1,1-Dichloroethane	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
1,1-Dichloroethene	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
1,2,4-Trichlorobenzene	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
1,2,4-Trimethylbenzene	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
1,2-Dibromoethane	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
1,2-Dichlorobenzene	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
1,2-Dichloroethane	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
1,2-Dichloropropane	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
1,3,5-Trimethylbenzene	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
1,3-Butadiene	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
1,3-Dichlorobenzene	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
1,4-Dichlorobenzene	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
2-Butanone	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
2-Hexanone	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
4-Methyl-2-pentanone	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Acetone	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Benzene	170,000	20,000		ppbv	20000	4/11/2012 4:43 PM
Benzyl chloride	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Bromodichloromethane	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Bromoform	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Bromomethane	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Carbon disulfide	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Carbon tetrachloride	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Chlorobenzene	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Chlorodibromomethane	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Chloroethane	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Chloroform	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Chloromethane	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
cis-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
cis-1,3-dichloropropene	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/20/2012 10:54:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-025	**Matrix:**	Air
Client Sample ID:	VA1142		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	390,000	40,000		ppbv	20000	4/11/2012 4:43 PM
Dichlorodifluoromethane	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Ethyl acetate	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Ethylbenzene	ND	40,000	U	ppbv	20000	4/11/2012 4:43 PM
Heptane	160,000	20,000		ppbv	20000	4/11/2012 4:43 PM
Hexachlorobutadiene	ND	40,000	U	ppbv	20000	4/11/2012 4:43 PM
m,p-Xylene	ND	40,000	U	ppbv	20000	4/11/2012 4:43 PM
Methylene chloride	ND	100,000	U	ppbv	20000	4/11/2012 4:43 PM
n-Hexane	330,000	40,000		ppbv	20000	4/11/2012 4:43 PM
Naphthalene	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
o-Xylene	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Propylene	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Styrene	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
tert-Butyl Methyl Ether	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Tetrachloroethene	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Tetrahydrofuran	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Toluene	170,000	20,000		ppbv	20000	4/11/2012 4:43 PM
trans-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
trans-1,3-dichloropropene	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Trichloroethene	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Trichlorofluoromethane	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Vinyl acetate	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Vinyl chloride	ND	20,000	U	ppbv	20000	4/11/2012 4:43 PM
Xylenes, Total	ND	60,000	U	ppbv	20000	4/11/2012 4:43 PM
Surr: 4-Bromofluorobenzene	95.2	70-130		%REC	20000	4/11/2012 4:43 PM
Mass APH Air		**Method:**				**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	15,000,000	2,300,000		µg/m³	20000	4/10/2012 9:41 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	U	µg/m³	20000	4/10/2012 9:41 PM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000	U	µg/m³	20000	4/10/2012 9:41 PM
Surr: 4-Bromofluorobenzene	96.0	70-130		%REC	20000	4/10/2012 9:41 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/20/2012 11:33:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-026	**Matrix:**	Air
Client Sample ID:	VA1143		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	1.2	0.10		%	1	4/2/2012 3:49 PM
Carbon Monoxide	ND	0.10	U	%	1	4/2/2012 3:49 PM
Methane	ND	0.50	U	%	1	4/2/2012 3:49 PM
Nitrogen	81	0.10		%	1	4/2/2012 3:49 PM
Oxygen	17	0.10		%	1	4/2/2012 3:49 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
1,1,2,2-Tetrachloroethane	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
1,1,2-Trichloroethane	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
1,1-Dichloroethane	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
1,1-Dichloroethene	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
1,2,4-Trichlorobenzene	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
1,2,4-Trimethylbenzene	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
1,2-Dibromoethane	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
1,2-Dichlorobenzene	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
1,2-Dichloroethane	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
1,2-Dichloropropane	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
1,3,5-Trimethylbenzene	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
1,3-Butadiene	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
1,3-Dichlorobenzene	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
1,4-Dichlorobenzene	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
2-Butanone	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
2-Hexanone	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
4-Methyl-2-pentanone	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Acetone	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Benzene	810,000	20,000		ppbv	20000	4/11/2012 5:24 PM
Benzyl chloride	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Bromodichloromethane	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Bromoform	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Bromomethane	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Carbon disulfide	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Carbon tetrachloride	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Chlorobenzene	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Chlorodibromomethane	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Chloroethane	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Chloroform	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Chloromethane	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
cis-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
cis-1,3-dichloropropene	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/20/2012 11:33:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-026	**Matrix:**	Air
Client Sample ID:	VA1143		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	2,400,000	160,000		ppbv	80000	4/12/2012 1:09 PM
Dichlorodifluoromethane	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Ethyl acetate	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Ethylbenzene	ND	40,000	U	ppbv	20000	4/11/2012 5:24 PM
Heptane	910,000	20,000		ppbv	20000	4/11/2012 5:24 PM
Hexachlorobutadiene	ND	40,000	U	ppbv	20000	4/11/2012 5:24 PM
m,p-Xylene	48,000	40,000		ppbv	20000	4/11/2012 5:24 PM
Methylene chloride	ND	100,000	U	ppbv	20000	4/11/2012 5:24 PM
n-Hexane	2,600,000	160,000		ppbv	80000	4/12/2012 1:09 PM
Naphthalene	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
o-Xylene	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Propylene	30,000	20,000		ppbv	20000	4/11/2012 5:24 PM
Styrene	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
tert-Butyl Methyl Ether	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Tetrachloroethene	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Tetrahydrofuran	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Toluene	870,000	20,000		ppbv	20000	4/11/2012 5:24 PM
trans-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
trans-1,3-dichloropropene	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Trichloroethene	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Trichlorofluoromethane	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Vinyl acetate	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Vinyl chloride	ND	20,000	U	ppbv	20000	4/11/2012 5:24 PM
Xylenes, Total	48,000	60,000	J	ppbv	20000	4/11/2012 5:24 PM
Surr: 4-Bromofluorobenzene	96.1	70-130		%REC	20000	4/11/2012 5:24 PM
Mass APH Air		**Method:**				**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	66,000,000	4,700,000		µg/m³	40000	4/11/2012 2:38 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300,000	U	µg/m³	40000	4/11/2012 2:38 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600,000	U	µg/m³	40000	4/11/2012 2:38 PM
Surr: 4-Bromofluorobenzene	97.5	70-130		%REC	40000	4/11/2012 2:38 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 7:40:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-027	**Matrix:**	Air
Client Sample ID:	VA8077-TB		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
1,1,2,2-Tetrachloroethane	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
1,1,2-Trichloroethane	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
1,1-Dichloroethane	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
1,1-Dichloroethene	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
1,2,4-Trichlorobenzene	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
1,2,4-Trimethylbenzene	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
1,2-Dibromoethane	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
1,2-Dichlorobenzene	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
1,2-Dichloroethane	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
1,2-Dichloropropane	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
1,3,5-Trimethylbenzene	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
1,3-Butadiene	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
1,3-Dichlorobenzene	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
1,4-Dichlorobenzene	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
2-Butanone	7.1	1.0		ppbv	1	4/7/2012 3:20 PM
2-Hexanone	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
4-Methyl-2-pentanone	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
Acetone	22	1.0		ppbv	1	4/7/2012 3:20 PM
Benzene	32	1.0		ppbv	1	4/7/2012 3:20 PM
Benzyl chloride	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
Bromodichloromethane	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
Bromoform	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
Bromomethane	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
Carbon disulfide	39	1.0		ppbv	1	4/7/2012 3:20 PM
Carbon tetrachloride	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
Chlorobenzene	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
Chlorodibromomethane	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
Chloroethane	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
Chloroform	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
Chloromethane	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
cis-1,2-Dichloroethene	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
cis-1,3-dichloropropene	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
Cyclohexane	92	16		ppbv	8	4/10/2012 8:13 PM
Dichlorodifluoromethane	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
Ethyl acetate	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
Ethylbenzene	3.4	2.0		ppbv	1	4/7/2012 3:20 PM
Heptane	25	1.0		ppbv	1	4/7/2012 3:20 PM
Hexachlorobutadiene	ND	2.0	U	ppbv	1	4/7/2012 3:20 PM
m,p-Xylene	9.1	2.0		ppbv	1	4/7/2012 3:20 PM
Methylene chloride	4.0	5.0	J	ppbv	1	4/7/2012 3:20 PM

RTI Laboratories - Analytical Report

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/19/2012 7:40:00 AM
Project:	Kirtland AFB		
Lab ID:	1203903-027	**Matrix:**	Air
Client Sample ID:	VA8077-TB		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
n-Hexane	86	16		ppbv	8	4/10/2012 8:13 PM
Naphthalene	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
o-Xylene	2.8	1.0		ppbv	1	4/7/2012 3:20 PM
Propylene	8.3	1.0		ppbv	1	4/7/2012 3:20 PM
Styrene	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
tert-Butyl Methyl Ether	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
Tetrachloroethene	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
Tetrahydrofuran	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
Toluene	86	8.0		ppbv	8	4/10/2012 8:13 PM
trans-1,2-Dichloroethene	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
trans-1,3-dichloropropene	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
Trichloroethene	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
Trichlorofluoromethane	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
Vinyl acetate	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
Vinyl chloride	ND	1.0	U	ppbv	1	4/7/2012 3:20 PM
Xylenes, Total	12	3.0		ppbv	1	4/7/2012 3:20 PM
Surr: 4-Bromofluorobenzene	97.4	70-130		%REC	1	4/7/2012 3:20 PM

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R47326

Sample ID:	MBLK-033012 TCD	Samp Type:	MBLK	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	47326
Client ID:	PBW	Batch ID:	R47326	TestNo:	ASTM-D2504			Analysis Date:	3/30/2012	SeqNo:	924892

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-033012 TCD-A	Samp Type:	LCS	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	47326
Client ID:	LCSW	Batch ID:	R47326	TestNo:	ASTM-D2504			Analysis Date:	3/30/2012	SeqNo:	924895

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.6	0.10	2.500	0	105	70	130	2.663	1.40	0	
Carbon Monoxide	2.7	0.10	2.500	0	108	70	130	2.693	0.111	0	
Methane	2.1	0.50	2.000	0	104	70	130	2.082	0.192	0	
Nitrogen	2.6	0.10	2.500	0	106	70	130	2.779	5.21	0	
Oxygen	2.5	0.10	2.500	0	98.2	70	130	2.496	1.62	0	

Sample ID:	1203903-010BDUP	Samp Type:	DUP	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	47326
Client ID:	VA1103	Batch ID:	R47326	TestNo:	ASTM-D2504			Analysis Date:	3/30/2012	SeqNo:	924906

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.82	0.10						0.8440	2.88	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	82	0.10						81.72	0.149	20	
Oxygen	16	0.10						16.10	0.162	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R47327

Sample ID:	MBLK-040212 TCD	Samp Type:	MBLK	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	47327
Client ID:	PBW	Batch ID:	R47327	TestNo:	ASTM-D2504			Analysis Date:	4/2/2012	SeqNo:	924921

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-040212 TCD	Samp Type:	LCS	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	47327
Client ID:	LCSW	Batch ID:	R47327	TestNo:	ASTM-D2504			Analysis Date:	4/2/2012	SeqNo:	924923

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.6	0.10	2.500	0	105	70	130	2.596	0.920	0	
Carbon Monoxide	2.7	0.10	2.500	0	108	70	130	2.706	0.482	0	
Methane	2.1	0.50	2.000	0	104	70	130	2.085	0.192	0	
Nitrogen	2.6	0.10	2.500	0	105	70	130	2.702	2.93	0	
Oxygen	2.4	0.10	2.500	0	98.0	70	130	2.477	1.10	0	

Sample ID:	1203903-026BDUP	Samp Type:	DUP	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	47327
Client ID:	VA1143	Batch ID:	R47327	TestNo:	ASTM-D2504			Analysis Date:	4/2/2012	SeqNo:	924935

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	1.2	0.10						1.246	0.483	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	80	0.10						80.60	0.358	20	
Oxygen	17	0.10						16.68	0.354	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R47490

Sample ID:	**1203903-012ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**47490**
Client ID:	**VA1110**	Batch ID:	**R47490**	TestNo:	**TO-15**			Analysis Date:	**4/7/2012**	SeqNo:	**927817**

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	150,000	8,000						153,000	4.00	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#: 1203903

Date Reported: 4/17/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R47490

Sample ID:	**1203903-012ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**47490**
Client ID:	**VA1110**	Batch ID:	**R47490**	TestNo:	**TO-15**			Analysis Date:	**4/7/2012**	SeqNo:	**927817**

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	280,000	16,000						287,100	2.23	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	87,000	8,000						89,600	3.17	25	
Hexachlorobutadiene	ND	16,000						0	0	25	U
m,p-Xylene	12,000	16,000						12,720	4.50	25	J
Methylene chloride	ND	40,000						0	0	25	U
n-Hexane	210,000	16,000						216,200	1.42	25	
Naphthalene	ND	8,000						0	0	25	U
o-Xylene	ND	8,000						0	0	25	U
Propylene	9,600	8,000						9,600	0	25	
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	210,000	8,000						221,000	5.81	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	12,000	24,000						12,720	4.50	25	J
Surr: 4-Bromofluorobenzene	98,000		100,000		97.8	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R47490

Sample ID:	**MBLK VOA1 040712**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**47490**
Client ID:	**PBW**	Batch ID:	**R47490**	TestNo:	**TO-15**			Analysis Date:	**4/7/2012**	SeqNo:	**927829**

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#: 1203903

Date Reported: 4/17/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R47490

Sample ID:	**MBLK VOA1 040712**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**47490**
Client ID:	**PBW**	Batch ID:	**R47490**	TestNo:	**TO-15**			Analysis Date:	**4/7/2012**	SeqNo:	**927829**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	12		12.50		94.6	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R47495

Sample ID:	MBLK VOA9 040712	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	47495
Client ID:	PBW	Batch ID:	R47495	TestNo:	MA_APH			Analysis Date:	4/7/2012	SeqNo:	927935

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		92.5	70	130				

Sample ID:	1203903-014ADUP	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	47495
Client ID:	VA1125	Batch ID:	R47495	TestNo:	MA_APH			Analysis Date:	4/7/2012	SeqNo:	927937

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	660,000		716,000		92.6	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R47531

Sample ID:	MBLK VOA9 040912	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	47531
Client ID:	PBW	Batch ID:	R47531	TestNo:	MA_APH			Analysis Date:	4/9/2012	SeqNo:	928466

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		93.2	70	130				

Sample ID:	1203732-027Adup	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	47531
Client ID:	ZZZZZZ	Batch ID:	R47531	TestNo:	MA_APH			Analysis Date:	4/9/2012	SeqNo:	928473

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	1,200,000	190,000						1,226,000	0.132	30	
C9-C10 Aromatic Hydrocarbons	ND	210,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	57,000	300,000						0	200	30	JR
Surr: 4-Bromofluorobenzene	140,000		143,200		100	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R47586

Sample ID:	MBLK VOA9 041012	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	47586
Client ID:	PBW	Batch ID:	R47586	TestNo:	MA_APH			Analysis Date:	4/10/2012	SeqNo:	929576

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	84		89.50		94.2	70	130				

Sample ID:	1203903-017Adup	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	47586
Client ID:	VA1128	Batch ID:	R47586	TestNo:	MA_APH			Analysis Date:	4/10/2012	SeqNo:	929584

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	1,500,000	190,000						1,432,000	6.20	30	
C9-C10 Aromatic Hydrocarbons	ND	210,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	300,000						0	0	30	U
Surr: 4-Bromofluorobenzene	140,000		143,200		99.8	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R47591

Sample ID:	**MBLK VOA1 041012**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**47591**
Client ID:	**PBW**	Batch ID:	**R47591**	TestNo:	**TO-15**			Analysis Date:	**4/10/2012**	SeqNo:	**929692**

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#: 1203903

Date Reported: 4/17/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R47591

Sample ID:	**MBLK VOA1 041012**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**47591**
Client ID:	**PBW**	Batch ID:	**R47591**	TestNo:	**TO-15**			Analysis Date:	**4/10/2012**	SeqNo:	**929692**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	12		12.50		97.0	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R47591

Sample ID:	**1203903-005ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**47591**
Client ID:	**VA1098**	Batch ID:	**R47591**	TestNo:	**TO-15**			Analysis Date:	**4/10/2012**	SeqNo:	**929703**

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	120	40						124.4	0.645	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#: 1203903

Date Reported: 4/17/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R47591

Sample ID:	**1203903-005ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**47591**
Client ID:	**VA1098**	Batch ID:	**R47591**	TestNo:	**TO-15**			Analysis Date:	**4/10/2012**	SeqNo:	**929703**

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	190	80						200.0	2.63	25	
Dichlorodifluoromethane	ND	40						0	0	25	U
Ethyl acetate	ND	40						0	0	25	U
Ethylbenzene	ND	80						0	0	25	U
Heptane	210	40						216.8	1.11	25	
Hexachlorobutadiene	ND	80						0	0	25	U
m,p-Xylene	94	80						94.80	0.847	25	
Methylene chloride	ND	200						0	0	25	U
n-Hexane	65	80						66.80	2.42	25	J
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	610	40						619.6	0.778	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	94	120						94.80	0.847	25	J
Surr: 4-Bromofluorobenzene	470		500.0		93.8	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R47623

Sample ID:	MBLK VOA9 041112	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	47623
Client ID:	PBW	Batch ID:	R47623	TestNo:	MA_APH			Analysis Date:	4/11/2012	SeqNo:	930324

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:	1203984-033Adup	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	47623
Client ID:	ZZZZZZ	Batch ID:	R47623	TestNo:	MA_APH			Analysis Date:	4/11/2012	SeqNo:	930332

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	530,000	94,000						570,400	6.41	30	
C9-C10 Aromatic Hydrocarbons	ND	110,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	150,000						0	0	30	U
Surr: 4-Bromofluorobenzene	71,000		71,600		99.4	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R47626

Sample ID:	**MBLK VOA1 041112**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**47626**
Client ID:	**PBW**	Batch ID:	**R47626**	TestNo:	**TO-15**			Analysis Date:	**4/11/2012**	SeqNo:	**930388**

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#: 1203903

Date Reported: 4/17/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R47626

Sample ID:	**MBLK VOA1 041112**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**47626**
Client ID:	**PBW**	Batch ID:	**R47626**	TestNo:	**TO-15**			Analysis Date:	**4/11/2012**	SeqNo:	**930388**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	12		12.50		95.4	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R47626

Sample ID:	**1203984-030Adup**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**47626**		
Client ID:	**ZZZZZZ**	Batch ID:	**R47626**	TestNo:	**TO-15**			Analysis Date:	**4/11/2012**	SeqNo:	**930395**		

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	930	800						0	200	25	R
Benzene	12,000	800						10,840	9.36	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#: 1203903

Date Reported: 4/17/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R47626

Sample ID:	**1203984-030Adup**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**47626**		
Client ID:	**ZZZZZZ**	Batch ID:	**R47626**	TestNo:	**TO-15**			Analysis Date:	**4/11/2012**	SeqNo:	**930395**		

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	19,000	1,600						18,460	4.49	25	
Dichlorodifluoromethane	ND	800						0	0	25	U
Ethyl acetate	ND	800						0	0	25	U
Ethylbenzene	1,700	1,600						1,472	11.8	25	
Heptane	19,000	800						18,480	5.06	25	
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	5,100	1,600						4,576	10.4	25	
Methylene chloride	ND	4,000						0	0	25	U
n-Hexane	14,000	1,600						12,600	7.87	25	
Naphthalene	ND	800						0	0	25	U
o-Xylene	1,300	800						1,176	11.5	25	
Propylene	ND	800						0	0	25	U
Styrene	ND	800						0	0	25	U
tert-Butyl Methyl Ether	ND	800						0	0	25	U
Tetrachloroethene	ND	800						0	0	25	U
Tetrahydrofuran	ND	800						0	0	25	U
Toluene	32,000	800						29,300	7.82	25	
trans-1,2-Dichloroethene	ND	800						0	0	25	U
trans-1,3-dichloropropene	ND	800						0	0	25	U
Trichloroethene	ND	800						0	0	25	U
Trichlorofluoromethane	ND	800						0	0	25	U
Vinyl acetate	ND	800						0	0	25	U
Vinyl chloride	ND	800						0	0	25	U
Xylenes, Total	6,400	2,400						5,752	10.7	25	
Surr: 4-Bromofluorobenzene	9,400		10,000		93.5	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203903

Date Reported: 4/17/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R47673

Sample ID:	MBLK VOA1 041212	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	47673
Client ID:	PBW	Batch ID:	R47673	TestNo:	TO-15			Analysis Date:	4/12/2012	SeqNo:	931244

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Cyclohexane	ND	2.0									U
n-Hexane	ND	2.0									U
Surr: 4-Bromofluorobenzene	12		12.50		93.0	70	130				

Sample ID:	1203984-024ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	47673
Client ID:	ZZZZZZ	Batch ID:	R47673	TestNo:	TO-15			Analysis Date:	4/12/2012	SeqNo:	931255

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Cyclohexane	130,000	16,000						148,100	12.8	25	
n-Hexane	110,000	16,000						124,100	9.38	25	
Surr: 4-Bromofluorobenzene	94,000		100,000		94.0	70	130		0	25	

RTI Laboratories

Run ID: **VOA1_120407A** **Run No.:** 47490

Analytical Run Date: 4/7/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 47419 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: ch rev 4/9/12/PR by RD2 on 09APR12

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 040712	BFB_TUNE	TUNE	R47490	4/7/2012 10:55:00 AM	Celeste Hoitash		
CCV VOA1 040712	EPA_TO15	CCV	R47490	4/7/2012 12:56:00 PM	Celeste Hoitash		
RLVS VOA1 040712	EPA_TO15	RLVS	R47490	4/7/2012 1:42:00 PM	Celeste Hoitash		
MBLK VOA1 040712	EPA_TO15	MBLK	R47490	4/7/2012 2:30:00 PM	Celeste Hoitash		
1203903-027A	EPA_TO15	SAMP	R47490	4/7/2012 3:20:00 PM	Celeste Hoitash		
1203903-011A	EPA_TO15	SAMP	R47490	4/7/2012 5:34:00 PM	Celeste Hoitash		
1203903-012A	EPA_TO15	SAMP	R47490	4/7/2012 7:01:00 PM	Celeste Hoitash		
1203903-012ADUP	EPA_TO15	DUP	R47490	4/7/2012 7:42:00 PM	Celeste Hoitash		
1203903-020A	EPA_TO15	SAMP	R47490	4/7/2012 9:56:00 PM	Celeste Hoitash		
1203903-021A	EPA_TO15	SAMP	R47490	4/7/2012 10:41:00 PM	Celeste Hoitash		
1203903-022A	EPA_TO15	SAMP	R47490	4/7/2012 11:25:00 PM	Celeste Hoitash		
1203903-010A	EPA_TO15	SAMP	R47490	4/8/2012 12:10:00 AM	Celeste Hoitash		
1203732-012A	EPA_TO15	SAMP	R47490	4/8/2012 12:52:00 AM	Celeste Hoitash		
1203732-011A	EPA_TO15	SAMP	R47490	4/8/2012 1:34:00 AM	Celeste Hoitash		
1203732-019A	EPA_TO15	SAMP	R47490	4/8/2012 3:11:00 AM	Celeste Hoitash		
1203732-020A	EPA_TO15	SAMP	R47490	4/8/2012 3:59:00 AM	Celeste Hoitash		
1203732-021A	EPA_TO15	SAMP	R47490	4/8/2012 4:47:00 AM	Celeste Hoitash		
1203732-022A	EPA_TO15	SAMP	R47490	4/8/2012 5:35:00 AM	Celeste Hoitash		
RLVS2 VOA1 04071	EPA_TO15	RLVS	R47490	4/8/2012 7:02:00 AM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

18-Apr-12

RunNo 47490

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
927811	BFB VOA1 040712	BFB_TUNE	TUNE	\1\DATA\040712	4/7/2012 10:55:0	1	R47490		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		83.7	83.7		100	0	0	0	0	0	84%	50	120	0%	
175	M		7.4	7.4		100	0	0	0	0	0	7%	4	9	0%	
176	M		97.4	97.4		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		16.6	16.6		100	0	0	0	0	0	17%	8	40	0%	
75	M		46.9	46.9		100	0	0	0	0	0	47%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.9	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
927812	CCV VOA1 040712	EPA_TO15	CCV	\1\DATA\040712	4/7/2012 12:56:0	1	R47490		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	11.61	11.61		9.6	0	0	0.107	1	0	121%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	11.16	11.16		10	0	0	0.211	1	0	112%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.64	11.64		9.8	0	0	0.108	1	0	119%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	11.42	11.42		9.8	0	0	0.2	1	0	117%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.92	10.92		9.7	0	0	0.111	1	0	113%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.32	11.32		9.9	0	0	0.097	1	0	114%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.53	9.53		9.1	0	0	0.271	1	0	105%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	10.9	10.9		9.8	0	0	0.245	1	0	111%	70	130	0%	
1,2-Dibromoethane	A	ppbv	11.46	11.46		9.6	0	0	0.186	1	0	119%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.38	10.38		9.7	0	0	0.208	1	0	107%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.57	11.57		9.7	0	0	0.196	1	0	119%	70	130	0%	
1,2-Dichloropropane	A	ppbv	11.6	11.6		9.8	0	0	0.224	1	0	118%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.95	10.95		9.7	0	0	0.24	1	0	113%	70	130	0%	
1,3-Butadiene	A	ppbv	12.19	12.19		9.8	0	0	0.152	1	0	124%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.61	10.61		9.7	0	0	0.202	1	0	109%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
927812	CCV VOA1 040712	EPA_TO15	CCV	\1\DATA\040712	4/7/2012 12:56:0	1	R47490		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	10.95	10.95		9.6	0	0	0.128	1	0	114%	70	130	0%	
2-Butanone	A	ppbv	10.63	10.63		9.9	0	0	0.287	1	0	107%	70	130	0%	
2-Hexanone	A	ppbv	11.18	11.18		9.8	0	0	0.135	1	0	114%	70	130	0%	
2-Propanol	A	ppbv	10.57	10.57		10.1	0	0	0.329	1	0	105%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	11.19	11.19		10	0	0	0.157	1	0	112%	70	130	0%	
Acetone	A	ppbv	10.92	10.92		10	0	0	0.43	1	0	109%	70	130	0%	
Benzene	A	ppbv	10.95	10.95		9.6	0	0	0.126	1	0	114%	70	130	0%	
Benzyl chloride	A	ppbv	10.71	10.71		9.7	0	0	0.155	1	0	110%	70	130	0%	
Bromodichloromethane	A	ppbv	11.6	11.6		9.6	0	0	0.156	1	0	121%	70	130	0%	
Bromoform	A	ppbv	11.32	11.32		9.6	0	0	0.197	1	0	118%	70	130	0%	
Bromomethane	A	ppbv	10.45	10.45		9.3	0	0	0.075	1	0	112%	70	130	0%	
Carbon disulfide	A	ppbv	10.78	10.78		9.7	0	0	0.093	1	0	111%	70	130	0%	
Carbon tetrachloride	A	ppbv	11.16	11.16		9.5	0	0	0.114	1	0	117%	70	130	0%	
Chlorobenzene	A	ppbv	11.79	11.79		9.9	0	0	0.275	1	0	119%	70	130	0%	
Chlorodibromomethane	A	ppbv	11.98	11.98		9.8	0	0	0.165	1	0	122%	70	130	0%	
Chloroethane	A	ppbv	10.04	10.04		9.8	0	0	0.063	1	0	102%	70	130	0%	
Chloroform	A	ppbv	11.7	11.7		9.4	0	0	0.126	1	0	124%	70	130	0%	
Chloromethane	A	ppbv	10.65	10.65		9.8	0	0	0.104	1	0	109%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	11.12	11.12		9.8	0	0	0.107	1	0	113%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	11.24	11.24		9.5	0	0	0.166	1	0	118%	70	130	0%	
Cyclohexane	A	ppbv	11.86	11.86		9.8	0	0	0.684	2	0	121%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	10	10		9.2	0	0	0.086	1	0	109%	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	10.73	10.73		9.8	0	0	0.157	1	0	109%	70	130	0%	
Ethylbenzene	A	ppbv	11.58	11.58		9.8	0	0	0.737	2	0	118%	70	130	0%	
Heptane	A	ppbv	12.54	12.54		9.9	0	0	0.249	1	0	127%	70	130	0%	
Hexachlorobutadiene	A	ppbv	10.98	10.98		9.4	0	0	0.374	2	0	117%	70	130	0%	
m,p-Xylene	A	ppbv	22.44	22.44		19.2	0	0	0.524	2	0	117%	70	130	0%	
Methylene chloride	A	ppbv	11.05	11.05		10	0	0	2.077	5	0	111%	70	130	0%	
n-Hexane	A	ppbv	11.42	11.42		10.1	0	0	0.692	2	0	113%	70	130	0%	
Naphthalene	A	ppbv	9.93	9.93		9.2	0	0	0.247	1	0	108%	70	130	0%	
o-Xylene	A	ppbv	11.79	11.79		10	0	0	0.258	1	0	118%	70	130	0%	
Propylene	A	ppbv	10.74	10.74		10.2	0	0	0.075	1	0	105%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
927812	CCV VOA1 040712	EPA_TO15	CCV	.\1\DATA\040712	4/7/2012 12:56:0	1	R47490		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	11.63	11.63		9.8	0	0	0.263	1	0	119%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.99	10.99		9.9	0	0	0.228	1	0	111%	70	130	0%	
Tetrachloroethene	A	ppbv	11.57	11.57		9.6	0	0	0.148	1	0	121%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.61	11.61		10	0	0	0.201	1	0	116%	70	130	0%	
Toluene	A	ppbv	11.66	11.66		9.8	0	0	0.158	1	0	119%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.07	11.07		9.8	0	0	0.117	1	0	113%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.61	10.61		9.1	0	0	0.171	1	0	117%	70	130	0%	
Trichloroethene	A	ppbv	11.78	11.78		9.6	0	0	0.119	1	0	123%	70	130	0%	
Trichlorofluoromethane	A	ppbv	11.13	11.13		9.6	0	0	0.148	1	0	116%	70	130	0%	
Vinyl acetate	A	ppbv	11.37	11.37		9.9	0	0	0.266	1	0	115%	70	130	0%	
Vinyl chloride	A	ppbv	10.98	10.98		9.4	0	0	0.072	1	0	117%	70	130	0%	
Xylenes, Total	C	ppbv	34.23	34.23		29.2	0	0	0.782	3	0	117%	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	12.41	12.41		12.5	0	0	0	0	0	99%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
927813	RLVS VOA1 040712	EPA_TO15	RLVS	.\1\DATA\040712	4/7/2012 1:42:00	1	R47490		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	1.05	1.05		0.996	0	0	0.107	1	0	105%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.37	1.37		1	0	0	0.211	1	0	137%	70	130	0%	S
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.09	1.09		0.98	0	0	0.108	1	0	111%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	1.06	1.06		0.98	0	0	0.2	1	0	108%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.02	1.02		0.97	0	0	0.111	1	0	105%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.06	1.06		0.99	0	0	0.097	1	0	107%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.52	1.52		0.91	0	0	0.271	1	0	167%	70	130	0%	S
1,2,4-Trimethylbenzene	A	ppbv	1.41	1.41		0.98	0	0	0.245	1	0	144%	70	130	0%	S
1,2-Dibromoethane	A	ppbv	1.04	1.04		0.96	0	0	0.186	1	0	108%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.48	1.48		0.97	0	0	0.208	1	0	153%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	1	1		0.97	0	0	0.196	1	0	103%	70	130	0%	
1,2-Dichloropropane	A	ppbv	1.06	1.06		0.98	0	0	0.224	1	0	108%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\040712\04071203.D Vial: 3
Acq On : 7 Apr 2012 12:56 pm Operator: RACHEL HILL
Sample : CCV VOA1 040712 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	99	0.00
2	T	Propylene	0.933	0.982	-5.3	98	0.02
3	T	Dichlorodifluoromethane	3.299	3.588	-8.8	99	0.01
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.423	2.652	-9.5	98	0.01
5	T	Chloromethane	0.975	1.093	-12.1	96	0.02
6	T	Vinyl chloride	0.908	1.061	-16.9	101	0.01
7	T	1,3-Butadiene	0.604	0.751	-24.3	103	0.00
8	T	Bromomethane	1.211	1.361	-12.4	101	0.00
9	T	Chloroethane	0.672	0.733	-9.1	98	0.01
10	T	Trichlorofluoromethane	3.078	3.569	-16.0	100	0.01
11	T	Ethanol	0.384	0.409	-6.5	89	0.00
12	T	Freon113	2.077	2.467	-18.8	98	0.00
13	T	1,1-Dichloroethene	1.532	1.752	-14.4	99	0.00
14	T	Acetone	1.520	1.660	-9.2	90	0.00
15	T	Carbon disulfide	2.662	2.959	-11.2	97	0.01
16	T	2-Propanol	1.547	1.618	-4.6	88	0.00
17	T	Methylene chloride	1.125	1.242	-10.4	97	0.00
18	T	tert-Butyl Methyl Ether	2.677	2.972	-11.0	89	0.00
19	T	trans-1,2-Dichloroethene	1.451	1.639	-13.0	96	0.00
20	T	n-Hexane	1.604	1.813	-13.0	95	0.00
21	T	1,1-Dichloroethane	1.915	2.156	-12.6	96	0.00
22	T	Vinyl acetate	2.421	2.782	-14.9	88	0.00
23	T	cis-1,2-Dichloroethene	1.146	1.300	-13.4	95	0.00
24	T	2-Butanone	1.588	1.706	-7.4	87	0.00
25	T	Ethyl acetate	2.033	2.225	-9.4	88	0.00
26	T	Tetrahydrofuran	0.986	1.145	-16.1	89	0.00
27	T	Chloroform	2.018	2.410	-19.4	96	0.00
28	T	1,1,1-Trichloroethane	2.172	2.626	-20.9	95	0.00
29	T	Cyclohexane	1.517	1.836	-21.0	94	0.00
30	T	Carbon tetrachloride	2.467	2.899	-17.5	96	0.00
31	T	Benzene	3.050	3.478	-14.0	91	0.00
32	T	1,2-Dichloroethane	1.236	1.474	-19.3	92	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	96	0.00
34	T	Heptane	0.502	0.636	-26.7	92	0.00
35	T	Trichloroethene	0.447	0.548	-22.6	96	0.00
36	T	1,2-Dichloropropane	0.332	0.393	-18.4	90	0.00
37	T	1,4-Dioxane	0.194	0.221	-13.9	91	0.00
38	T	Bromodichloromethane	0.632	0.764	-20.9	92	0.00
39	T	cis-1,3-Dichloropropene	0.535	0.633	-18.3	90	0.00
40	T	4-Methyl-2-pentanone	0.233	0.261	-12.0	86	0.00
41	T	Toluene	1.053	1.252	-18.9	89	0.00
42	T	trans-1,3-Dichloropropene	0.495	0.578	-16.8	89	0.00
43	T	1,1,2-Trichloroethane	0.372	0.434	-16.7	89	0.00
44	T	Tetrachloroethene	0.563	0.678	-20.4	95	0.00
45	T	2-Hexanone	0.451	0.514	-14.0	85	0.00
46	T	Chlorodibromomethane	0.654	0.800	-22.3	92	0.00
47	T	1,2-Dibromoethane	0.571	0.681	-19.3	90	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	96	0.00
49	T	Chlorobenzene	0.918	1.093	-19.1	90	0.00
50	T	Ethylbenzene	1.443	1.705	-18.2	88	0.00
51	T	m,p-Xylene	1.122	1.312	-16.9	91	0.00
52	T	o-Xylene	1.148	1.354	-17.9	87	0.00
53	T	Styrene	0.882	1.047	-18.7	88	0.00
54	T	Bromoform	0.651	0.767	-17.8	89	0.00
55	S	4-Bromofluorobenzene	0.627	0.622	0.8	95	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\040712\04071203.D Vial: 3
Acq On : 7 Apr 2012 12:56 pm Operator: RACHEL HILL
Sample : CCV VOA1 040712 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.758	0.846	-11.6	88	0.00
57	T	4-Ethyltoluene	1.526	1.739	-14.0	89	0.00
58	T	1,3,5-Trimethylbenzene	1.302	1.470	-12.9	89	0.00
59	T	1,2,4-Trimethylbenzene	1.254	1.395	-11.2	88	0.00
60	T	1,3-Dichlorobenzene	0.823	0.901	-9.5	89	0.00
61	T	1,4-Dichlorobenzene	0.794	0.870	-9.6	89	0.00
62	T	Benzyl chloride	0.930	1.027	-10.4	86	0.00
63	T	1,2-Dichlorobenzene	0.742	0.794	-7.0	89	0.00
64	T	1,2,4-Trichlorobenzene	0.279	0.292	-4.7	91	0.00
65	T	Hexachlorobutadiene	0.347	0.405	-16.7	89	0.00
66		Naphthalene	0.539	0.582	-8.0	92	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040712\04071203.D Vial: 3
Acq On : 7 Apr 2012 12:56 pm Operator: RACHEL HILL
Sample : CCV VOA1 040712 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Apr 7 13:21 2012 Quant Results File: 040312V1.RES

Quant Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration
DataAcq Meth : 040312V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.59	130	647876	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	2124065	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.54	117	1839425	12.50 ppbv	0.00
System Monitoring Compounds					
55) 4-Bromofluorobenzene	17.19	95	1144831	12.41 ppbv	0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 99.28%		
Target Compounds					Qvalue
2) Propylene	5.53	41	519155	10.74 ppbv	99
3) Dichlorodifluoromethane	5.60	85	1710924	10.00 ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.86	135	1306045	10.40 ppbv #	85
5) Chloromethane	6.02	50	538144	10.65 ppbv	99
6) Vinyl chloride	6.22	62	516900	10.98 ppbv	99
7) 1,3-Butadiene	6.28	39	381710	12.19 ppbv	95
8) Bromomethane	6.86	94	655885	10.45 ppbv	98
9) Chloroethane	7.01	64	349617	10.04 ppbv	99
10) Trichlorofluoromethane	7.34	101	1775680	11.13 ppbv	100
11) Ethanol	7.57	45	194982	9.81 ppbv	99
12) Freon113	8.00	101	1253111	11.64 ppbv	94
13) 1,1-Dichloroethene	8.10	61	898976	11.32 ppbv	98
14) Acetone	8.19	43	860519	10.92 ppbv	98
15) Carbon disulfide	8.47	76	1487539	10.78 ppbv #	100
16) 2-Propanol	8.24	45	846884	10.57 ppbv	79
17) Methylene chloride	8.76	49	643942	11.05 ppbv	99
18) tert-Butyl Methyl Ether	8.96	73	1525090	10.99 ppbv	98
19) trans-1,2-Dichloroethene	9.04	61	832536	11.07 ppbv	97
20) n-Hexane	9.23	57	949279	11.42 ppbv	97
21) 1,1-Dichloroethane	9.60	63	1083910	10.92 ppbv	100
22) Vinyl acetate	9.53	43	1427426	11.37 ppbv	99
23) cis-1,2-Dichloroethene	10.28	96	660466	11.12 ppbv	97
24) 2-Butanone	10.25	43	875269	10.63 ppbv	97
25) Ethyl acetate	10.20	43	1130333	10.73 ppbv #	100
26) Tetrahydrofuran	10.59	42	593671	11.61 ppbv	97
27) Chloroform	10.61	83	1223870	11.70 ppbv	97
28) 1,1,1-Trichloroethane	10.86	97	1306551	11.61 ppbv	100
29) Cyclohexane	10.86	56	932663	11.86 ppbv	98
30) Carbon tetrachloride	11.02	117	1427344	11.16 ppbv	99
31) Benzene	11.30	78	1730728	10.95 ppbv	100
32) 1,2-Dichloroethane	11.38	62	740881	11.57 ppbv	99
34) Heptane	11.35	43	1070176	12.54 ppbv	98
35) Trichloroethene	12.03	130	894091	11.78 ppbv	97
36) 1,2-Dichloropropane	12.39	63	653651	11.60 ppbv	100
37) 1,4-Dioxane	12.46	88	360044	10.95 ppbv	96
38) Bromodichloromethane	12.67	83	1245928	11.60 ppbv	97
39) cis-1,3-Dichloropropene	13.22	75	1022647	11.24 ppbv	99
40) 4-Methyl-2-pentanone	13.33	58	443554	11.19 ppbv	99
41) Toluene	13.62	91	2085698	11.66 ppbv	100
42) trans-1,3-Dichloropropene	13.93	75	893044	10.61 ppbv	99
43) 1,1,2-Trichloroethane	14.20	97	722602	11.42 ppbv	99
44) Tetrachloroethene	14.33	166	1105477	11.57 ppbv	96
45) 2-Hexanone	14.40	43	855858	11.18 ppbv	95
46) Chlorodibromomethane	14.75	129	1332349	11.98 ppbv	99
47) 1,2-Dibromoethane	14.98	107	1111300	11.46 ppbv	99
49) Chlorobenzene	15.58	112	1592476	11.79 ppbv	98
50) Ethylbenzene	15.62	91	2458206	11.58 ppbv	99
51) m,p-Xylene	15.77	91	3706152	22.44 ppbv	99
52) o-Xylene	16.37	91	1992710	11.79 ppbv	99

(#) = qualifier out of range (m) = manual integration
04071203.D 040312V1.M Mon Apr 09 09:45:28 2012

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040712\04071203.D Vial: 3
Acq On : 7 Apr 2012 12:56 pm Operator: RACHEL HILL
Sample : CCV VOA1 040712 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Apr 7 13:21 2012 Quant Results File: 040312V1.RES

Quant Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration
DataAcq Meth : 040312V1

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
53)	Styrene	16.40	104	1509701	11.63 ppbv	99
54)	Bromoform	16.78	173	1083832	11.32 ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.35	83	1244241	11.16 ppbv	98
57)	4-Ethyltoluene	17.60	105	2507431	11.16 ppbv	100
58)	1,3,5-Trimethylbenzene	17.68	105	2097787	10.95 ppbv	100
59)	1,2,4-Trimethylbenzene	18.26	105	2011680	10.90 ppbv	100
60)	1,3-Dichlorobenzene	18.82	146	1286167	10.61 ppbv	100
61)	1,4-Dichlorobenzene	18.96	146	1229300	10.52 ppbv	99
62)	Benzyl chloride	19.17	91	1465928	10.71 ppbv	99
63)	1,2-Dichlorobenzene	19.61	146	1133477	10.38 ppbv	99
64)	1,2,4-Trichlorobenzene	22.76	180	390837	9.53 ppbv	97
65)	Hexachlorobutadiene	22.96	225	560610	10.98 ppbv	99
66)	Naphthalene	23.45	128	787351	9.93 ppbv	100

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

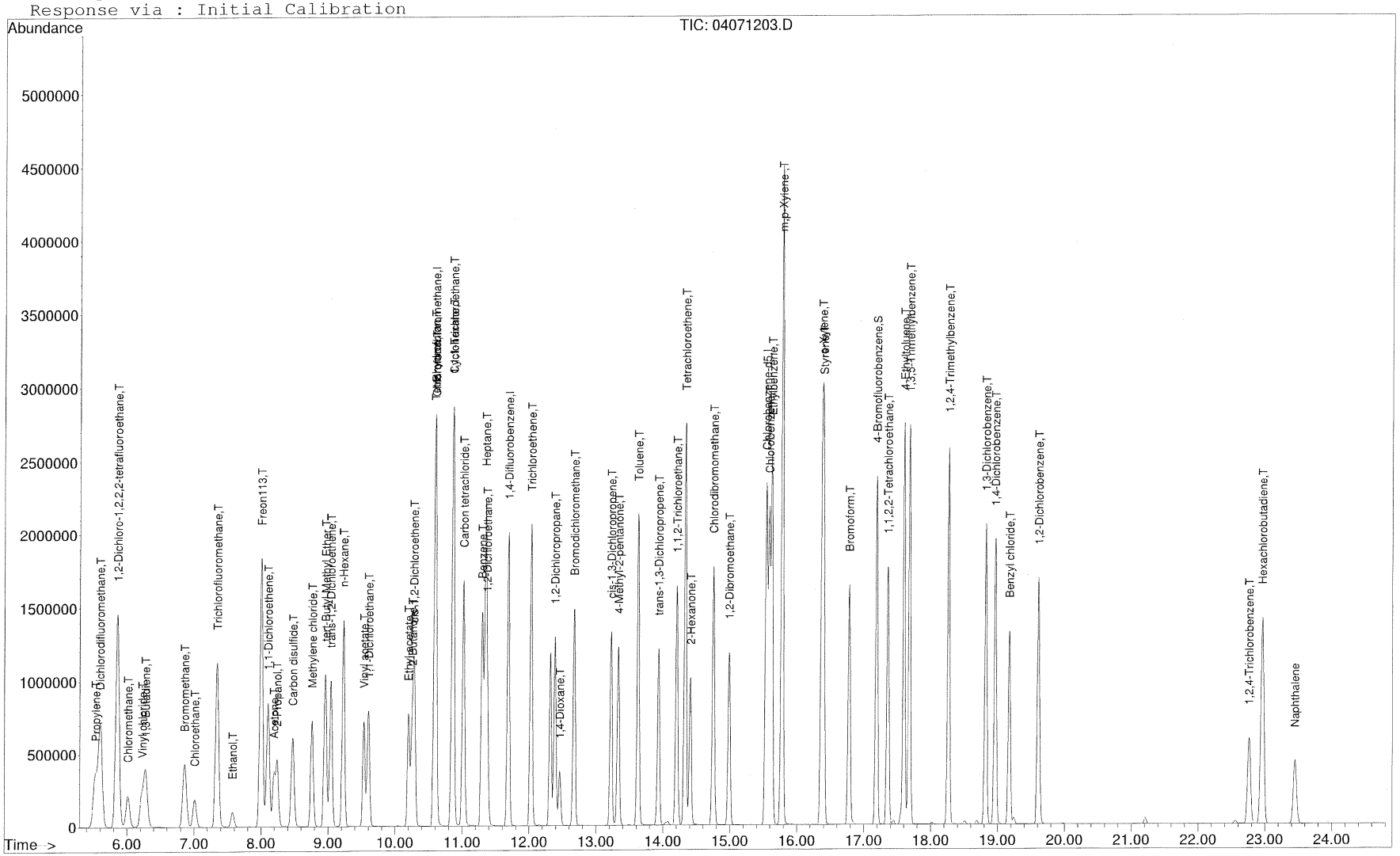
Quantitation Report

Data File : C:\HPCHEM\1\DATA\040712\04071203.D
Acq On : 7 Apr 2012 12:56 pm
Sample : CCV VOA1 040712
Misc : CCV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Apr 7 13:21 2012

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

Quant Results File: 040312V1.RES

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA1_120410A** **Run No.:** 47591

Analytical Run Date: 4/10/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 47419 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: ch rev 4/13/12/PR by RD2 on 12apr12

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 041012	BFB_TUNE	TUNE	R47591	4/10/2012 10:40:00 AM	Celeste Hoitash		
CCV VOA1 041012	EPA_TO15	CCV	R47591	4/10/2012 12:00:00 PM	Celeste Hoitash		
RLVS VOA1 041012	EPA_TO15	RLVS	R47591	4/10/2012 12:42:00 PM	Celeste Hoitash		
MBLK VOA1 041012	EPA_TO15	MBLK	R47591	4/10/2012 1:31:00 PM	Celeste Hoitash		
1203903-001A	EPA_TO15	SAMP	R47591	4/10/2012 2:29:00 PM	Celeste Hoitash		
1203903-002A	EPA_TO15	SAMP	R47591	4/10/2012 3:15:00 PM	Celeste Hoitash		
1203903-002A	EPA_TO15	SAMP	R47591	4/10/2012 3:56:00 PM	Celeste Hoitash		
1203903-003A	EPA_TO15	SAMP	R47591	4/10/2012 4:41:00 PM	Celeste Hoitash		
1203903-013A	EPA_TO15	SAMP	R47591	4/10/2012 5:22:00 PM	Celeste Hoitash		
1203903-004A	EPA_TO15	SAMP	R47591	4/10/2012 6:07:00 PM	Celeste Hoitash		
1203903-014A	EPA_TO15	SAMP	R47591	4/10/2012 6:48:00 PM	Celeste Hoitash		
1203903-015A	EPA_TO15	SAMP	R47591	4/10/2012 7:30:00 PM	Celeste Hoitash		
1203903-027A	EPA_TO15	SAMP	R47591	4/10/2012 8:13:00 PM	Celeste Hoitash		
1203903-005A	EPA_TO15	SAMP	R47591	4/10/2012 8:54:00 PM	Celeste Hoitash		
1203903-005ADUP	EPA_TO15	DUP	R47591	4/10/2012 9:36:00 PM	Celeste Hoitash		
1203903-006A	EPA_TO15	SAMP	R47591	4/10/2012 10:18:00 PM	Celeste Hoitash		
1203903-007A	EPA_TO15	SAMP	R47591	4/10/2012 10:59:00 PM	Celeste Hoitash		
1203903-008A	EPA_TO15	SAMP	R47591	4/10/2012 11:47:00 PM	Celeste Hoitash		
1203903-009A	EPA_TO15	SAMP	R47591	4/11/2012 12:35:00 AM	Celeste Hoitash		
1203903-016A	EPA_TO15	SAMP	R47591	4/11/2012 2:05:00 AM	Celeste Hoitash		
1203903-023A	EPA_TO15	SAMP	R47591	4/11/2012 2:50:00 AM	Celeste Hoitash		
1203903-017A	EPA_TO15	SAMP	R47591	4/11/2012 3:34:00 AM	Celeste Hoitash		
1203903-018A	EPA_TO15	SAMP	R47591	4/11/2012 4:19:00 AM	Celeste Hoitash		
1203903-024A	EPA_TO15	SAMP	R47591	4/11/2012 5:01:00 AM	Celeste Hoitash		
1203903-019A	EPA_TO15	SAMP	R47591	4/11/2012 5:42:00 AM	Celeste Hoitash		
RLVS2 VOA1 04101	EPA_TO15	RLVS	R47591	4/11/2012 7:50:00 AM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

18-Apr-12

RunNo 47591

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
929689	BFB VOA1 041012	BFB_TUNE	TUNE	\1\DATA\041012	4/10/2012 10:40:	1	R47591		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		82.9	82.9		100	0	0	0	0	0	83%	50	120	0%	
175	M		7.3	7.3		100	0	0	0	0	0	7%	4	9	0%	
176	M		98	98		100	0	0	0	0	0	98%	93	101	0%	
177	M		6.9	6.9		100	0	0	0	0	0	7%	5	9	0%	
50	M		16.3	16.3		100	0	0	0	0	0	16%	8	40	0%	
75	M		45.8	45.8		100	0	0	0	0	0	46%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		7	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
929690	CCV VOA1 041012	EPA_TO15	CCV	\1\DATA\041012	4/10/2012 12:00:	1	R47591		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	11.14	11.14		9.6	0	0	0.107	1	0	116%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	11.15	11.15		10	0	0	0.211	1	0	112%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.92	10.92		9.8	0	0	0.108	1	0	111%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	11.68	11.68		9.8	0	0	0.2	1	0	119%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.38	10.38		9.7	0	0	0.111	1	0	107%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.44	10.44		9.9	0	0	0.097	1	0	105%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	8.67	8.67		9.1	0	0	0.271	1	0	95%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	11.01	11.01		9.8	0	0	0.245	1	0	112%	70	130	0%	
1,2-Dibromoethane	A	ppbv	11.6	11.6		9.6	0	0	0.186	1	0	121%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.47	10.47		9.7	0	0	0.208	1	0	108%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.15	11.15		9.7	0	0	0.196	1	0	115%	70	130	0%	
1,2-Dichloropropane	A	ppbv	11.71	11.71		9.8	0	0	0.224	1	0	119%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	11.07	11.07		9.7	0	0	0.24	1	0	114%	70	130	0%	
1,3-Butadiene	A	ppbv	12.24	12.24		9.8	0	0	0.152	1	0	125%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.66	10.66		9.7	0	0	0.202	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
929690	CCV VOA1 041012	EPA_TO15	CCV	\1\DATA\041012	4/10/2012 12:00:	1	R47591		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.55	10.55		9.6	0	0	0.194	1	0	110%	70	130	0%	
1,4-Dioxane	A	ppbv	11.17	11.17		9.6	0	0	0.128	1	0	116%	70	130	0%	
2-Butanone	A	ppbv	10.83	10.83		9.9	0	0	0.287	1	0	109%	70	130	0%	
2-Hexanone	A	ppbv	11.18	11.18		9.8	0	0	0.135	1	0	114%	70	130	0%	
2-Propanol	A	ppbv	10.21	10.21		10.1	0	0	0.329	1	0	101%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	11.19	11.19		10	0	0	0.157	1	0	112%	70	130	0%	
Acetone	A	ppbv	10.53	10.53		10	0	0	0.43	1	0	105%	70	130	0%	
Benzene	A	ppbv	10.77	10.77		9.6	0	0	0.126	1	0	112%	70	130	0%	
Benzyl chloride	A	ppbv	10.9	10.9		9.7	0	0	0.155	1	0	112%	70	130	0%	
Bromodichloromethane	A	ppbv	11.4	11.4		9.6	0	0	0.156	1	0	119%	70	130	0%	
Bromoform	A	ppbv	11.25	11.25		9.6	0	0	0.197	1	0	117%	70	130	0%	
Bromomethane	A	ppbv	9.71	9.71		9.3	0	0	0.075	1	0	104%	70	130	0%	
Carbon disulfide	A	ppbv	10.2	10.2		9.7	0	0	0.093	1	0	105%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.75	10.75		9.5	0	0	0.114	1	0	113%	70	130	0%	
Chlorobenzene	A	ppbv	11.8	11.8		9.9	0	0	0.275	1	0	119%	70	130	0%	
Chlorodibromomethane	A	ppbv	12	12		9.8	0	0	0.165	1	0	122%	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	11.22	11.22		9.4	0	0	0.126	1	0	119%	70	130	0%	
Chloromethane	A	ppbv	9.88	9.88		9.8	0	0	0.104	1	0	101%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.65	10.65		9.8	0	0	0.107	1	0	109%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	11.25	11.25		9.5	0	0	0.166	1	0	118%	70	130	0%	
Cyclohexane	A	ppbv	11.31	11.31		9.8	0	0	0.684	2	0	115%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.28	9.28		9.2	0	0	0.086	1	0	101%	70	130	0%	
Ethanol	A	ppbv	9.45	9.45		9.2	0	0	1.962	5	0	103%	70	130	0%	
Ethyl acetate	A	ppbv	11.15	11.15		9.8	0	0	0.157	1	0	114%	70	130	0%	
Ethylbenzene	A	ppbv	11.76	11.76		9.8	0	0	0.737	2	0	120%	70	130	0%	
Heptane	A	ppbv	12.36	12.36		9.9	0	0	0.249	1	0	125%	70	130	0%	
Hexachlorobutadiene	A	ppbv	10.56	10.56		9.4	0	0	0.374	2	0	112%	70	130	0%	
m,p-Xylene	A	ppbv	22.65	22.65		19.2	0	0	0.524	2	0	118%	70	130	0%	
Methylene chloride	A	ppbv	10.3	10.3		10	0	0	2.077	5	0	103%	70	130	0%	
n-Hexane	A	ppbv	10.84	10.84		10.1	0	0	0.692	2	0	107%	70	130	0%	
Naphthalene	A	ppbv	9.04	9.04		9.2	0	0	0.247	1	0	98%	70	130	0%	
o-Xylene	A	ppbv	11.94	11.94		10	0	0	0.258	1	0	119%	70	130	0%	
Propylene	A	ppbv	9.76	9.76		10.2	0	0	0.075	1	0	96%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
929690	CCV VOA1 041012	EPA_TO15	CCV	\1\DATA\041012	4/10/2012 12:00:	1	R47591		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	11.76	11.76		9.8	0	0	0.263	1	0	120%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.83	10.83		9.9	0	0	0.228	1	0	109%	70	130	0%	
Tetrachloroethene	A	ppbv	11.51	11.51		9.6	0	0	0.148	1	0	120%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.6	11.6		10	0	0	0.201	1	0	116%	70	130	0%	
Toluene	A	ppbv	11.86	11.86		9.8	0	0	0.158	1	0	121%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.42	10.42		9.8	0	0	0.117	1	0	106%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.71	10.71		9.1	0	0	0.171	1	0	118%	70	130	0%	
Trichloroethene	A	ppbv	11.61	11.61		9.6	0	0	0.119	1	0	121%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.28	10.28		9.6	0	0	0.148	1	0	107%	70	130	0%	
Vinyl acetate	A	ppbv	11.19	11.19		9.9	0	0	0.266	1	0	113%	70	130	0%	
Vinyl chloride	A	ppbv	10.43	10.43		9.4	0	0	0.072	1	0	111%	70	130	0%	
Xylenes, Total	C	ppbv	34.59	34.59		29.2	0	0	0.782	3	0	118%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		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	12.19	12.19		12.5	0	0	0	0	0	98%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
929691	RLVS VOA1 041012	EPA_TO15	RLVS	\1\DATA\041012	4/10/2012 12:42:	1	R47591		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	1.05	1.05		0.996	0	0	0.107	1	0	105%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.39	1.39		1	0	0	0.211	1	0	139%	70	130	0%	S
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.1	1.1		0.98	0	0	0.108	1	0	112%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	1.12	1.12		0.98	0	0	0.2	1	0	114%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.02	1.02		0.97	0	0	0.111	1	0	105%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.03	1.03		0.99	0	0	0.097	1	0	104%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.48	1.48		0.91	0	0	0.271	1	0	163%	70	130	0%	S
1,2,4-Trimethylbenzene	A	ppbv	1.44	1.44		0.98	0	0	0.245	1	0	147%	70	130	0%	S
1,2-Dibromoethane	A	ppbv	1.07	1.07		0.96	0	0	0.186	1	0	111%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.48	1.48		0.97	0	0	0.208	1	0	153%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	1	1		0.97	0	0	0.196	1	0	103%	70	130	0%	
1,2-Dichloropropane	A	ppbv	1.08	1.08		0.98	0	0	0.224	1	0	110%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\041012\04101203.D Vial: 3
Acq On : 10 Apr 2012 12:00 pm Operator: RACHEL HILL
Sample : CCV VOA1 041012 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	103	0.00
2	T	Propylene	0.933	0.893	4.3	93	0.01
3	T	Dichlorodifluoromethane	3.299	3.327	-0.8	96	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.423	2.529	-4.4	97	0.01
5	T	Chloromethane	0.975	1.014	-4.0	94	0.01
6	T	Vinyl chloride	0.908	1.007	-10.9	101	0.00
7	T	1,3-Butadiene	0.604	0.754	-24.8	108	0.00
8	T	Bromomethane	1.211	1.264	-4.4	98	0.00
9	T	Chloroethane	0.672	0.684	-1.8	95	0.01
10	T	Trichlorofluoromethane	3.078	3.295	-7.1	96	0.01
11	T	Ethanol	0.384	0.394	-2.6	89	0.00
12	T	Freon113	2.077	2.314	-11.4	96	0.00
13	T	1,1-Dichloroethene	1.532	1.617	-5.5	95	0.00
14	T	Acetone	1.520	1.600	-5.3	91	0.00
15	T	Carbon disulfide	2.662	2.799	-5.1	96	0.01
16	T	2-Propanol	1.547	1.563	-1.0	89	0.01
17	T	Methylene chloride	1.125	1.159	-3.0	94	0.00
18	T	tert-Butyl Methyl Ether	2.677	2.929	-9.4	91	0.00
19	T	trans-1,2-Dichloroethene	1.451	1.543	-6.3	94	0.00
20	T	n-Hexane	1.604	1.721	-7.3	95	0.00
21	T	1,1-Dichloroethane	1.915	2.049	-7.0	95	0.00
22	T	Vinyl acetate	2.421	2.737	-13.1	91	0.00
23	T	cis-1,2-Dichloroethene	1.146	1.246	-8.7	95	0.00
24	T	2-Butanone	1.588	1.737	-9.4	92	0.00
25	T	Ethyl acetate	2.033	2.314	-13.8	96	0.00
26	T	Tetrahydrofuran	0.986	1.144	-16.0	93	0.00
27	T	Chloroform	2.018	2.311	-14.5	96	0.00
28	T	1,1,1-Trichloroethane	2.172	2.520	-16.0	96	0.00
29	T	Cyclohexane	1.517	1.751	-15.4	94	0.01
30	T	Carbon tetrachloride	2.467	2.791	-13.1	96	0.00
31	T	Benzene	3.050	3.420	-12.1	94	0.00
32	T	1,2-Dichloroethane	1.236	1.420	-14.9	92	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	99	0.00
34	T	Heptane	0.502	0.627	-24.9	93	0.00
35	T	Trichloroethene	0.447	0.540	-20.8	98	0.01
36	T	1,2-Dichloropropane	0.332	0.396	-19.3	94	0.00
37	T	1,4-Dioxane	0.194	0.225	-16.0	95	0.00
38	T	Bromodichloromethane	0.632	0.751	-18.8	93	0.00
39	T	cis-1,3-Dichloropropene	0.535	0.634	-18.5	93	0.00
40	T	4-Methyl-2-pentanone	0.233	0.261	-12.0	89	0.00
41	T	Toluene	1.053	1.274	-21.0	94	0.00
42	T	trans-1,3-Dichloropropene	0.495	0.583	-17.8	93	0.00
43	T	1,1,2-Trichloroethane	0.372	0.444	-19.4	94	0.00
44	T	Tetrachloroethene	0.563	0.674	-19.7	97	0.00
45	T	2-Hexanone	0.451	0.514	-14.0	88	0.00
46	T	Chlorodibromomethane	0.654	0.801	-22.5	95	0.00
47	T	1,2-Dibromoethane	0.571	0.690	-20.8	94	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	99	0.00
49	T	Chlorobenzene	0.918	1.094	-19.2	94	0.00
50	T	Ethylbenzene	1.443	1.732	-20.0	93	0.00
51	T	m,p-Xylene	1.122	1.324	-18.0	95	0.00
52	T	o-Xylene	1.148	1.371	-19.4	92	0.00
53	T	Styrene	0.882	1.059	-20.1	92	0.00
54	T	Bromoform	0.651	0.762	-17.1	92	0.00
55	S	4-Bromofluorobenzene	0.627	0.611	2.6	97	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\041012\04101203.D Vial: 3
Acq On : 10 Apr 2012 12:00 pm Operator: RACHEL HILL
Sample : CCV VOA1 041012 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.758	0.845	-11.5	91	0.00
57	T	4-Ethyltoluene	1.526	1.749	-14.6	92	0.00
58	T	1,3,5-Trimethylbenzene	1.302	1.485	-14.1	93	0.00
59	T	1,2,4-Trimethylbenzene	1.254	1.410	-12.4	92	0.00
60	T	1,3-Dichlorobenzene	0.823	0.905	-10.0	92	0.00
61	T	1,4-Dichlorobenzene	0.794	0.873	-9.9	92	0.00
62	T	Benzyl chloride	0.930	1.045	-12.4	91	0.00
63	T	1,2-Dichlorobenzene	0.742	0.801	-8.0	93	0.00
64	T	1,2,4-Trichlorobenzene	0.279	0.266	4.7	86	0.00
65	T	Hexachlorobutadiene	0.347	0.390	-12.4	89	0.01
66		Naphthalene	0.539	0.530	1.7	87	0.01

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\041012\04101203.D Vial: 3
Acq On : 10 Apr 2012 12:00 pm Operator: RACHEL HILL
Sample : CCV VOA1 041012 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Apr 10 12:25 2012 Quant Results File: 040312V1.RES

Quant Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration
DataAcq Meth : 040312V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.60	130	677386	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	2188536	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.54	117	1906679	12.50 ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.19	95	1165316	12.19 ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 97.52%

Target Compounds					Qvalue
2) Propylene	5.52	41	493347	9.76 ppbv	99
3) Dichlorodifluoromethane	5.60	85	1658666	9.28 ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.86	135	1301906	9.92 ppbv #	86
5) Chloromethane	6.01	50	522110	9.88 ppbv	99
6) Vinyl chloride	6.22	62	513124	10.43 ppbv	100
7) 1,3-Butadiene	6.28	39	400610	12.24 ppbv	95
8) Bromomethane	6.86	94	636989	9.71 ppbv	99
9) Chloroethane	7.01	64	340859	9.36 ppbv	98
10) Trichlorofluoromethane	7.34	101	1714261	10.28 ppbv	99
11) Ethanol	7.57	45	196405	9.45 ppbv	100
12) Freon113	8.00	101	1229080	10.92 ppbv	95
13) 1,1-Dichloroethene	8.10	61	867339	10.44 ppbv	98
14) Acetone	8.19	43	867145	10.53 ppbv	98
15) Carbon disulfide	8.47	76	1471498	10.20 ppbv #	100
16) 2-Propanol	8.24	45	855542	10.21 ppbv #	1
17) Methylene chloride	8.76	49	627988	10.30 ppbv	98
18) tert-Butyl Methyl Ether	8.96	73	1571440	10.83 ppbv	97
19) trans-1,2-Dichloroethene	9.04	61	819554	10.42 ppbv	98
20) n-Hexane	9.23	57	942092	10.84 ppbv	97
21) 1,1-Dichloroethane	9.60	63	1076849	10.38 ppbv	100
22) Vinyl acetate	9.53	43	1468271	11.19 ppbv	99
23) cis-1,2-Dichloroethene	10.29	96	661709	10.65 ppbv	98
24) 2-Butanone	10.25	43	931868	10.83 ppbv	98
25) Ethyl acetate	10.20	43	1228759	11.15 ppbv #	99
26) Tetrahydrofuran	10.59	42	619919	11.60 ppbv	96
27) Chloroform	10.61	83	1227208	11.22 ppbv	97
28) 1,1,1-Trichloroethane	10.86	97	1310930	11.14 ppbv	99
29) Cyclohexane	10.87	56	929891	11.31 ppbv	99
30) Carbon tetrachloride	11.02	117	1436753	10.75 ppbv	99
31) Benzene	11.30	78	1779291	10.77 ppbv	100
32) 1,2-Dichloroethane	11.38	62	746454	11.15 ppbv	99
34) Heptane	11.35	43	1086618	12.36 ppbv	97
35) Trichloroethene	12.03	130	907365	11.61 ppbv	97
36) 1,2-Dichloropropane	12.39	63	679603	11.71 ppbv	100
37) 1,4-Dioxane	12.46	88	378413	11.17 ppbv	96
38) Bromodichloromethane	12.67	83	1261792	11.40 ppbv	97
39) cis-1,3-Dichloropropene	13.22	75	1053905	11.25 ppbv	100
40) 4-Methyl-2-pentanone	13.33	58	457188	11.19 ppbv	99
41) Toluene	13.63	91	2185476	11.86 ppbv	100
42) trans-1,3-Dichloropropene	13.93	75	928966	10.71 ppbv	100
43) 1,1,2-Trichloroethane	14.21	97	761303	11.68 ppbv	99
44) Tetrachloroethene	14.33	166	1133561	11.51 ppbv	96
45) 2-Hexanone	14.41	43	881958	11.18 ppbv	94
46) Chlorodibromomethane	14.75	129	1374959	12.00 ppbv	99
47) 1,2-Dibromoethane	14.99	107	1159575	11.60 ppbv	99
49) Chlorobenzene	15.59	112	1652680	11.80 ppbv	98
50) Ethylbenzene	15.62	91	2589364	11.76 ppbv	99
51) m,p-Xylene	15.78	91	3876784	22.65 ppbv	100
52) o-Xylene	16.37	91	2090618	11.94 ppbv	99

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\041012\04101203.D Vial: 3
Acq On : 10 Apr 2012 12:00 pm Operator: RACHEL HILL
Sample : CCV VOA1 041012 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Apr 10 12:25 2012 Quant Results File: 040312V1.RES

Quant Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration
DataAcq Meth : 040312V1

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
53) Styrene	16.40	104	1582701	11.76 ppbv	99
54) Bromoform	16.78	173	1115886	11.25 ppbv	99
56) 1,1,2,2-Tetrachloroethane	17.36	83	1288913	11.15 ppbv	98
57) 4-Ethyltoluene	17.60	105	2614438	11.23 ppbv	100
58) 1,3,5-Trimethylbenzene	17.68	105	2197364	11.07 ppbv	100
59) 1,2,4-Trimethylbenzene	18.26	105	2107250	11.01 ppbv	100
60) 1,3-Dichlorobenzene	18.82	146	1338707	10.66 ppbv	100
61) 1,4-Dichlorobenzene	18.96	146	1277767	10.55 ppbv	99
62) Benzyl chloride	19.17	91	1546266	10.90 ppbv	99
63) 1,2-Dichlorobenzene	19.61	146	1185467	10.47 ppbv	99
64) 1,2,4-Trichlorobenzene	22.77	180	368647	8.67 ppbv	97
65) Hexachlorobutadiene	22.97	225	558893	10.56 ppbv	99
66) Naphthalene	23.45	128	743058	9.04 ppbv	99

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

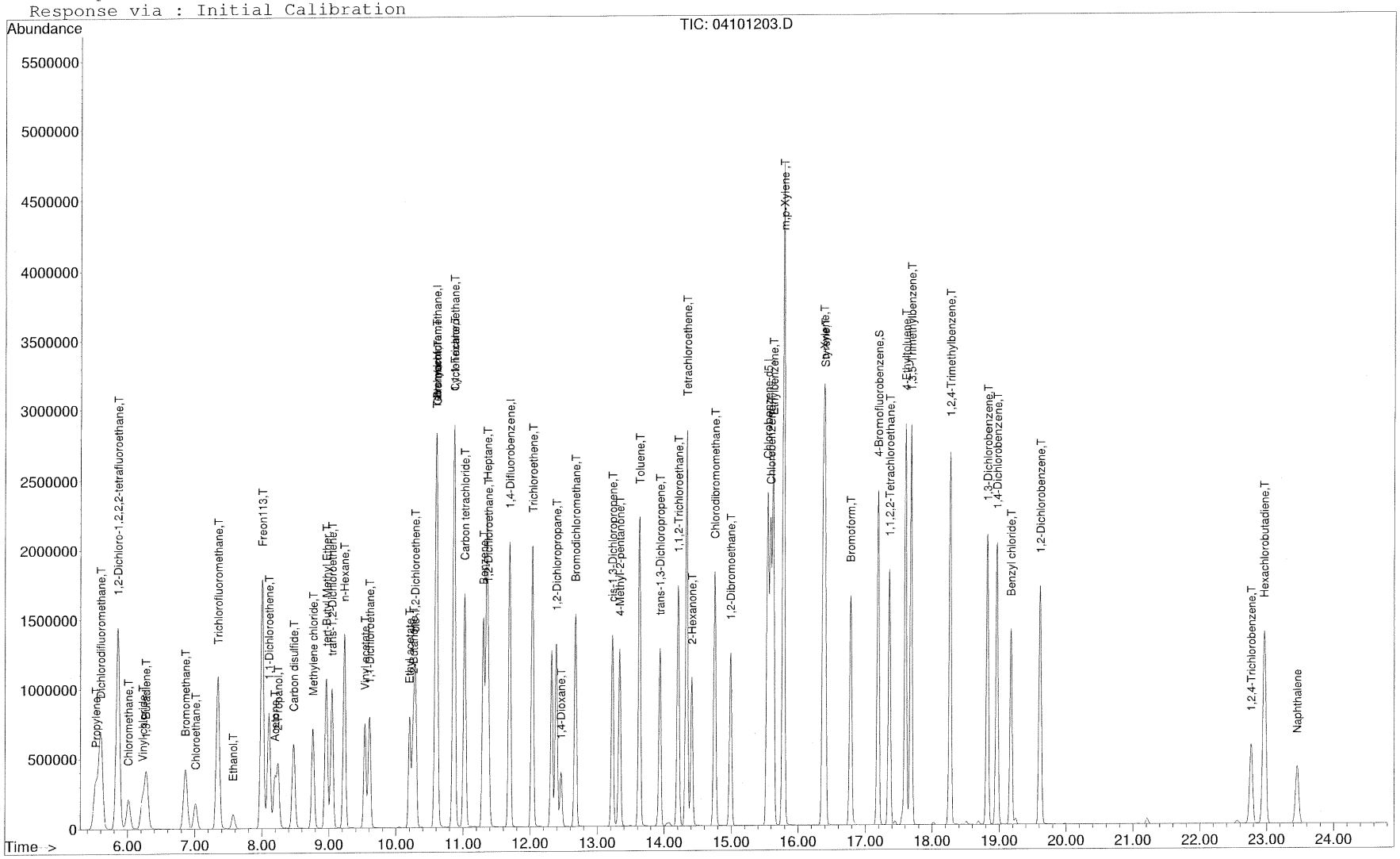
Quantitation Report

Data File : C:\HPCHEM\1\DATA\041012\04101203.D
Acq On : 10 Apr 2012 12:00 pm
Sample : CCV VOA1 041012
Misc : CCV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Apr 10 12:25 2012

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

Quant Results File: 040312V1.RES

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA1_120411A** **Run No.:** 47626

Analytical Run Date: 4/11/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 47419 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: ch rev 4/13/12/PR by RD2 on 12apr12

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 041112	BFB_TUNE	TUNE	R47626	4/11/2012 10:05:00 AM	Celeste Hoitash		
CCV VOA1 041112	EPA_TO15	CCV	R47626	4/11/2012 12:22:00 PM	Celeste Hoitash		
RLVS VOA1 041112	EPA_TO15	RLVS	R47626	4/11/2012 1:04:00 PM	Celeste Hoitash		
MBLK VOA1 041112	EPA_TO15	MBLK	R47626	4/11/2012 1:53:00 PM	Celeste Hoitash		
1203903-020A	EPA_TO15	SAMP	R47626	4/11/2012 4:01:00 PM	Celeste Hoitash		
1203903-025A	EPA_TO15	SAMP	R47626	4/11/2012 4:43:00 PM	Celeste Hoitash		
1203903-026A	EPA_TO15	SAMP	R47626	4/11/2012 5:24:00 PM	Celeste Hoitash		
1203984-028A	EPA_TO15	SAMP	R47626	4/11/2012 6:09:00 PM	Celeste Hoitash		
1203984-029A	EPA_TO15	SAMP	R47626	4/11/2012 6:54:00 PM	Celeste Hoitash		
1203984-030A	EPA_TO15	SAMP	R47626	4/11/2012 7:39:00 PM	Celeste Hoitash		
1203984-030Adup	EPA_TO15	DUP	R47626	4/11/2012 8:23:00 PM	Celeste Hoitash		
1203984-031A	EPA_TO15	SAMP	R47626	4/11/2012 9:08:00 PM	Celeste Hoitash		
1203984-032A	EPA_TO15	SAMP	R47626	4/11/2012 9:53:00 PM	Celeste Hoitash		
1203984-033A	EPA_TO15	SAMP	R47626	4/11/2012 10:38:00 PM	Celeste Hoitash		
1203984-001A	EPA_TO15	SAMP	R47626	4/12/2012 12:01:00 AM	Celeste Hoitash		
1203984-005A	EPA_TO15	SAMP	R47626	4/12/2012 12:42:00 AM	Celeste Hoitash		
1203984-002A	EPA_TO15	SAMP	R47626	4/12/2012 1:24:00 AM	Celeste Hoitash		
1203984-006A	EPA_TO15	SAMP	R47626	4/12/2012 2:09:00 AM	Celeste Hoitash		
1203984-003A	EPA_TO15	SAMP	R47626	4/12/2012 2:50:00 AM	Celeste Hoitash		
1203984-007A	EPA_TO15	SAMP	R47626	4/12/2012 3:35:00 AM	Celeste Hoitash		
1203984-004A	EPA_TO15	SAMP	R47626	4/12/2012 4:16:00 AM	Celeste Hoitash		
1203984-008A	EPA_TO15	SAMP	R47626	4/12/2012 5:01:00 AM	Celeste Hoitash		
1203984-023A	EPA_TO15	SAMP	R47626	4/12/2012 5:43:00 AM	Celeste Hoitash		
RLVS2 VOA1 04111	EPA_TO15	RLVS	R47626	4/12/2012 6:25:00 AM	Celeste Hoitash		

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ANALYTICAL RUN Summary

18-Apr-12

RunNo 47626

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
930384	BFB VOA1 041112	BFB_TUNE	TUNE	.\1\DATA\041112	4/11/2012 10:05:	1	R47626		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		84.8	84.8		100	0	0	0	0	0	85%	50	120	0%	
175	M		7.3	7.3		100	0	0	0	0	0	7%	4	9	0%	
176	M		98.3	98.3		100	0	0	0	0	0	98%	93	101	0%	
177	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	
50	M		16.9	16.9		100	0	0	0	0	0	17%	8	40	0%	
75	M		46.8	46.8		100	0	0	0	0	0	47%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.9	6.9		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
930386	CCV VOA1 041112	EPA_TO15	CCV	.\1\DATA\041112	4/11/2012 12:22:	1	R47626		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	11.33	11.33		9.6	0	0	0.107	1	0	118%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	11.09	11.09		10	0	0	0.211	1	0	111%	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	11.61	11.61		9.8	0	0	0.2	1	0	118%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.63	10.63		9.7	0	0	0.111	1	0	110%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.84	10.84		9.9	0	0	0.097	1	0	109%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	7.78	7.78		9.1	0	0	0.271	1	0	85%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	10.79	10.79		9.8	0	0	0.245	1	0	110%	70	130	0%	
1,2-Dibromoethane	A	ppbv	11.55	11.55		9.6	0	0	0.186	1	0	120%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.23	10.23		9.7	0	0	0.208	1	0	105%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.07	11.07		9.7	0	0	0.196	1	0	114%	70	130	0%	
1,2-Dichloropropane	A	ppbv	11.64	11.64		9.8	0	0	0.224	1	0	119%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.88	10.88		9.7	0	0	0.24	1	0	112%	70	130	0%	
1,3-Butadiene	A	ppbv	12.09	12.09		9.8	0	0	0.152	1	0	123%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.48	10.48		9.7	0	0	0.202	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
930386	CCV VOA1 041112	EPA_TO15	CCV	\1\DATA\041112	4/11/2012 12:22:	1	R47626		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.36	10.36		9.6	0	0	0.194	1	0	108%	70	130	0%	
1,4-Dioxane	A	ppbv	11.11	11.11		9.6	0	0	0.128	1	0	116%	70	130	0%	
2-Butanone	A	ppbv	11.19	11.19		9.9	0	0	0.287	1	0	113%	70	130	0%	
2-Hexanone	A	ppbv	11.31	11.31		9.8	0	0	0.135	1	0	115%	70	130	0%	
2-Propanol	A	ppbv	10.37	10.37		10.1	0	0	0.329	1	0	103%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	11.29	11.29		10	0	0	0.157	1	0	113%	70	130	0%	
Acetone	A	ppbv	10.71	10.71		10	0	0	0.43	1	0	107%	70	130	0%	
Benzene	A	ppbv	10.71	10.71		9.6	0	0	0.126	1	0	112%	70	130	0%	
Benzyl chloride	A	ppbv	10.29	10.29		9.7	0	0	0.155	1	0	106%	70	130	0%	
Bromodichloromethane	A	ppbv	11.39	11.39		9.6	0	0	0.156	1	0	119%	70	130	0%	
Bromoform	A	ppbv	11.05	11.05		9.6	0	0	0.197	1	0	115%	70	130	0%	
Bromomethane	A	ppbv	10.14	10.14		9.3	0	0	0.075	1	0	109%	70	130	0%	
Carbon disulfide	A	ppbv	10.59	10.59		9.7	0	0	0.093	1	0	109%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.8	10.8		9.5	0	0	0.114	1	0	114%	70	130	0%	
Chlorobenzene	A	ppbv	11.72	11.72		9.9	0	0	0.275	1	0	118%	70	130	0%	
Chlorodibromomethane	A	ppbv	11.82	11.82		9.2	0	0	0.165	1	0	128%	70	130	0%	
Chloroethane	A	ppbv	9.8	9.8		9.8	0	0	0.063	1	0	100%	70	130	0%	
Chloroform	A	ppbv	11.55	11.55		9.4	0	0	0.126	1	0	123%	70	130	0%	
Chloromethane	A	ppbv	10.65	10.65		9.8	0	0	0.104	1	0	109%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.85	10.85		9.8	0	0	0.107	1	0	111%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	11.14	11.14		9.5	0	0	0.166	1	0	117%	70	130	0%	
Cyclohexane	A	ppbv	11.53	11.53		9.8	0	0	0.684	2	0	118%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.66	9.66		9.2	0	0	0.086	1	0	105%	70	130	0%	
Ethanol	A	ppbv	9.57	9.57		9.2	0	0	1.962	5	0	104%	70	130	0%	
Ethyl acetate	A	ppbv	10.77	10.77		9.8	0	0	0.157	1	0	110%	70	130	0%	
Ethylbenzene	A	ppbv	11.64	11.64		9.8	0	0	0.737	2	0	119%	70	130	0%	
Heptane	A	ppbv	12.31	12.31		9.9	0	0	0.249	1	0	124%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.7	9.7		9.4	0	0	0.374	2	0	103%	70	130	0%	
m,p-Xylene	A	ppbv	22.98	22.98		19.2	0	0	0.524	2	0	120%	70	130	0%	
Methylene chloride	A	ppbv	10.78	10.78		10	0	0	2.077	5	0	108%	70	130	0%	
n-Hexane	A	ppbv	10.99	10.99		10.1	0	0	0.692	2	0	109%	70	130	0%	
Naphthalene	A	ppbv	8.06	8.06		9.2	0	0	0.247	1	0	88%	70	130	0%	
o-Xylene	A	ppbv	11.89	11.89		10	0	0	0.258	1	0	119%	70	130	0%	
Propylene	A	ppbv	10.16	10.16		10.2	0	0	0.075	1	0	100%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
930386	CCV VOA1 041112	EPA_TO15	CCV	\1\DATA\041112	4/11/2012 12:22:	1	R47626		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	11.71	11.71		9.8	0	0	0.263	1	0	119%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.84	10.84		9.9	0	0	0.228	1	0	109%	70	130	0%	
Tetrachloroethene	A	ppbv	11.68	11.68		9.6	0	0	0.148	1	0	122%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.64	11.64		10	0	0	0.201	1	0	116%	70	130	0%	
Toluene	A	ppbv	11.76	11.76		9.8	0	0	0.158	1	0	120%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.77	10.77		9.8	0	0	0.117	1	0	110%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.65	10.65		9.1	0	0	0.171	1	0	117%	70	130	0%	
Trichloroethene	A	ppbv	11.55	11.55		9.6	0	0	0.119	1	0	120%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.71	10.71		9.6	0	0	0.148	1	0	112%	70	130	0%	
Vinyl acetate	A	ppbv	11.15	11.15		9.9	0	0	0.266	1	0	113%	70	130	0%	
Vinyl chloride	A	ppbv	11.35	11.35		9.4	0	0	0.072	1	0	121%	70	130	0%	
Xylenes, Total	C	ppbv	34.87	34.87		29.2	0	0	0.782	3	0	119%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		1.25	0	0	0	0	0	1000%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	11.97	11.97		12.5	0	0	0	0	0	96%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
930387	RLVS VOA1 041112	EPA_TO15	RLVS	\1\DATA\041112	4/11/2012 1:04:0	1	R47626		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	1.01	1.01		0.996	0	0	0.107	1	0	101%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.36	1.36		1	0	0	0.211	1	0	136%	70	130	0%	S
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.08	1.08		0.98	0	0	0.108	1	0	110%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	1.05	1.05		0.98	0	0	0.2	1	0	107%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1	1		0.97	0	0	0.111	1	0	103%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.02	1.02		0.99	0	0	0.097	1	0	103%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.32	1.32		0.91	0	0	0.271	1	0	145%	70	130	0%	S
1,2,4-Trimethylbenzene	A	ppbv	1.36	1.36		0.98	0	0	0.245	1	0	139%	70	130	0%	S
1,2-Dibromoethane	A	ppbv	1.02	1.02		0.96	0	0	0.186	1	0	106%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.39	1.39		0.97	0	0	0.208	1	0	143%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	1.01	1.01		0.97	0	0	0.196	1	0	104%	70	130	0%	
1,2-Dichloropropane	A	ppbv	1.07	1.07		0.98	0	0	0.224	1	0	109%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\041112\04111203.D Vial: 3
Acq On : 11 Apr 2012 12:22 pm Operator: RACHEL HILL
Sample : CCV VOA1 041112 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	94	0.00
2	T	Propylene	0.933	0.930	0.3	88	0.01
3	T	Dichlorodifluoromethane	3.299	3.463	-5.0	91	0.01
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.423	2.621	-8.2	92	0.01
5	T	Chloromethane	0.975	1.093	-12.1	92	0.02
6	T	Vinyl chloride	0.908	1.096	-20.7	100	0.00
7	T	1,3-Butadiene	0.604	0.745	-23.3	97	0.00
8	T	Bromomethane	1.211	1.321	-9.1	94	0.00
9	T	Chloroethane	0.672	0.716	-6.5	91	0.01
10	T	Trichlorofluoromethane	3.078	3.433	-11.5	91	0.01
11	T	Ethanol	0.384	0.399	-3.9	82	0.01
12	T	Freon113	2.077	2.411	-16.1	91	0.01
13	T	1,1-Dichloroethene	1.532	1.678	-9.5	90	0.00
14	T	Acetone	1.520	1.628	-7.1	84	0.01
15	T	Carbon disulfide	2.662	2.907	-9.2	91	0.01
16	T	2-Propanol	1.547	1.588	-2.7	82	0.01
17	T	Methylene chloride	1.125	1.212	-7.7	90	0.00
18	T	tert-Butyl Methyl Ether	2.677	2.930	-9.5	83	0.00
19	T	trans-1,2-Dichloroethene	1.451	1.594	-9.9	89	0.00
20	T	n-Hexane	1.604	1.745	-8.8	87	0.01
21	T	1,1-Dichloroethane	1.915	2.098	-9.6	89	0.00
22	T	Vinyl acetate	2.421	2.727	-12.6	82	0.00
23	T	cis-1,2-Dichloroethene	1.146	1.270	-10.8	88	0.00
24	T	2-Butanone	1.588	1.796	-13.1	87	0.00
25	T	Ethyl acetate	2.033	2.235	-9.9	84	0.01
26	T	Tetrahydrofuran	0.986	1.148	-16.4	85	0.01
27	T	Chloroform	2.018	2.378	-17.8	90	0.00
28	T	1,1,1-Trichloroethane	2.172	2.563	-18.0	89	0.00
29	T	Cyclohexane	1.517	1.786	-17.7	87	0.01
30	T	Carbon tetrachloride	2.467	2.804	-13.7	88	0.00
31	T	Benzene	3.050	3.401	-11.5	85	0.00
32	T	1,2-Dichloroethane	1.236	1.410	-14.1	84	0.01
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	90	0.01
34	T	Heptane	0.502	0.624	-24.3	84	0.00
35	T	Trichloroethene	0.447	0.537	-20.1	88	0.01
36	T	1,2-Dichloropropane	0.332	0.394	-18.7	84	0.00
37	T	1,4-Dioxane	0.194	0.224	-15.5	86	0.01
38	T	Bromodichloromethane	0.632	0.750	-18.7	85	0.00
39	T	cis-1,3-Dichloropropene	0.535	0.628	-17.4	83	0.01
40	T	4-Methyl-2-pentanone	0.233	0.263	-12.9	81	0.00
41	T	Toluene	1.053	1.263	-19.9	84	0.00
42	T	trans-1,3-Dichloropropene	0.495	0.580	-17.2	84	0.00
43	T	1,1,2-Trichloroethane	0.372	0.441	-18.5	85	0.00
44	T	Tetrachloroethene	0.563	0.685	-21.7	89	0.00
45	T	2-Hexanone	0.451	0.520	-15.3	80	0.00
46	T	Chlorodibromomethane	0.654	0.789	-20.6	85	0.00
47	T	1,2-Dibromoethane	0.571	0.687	-20.3	85	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	91	0.01
49	T	Chlorobenzene	0.918	1.087	-18.4	85	0.00
50	T	Ethylbenzene	1.443	1.715	-18.8	84	0.01
51	T	m,p-Xylene	1.122	1.343	-19.7	88	0.00
52	T	o-Xylene	1.148	1.365	-18.9	83	0.00
53	T	Styrene	0.882	1.054	-19.5	83	0.01
54	T	Bromoform	0.651	0.749	-15.1	82	0.01
55	S	4-Bromofluorobenzene	0.627	0.600	4.3	87	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\041112\04111203.D Vial: 3
Acq On : 11 Apr 2012 12:22 pm Operator: RACHEL HILL
Sample : CCV VOA1 041112 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.758	0.840	-10.8	82	0.00
57	T	4-Ethyltoluene	1.526	1.709	-12.0	82	0.01
58	T	1,3,5-Trimethylbenzene	1.302	1.461	-12.2	83	0.00
59	T	1,2,4-Trimethylbenzene	1.254	1.381	-10.1	82	0.01
60	T	1,3-Dichlorobenzene	0.823	0.890	-8.1	83	0.00
61	T	1,4-Dichlorobenzene	0.794	0.857	-7.9	83	0.00
62	T	Benzyl chloride	0.930	0.987	-6.1	78	0.00
63	T	1,2-Dichlorobenzene	0.742	0.783	-5.5	83	0.00
64	T	1,2,4-Trichlorobenzene	0.279	0.238	14.7	70	0.00
65	T	Hexachlorobutadiene	0.347	0.358	-3.2	74	0.01
66		Naphthalene	0.539	0.472	12.4	71	0.02

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\041112\04111203.D Vial: 3
Acq On : 11 Apr 2012 12:22 pm Operator: RACHEL HILL
Sample : CCV VOA1 041112 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Apr 11 12:47 2012 Quant Results File: 040312V1.RES

Quant Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration
DataAcq Meth : 040312V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.59	130	616464	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	1983862	12.50 ppbv	0.01
48) Chlorobenzene-d5	15.54	117	1737484	12.50 ppbv	0.01

System Monitoring Compounds					
55) 4-Bromofluorobenzene	17.19	95	1042945	11.97 ppbv	0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 95.76%		

Target Compounds					Qvalue
2) Propylene	5.52	41	467666	10.16 ppbv	99
3) Dichlorodifluoromethane	5.60	85	1571235	9.66 ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.86	135	1228068	10.28 ppbv #	86
5) Chloromethane	6.02	50	512192	10.65 ppbv	100
6) Vinyl chloride	6.22	62	508091	11.35 ppbv	100
7) 1,3-Butadiene	6.27	39	360187	12.09 ppbv	95
8) Bromomethane	6.86	94	605744	10.14 ppbv	99
9) Chloroethane	7.01	64	324821	9.80 ppbv	98
10) Trichlorofluoromethane	7.34	101	1625222	10.71 ppbv	99
11) Ethanol	7.58	45	180940	9.57 ppbv	99
12) Freon113	8.00	101	1165269	11.38 ppbv	95
13) 1,1-Dichloroethene	8.10	61	819437	10.84 ppbv	99
14) Acetone	8.19	43	802754	10.71 ppbv #	94
15) Carbon disulfide	8.47	76	1390442	10.59 ppbv #	100
16) 2-Propanol	8.24	45	790921	10.37 ppbv	79
17) Methylene chloride	8.76	49	597802	10.78 ppbv	98
18) tert-Butyl Methyl Ether	8.96	73	1430496	10.84 ppbv	97
19) trans-1,2-Dichloroethene	9.04	61	770615	10.77 ppbv	98
20) n-Hexane	9.23	57	869173	10.99 ppbv	98
21) 1,1-Dichloroethane	9.60	63	1003600	10.63 ppbv	100
22) Vinyl acetate	9.53	43	1331207	11.15 ppbv	99
23) cis-1,2-Dichloroethene	10.29	96	613615	10.85 ppbv	99
24) 2-Butanone	10.25	43	876697	11.19 ppbv	100
25) Ethyl acetate	10.20	43	1080112	10.77 ppbv #	100
26) Tetrahydrofuran	10.59	42	566061	11.64 ppbv	96
27) Chloroform	10.61	83	1149127	11.55 ppbv	97
28) 1,1,1-Trichloroethane	10.86	97	1213674	11.33 ppbv	100
29) Cyclohexane	10.87	56	863142	11.53 ppbv	98
30) Carbon tetrachloride	11.02	117	1313492	10.80 ppbv	99
31) Benzene	11.30	78	1610083	10.71 ppbv	100
32) 1,2-Dichloroethane	11.38	62	674691	11.07 ppbv	99
34) Heptane	11.35	43	980902	12.31 ppbv	97
35) Trichloroethene	12.03	130	818667	11.55 ppbv	97
36) 1,2-Dichloropropane	12.39	63	612479	11.64 ppbv	100
37) 1,4-Dioxane	12.46	88	341179	11.11 ppbv	96
38) Bromodichloromethane	12.67	83	1143001	11.39 ppbv	97
39) cis-1,3-Dichloropropene	13.23	75	946386	11.14 ppbv	100
40) 4-Methyl-2-pentanone	13.33	58	418101	11.29 ppbv	98
41) Toluene	13.63	91	1964857	11.76 ppbv	100
42) trans-1,3-Dichloropropene	13.93	75	837185	10.65 ppbv	99
43) 1,1,2-Trichloroethane	14.20	97	685744	11.61 ppbv	99
44) Tetrachloroethene	14.33	166	1043020	11.68 ppbv	96
45) 2-Hexanone	14.41	43	809006	11.31 ppbv	95
46) Chlorodibromomethane	14.75	129	1227781	11.82 ppbv	99
47) 1,2-Dibromoethane	14.99	107	1046741	11.55 ppbv	100
49) Chlorobenzene	15.58	112	1495333	11.72 ppbv	99
50) Ethylbenzene	15.63	91	2335920	11.64 ppbv	99
51) m,p-Xylene	15.78	91	3584827	22.98 ppbv	99
52) o-Xylene	16.37	91	1897695	11.89 ppbv	98

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\041112\04111203.D Vial: 3
Acq On : 11 Apr 2012 12:22 pm Operator: RACHEL HILL
Sample : CCV VOA1 041112 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Apr 11 12:47 2012 Quant Results File: 040312V1.RES

Quant Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration
DataAcq Meth : 040312V1

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
53) Styrene	16.40	104	1436366	11.71 ppbv	99
54) Bromoform	16.78	173	998948	11.05 ppbv	99
56) 1,1,2,2-Tetrachloroethane	17.36	83	1168105	11.09 ppbv	97
57) 4-Ethyltoluene	17.60	105	2327367	10.97 ppbv	100
58) 1,3,5-Trimethylbenzene	17.68	105	1969259	10.88 ppbv	100
59) 1,2,4-Trimethylbenzene	18.27	105	1881560	10.79 ppbv	100
60) 1,3-Dichlorobenzene	18.82	146	1199916	10.48 ppbv	99
61) 1,4-Dichlorobenzene	18.96	146	1143297	10.36 ppbv	99
62) Benzyl chloride	19.17	91	1330203	10.29 ppbv	99
63) 1,2-Dichlorobenzene	19.61	146	1055193	10.23 ppbv	99
64) 1,2,4-Trichlorobenzene	22.77	180	301345	7.78 ppbv	97
65) Hexachlorobutadiene	22.96	225	468074	9.70 ppbv	99
66) Naphthalene	23.46	128	604074	8.06 ppbv	100

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

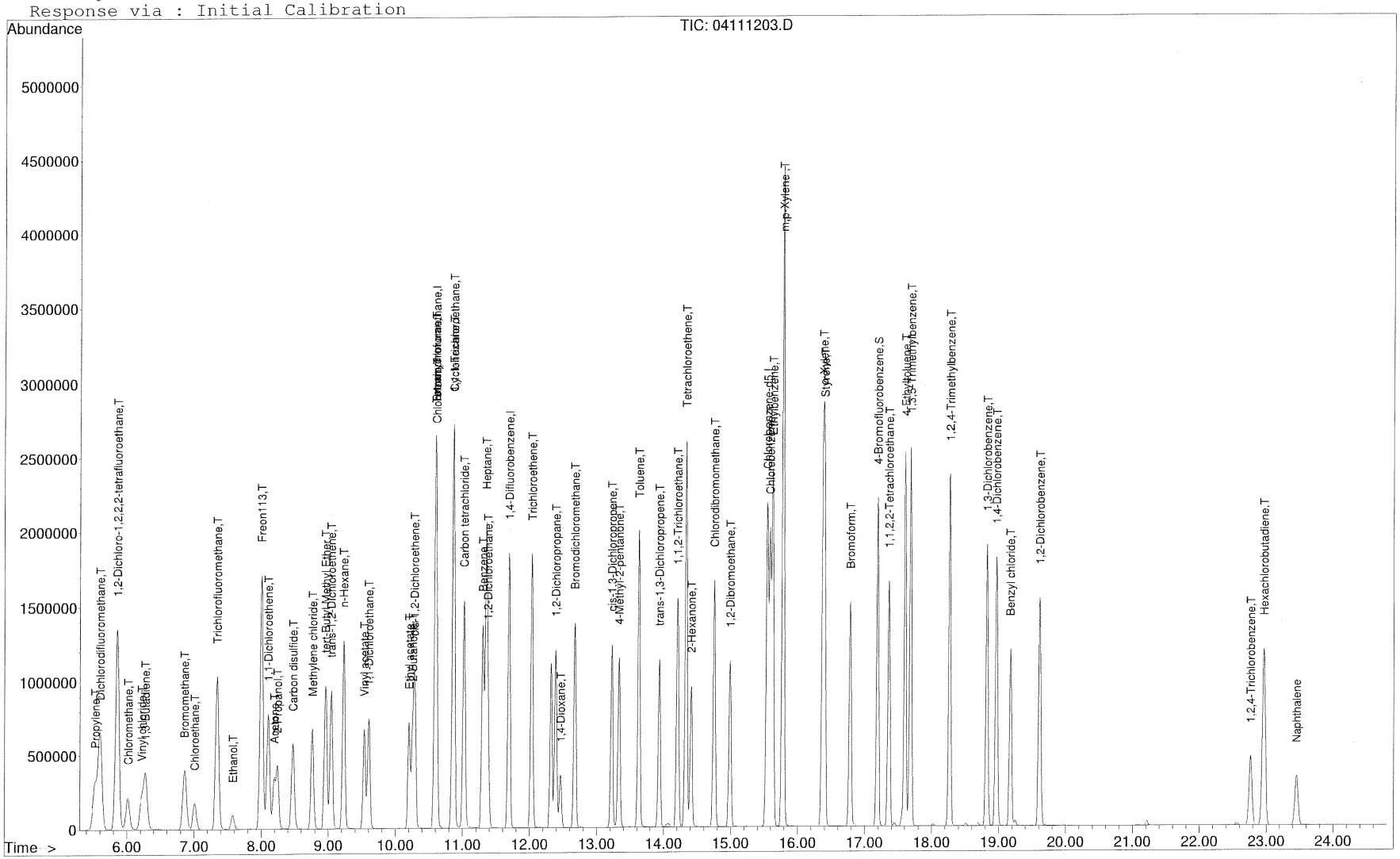
Quantitation Report

Data File : C:\HPCHEM\1\DATA\041112\04111203.D
Acq On : 11 Apr 2012 12:22 pm
Sample : CCV VOA1 041112
Misc : CCV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Apr 11 12:47 2012

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

Quant Results File: 040312V1.RES

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA1_120412A** **Run No.:** 47673

Analytical Run Date: 4/12/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 47419 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: PR by RD2 on 13apr12 041312rsl

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 041212	BFB_TUNE	TUNE	R47673	4/12/2012 9:27:00 AM	Robert Lynch		
CCV VOA1 041212	EPA_TO15	CCV	R47673	4/12/2012 10:51:00 AM	Robert Lynch		
RLVS VOA1 041212	EPA_TO15	RLVS	R47673	4/12/2012 11:35:00 AM	Robert Lynch		
MBLK VOA1 041212	EPA_TO15	MBLK	R47673	4/12/2012 12:26:00 PM	Robert Lynch		
1203903-026A	EPA_TO15	SAMP	R47673	4/12/2012 1:09:00 PM	Robert Lynch		
1203984-024A	EPA_TO15	SAMP	R47673	4/12/2012 2:39:00 PM	Robert Lynch		
1203984-024ADUP	EPA_TO15	DUP	R47673	4/12/2012 3:20:00 PM	Robert Lynch		
1203984-003A	EPA_TO15	SAMP	R47673	4/12/2012 4:02:00 PM	Robert Lynch		
1203984-004A	EPA_TO15	SAMP	R47673	4/12/2012 4:43:00 PM	Robert Lynch		
1203984-034A	EPA_TO15	SAMP	R47673	4/12/2012 5:25:00 PM	Robert Lynch		
1203984-025A	EPA_TO15	SAMP	R47673	4/12/2012 6:06:00 PM	Robert Lynch		
1203984-035A	EPA_TO15	SAMP	R47673	4/12/2012 6:48:00 PM	Robert Lynch		
1203984-026A	EPA_TO15	SAMP	R47673	4/12/2012 7:30:00 PM	Robert Lynch		
RLVS2 VOA1 04121	EPA_TO15	RLVS	R47673	4/13/2012 9:20:00 AM	Robert Lynch		Liquid Nitrogen ran out in middle of night. Changed first thing in morning and ran ending RLVS. This is why there is such a time gap between RLVS2 and last sample analyzed.

RTI Laboratories

ANALYTICAL RUN Summary

18-Apr-12

RunNo 47673

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
931241	BFB VOA1 041212	BFB_TUNE	TUNE	.\1\DATA\041212	4/12/2012 9:27:0	1	R47673		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		84.1	84.1		100	0	0	0	0	0	84%	50	120	0%	
175	M		7.4	7.4		100	0	0	0	0	0	7%	4	9	0%	
176	M		98.2	98.2		100	0	0	0	0	0	98%	93	101	0%	
177	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	
50	M		16.9	16.9		100	0	0	0	0	0	17%	8	40	0%	
75	M		46.8	46.8		100	0	0	0	0	0	47%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		7.1	7.1		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
931242	CCV VOA1 041212	EPA_TO15	CCV	.\1\DATA\041212	4/12/2012 10:51:	1	R47673		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	10.8	10.8		9.6	0	0	0.107	1	0	113%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.57	10.57		10	0	0	0.211	1	0	106%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.47	10.47		9.8	0	0	0.108	1	0	107%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	11.04	11.04		9.8	0	0	0.2	1	0	113%	70	130	0%	
1,1-Dichloroethane	A	ppbv	9.99	9.99		9.7	0	0	0.111	1	0	103%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.02	10.02		9.9	0	0	0.097	1	0	101%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	7.36	7.36		9.1	0	0	0.271	1	0	81%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	10.39	10.39		9.8	0	0	0.245	1	0	106%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.94	10.94		9.6	0	0	0.186	1	0	114%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.65	9.65		9.7	0	0	0.208	1	0	99%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.62	10.62		9.7	0	0	0.196	1	0	109%	70	130	0%	
1,2-Dichloropropane	A	ppbv	11.03	11.03		9.8	0	0	0.224	1	0	113%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.48	10.48		9.7	0	0	0.24	1	0	108%	70	130	0%	
1,3-Butadiene	A	ppbv	12.05	12.05		9.8	0	0	0.152	1	0	123%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.86	9.86		9.7	0	0	0.202	1	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
931242	CCV VOA1 041212	EPA_TO15	CCV	.\1\DATA\041212	4/12/2012 10:51:	1	R47673		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	9.77	9.77		9.6	0	0	0.194	1	0	102%	70	130	0%	
1,4-Dioxane	A	ppbv	10.47	10.47		9.6	0	0	0.128	1	0	109%	70	130	0%	
2-Butanone	A	ppbv	10.61	10.61		9.9	0	0	0.287	1	0	107%	70	130	0%	
2-Hexanone	A	ppbv	10.57	10.57		9.8	0	0	0.135	1	0	108%	70	130	0%	
2-Propanol	A	ppbv	9.65	9.65		10.1	0	0	0.329	1	0	96%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.53	10.53		10	0	0	0.157	1	0	105%	70	130	0%	
Acetone	A	ppbv	10.23	10.23		10	0	0	0.43	1	0	102%	70	130	0%	
Benzene	A	ppbv	10.35	10.35		9.6	0	0	0.126	1	0	108%	70	130	0%	
Benzyl chloride	A	ppbv	9.85	9.85		9.7	0	0	0.155	1	0	102%	70	130	0%	
Bromodichloromethane	A	ppbv	10.83	10.83		9.6	0	0	0.156	1	0	113%	70	130	0%	
Bromoform	A	ppbv	10.51	10.51		9.6	0	0	0.197	1	0	109%	70	130	0%	
Bromomethane	A	ppbv	9.34	9.34		9.3	0	0	0.075	1	0	100%	70	130	0%	
Carbon disulfide	A	ppbv	9.69	9.69		9.7	0	0	0.093	1	0	100%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.23	10.23		9.5	0	0	0.114	1	0	108%	70	130	0%	
Chlorobenzene	A	ppbv	11.21	11.21		9.9	0	0	0.275	1	0	113%	70	130	0%	
Chlorodibromomethane	A	ppbv	11.24	11.24		9.2	0	0	0.165	1	0	122%	70	130	0%	
Chloroethane	A	ppbv	8.89	8.89		9.8	0	0	0.063	1	0	91%	70	130	0%	
Chloroform	A	ppbv	10.94	10.94		9.4	0	0	0.126	1	0	116%	70	130	0%	
Chloromethane	A	ppbv	9.86	9.86		9.8	0	0	0.104	1	0	101%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.25	10.25		9.8	0	0	0.107	1	0	105%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.61	10.61		9.5	0	0	0.166	1	0	112%	70	130	0%	
Cyclohexane	A	ppbv	10.82	10.82		9.8	0	0	0.684	2	0	110%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	8.97	8.97		9.2	0	0	0.086	1	0	98%	70	130	0%	
Ethanol	A	ppbv	8.92	8.92		9.2	0	0	1.962	5	0	97%	70	130	0%	
Ethyl acetate	A	ppbv	10.43	10.43		9.8	0	0	0.157	1	0	106%	70	130	0%	
Ethylbenzene	A	ppbv	11.23	11.23		9.8	0	0	0.737	2	0	115%	70	130	0%	
Heptane	A	ppbv	11.72	11.72		9.9	0	0	0.249	1	0	118%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.3	9.3		9.4	0	0	0.374	2	0	99%	70	130	0%	
m,p-Xylene	A	ppbv	22.13	22.13		19.2	0	0	0.524	2	0	115%	70	130	0%	
Methylene chloride	A	ppbv	9.93	9.93		10	0	0	2.077	5	0	99%	70	130	0%	
n-Hexane	A	ppbv	10.36	10.36		10.1	0	0	0.692	2	0	103%	70	130	0%	
Naphthalene	A	ppbv	7.48	7.48		9.2	0	0	0.247	1	0	81%	70	130	0%	
o-Xylene	A	ppbv	11.36	11.36		10	0	0	0.258	1	0	114%	70	130	0%	
Propylene	A	ppbv	9.29	9.29		10.2	0	0	0.075	1	0	91%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
931242	CCV VOA1 041212	EPA_TO15	CCV	\1\DATA\041212	4/12/2012 10:51:	1	R47673		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	11.15	11.15		9.8	0	0	0.263	1	0	114%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.21	10.21		9.9	0	0	0.228	1	0	103%	70	130	0%	
Tetrachloroethene	A	ppbv	11.04	11.04		9.6	0	0	0.148	1	0	115%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.18	11.18		10	0	0	0.201	1	0	112%	70	130	0%	
Toluene	A	ppbv	11.27	11.27		9.8	0	0	0.158	1	0	115%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	9.89	9.89		9.8	0	0	0.117	1	0	101%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.03	10.03		9.1	0	0	0.171	1	0	110%	70	130	0%	
Trichloroethene	A	ppbv	11.02	11.02		9.6	0	0	0.119	1	0	115%	70	130	0%	
Trichlorofluoromethane	A	ppbv	9.84	9.84		9.6	0	0	0.148	1	0	103%	70	130	0%	
Vinyl acetate	A	ppbv	10.67	10.67		9.9	0	0	0.266	1	0	108%	70	130	0%	
Vinyl chloride	A	ppbv	10.51	10.51		9.4	0	0	0.072	1	0	112%	70	130	0%	
Xylenes, Total	C	ppbv	33.49	33.49		29.2	0	0	0.782	3	0	115%	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	12.07	12.07		12.5	0	0	0	0	0	97%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
931243	RLVS VOA1 041212	EPA_TO15	RLVS	\1\DATA\041212	4/12/2012 11:35:	1	R47673		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	1.07	1.07		0.996	0	0	0.107	1	0	107%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.39	1.39		1	0	0	0.211	1	0	139%	70	130	0%	S
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.12	1.12		0.98	0	0	0.108	1	0	114%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	1.08	1.08		0.98	0	0	0.2	1	0	110%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.03	1.03		0.97	0	0	0.111	1	0	106%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.04	1.04		0.99	0	0	0.097	1	0	105%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.37	1.37		0.91	0	0	0.271	1	0	151%	70	130	0%	S
1,2,4-Trimethylbenzene	A	ppbv	1.41	1.41		0.98	0	0	0.245	1	0	144%	70	130	0%	S
1,2-Dibromoethane	A	ppbv	1.05	1.05		0.96	0	0	0.186	1	0	109%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.45	1.45		0.97	0	0	0.208	1	0	149%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	1.06	1.06		0.97	0	0	0.196	1	0	109%	70	130	0%	
1,2-Dichloropropane	A	ppbv	1.07	1.07		0.98	0	0	0.224	1	0	109%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\041212\04121203.D Vial: 3
Acq On : 12 Apr 2012 10:51 am Operator: RACHEL HILL
Sample : CCV VOA1 041212 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	91	0.00
2	T	Propylene	0.933	0.850	8.9	78	0.01
3	T	Dichlorodifluoromethane	3.299	3.216	2.5	82	0.01
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.423	2.416	0.3	82	0.01
5	T	Chloromethane	0.975	1.012	-3.8	82	0.02
6	T	Vinyl chloride	0.908	1.015	-11.8	89	0.01
7	T	1,3-Butadiene	0.604	0.743	-23.0	94	0.01
8	T	Bromomethane	1.211	1.216	-0.4	83	0.00
9	T	Chloroethane	0.672	0.650	3.3	80	0.02
10	T	Trichlorofluoromethane	3.078	3.157	-2.6	81	0.01
11	T	Ethanol	0.384	0.372	3.1	74	0.00
12	T	Freon113	2.077	2.219	-6.8	82	0.01
13	T	1,1-Dichloroethene	1.532	1.551	-1.2	81	0.01
14	T	Acetone	1.520	1.554	-2.2	78	0.01
15	T	Carbon disulfide	2.662	2.658	0.2	80	0.01
16	T	2-Propanol	1.547	1.478	4.5	74	0.01
17	T	Methylene chloride	1.125	1.117	0.7	80	0.00
18	T	tert-Butyl Methyl Ether	2.677	2.759	-3.1	76	0.00
19	T	trans-1,2-Dichloroethene	1.451	1.464	-0.9	79	0.00
20	T	n-Hexane	1.604	1.645	-2.6	80	0.00
21	T	1,1-Dichloroethane	1.915	1.972	-3.0	81	0.00
22	T	Vinyl acetate	2.421	2.609	-7.8	76	0.00
23	T	cis-1,2-Dichloroethene	1.146	1.199	-4.6	81	0.00
24	T	2-Butanone	1.588	1.703	-7.2	80	0.00
25	T	Ethyl acetate	2.033	2.165	-6.5	79	0.01
26	T	Tetrahydrofuran	0.986	1.103	-11.9	79	0.01
27	T	Chloroform	2.018	2.252	-11.6	82	0.00
28	T	1,1,1-Trichloroethane	2.172	2.442	-12.4	82	0.00
29	T	Cyclohexane	1.517	1.676	-10.5	79	0.01
30	T	Carbon tetrachloride	2.467	2.656	-7.7	81	0.00
31	T	Benzene	3.050	3.289	-7.8	79	0.00
32	T	1,2-Dichloroethane	1.236	1.353	-9.5	78	0.01
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	88	0.01
34	T	Heptane	0.502	0.594	-18.3	79	0.00
35	T	Trichloroethene	0.447	0.513	-14.8	83	0.01
36	T	1,2-Dichloropropane	0.332	0.373	-12.3	78	0.00
37	T	1,4-Dioxane	0.194	0.211	-8.8	80	0.00
38	T	Bromodichloromethane	0.632	0.713	-12.8	79	0.00
39	T	cis-1,3-Dichloropropene	0.535	0.598	-11.8	78	0.01
40	T	4-Methyl-2-pentanone	0.233	0.246	-5.6	74	0.00
41	T	Toluene	1.053	1.210	-14.9	79	0.00
42	T	trans-1,3-Dichloropropene	0.495	0.546	-10.3	77	0.00
43	T	1,1,2-Trichloroethane	0.372	0.419	-12.6	79	0.00
44	T	Tetrachloroethene	0.563	0.647	-14.9	83	0.00
45	T	2-Hexanone	0.451	0.486	-7.8	74	0.00
46	T	Chlorodibromomethane	0.654	0.751	-14.8	79	0.00
47	T	1,2-Dibromoethane	0.571	0.651	-14.0	79	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	88	0.00
49	T	Chlorobenzene	0.918	1.039	-13.2	79	0.00
50	T	Ethylbenzene	1.443	1.654	-14.6	78	0.00
51	T	m,p-Xylene	1.122	1.293	-15.2	82	0.00
52	T	o-Xylene	1.148	1.305	-13.7	77	0.00
53	T	Styrene	0.882	1.004	-13.8	77	0.00
54	T	Bromoform	0.651	0.712	-9.4	76	0.01
55	S	4-Bromofluorobenzene	0.627	0.605	3.5	85	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\041212\04121203.D Vial: 3
Acq On : 12 Apr 2012 10:51 am Operator: RACHEL HILL
Sample : CCV VOA1 041212 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.758	0.801	-5.7	76	0.00
57	T	4-Ethyltoluene	1.526	1.665	-9.1	78	0.00
58	T	1,3,5-Trimethylbenzene	1.302	1.407	-8.1	78	0.00
59	T	1,2,4-Trimethylbenzene	1.254	1.330	-6.1	77	0.01
60	T	1,3-Dichlorobenzene	0.823	0.837	-1.7	75	0.00
61	T	1,4-Dichlorobenzene	0.794	0.808	-1.8	75	0.00
62	T	Benzyl chloride	0.930	0.945	-1.6	72	0.00
63	T	1,2-Dichlorobenzene	0.742	0.738	0.5	76	0.00
64	T	1,2,4-Trichlorobenzene	0.279	0.225	19.4	64	0.00
65	T	Hexachlorobutadiene	0.347	0.343	1.2	69	0.00
66		Naphthalene	0.539	0.438	18.7	64	0.01

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\041212\04121203.D Vial: 3
Acq On : 12 Apr 2012 10:51 am Operator: RACHEL HILL
Sample : CCV VOA1 041212 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Apr 12 11:16 2012 Quant Results File: 040312V1.RES

Quant Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration
DataAcq Meth : 040312V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.60	130	597635	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	1946674	12.50 ppbv	0.01
48) Chlorobenzene-d5	15.54	117	1680252	12.50 ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.19	95	1017228	12.07 ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 96.56%

Target Compounds					Qvalue
2) Propylene	5.52	41	414371	9.29 ppbv	99
3) Dichlorodifluoromethane	5.60	85	1414460	8.97 ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.86	135	1097557	9.48 ppbv #	85
5) Chloromethane	6.02	50	459450	9.86 ppbv	99
6) Vinyl chloride	6.22	62	456120	10.51 ppbv	100
7) 1,3-Butadiene	6.28	39	347980	12.05 ppbv	95
8) Bromomethane	6.86	94	540751	9.34 ppbv	99
9) Chloroethane	7.01	64	285739	8.89 ppbv	98
10) Trichlorofluoromethane	7.34	101	1448921	9.84 ppbv	99
11) Ethanol	7.57	45	163523	8.92 ppbv	99
12) Freon113	8.00	101	1039583	10.47 ppbv	95
13) 1,1-Dichloroethene	8.11	61	733895	10.02 ppbv	98
14) Acetone	8.20	43	743174	10.23 ppbv #	95
15) Carbon disulfide	8.47	76	1232650	9.69 ppbv #	100
16) 2-Propanol	8.24	45	713656	9.65 ppbv	82
17) Methylene chloride	8.76	49	533929	9.93 ppbv	98
18) tert-Butyl Methyl Ether	8.96	73	1306109	10.21 ppbv	98
19) trans-1,2-Dichloroethene	9.04	61	685952	9.89 ppbv	99
20) n-Hexane	9.23	57	794560	10.36 ppbv	97
21) 1,1-Dichloroethane	9.60	63	914336	9.99 ppbv	100
22) Vinyl acetate	9.53	43	1234819	10.67 ppbv	99
23) cis-1,2-Dichloroethene	10.29	96	561899	10.25 ppbv	98
24) 2-Butanone	10.25	43	805929	10.61 ppbv	99
25) Ethyl acetate	10.20	43	1014170	10.43 ppbv #	100
26) Tetrahydrofuran	10.59	42	527350	11.18 ppbv	96
27) Chloroform	10.61	83	1055274	10.94 ppbv	98
28) 1,1,1-Trichloroethane	10.86	97	1121025	10.80 ppbv	100
29) Cyclohexane	10.87	56	785060	10.82 ppbv	99
30) Carbon tetrachloride	11.02	117	1206514	10.23 ppbv	99
31) Benzene	11.30	78	1509743	10.35 ppbv	100
32) 1,2-Dichloroethane	11.38	62	627357	10.62 ppbv	99
34) Heptane	11.35	43	916342	11.72 ppbv	98
35) Trichloroethene	12.03	130	766555	11.02 ppbv	97
36) 1,2-Dichloropropane	12.39	63	569531	11.03 ppbv	99
37) 1,4-Dioxane	12.46	88	315651	10.47 ppbv	95
38) Bromodichloromethane	12.67	83	1066080	10.83 ppbv	98
39) cis-1,3-Dichloropropene	13.23	75	884715	10.61 ppbv	99
40) 4-Methyl-2-pentanone	13.33	58	382729	10.53 ppbv	98
41) Toluene	13.63	91	1846802	11.27 ppbv	99
42) trans-1,3-Dichloropropene	13.93	75	773593	10.03 ppbv	99
43) 1,1,2-Trichloroethane	14.21	97	640178	11.04 ppbv	99
44) Tetrachloroethene	14.33	166	967107	11.04 ppbv	96
45) 2-Hexanone	14.41	43	741657	10.57 ppbv	94
46) Chlorodibromomethane	14.75	129	1145475	11.24 ppbv	99
47) 1,2-Dibromoethane	14.99	107	972689	10.94 ppbv	99
49) Chlorobenzene	15.59	112	1383228	11.21 ppbv	99
50) Ethylbenzene	15.62	91	2178353	11.23 ppbv	99
51) m,p-Xylene	15.78	91	3338302	22.13 ppbv	99
52) o-Xylene	16.37	91	1753697	11.36 ppbv	98

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\041212\04121203.D Vial: 3
Acq On : 12 Apr 2012 10:51 am Operator: RACHEL HILL
Sample : CCV VOA1 041212 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Apr 12 11:16 2012 Quant Results File: 040312V1.RES

Quant Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration
DataAcq Meth : 040312V1

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
53) Styrene	16.40	104	1321980	11.15 ppbv	99
54) Bromoform	16.78	173	918993	10.51 ppbv	99
56) 1,1,2,2-Tetrachloroethane	17.36	83	1076539	10.57 ppbv	98
57) 4-Ethyltoluene	17.60	105	2193908	10.69 ppbv	100
58) 1,3,5-Trimethylbenzene	17.68	105	1833997	10.48 ppbv	99
59) 1,2,4-Trimethylbenzene	18.27	105	1752152	10.39 ppbv	100
60) 1,3-Dichlorobenzene	18.82	146	1091472	9.86 ppbv	99
61) 1,4-Dichlorobenzene	18.96	146	1042031	9.77 ppbv	100
62) Benzyl chloride	19.17	91	1232059	9.85 ppbv	99
63) 1,2-Dichlorobenzene	19.61	146	962565	9.65 ppbv	99
64) 1,2,4-Trichlorobenzene	22.76	180	275726	7.36 ppbv	97
65) Hexachlorobutadiene	22.96	225	433872	9.30 ppbv	99
66) Naphthalene	23.45	128	542008	7.48 ppbv	99

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

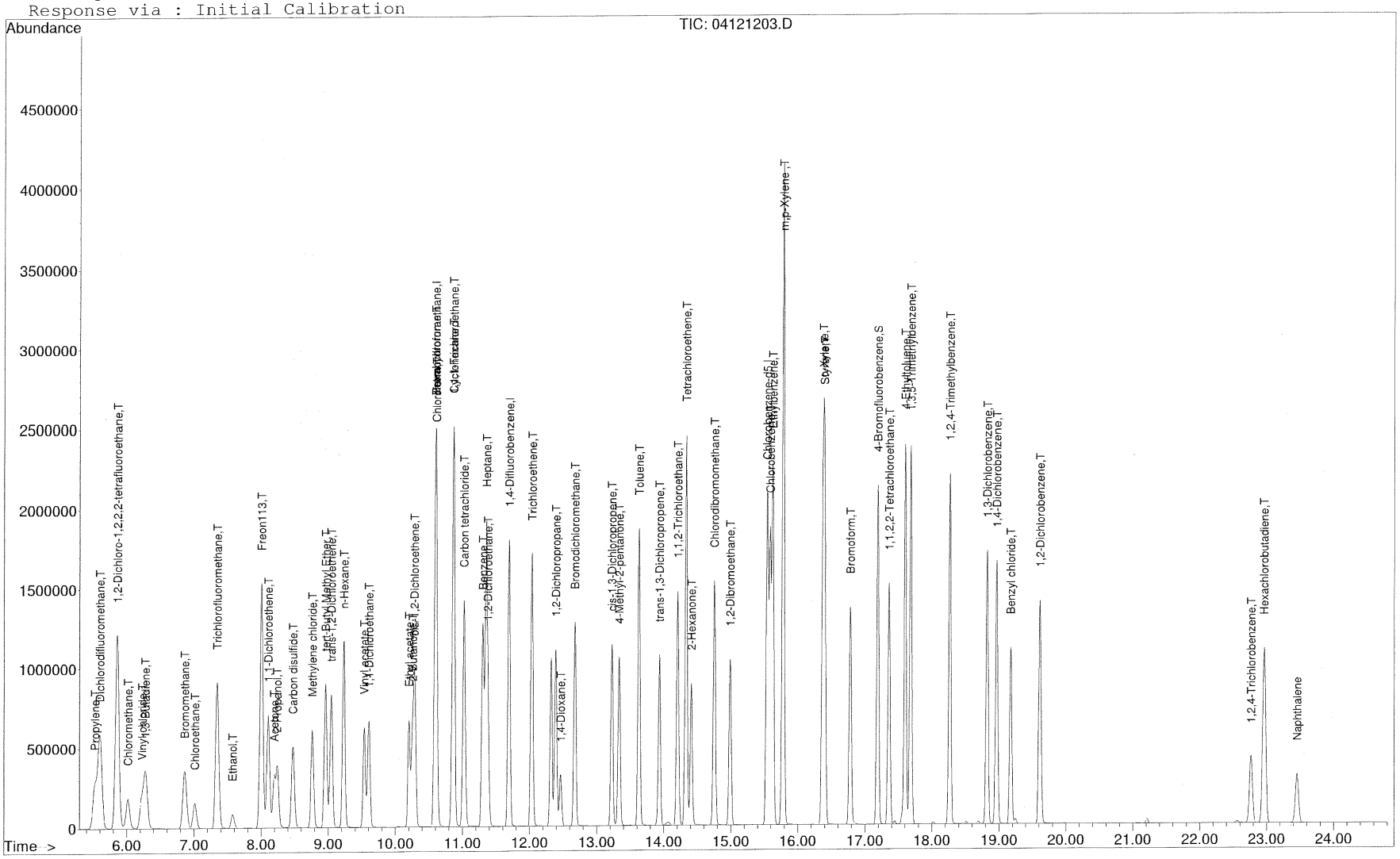
Quantitation Report

Data File : C:\HPCHEM\1\DATA\041212\04121203.D
Acq On : 12 Apr 2012 10:51 am
Sample : CCV VOA1 041212
Misc : CCV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Apr 12 11:16 2012

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

Quant Results File: 040312V1.RES

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration



Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration

Calibration Files
2 =04031203.D 4 =04031204.D 5 =04031205.D
6 =04031206.D 7 =04031207.D 8 =04031208.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	0.908	0.995	0.983	0.926	0.905	0.890	0.933	4.30
3)	T	Dichlorodifluoromet	3.252	3.566	3.556	3.353	3.226	3.106	3.299	6.23
4)	T	1,2-Dichloro-1,2,2,	2.432	2.684	2.636	2.470	2.353	2.228	2.423	8.08
5)	T	Chloromethane	1.034	1.119	1.079	0.982	0.895	0.855	0.975	11.01
6)	T	Vinyl chloride	0.940	1.035	1.009	0.924	0.844	0.799	0.908	10.45
7)	T	1,3-Butadiene	0.676	0.720	0.677	0.610	0.540	0.501	0.604	14.86
8)	T	Bromomethane	1.191	1.328	1.327	1.239	1.146	1.114	1.211	7.42
9)	T	Chloroethane	0.659	0.742	0.738	0.686	0.624	0.610	0.672	7.80
10)	T	Trichlorofluorometh	3.200	3.533	3.499	3.244	2.871	2.683	3.078	12.84
11)	T	Ethanol	0.351	0.455	0.437	0.397	0.337	0.343	0.384	12.33
12)	T	Freon113	2.246	2.480	2.423	2.203	1.857	1.725	2.077	16.70
13)	T	1,1-Dichloroethene	1.582	1.754	1.733	1.606	1.406	1.348	1.532	11.96
14)	T	Acetone	1.754	1.813	1.721	1.574	1.248	1.265	1.520	16.77
15)	T	Carbon disulfide	2.793	3.018	2.970	2.743	2.444	2.340	2.662	10.95
16)	T	2-Propanol	1.486	1.818	1.738	1.598	1.402	1.389	1.547	11.36
17)	T	Methylene chloride	1.305	1.271	1.253	1.156	0.982	0.966	1.125	14.09
18)	T	tert-Butyl Methyl E	3.000	3.312	3.137	2.842	2.175	2.189	2.677	19.24
19)	T	trans-1,2-Dichloroe	1.513	1.689	1.648	1.536	1.302	1.273	1.451	13.42
20)	T	n-Hexane	1.720	1.878	1.856	1.694	1.437	1.382	1.604	15.21
21)	T	1,1-Dichloroethane	1.953	2.220	2.205	2.011	1.724	1.697	1.915	13.04
22)	T	Vinyl acetate	2.085	3.111	2.964	2.668	2.057	2.078	2.421	19.83
23)	T	cis-1,2-Dichloroeth	1.182	1.354	1.314	1.203	1.027	0.996	1.146	13.85
24)	T	2-Butanone	1.711	1.940	1.851	1.809	1.384	1.286	1.588	19.80
25)	T	Ethyl acetate	2.064	2.489	2.373	2.188	1.784	1.696	2.033	16.57
26)	T	Tetrahydrofuran	1.110	1.276	1.184	1.038	0.835	0.769	0.986	22.56
27)	T	Chloroform	2.254	2.492	2.354	2.114	1.773	1.635	2.018	18.91
28)	T	1,1,1-Trichloroetha	2.317	2.718	2.585	2.314	1.921	1.760	2.172	19.60
29)	T	Cyclohexane	1.761	1.930	1.817	1.625	1.326	1.161	1.517	23.48
30)	T	Carbon tetrachlorid	2.497	2.996	2.907	2.650	2.229	2.087	2.467	16.79
31)	T	Benzene	3.397	3.773	3.577	3.236	2.567	2.504	3.050	19.23
32)	T	1,2-Dichloroethane	1.287	1.587	1.494	1.337	1.057	0.997	1.236	21.17
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.585	0.665	0.621	0.544	0.445	0.369	0.502	27.74
35)	T	Trichloroethene	0.471	0.546	0.532	0.473	0.404	0.370	0.447	18.21
36)	T	1,2-Dichloropropane	0.362	0.419	0.399	0.355	0.284	0.266	0.332	21.26
37)	T	1,4-Dioxane	0.208	0.234	0.228	0.203	0.166	0.161	0.194	16.87
38)	T	Bromodichloromethan	0.644	0.795	0.768	0.685	0.578	0.514	0.632	20.61
39)	T	cis-1,3-Dichloropro	0.529	0.676	0.648	0.580	0.477	0.446	0.535	19.70
40)	T	4-Methyl-2-pentanon	0.234	0.291	0.277	0.250	0.207	0.197	0.233	18.03
41)	T	Toluene	1.208	1.348	1.263	1.120	0.907	0.819	1.053	23.22
42)	T	trans-1,3-Dichlorop	0.461	0.623	0.601	0.536	0.449	0.425	0.495	18.84
43)	T	1,1,2-Trichloroetha	0.399	0.468	0.442	0.396	0.331	0.304	0.372	19.80
44)	T	Tetrachloroethene	0.621	0.688	0.662	0.593	0.507	0.461	0.563	18.94
45)	T	2-Hexanone	0.459	0.581	0.545	0.480	0.392	0.372	0.451	20.74
46)	T	Chlorodibromomethan	0.651	0.838	0.797	0.709	0.591	0.531	0.654	20.95
47)	T	1,2-Dibromoethane	0.601	0.726	0.692	0.613	0.508	0.457	0.571	21.22
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	1.030	1.160	1.096	0.971	0.817	0.729	0.918	21.74
50)	T	Ethylbenzene	1.799	1.857	1.725	1.513	1.249	1.076	1.443	26.37
51)	T	m,p-Xylene	1.449	1.383	1.252	1.064	0.865	0.720	1.122	25.89
52)	T	o-Xylene	1.467	1.487	1.367	1.191	0.979	0.844	1.148	27.22
53)	T	Styrene	0.946	1.146	1.063	0.937	0.789	0.703	0.882	22.40
54)	T	Bromoform	0.642	0.826	0.784	0.694	0.595	0.541	0.651	19.64
55)	S	4-Bromofluorobenzen	0.627	0.625	0.625	0.628	0.626	0.628	0.627	0.19
56)	T	1,1,2,2-Tetrachloro	1.013	0.927	0.872	0.772	0.658	0.580	0.758	25.46
57)	T	4-Ethyltoluene	2.107	1.881	1.757	1.548	1.298	1.144	1.526	27.37

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration

Calibration Files
2 =04031203.D 4 =04031204.D 5 =04031205.D
6 =04031206.D 7 =04031207.D 8 =04031208.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.859	1.590	1.496	1.308	1.098	0.962	1.302	28.74
59)	T	1,2,4-Trimethylbenz	1.766	1.520	1.426	1.261	1.071	0.944	1.254	27.34
60)	T	1,3-Dichlorobenzene	1.092	0.975	0.926	0.822	0.714	0.657	0.823	22.42
61)	T	1,4-Dichlorobenzene	1.043	0.939	0.892	0.797	0.692	0.635	0.794	21.99
62)	T	Benzyl chloride	0.712	1.146	1.096	0.977	0.857	0.792	0.930	18.52
63)	T	1,2-Dichlorobenzene	1.089	0.854	0.814	0.721	0.630	0.577	0.742	26.52
64)	T	1,2,4-Trichlorobenz	0.405	0.307	0.295	0.259	0.232	0.232	0.279	23.08
65)	T	Hexachlorobutadiene		0.436	0.415	0.359	0.310	0.298	0.347	19.71
66)		Naphthalene	0.795	0.605	0.587	0.502	0.449	0.434	0.539	25.34

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration
Total Cpnds : 66

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Bromochloromethane	130	10.59	1.000	A	2	A	B
2	T	Propylene	41	5.51	0.520	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	6.00	0.566	A	3	A	B
6	T	Vinyl chloride	62	6.21	0.587	A	2	A	B
7	T	1,3-Butadiene	39	6.27	0.592	A	2	A	B
8	T	Bromomethane	94	6.85	0.647	A	3	A	B
9	T	Chloroethane	64	7.00	0.661	A	3	A	B
10	T	Trichlorofluoromethane	101	7.33	0.692	A	3	A	B
11	T	Ethanol	45	7.57	0.715	A	2	A	B
12	T	Freon113	101	7.99	0.755	A	2	A	B
13	T	1,1-Dichloroethene	61	8.09	0.764	A	2	A	B
14	T	Acetone	43	8.18	0.773	A	2	A	B
15	T	Carbon disulfide	76	8.46	0.799	A	3	A	B
16	T	2-Propanol	45	8.23	0.777	A	2	A	B
17	T	Methylene chloride	49	8.75	0.827	A	2	A	B
18	T	tert-Butyl Methyl Ether	73	8.95	0.845	A	2	A	B
19	T	trans-1,2-Dichloroethene	61	9.04	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	0.971	A	3	A	B
24	T	2-Butanone	43	10.24	0.967	A	2	A	B
25	T	Ethyl acetate	43	10.19	0.962	A	3	A	B
26	T	Tetrahydrofuran	42	10.58	0.999	A	2	A	B
27	T	Chloroform	83	10.60	1.001	A	2	A	B
28	T	1,1,1-Trichloroethane	97	10.85	1.025	A	3	A	B
29	T	Cyclohexane	56	10.86	1.025	A	2	A	B
30	T	Carbon tetrachloride	117	11.01	1.040	A	3	A	B
31	T	Benzene	78	11.30	1.067	A	3	A	B
32	T	1,2-Dichloroethane	62	11.37	1.074	A	3	A	B
33	I	1,4-Difluorobenzene	114	11.68	1.000	A	2	A	B
34	T	Heptane	43	11.34	0.971	A	3	A	B
35	T	Trichloroethene	130	12.02	1.029	A	3	A	B
36	T	1,2-Dichloropropane	63	12.38	1.060	A	3	A	B
37	T	1,4-Dioxane	88	12.45	1.066	A	2	A	B
38	T	Bromodichloromethane	83	12.67	1.084	A	2	A	B
39	T	cis-1,3-Dichloropropene	75	13.21	1.131	A	2	A	B
40	T	4-Methyl-2-pentanone	58	13.32	1.141	A	3	A	B
41	T	Toluene	91	13.62	1.166	A	2	A	B
42	T	trans-1,3-Dichloropropene	75	13.93	1.192	A	3	A	B
43	T	1,1,2-Trichloroethane	97	14.20	1.215	A	3	A	B
44	T	Tetrachloroethene	166	14.32	1.226	A	3	A	B
45	T	2-Hexanone	43	14.40	1.233	A	2	A	B
46	T	Chlorodibromomethane	129	14.75	1.262	A	2	A	B
47	T	1,2-Dibromoethane	107	14.98	1.283	A	2	A	B
48	I	Chlorobenzene-d5	117	15.53	1.000	A	2	A	B
49	T	Chlorobenzene	112	15.58	1.003	A	3	A	B
50	T	Ethylbenzene	91	15.62	1.005	A	2	A	B
51	T	m,p-Xylene	91	15.77	1.015	A	2	A	B
52	T	o-Xylene	91	16.36	1.054	A	2	A	B
53	T	Styrene	104	16.39	1.055	A	3	A	B
54	T	Bromoform	173	16.77	1.080	A	3	A	B
55	S	4-Bromofluorobenzene	95	17.18	1.106	A	2	A	B
56	T	1,1,2,2-Tetrachloroethane	83	17.35	1.117	A	2	A	B
57	T	4-Ethyltoluene	105	17.59	1.133	A	1	A	B
58	T	1,3,5-Trimethylbenzene	105	17.68	1.138	A	2	A	B
59	T	1,2,4-Trimethylbenzene	105	18.26	1.175	A	2	A	B
60	T	1,3-Dichlorobenzene	146	18.82	1.211	A	3	A	B
61	T	1,4-Dichlorobenzene	146	18.96	1.221	A	3	A	B
62	T	Benzyl chloride	91	19.17	1.234	A	2	A	B
63	T	1,2-Dichlorobenzene	146	19.61	1.262	A	3	A	B
64	T	1,2,4-Trichlorobenzene	180	22.76	1.465	A	3	A	B
65	T	Hexachlorobutadiene	225	22.95	1.478	A	2	A	B
66		Naphthalene	128	23.44	1.509	A	2	A	B

```
Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
  A/H = Area or Height
ID  R = R.T.  B = R.T. & Q  Q = Qvalue L = Largest  A = All
-----------------------------------------------------------------------------
          040312V1.M     Thu Apr 05 09:25:37 2012
```

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\040312B\04031211.D Vial: 2
Acq On : 4 Apr 2012 9:28 am Operator: RACHEL HILL
Sample : ICV VOA1 040312 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	112	0.00
2	T	Propylene	0.933	1.102	-18.1	124	0.02
3	T	Dichlorodifluoromethane	3.299	3.845	-16.6	121	0.01
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.423	2.810	-16.0	117	0.01
5	T	Chloromethane	0.975	1.070	-9.7	107	0.02
6	T	Vinyl chloride	0.908	0.973	-7.2	105	0.00
7	T	1,3-Butadiene	0.604	0.672	-11.3	105	0.00
8	T	Bromomethane	1.211	1.386	-14.5	117	0.00
9	T	Chloroethane	0.672	0.756	-12.5	114	0.01
10	T	Trichlorofluoromethane	3.078	3.441	-11.8	109	0.01
11	T	Ethanol	0.384	0.296	22.9	73	0.00
12	T	Freon113	2.077	2.263	-9.0	102	0.00
13	T	1,1-Dichloroethene	1.532	1.684	-9.9	108	0.00
14	T	Acetone	1.520	1.256	17.4	78	0.00
15	T	Carbon disulfide	2.662	3.404	-27.9	126	0.01
16	T	2-Propanol	1.547	1.485	4.0	92	0.01
17	T	Methylene chloride	1.125	1.099	2.3	97	0.00
18	T	tert-Butyl Methyl Ether	2.677	2.312	13.6	78	0.00
19	T	trans-1,2-Dichloroethene	1.451	1.523	-5.0	101	0.00
20	T	n-Hexane	1.604	1.591	0.8	95	0.00
21	T	1,1-Dichloroethane	1.915	1.866	2.6	94	0.00
22	T	Vinyl acetate	2.421	1.914	20.9	69	0.00
23	T	cis-1,2-Dichloroethene	1.146	1.104	3.7	91	0.00
24	T	2-Butanone	1.588	1.305	17.8	75	0.00
25	T	Ethyl acetate	2.033	1.665	18.1	75	0.00
26	T	Tetrahydrofuran	0.986	0.853	13.5	75	0.00
27	T	Chloroform	2.018	2.007	0.5	90	0.00
28	T	1,1,1-Trichloroethane	2.172	2.178	-0.3	90	0.00
29	T	Cyclohexane	1.517	1.577	-4.0	92	0.01
30	T	Carbon tetrachloride	2.467	2.433	1.4	91	0.00
31	T	Benzene	3.050	2.675	12.3	79	0.00
32	T	1,2-Dichloroethane	1.236	1.086	12.1	77	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	114	0.00
34	T	Heptane	0.502	0.537	-7.0	92	0.00
35	T	Trichloroethene	0.447	0.445	0.4	93	0.00
36	T	1,2-Dichloropropane	0.332	0.294	11.4	80	0.00
37	T	1,4-Dioxane	0.194	0.129	33.5#	63	0.00
38	T	Bromodichloromethane	0.632	0.661	-4.6	95	0.00
39	T	cis-1,3-Dichloropropene	0.535	0.491	8.2	83	0.00
40	T	4-Methyl-2-pentanone	0.233	0.208	10.7	81	0.00
41	T	Toluene	1.053	0.975	7.4	82	0.00
42	T	trans-1,3-Dichloropropene	0.495	0.436	11.9	80	0.00
43	T	1,1,2-Trichloroethane	0.372	0.349	6.2	85	0.00
44	T	Tetrachloroethene	0.563	0.567	-0.7	94	0.00
45	T	2-Hexanone	0.451	0.336	25.5	66	0.00
46	T	Chlorodibromomethane	0.654	0.655	-0.2	89	0.00
47	T	1,2-Dibromoethane	0.571	0.538	5.8	84	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	117	0.00
49	T	Chlorobenzene	0.918	0.850	7.4	86	0.00
50	T	Ethylbenzene	1.443	1.363	5.5	86	0.00
51	T	m,p-Xylene	1.122	1.018	9.3	86	0.00
52	T	o-Xylene	1.148	1.088	5.2	85	0.00
53	T	Styrene	0.882	0.821	6.9	84	0.00
54	T	Bromoform	0.651	0.637	2.2	90	0.00
55	S	4-Bromofluorobenzene	0.627	0.632	-0.8	118	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\040312B\04031211.D Vial: 2
Acq On : 4 Apr 2012 9:28 am Operator: RACHEL HILL
Sample : ICV VOA1 040312 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.758	0.717	5.4	90	0.00
57	T	4-Ethyltoluene	1.526	1.415	7.3	88	0.00
58	T	1,3,5-Trimethylbenzene	1.302	1.204	7.5	88	0.00
59	T	1,2,4-Trimethylbenzene	1.254	1.143	8.9	88	0.00
60	T	1,3-Dichlorobenzene	0.823	0.719	12.6	86	0.00
61	T	1,4-Dichlorobenzene	0.794	0.679	14.5	84	0.00
62	T	Benzyl chloride	0.930	0.845	9.1	86	0.00
63	T	1,2-Dichlorobenzene	0.742	0.654	11.9	89	0.00
64	T	1,2,4-Trichlorobenzene	0.279	0.199	28.7	76	0.00
65	T	Hexachlorobutadiene	0.347	0.336	3.2	90	0.00
66		Naphthalene	0.539	0.415	23.0	80	0.01

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040312B\04031211.D Vial: 2
Acq On : 4 Apr 2012 9:28 am Operator: RACHEL HILL
Sample : ICV VOA1 040312 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Apr 5 10:04 2012 Quant Results File: 040312V1.RES

Quant Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration
DataAcq Meth : 033112V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.59	130	735115	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	2519392	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.54	117	2238339	12.50 ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.18	95	1413793	12.60 ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 100.80%

Target Compounds					Qvalue
2) Propylene	5.53	41	661190	12.05 ppbv	99
3) Dichlorodifluoromethane	5.60	85	2080337	10.72 ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.86	135	1569934	11.02 ppbv	90
5) Chloromethane	6.01	50	597789	10.43 ppbv	99
6) Vinyl chloride	6.22	62	537848	10.07 ppbv	100
7) 1,3-Butadiene	6.27	39	387357	10.91 ppbv	94
8) Bromomethane	6.86	94	758312	10.65 ppbv	99
9) Chloroethane	7.01	64	408878	10.34 ppbv	99
10) Trichlorofluoromethane	7.34	101	1942420	10.73 ppbv	99
11) Ethanol	7.57	45	159970	7.09 ppbv	99
12) Freon113	8.00	101	1304289	10.68 ppbv	94
13) 1,1-Dichloroethene	8.10	61	980326	10.88 ppbv	98
14) Acetone	8.19	43	738406	8.26 ppbv #	94
15) Carbon disulfide	8.47	76	1941987	12.41 ppbv #	100
16) 2-Propanol	8.24	45	881996	9.70 ppbv #	1
17) Methylene chloride	8.76	49	646221	9.77 ppbv	99
18) tert-Butyl Methyl Ether	8.96	73	1346075	8.55 ppbv	98
19) trans-1,2-Dichloroethene	9.04	61	877696	10.29 ppbv	96
20) n-Hexane	9.22	57	945096	10.02 ppbv	96
21) 1,1-Dichloroethane	9.60	63	1064472	9.45 ppbv	100
22) Vinyl acetate	9.53	43	1114211	7.82 ppbv	99
23) cis-1,2-Dichloroethene	10.28	96	636120	9.44 ppbv	96
24) 2-Butanone	10.25	43	759810	8.13 ppbv	98
25) Ethyl acetate	10.20	43	959525	8.03 ppbv #	100
26) Tetrahydrofuran	10.58	42	501427	8.64 ppbv	95
27) Chloroform	10.61	83	1156905	9.75 ppbv	98
28) 1,1,1-Trichloroethane	10.86	97	1229696	9.63 ppbv	99
29) Cyclohexane	10.87	56	908614	10.18 ppbv	97
30) Carbon tetrachloride	11.02	117	1359321	9.37 ppbv	99
31) Benzene	11.30	78	1510017	8.42 ppbv	100
32) 1,2-Dichloroethane	11.37	62	619399	8.52 ppbv	99
34) Heptane	11.35	43	1070632	10.58 ppbv	97
35) Trichloroethene	12.03	130	860913	9.57 ppbv	97
36) 1,2-Dichloropropane	12.38	63	581346	8.70 ppbv	100
37) 1,4-Dioxane	12.46	88	248811	6.38 ppbv	98
38) Bromodichloromethane	12.67	83	1278402	10.03 ppbv	98
39) cis-1,3-Dichloropropene	13.22	75	939353	8.71 ppbv	99
40) 4-Methyl-2-pentanone	13.33	58	419213	8.92 ppbv	98
41) Toluene	13.63	91	1925252	9.07 ppbv	99
42) trans-1,3-Dichloropropene	13.93	75	799563	8.01 ppbv	99
43) 1,1,2-Trichloroethane	14.20	97	689812	9.19 ppbv	99
44) Tetrachloroethene	14.33	166	1096976	9.68 ppbv	96
45) 2-Hexanone	14.41	43	663387	7.30 ppbv	95
46) Chlorodibromomethane	14.75	129	1293077	9.80 ppbv	99
47) 1,2-Dibromoethane	14.99	107	1041012	9.05 ppbv	99
49) Chlorobenzene	15.58	112	1507597	9.17 ppbv	97
50) Ethylbenzene	15.62	91	2391793	9.26 ppbv	99
51) m,p-Xylene	15.78	91	3498740	17.41 ppbv	99
52) o-Xylene	16.37	91	1948414	9.48 ppbv	99

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040312B\04031211.D Vial: 2
Acq On : 4 Apr 2012 9:28 am Operator: RACHEL HILL
Sample : ICV VOA1 040312 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Apr 5 10:04 2012 Quant Results File: 040312V1.RES

Quant Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration
DataAcq Meth : 033112V1

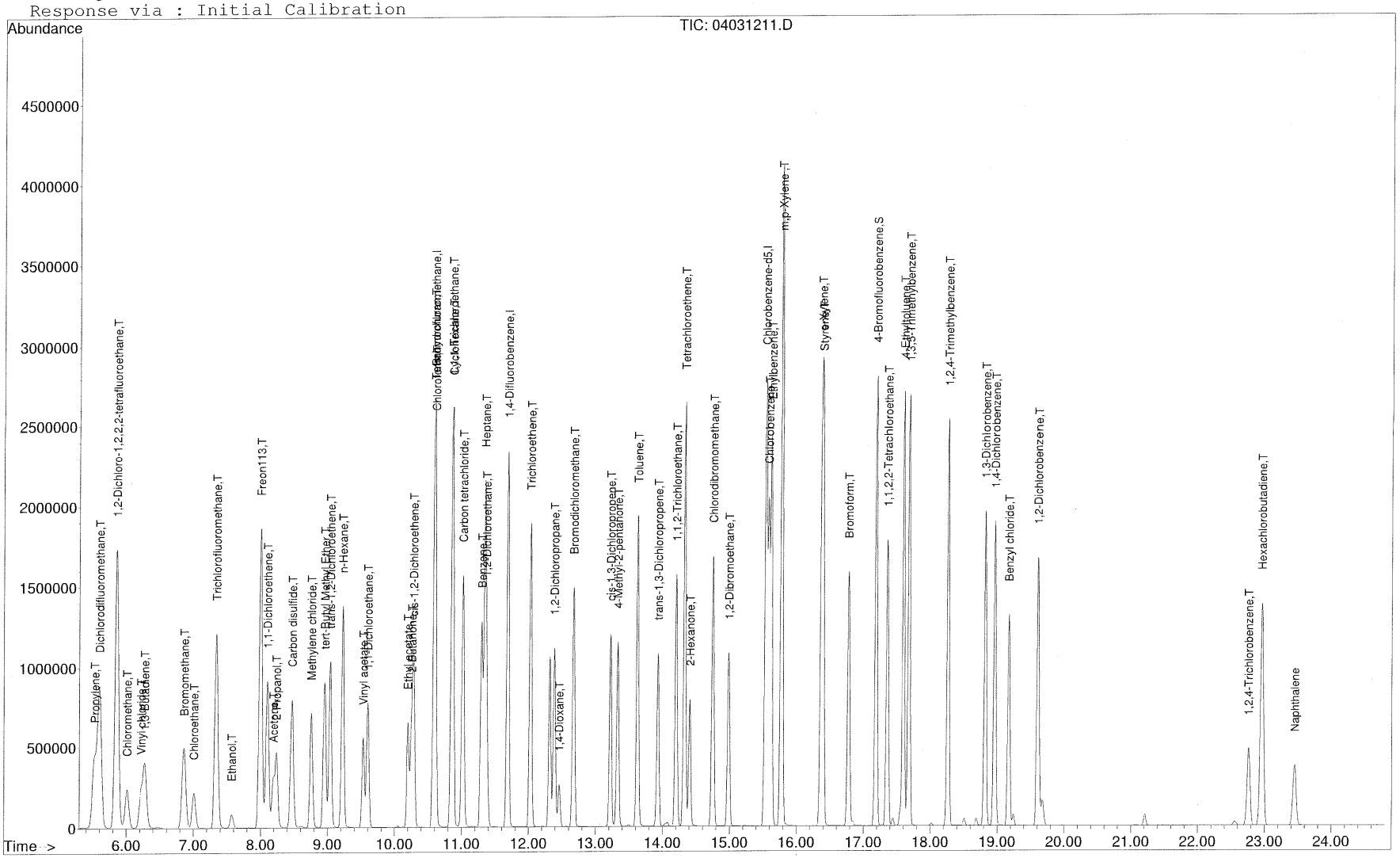
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
53)	Styrene	16.39	104	1439944	9.11 ppbv	99
54)	Bromoform	16.78	173	1095257	9.40 ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.36	83	1284091	9.46 ppbv	98
57)	4-Ethyltoluene	17.60	105	2483939	9.09 ppbv	100
58)	1,3,5-Trimethylbenzene	17.68	105	2091124	8.97 ppbv	100
59)	1,2,4-Trimethylbenzene	18.26	105	2005247	8.93 ppbv	100
60)	1,3-Dichlorobenzene	18.82	146	1248990	8.47 ppbv	99
61)	1,4-Dichlorobenzene	18.96	146	1167383	8.21 ppbv	99
62)	Benzyl chloride	19.17	91	1466914	8.81 ppbv	99
63)	1,2-Dichlorobenzene	19.61	146	1135503	8.55 ppbv	99
64)	1,2,4-Trichlorobenzene	22.76	180	324019	6.49 ppbv	96
65)	Hexachlorobutadiene	22.96	225	565190	9.10 ppbv	99
66)	Naphthalene	23.45	128	683837	7.09 ppbv	99

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\040312B\04031211.D Vial: 2
Acq On : 4 Apr 2012 9:28 am Operator: RACHEL HILL
Sample : ICV VOA1 040312 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Apr 5 10:04 2012 Quant Results File: 040312V1.RES

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA9_120407A** **Run No.:** 47495

Analytical Run Date: 4/7/2012 **InstrumentID:** VOA9

Analyst: Rachel Dear **Column:**

Calibration ID: 47376 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: ch rev 4/10/12/PR - 040912 RH3 -- Nitrogen tank ran out over the weekend, this is why ending RLVS is not present.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA9 040712	BFB_TUNE	TUNE	R47495	4/7/2012 10:56:00 AM	Celeste Hoitash		
CCV VOA9 040712	MA_APH	CCV	R47495	4/7/2012 11:39:00 AM	Celeste Hoitash		
RLVS VOA9 040712	MA_APH	RLVS	R47495	4/7/2012 12:26:00 PM	Celeste Hoitash		
MBLK VOA9 040712	MA_APH	MBLK	R47495	4/7/2012 1:20:00 PM	Celeste Hoitash		
1203903-014A	MA_APH	SAMP	R47495	4/7/2012 4:20:00 PM	Celeste Hoitash		Over-diluted sample. Sample will be re-analyzed at lower dilution.
1203903-014ADUP	MA_APH	DUP	R47495	4/7/2012 5:03:00 PM	Celeste Hoitash		
1203903-016A	MA_APH	SAMP	R47495	4/7/2012 6:35:00 PM	Celeste Hoitash		
1203903-023A	MA_APH	SAMP	R47495	4/7/2012 7:21:00 PM	Celeste Hoitash		
1203903-018A	MA_APH	SAMP	R47495	4/7/2012 8:52:00 PM	Celeste Hoitash		
1203903-024A	MA_APH	SAMP	R47495	4/7/2012 9:35:00 PM	Celeste Hoitash		
1203732-017A	MA_APH	SAMP	R47495	4/8/2012 12:38:00 AM	Celeste Hoitash		
1203732-019A	MA_APH	SAMP	R47495	4/8/2012 2:17:00 AM	Celeste Hoitash		
1203732-020A	MA_APH	SAMP	R47495	4/8/2012 3:07:00 AM	Celeste Hoitash		

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ANALYTICAL RUN Summary

18-Apr-12

RunNo 47495

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
927932	BFB VOA9 040712	BFB_TUNE	TUNE	.\1\DATA\040712	4/7/2012 10:56:0	1	R47495		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		60.7	60.7		100	0	0	0	0	0	61%	50	120	0%	
175	M		7.4	7.4		100	0	0	0	0	0	7%	4	9	0%	
176	M		95.3	95.3		100	0	0	0	0	0	95%	93	101	0%	
177	M		6.2	6.2		100	0	0	0	0	0	6%	5	9	0%	
50	M		26.1	26.1		100	0	0	0	0	0	26%	8	40	0%	
75	M		52.1	52.1		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
927933	CCV VOA9 040712	MA_APH	CCV	.\1\DATA\040712	4/7/2012 11:39:0	1	R47495		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	209.75	209.75		234	0	0	0	0	0	90%	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	251.27	251.27		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	350.81	350.81		378	0	0	0	0	0	93%	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	88.86	88.86		89.5	0	0	0	0	0	99%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\040712\04071202.D Vial: 2
Acq On : 7 Apr 2012 11:39 am Operator: RACHEL HILL
Sample : CCV VOA9 040712 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	25.555	12.5	86	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	32.552	10.6	90	-0.02
3	L1	C5-C8 Aliphatic HC {3}	41.800	37.598	10.1	91	-0.02
4	L1	C5-C8 Aliphatic HC {4}	35.400	31.558	10.9	90	-0.02
5	L1	C5-C8 Aliphatic HC {5}	42.200	38.004	9.9	92	-0.02
6	L1	C5-C8 Aliphatic HC {6}	49.000	44.673	8.8	93	-0.02
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	209.748	10.4	91	0.21
8	L1	C9-C12 Aliphatic HC	54.600	49.941	8.5	94	-0.02
9	L1	C9-C12 Aliphatic HC {2}	54.600	49.795	8.8	93	-0.02
10	L1	C9-C12 Aliphatic HC {3}	61.200	57.329	6.3	97	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	56.948	6.3	97	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	65.486	6.4	99	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	72.246	6.2	105	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	350.808	7.2	97	-0.02
15	L1	C9-C10 Aromatic HC	51.700	47.358	8.4	98	-0.01
16	L1	C9-C10 Aromatic HC {2}	51.200	47.974	6.3	100	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	49.265	5.6	100	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	55.001	6.3	101	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	50.858	3.3	103	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	55.693	5.1	102	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	251.266	5.5	101	-0.01
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-7.00#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.41#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.30#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-11.07#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.84#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-12.29#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.42#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.41#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.54#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.52#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.63#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.80#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.45#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.35#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.52#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.62#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.62#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	0.00
40	I	Chlorobenzene-d5	12.500	12.500	0.0	78	-0.01
41	S	4-Bromofluorobenzene	89.500	88.855	0.7	78	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040712\04071202.D Vial: 2
Acq On : 7 Apr 2012 11:39 am Operator: RACHEL HILL
Sample : CCV VOA9 040712 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 9:57 2012 Quant Results File: 040312V9.RES

Quant Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Initial Calibration
DataAcq Meth : 040312V9

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	516497	12.50 ug/m3	-0.01

System Monitoring Compounds
41) 4-Bromofluorobenzene 18.34 95 361617 88.86 ug/m3 0.00
Spiked Amount 89.500 Range 70 - 130 Recovery = 99.28%

Target Compounds					Qvalue
1) C5-C8 Aliphatic HC	7.21	TIC	2206913	25.56 ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.58	TIC	2020100	32.55 ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	2601443	37.60 ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	1962426	31.56 ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2555311	38.00 ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.30	TIC	2958012	44.67 ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.21	TIC	14304205m	209.75 ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	3457390	49.94 ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	3424744	49.80 ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	3380756	57.33 ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	3235067	56.95 ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.65	TIC	3154581	65.49 ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.48	TIC	2164848	72.25 ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	18817386m	350.81 ug/m3	
15) C9-C10 Aromatic HC	17.98	120	212512	47.36 ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	225673	47.97 ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	334494	49.27 ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	75466	55.00 ug/m3	100
19) C9-C10 Aromatic HC {5}	20.29	120	253039	50.86 ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	183958	55.69 ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.98	TIC	1285142m	251.27 ug/m3	

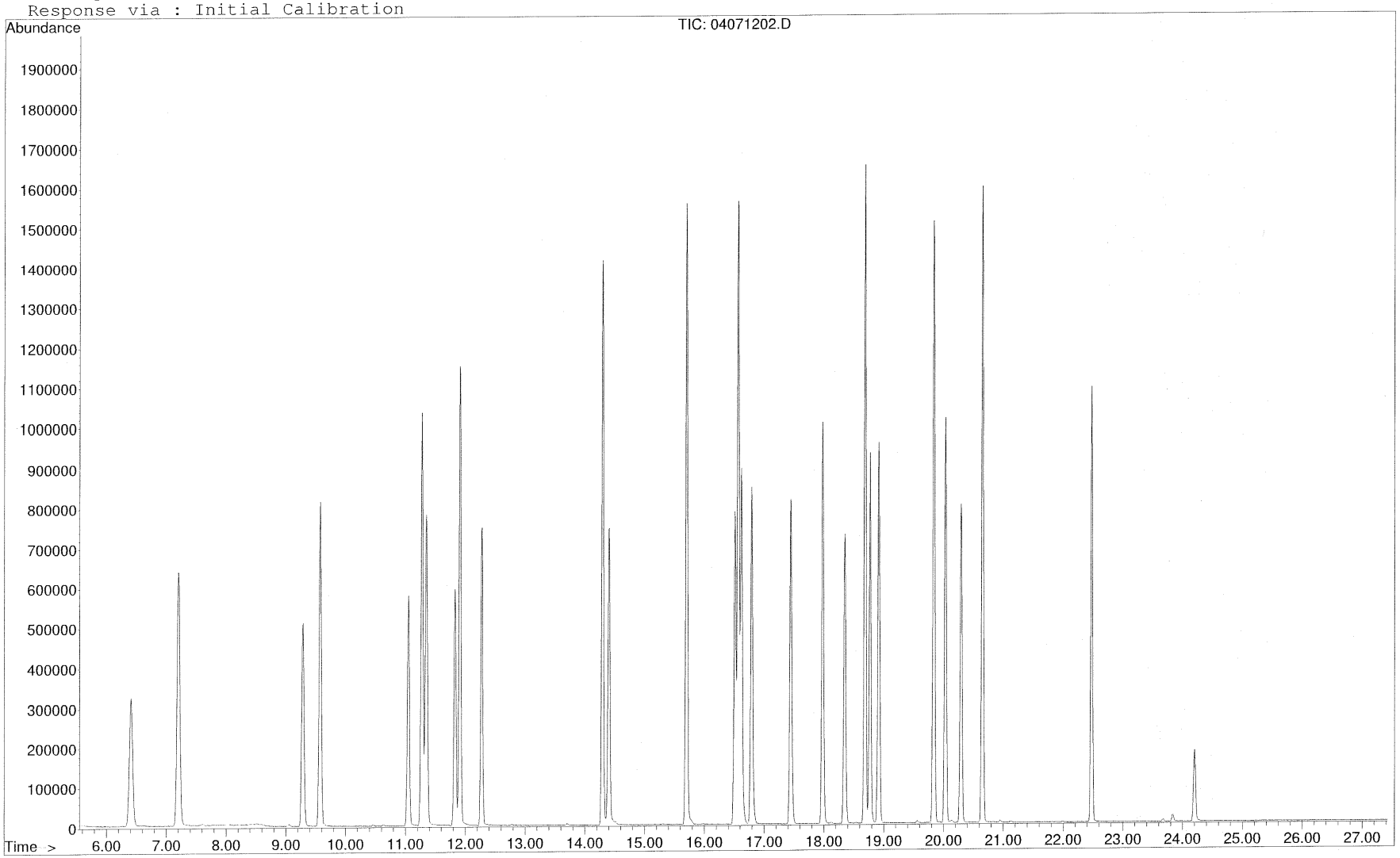
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\040712\04071202.D
Acq On : 7 Apr 2012 11:39 am
Sample : CCV VOA9 040712
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Apr 9 9:57 2012

Vial: 2
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 040312V9.RES

Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA9_120409A** **Run No.:** 47531

Analytical Run Date: 4/9/2012 **InstrumentID:** VOA9

Analyst: Rachel Dear **Column:**

Calibration ID: 47376 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: ch rev 4/10/12/PR, RH3 041012

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA9 040912	BFB_TUNE	TUNE	R47531	4/9/2012 10:10:00 AM	Celeste Hoitash		
CCV VOA9 040912	MA_APH	CCV	R47531	4/9/2012 10:53:00 AM	Celeste Hoitash		
RLVS VOA9 040912	MA_APH	RLVS	R47531	4/9/2012 11:36:00 AM	Celeste Hoitash		
MBLK VOA9 040912	MA_APH	MBLK	R47531	4/9/2012 12:37:00 PM	Celeste Hoitash		
1203732-018A	MA_APH	SAMP	R47531	4/9/2012 1:27:00 PM	Celeste Hoitash		
1203732-026A	MA_APH	SAMP	R47531	4/9/2012 2:16:00 PM	Celeste Hoitash		
1203732-021A	MA_APH	SAMP	R47531	4/9/2012 3:45:00 PM	Celeste Hoitash		
1203732-022A	MA_APH	SAMP	R47531	4/9/2012 4:27:00 PM	Celeste Hoitash		
1203732-027A	MA_APH	SAMP	R47531	4/9/2012 5:11:00 PM	Celeste Hoitash		
1203732-027Adup	MA_APH	DUP	R47531	4/9/2012 5:55:00 PM	Celeste Hoitash		
1203903-011A	MA_APH	SAMP	R47531	4/9/2012 7:22:00 PM	Celeste Hoitash		
1203903-012A	MA_APH	SAMP	R47531	4/9/2012 8:54:00 PM	Celeste Hoitash		
1203903-009A	MA_APH	SAMP	R47531	4/9/2012 10:26:00 PM	Celeste Hoitash		
1203903-022A	MA_APH	SAMP	R47531	4/9/2012 11:54:00 PM	Celeste Hoitash		
1203903-021A	MA_APH	SAMP	R47531	4/10/2012 1:25:00 AM	Celeste Hoitash		
1203903-010A	MA_APH	SAMP	R47531	4/10/2012 2:08:00 AM	Celeste Hoitash		
1203903-005A	MA_APH	SAMP	R47531	4/10/2012 2:51:00 AM	Celeste Hoitash		
RLVS2 VOA9 04091	MA_APH	RLVS	R47531	4/10/2012 4:16:00 AM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

18-Apr-12

RunNo 47531

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
928463	BFB VOA9 040912	BFB_TUNE	TUNE	\1\DATA\040912	4/9/2012 10:10:0	1	R47531		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		58.6	58.6		100	0	0	0	0	0	59%	50	120	0%	
175	M		7.3	7.3		100	0	0	0	0	0	7%	4	9	0%	
176	M		96.3	96.3		100	0	0	0	0	0	96%	93	101	0%	
177	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	
50	M		25.8	25.8		100	0	0	0	0	0	26%	8	40	0%	
75	M		51.8	51.8		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		6.9	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
928464	CCV VOA9 040912	MA_APH	CCV	\1\DATA\040912	4/9/2012 10:53:0	1	R47531		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	233.19	233.19		234	0	0	0	0	0	100%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	270.64	270.64		266	0	0	0	0	0	102%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	375.48	375.48		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	88.82	88.82		89.5	0	0	0	0	0	99%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\040912\04091202.D Vial: 2
Acq On : 9 Apr 2012 10:53 am Operator: RACHEL HILL
Sample : CCV VOA9 040912 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	29.775	-2.0	100	-0.01
2	L1	C5-C8 Aliphatic HC {2}	36.400	36.429	-0.1	101	-0.02
3	L1	C5-C8 Aliphatic HC {3}	41.800	41.291	1.2	100	-0.02
4	L1	C5-C8 Aliphatic HC {4}	35.400	35.203	0.6	100	-0.02
5	L1	C5-C8 Aliphatic HC {5}	42.200	41.259	2.2	100	-0.02
6	L1	C5-C8 Aliphatic HC {6}	49.000	49.094	-0.2	102	-0.02
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	233.190	0.3	101	0.20
8	L1	C9-C12 Aliphatic HC	54.600	55.128	-1.0	103	-0.01
9	L1	C9-C12 Aliphatic HC {2}	54.600	54.548	0.1	101	-0.01
10	L1	C9-C12 Aliphatic HC {3}	61.200	61.043	0.3	103	-0.01
11	L1	C9-C12 Aliphatic HC {4}	60.800	60.063	1.2	102	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	68.059	2.8	103	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	76.157	1.1	110	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	375.476	0.7	103	-0.01
15	L1	C9-C10 Aromatic HC	51.700	51.289	0.8	106	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	52.032	-1.6	109	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	52.517	-0.6	107	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	59.703	-1.7	110	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	54.336	-3.3	110	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	60.704	-3.4	111	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	270.644	-1.7	108	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-7.00#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.41#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.30#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-11.07#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.84#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-12.29#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.42#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.41#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.54#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.52#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.63#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.80#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.45#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.35#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.52#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.62#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.62#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	0.00
40	I	Chlorobenzene-d5	12.500	12.500	0.0	105	0.00
41	S	4-Bromofluorobenzene	89.500	88.821	0.8	104	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
04091202.D 040312V9.M Tue Apr 10 10:20:01 2012

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040912\04091202.D Vial: 2
Acq On : 9 Apr 2012 10:53 am Operator: RACHEL HILL
Sample : CCV VOA9 040912 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 16:57 2012 Quant Results File: 040312V9.RES

Quant Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Initial Calibration
DataAcq Meth : 040312V9

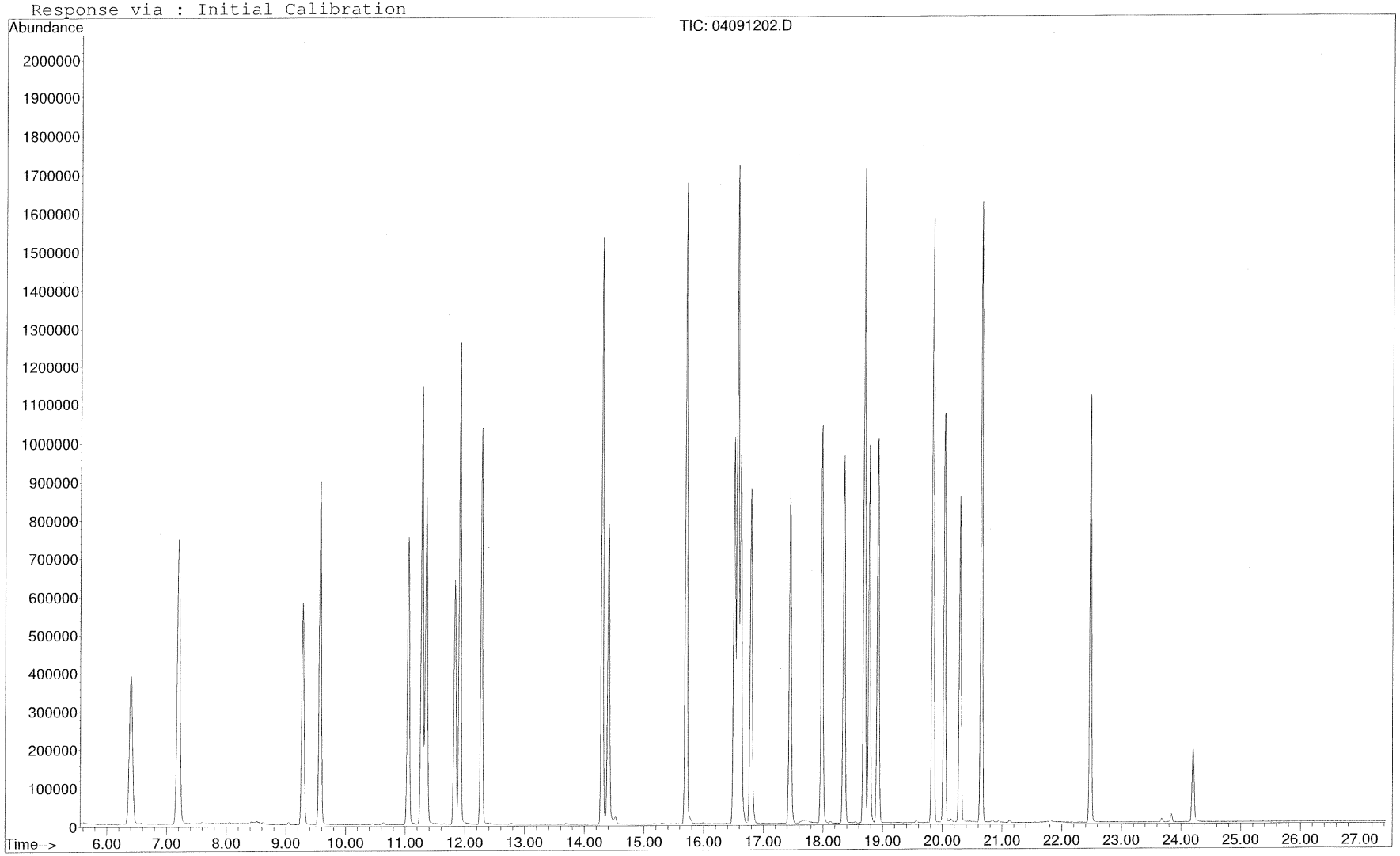
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	690526	12.50	ug/m3	0.00
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.35	95	483273	88.82	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 99.24%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.20	TIC	2571265	29.77	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2260675	36.43	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	2856982	41.29	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	2189067	35.20	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2774151	41.26	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3250739	49.09	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.20	TIC	15902879m	233.19	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	3816475	55.13	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.57	TIC	3751641	54.55	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	3599811	61.04	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.84	TIC	3412050	60.06	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.65	TIC	3278565	68.06	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.48	TIC	2282025	76.16	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	20140567m	375.48	ug/m3	
15) C9-C10 Aromatic HC	17.98	120	230151	51.29	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	244759	52.03	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.92	120	356576	52.52	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	81917	59.70	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.29	120	270346	54.34	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.04	134	200510	60.70	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.98	TIC	1384259m	270.64	ug/m3	

(#) = qualifier out of range (m) = manual integration
04091202.D 040312V9.M Tue Apr 10 10:20:43 2012

Quantitation Report

Data File : C:\HPCHEM\1\DATA\040912\04091202.D Vial: 2
Acq On : 9 Apr 2012 10:53 am Operator: RACHEL HILL
Sample : CCV VOA9 040912 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 16:57 2012 Quant Results File: 040312V9.RES

Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA9_120410A** **Run No.:** 47586

Analytical Run Date: 4/10/2012 **InstrumentID:** VOA9

Analyst: Rachel Dear **Column:**

Calibration ID: 47376 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: PR - 041112 RH3 041212rswl

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA9 041012	BFB_TUNE	TUNE	R47586	4/10/2012 9:20:00 AM	Robert Lynch		
CCV VOA9 041012	MA_APH	CCV	R47586	4/10/2012 10:27:00 AM	Robert Lynch		
RLVS VOA9 041012	MA_APH	RLVS	R47586	4/10/2012 11:09:00 AM	Robert Lynch		
MBLK VOA9 041012	MA_APH	MBLK	R47586	4/10/2012 11:59:00 AM	Robert Lynch		
1203903-006A	MA_APH	SAMP	R47586	4/10/2012 1:22:00 PM	Robert Lynch		
1203903-014A	MA_APH	SAMP	R47586	4/10/2012 2:04:00 PM	Robert Lynch		
1203903-001A	MA_APH	SAMP	R47586	4/10/2012 2:51:00 PM	Robert Lynch		
1203903-002A	MA_APH	SAMP	R47586	4/10/2012 3:34:00 PM	Robert Lynch		
1203903-013A	MA_APH	SAMP	R47586	4/10/2012 5:09:00 PM	Robert Lynch		
1203903-017A	MA_APH	SAMP	R47586	4/10/2012 5:53:00 PM	Robert Lynch		
1203903-017Adup	MA_APH	DUP	R47586	4/10/2012 6:37:00 PM	Robert Lynch		
1203903-004A	MA_APH	SAMP	R47586	4/10/2012 7:26:00 PM	Robert Lynch		
1203903-019A	MA_APH	SAMP	R47586	4/10/2012 8:58:00 PM	Robert Lynch		
1203903-025A	MA_APH	SAMP	R47586	4/10/2012 9:41:00 PM	Robert Lynch		
1203903-008A	MA_APH	SAMP	R47586	4/11/2012 12:02:00 AM	Robert Lynch		
1203903-020A	MA_APH	SAMP	R47586	4/11/2012 12:51:00 AM	Robert Lynch		
1203984-030A	MA_APH	SAMP	R47586	4/11/2012 1:37:00 AM	Robert Lynch		
1203984-031A	MA_APH	SAMP	R47586	4/11/2012 2:23:00 AM	Robert Lynch		
1203984-032A	MA_APH	SAMP	R47586	4/11/2012 3:08:00 AM	Robert Lynch		
1203903-003A	MA_APH	SAMP	R47586	4/11/2012 3:51:00 AM	Robert Lynch		
RLVS VOA9 041012	MA_APH	RLVS	R47586	4/11/2012 4:34:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

18-Apr-12

RunNo 47586

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
929573	BFB VOA9 041012	BFB_TUNE	TUNE	\1\DATA\041012	4/10/2012 9:20:0	1	R47586		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		57.6	57.6		100	0	0	0	0	0	58%	50	120	0%	
175	M		7.5	7.5		100	0	0	0	0	0	8%	4	9	0%	
176	M		97	97		100	0	0	0	0	0	97%	93	101	0%	
177	M		6.9	6.9		100	0	0	0	0	0	7%	5	9	0%	
50	M		26.4	26.4		100	0	0	0	0	0	26%	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		6.7	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
929574	CCV VOA9 041012	MA_APH	CCV	\1\DATA\041012	4/10/2012 10:27:	1	R47586		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	213.04	213.04		234	0	0	0	0	0	91%	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	247.36	247.36		266	0	0	0	0	0	93%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	348.48	348.48		378	0	0	0	0	0	92%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	84.42	84.42		89.5	0	0	0	0	0	94%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\041012\04101202.D Vial: 2
Acq On : 10 Apr 2012 10:27 am Operator: RACHEL HILL
Sample : CCV VOA9 041012 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	27.265	6.6	92	-0.02
2	L1	C5-C8 Aliphatic HC {2}	36.400	32.831	9.8	91	-0.02
3	L1	C5-C8 Aliphatic HC {3}	41.800	37.935	9.2	92	-0.02
4	L1	C5-C8 Aliphatic HC {4}	35.400	31.964	9.7	91	-0.02
5	L1	C5-C8 Aliphatic HC {5}	42.200	38.087	9.7	92	-0.02
6	L1	C5-C8 Aliphatic HC {6}	49.000	44.756	8.7	93	-0.02
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	213.041	9.0	92	0.19
8	L1	C9-C12 Aliphatic HC	54.600	53.124	2.7	100	-0.01
9	L1	C9-C12 Aliphatic HC {2}	54.600	50.504	7.5	94	-0.01
10	L1	C9-C12 Aliphatic HC {3}	61.200	55.623	9.1	94	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	57.208	5.9	98	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	62.220	11.1	94	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	67.204	12.7	97	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	348.477	7.8	96	-0.01
15	L1	C9-C10 Aromatic HC	51.700	47.623	7.9	98	-0.01
16	L1	C9-C10 Aromatic HC {2}	51.200	47.396	7.4	99	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	48.495	7.1	98	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	53.273	9.2	98	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	49.596	5.7	101	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	54.305	7.5	99	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	247.356	7.0	99	-0.01
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-7.00#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.41#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.30#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-11.07#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.84#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-12.29#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.42#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.41#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.54#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.52#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.63#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.80#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.45#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.35#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.52#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.62#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.62#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	0.00
40	I	Chlorobenzene-d5	12.500	12.500	0.0	114	-0.01
41	S	4-Bromofluorobenzene	89.500	84.417	5.7	108	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\041012\04101202.D Vial: 2
Acq On : 10 Apr 2012 10:27 am Operator: RACHEL HILL
Sample : CCV VOA9 041012 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 10 14:04 2012 Quant Results File: 040312V9.RES

Quant Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Initial Calibration
DataAcq Meth : 040312V9

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	749684	12.50 ug/m3	-0.01

System Monitoring Compounds
41) 4-Bromofluorobenzene 18.35 95 498662 84.42 ug/m3 0.00
Spiked Amount 89.500 Range 70 - 130 Recovery = 94.32%

Target Compounds					Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2354546	27.27 ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2037444	32.83 ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	2624732	37.93 ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	1987634	31.96 ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2560874	38.09 ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	2963530	44.76 ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	14528760m	213.04 ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	3677774	53.12 ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.57	TIC	3473498	50.50 ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	3280166	55.62 ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	3249888	57.21 ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.65	TIC	2997248	62.22 ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.48	TIC	2013746	67.20 ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	18692320m	348.48 ug/m3	
15) C9-C10 Aromatic HC	17.97	120	213701	47.62 ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	222952	47.40 ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	329265	48.49 ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	73095	53.27 ug/m3	100
19) C9-C10 Aromatic HC {5}	20.29	120	246760	49.60 ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	179372	54.30 ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1265145m	247.36 ug/m3	

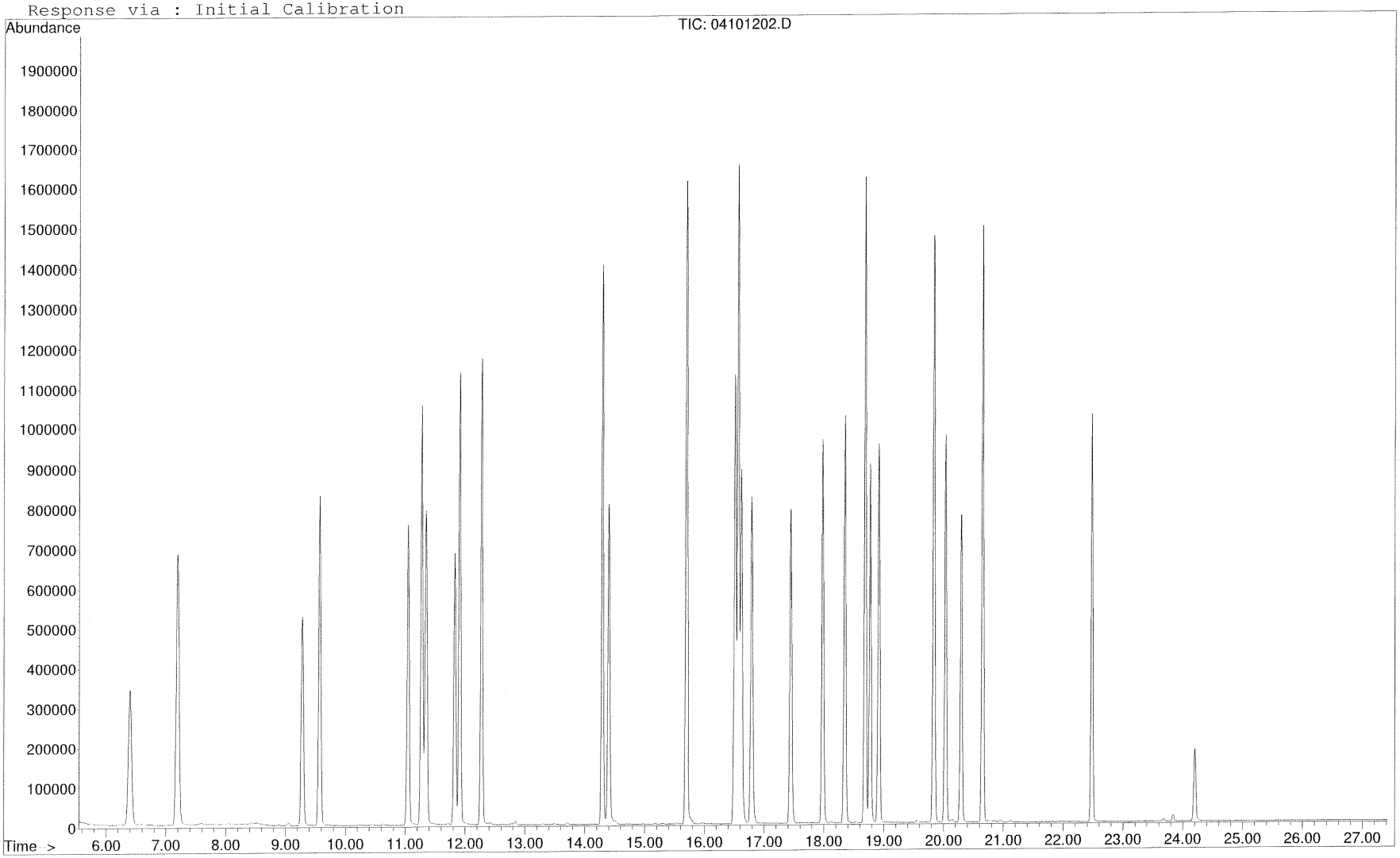
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\041012\04101202.D
Acq On : 10 Apr 2012 10:27 am
Sample : CCV VOA9 041012
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Apr 10 14:04 2012

Vial: 2
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 040312V9.RES

Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA9_120411A** **Run No.:** 47623

Analytical Run Date: 4/11/2012 **InstrumentID:** VOA9

Analyst: Rachel Dear **Column:**

Calibration ID: 47376 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: ch rev 4/17/12/PR - 041412 AW

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA9 041112	BFB_TUNE	TUNE	R47623	4/11/2012 9:57:00 AM	Celeste Hoitash		
CCV VOA9 041112	MA_APH	CCV	R47623	4/11/2012 10:40:00 AM	Celeste Hoitash		
RLVS VOA9 041112	MA_APH	RLVS	R47623	4/11/2012 11:22:00 AM	Celeste Hoitash		
MBLK VOA9 041112	MA_APH	MBLK	R47623	4/11/2012 12:12:00 PM	Celeste Hoitash		
1203903-007A	MA_APH	SAMP	R47623	4/11/2012 1:55:00 PM	Celeste Hoitash		
1203903-026A	MA_APH	SAMP	R47623	4/11/2012 2:38:00 PM	Celeste Hoitash		
1203903-015A	MA_APH	SAMP	R47623	4/11/2012 3:23:00 PM	Celeste Hoitash		
1203984-014A	MA_APH	SAMP	R47623	4/11/2012 4:06:00 PM	Celeste Hoitash		
1203984-015A	MA_APH	SAMP	R47623	4/11/2012 4:49:00 PM	Celeste Hoitash		
1203984-010A	MA_APH	SAMP	R47623	4/11/2012 5:39:00 PM	Celeste Hoitash		
1203984-033A	MA_APH	SAMP	R47623	4/11/2012 6:25:00 PM	Celeste Hoitash		
1203984-033Adup	MA_APH	DUP	R47623	4/11/2012 7:11:00 PM	Celeste Hoitash		
1203984-024A	MA_APH	SAMP	R47623	4/11/2012 7:54:00 PM	Celeste Hoitash		
1203984-013A	MA_APH	SAMP	R47623	4/12/2012 1:13:00 AM	Celeste Hoitash		
1203984-009A	MA_APH	SAMP	R47623	4/12/2012 1:59:00 AM	Celeste Hoitash		
1203984-011A	MA_APH	SAMP	R47623	4/12/2012 2:50:00 AM	Celeste Hoitash		
RLVS2 VOA9 04111	MA_APH	RLVS	R47623	4/12/2012 9:47:00 AM	Celeste Hoitash		Sequence table was entered incorrectly causing analytical standard to sit in concentrator and not inject into GC. RLVS did not inject until the following morning. Reported and analytes de-selected only to demonstrate what had occurred.
RLVS2 VOA9 04111	MA_APH	RLVS	R47623	4/12/2012 10:31:00 AM	Celeste Hoitash		Re-ran RLVS standard out of 24 hr time clock to demonstrate that instrument is in working order - that ending RLVS would have passed if it had been injected correctly.

RTI Laboratories

ANALYTICAL RUN Summary

18-Apr-12

RunNo 47623

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
930321	BFB VOA9 041112	BFB_TUNE	TUNE	.\1\DATA\041112	4/11/2012 9:57:0	1	R47623		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		58.5	58.5		100	0	0	0	0	0	59%	50	120	0%	
175	M		8.1	8.1		100	0	0	0	0	0	8%	4	9	0%	
176	M		95.8	95.8		100	0	0	0	0	0	96%	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		50.7	50.7		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
930322	CCV VOA9 041112	MA_APH	CCV	.\1\DATA\041112	4/11/2012 10:40:	1	R47623		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	216.68	216.68		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	258.17	258.17		266	0	0	0	0	0	97%	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	350.93	350.93		378	0	0	0	0	0	93%	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	90.17	90.17		89.5	0	0	0	0	0	101%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\041112\04111202.D Vial: 2
Acq On : 11 Apr 2012 10:40 am Operator: RACHEL HILL
Sample : CCV VOA9 041112 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	27.687	5.2	93	-0.01
2	L1	C5-C8 Aliphatic HC {2}	36.400	33.712	7.4	93	-0.02
3	L1	C5-C8 Aliphatic HC {3}	41.800	38.793	7.2	94	-0.02
4	L1	C5-C8 Aliphatic HC {4}	35.400	32.353	8.6	92	-0.02
5	L1	C5-C8 Aliphatic HC {5}	42.200	38.543	8.7	94	-0.02
6	L1	C5-C8 Aliphatic HC {6}	49.000	45.404	7.3	94	-0.02
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	216.682	7.4	94	0.20
8	L1	C9-C12 Aliphatic HC	54.600	50.976	6.6	96	-0.02
9	L1	C9-C12 Aliphatic HC {2}	54.600	50.315	7.8	93	-0.02
10	L1	C9-C12 Aliphatic HC {3}	61.200	57.213	6.5	96	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	57.117	6.1	97	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	63.837	8.8	97	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	71.433	7.2	104	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	350.929	7.2	97	-0.02
15	L1	C9-C10 Aromatic HC	51.700	49.789	3.7	103	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	49.127	4.0	103	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	50.444	3.4	102	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	56.999	2.9	105	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	51.631	1.8	105	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	57.029	2.8	104	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	258.174	2.9	103	-0.01
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-7.00#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.41#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.30#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-11.07#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.84#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-12.29#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.42#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.41#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.54#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.52#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.63#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.80#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.45#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.35#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.52#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.62#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.62#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	0.00
40	I	Chlorobenzene-d5	12.500	12.500	0.0	85	-0.01
41	S	4-Bromofluorobenzene	89.500	90.167	-0.7	86	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
04111202.D 040312V9.M Thu Apr 12 11:06:40 2012

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\041112\04111202.D Vial: 2
Acq On : 11 Apr 2012 10:40 am Operator: RACHEL HILL
Sample : CCV VOA9 041112 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 11 18:14 2012 Quant Results File: 040312V9.RES

Quant Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Initial Calibration
DataAcq Meth : 040312V9

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	559942	12.50 ug/m3	-0.01
System Monitoring Compounds					
41) 4-Bromofluorobenzene	18.34	95	397822	90.17 ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 100.75%		

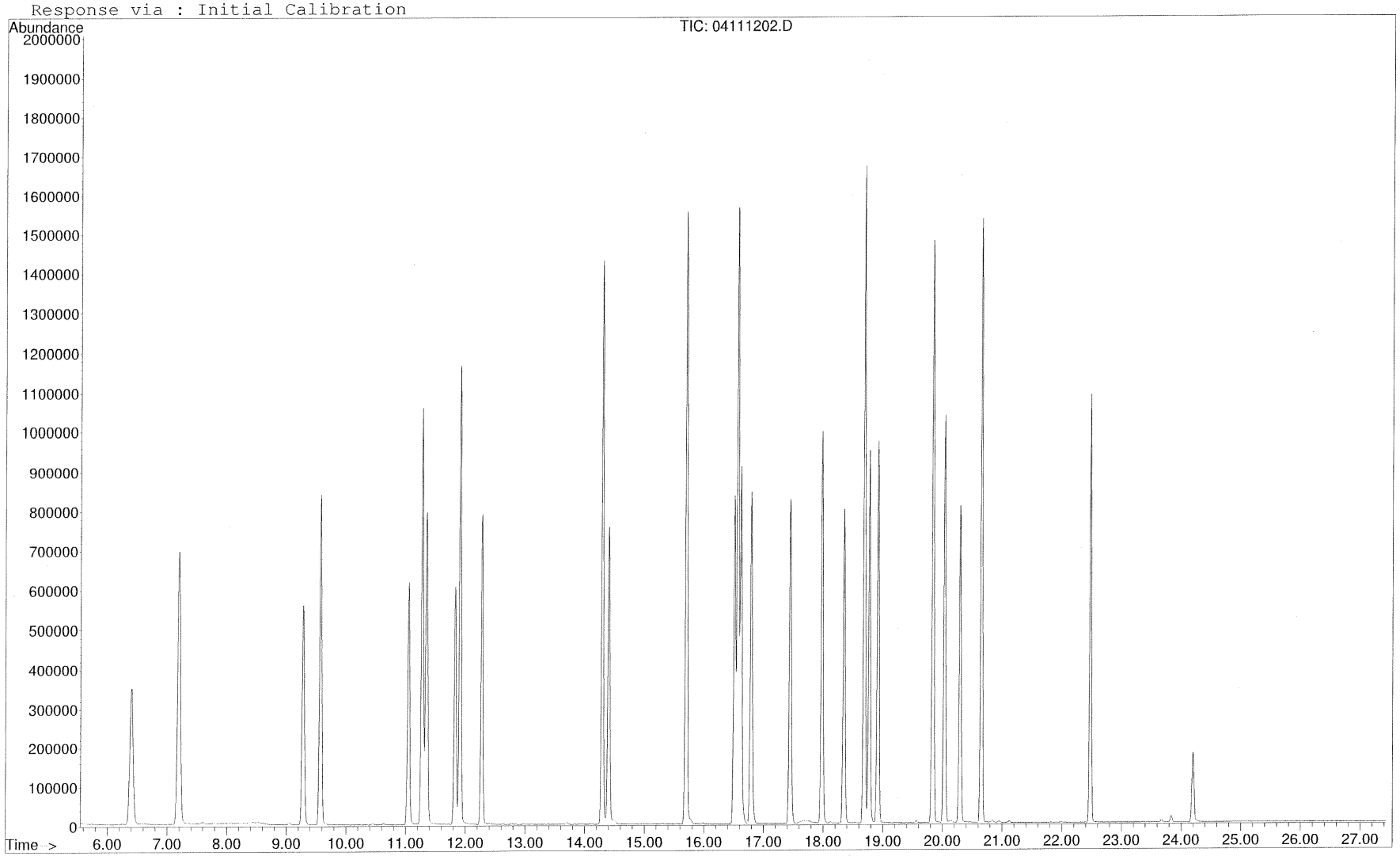
Target Compounds					Qvalue
1) C5-C8 Aliphatic HC	7.20	TIC	2391015	27.69 ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2092098	33.71 ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	2684134	38.79 ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	2011859	32.35 ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2591540	38.54 ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3006415	45.40 ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.20	TIC	14777061m	216.68 ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	3529065	50.98 ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	3460523	50.32 ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	3373915	57.21 ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	3244699	57.12 ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.65	TIC	3075171	63.84 ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.48	TIC	2140475	71.43 ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	18823848m	350.93 ug/m3	
15) C9-C10 Aromatic HC	17.98	120	223423	49.79 ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	231095	49.13 ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	342500	50.44 ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	78207	57.00 ug/m3	100
19) C9-C10 Aromatic HC {5}	20.29	120	256885	51.63 ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	188369	57.03 ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1320479m	258.17 ug/m3	

(#) = qualifier out of range (m) = manual integration
04111202.D 040312V9.M Thu Apr 12 11:07:29 2012

Quantitation Report

Data File : C:\HPCHEM\1\DATA\041112\04111202.D Vial: 2
Acq On : 11 Apr 2012 10:40 am Operator: RACHEL HILL
Sample : CCV VOA9 041112 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 11 18:14 2012 Quant Results File: 040312V9.RES

Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Initial Calibration



Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Initial Calibration

Calibration Files
1 =04031203.D 2 =04031204.D 3 =04031205.D
4 =04031206.D 5 =04031207.D 6 =04031208.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	L1	C5-C8 Aliphatic HC	1.012	0.876	0.860	0.852	0.812	0.828	0.864	E5	8.13
2)	L1	C5-C8 Aliphatic HC	6.532	6.157	6.204	6.162	5.990	6.140	6.206	E4	2.67
3)	L1	C5-C8 Aliphatic HC	7.289	6.817	6.910	6.819	6.637	6.930	6.919	E4	2.95
4)	L1	C5-C8 Aliphatic HC	6.561	6.156	6.201	6.099	6.043	6.186	6.218	E4	2.72
5)	L1	C5-C8 Aliphatic HC	6.952	6.567	6.729	6.688	6.637	6.735	6.724	E4	1.79
6)	L1	C5-C8 Aliphatic HC	6.724	6.497	6.653	6.594	6.602	6.693	6.621	E4	1.15
7)	L1	C5-C8 Aliphatic HC	7.235	6.745	6.812	6.757	6.630	6.773	6.820	E4	2.82
8)	L1	C9-C12 Aliphatic HC	7.047	6.765	6.966	6.959	6.958	6.991	6.923	E4	1.58
9)	L1	C9-C12 Aliphatic HC	7.337	6.781	6.925	6.808	6.822	6.622	6.878	E4	3.23
10)	L1	C9-C12 Aliphatic HC	5.935	5.723	6.075	5.997	5.979	5.901	5.897	E4	2.52
11)	L1	C9-C12 Aliphatic HC	5.698	5.480	5.782	5.762	5.722	5.674	5.681	E4	1.77
12)	L1	C9-C12 Aliphatic HC	4.663	4.544	4.897	4.940	4.834	4.857	4.817	E4	3.29
13)	L1	C9-C12 Aliphatic HC	2.783	2.685	3.002	3.102	3.049	3.059	2.996	E4	6.81
14)	L1	C9-C12 Aliphatic HC	5.385	5.153	5.440	5.433	5.394	5.355	5.364	E4	1.82
15)	L1	C9-C10 Aromatic HC	4.215	4.208	4.462	4.481	4.485	4.649	4.487	E3	5.44
16)	L1	C9-C10 Aromatic HC	4.529	4.390	4.681	4.641	4.684	4.833	4.704	E3	5.28
17)	L1	C9-C10 Aromatic HC	6.661	6.404	6.667	6.762	6.776	6.938	6.790	E3	4.18
18)	L1	C9-C10 Aromatic HC	1.292	1.274	1.358	1.366	1.394	1.425	1.372	E3	5.57
19)	L1	C9-C10 Aromatic HC	4.754	4.653	4.949	4.964	4.945	5.048	4.975	E3	5.51
20)	L1	C9-C10 Aromatic HC	3.082	3.079	3.250	3.283	3.337	3.429	3.303	E3	6.14
21)	L1	C9-C10 Aromatic HC	4.904	4.800	5.058	5.078	5.098	5.259	5.115	E3	5.12
22)		C5-C8 Aliphatic	7.235	6.745	6.812	6.757	6.630	6.773	6.820	E4	2.82
23)	L1	non C5-C8	7.267	6.259	6.328	6.249	6.273	6.388	6.438	E4	5.72
24)	L1	non C5-C8 {2}	4.143	3.945	4.043	4.108	3.841	3.842	3.975	E4	3.12
25)	L1	non C5-C8 {3}	2.923	2.776	2.787	2.922	2.867	3.074	2.898	E4	3.50
26)	L1	non C5-C8 {4}	5.089	4.958	4.976	4.917	4.757	4.853	4.940	E4	2.23
27)	L1	non C5-C8 {5}	4.191	3.872	3.924	4.277	4.047	4.544	4.148	E4	5.51
28)	L1	non C5-C8 {6}	4.668	4.697	4.826	5.011	4.759	5.118	4.915	E4	4.98
29)	L1	non C5-C8 - TOTAL	4.060	4.073	4.205	4.415	4.331	4.646	4.359	E4	6.35
30)		C9-C12 Aliphatic	5.385	5.153	5.440	5.433	5.394	5.355	5.364	E4	1.82
31)	L1	non C9-C12	4.012	3.871	3.926	4.011	4.166	4.399	4.047	E4	4.47
32)	L1	non C9-C12 {2}	4.442	4.350	4.561	4.418	4.589	4.391	4.479	E4	2.30
33)	L1	non C9-C12 {3}	4.648	4.586	4.771	4.754	4.698	4.777	4.753	E4	3.02
34)	L1	non C9-C12 {4}	4.484	4.433	4.590	4.571	4.588	4.632	4.591	E4	2.82
35)	L1	non C9-C12 {5}	2.559	2.459	2.509	2.667	2.638	2.835	2.630	E4	5.04
36)	L1	non C9-C12 - TOTAL	3.179	3.118	3.216	3.247	3.288	3.323	3.256	E4	3.05
37)	L1	C9-C10 Aromatic	4.904	4.800	5.058	5.078	5.098	5.259	5.115	E3	5.12
38)	L1	C9-C10 Aromatic {2}	4.904	4.800	5.058	5.078	5.098	5.259	5.115	E3	5.12
39)	L1	C9-C10 Aromatic - T	4.904	4.800	5.058	5.078	5.098	5.259	5.115	E3	5.12
40)	I	Chlorobenzene-d5	----------ISTD----------								
41)	S	4-Bromofluorobenzen	0.098	0.098	0.099	0.098	0.099	0.098	0.098		0.49

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

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Initial Calibration
Total Cpnds : 41

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

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

040312V9.M Wed Apr 04 09:28:30 2012

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\040312\04031211.D Vial: 12
Acq On : 3 Apr 2012 6:01 pm Operator: RACHEL HILL
Sample : ICV VOA9 040312 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	32.390	-10.9	109	-0.01
2	L1	C5-C8 Aliphatic HC {2}	36.400	39.562	-8.7	110	-0.02
3	L1	C5-C8 Aliphatic HC {3}	41.800	45.062	-7.8	109	-0.02
4	L1	C5-C8 Aliphatic HC {4}	35.400	38.574	-9.0	110	-0.02
5	L1	C5-C8 Aliphatic HC {5}	42.200	45.310	-7.4	110	-0.02
6	L1	C5-C8 Aliphatic HC {6}	49.000	53.082	-8.3	110	-0.02
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	254.119	-8.6	110	0.20
8	L1	C9-C12 Aliphatic HC	54.600	59.063	-8.2	111	-0.01
9	L1	C9-C12 Aliphatic HC {2}	54.600	59.110	-8.3	110	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	65.920	-7.7	111	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	64.901	-6.7	111	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	73.833	-5.5	112	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	78.452	-1.9	114	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	403.357	-6.7	111	-0.01
15	L1	C9-C10 Aromatic HC	51.700	54.501	-5.4	112	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	54.809	-7.0	115	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	55.385	-6.1	112	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	63.835	-8.7	117	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	56.801	-8.0	115	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	63.270	-7.8	116	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	284.987	-7.1	114	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-7.00#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.41#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.30#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-11.07#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.84#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-12.29#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.42#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.41#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.54#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.52#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.63#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.80#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.45#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.35#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.52#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.62#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.62#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	0.00
40	I	Chlorobenzene-d5	12.500	12.500	0.0	106	0.00
41	S	4-Bromofluorobenzene	89.500	88.789	0.8	106	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
04031211.D 040312V9.M Wed Apr 04 09:28:41 2012

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040312\04031211.D Vial: 12
Acq On : 3 Apr 2012 6:01 pm Operator: RACHEL HILL
Sample : ICV VOA9 040312 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 4 9:37 2012 Quant Results File: 040312V9.RES

Quant Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Initial Calibration
DataAcq Meth : 040312V9

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	702663	12.50 ug/m3	0.00
System Monitoring Compounds					
41) 4-Bromofluorobenzene	18.35	95	491589	88.79 ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 99.21%		

Target Compounds					Qvalue
1) C5-C8 Aliphatic HC	7.20	TIC	2797110	32.39 ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.58	TIC	2455133	39.56 ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	3117893	45.06 ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	2398692	38.57 ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	3046517	45.31 ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.30	TIC	3514812	53.08 ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.20	TIC	17330157m	254.12 ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	4088908	59.06 ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.57	TIC	4065405	59.11 ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	3887394	65.92 ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.84	TIC	3686899	64.90 ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.65	TIC	3556711	73.83 ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.48	TIC	2350794	78.45 ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	21636111m	403.36 ug/m3	
15) C9-C10 Aromatic HC	17.98	120	244567	54.50 ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	257823	54.81 ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	376045	55.38 ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	87587	63.84 ug/m3	100
19) C9-C10 Aromatic HC {5}	20.30	120	282610	56.80 ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	208983	63.27 ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.98	TIC	1457615m	284.99 ug/m3	

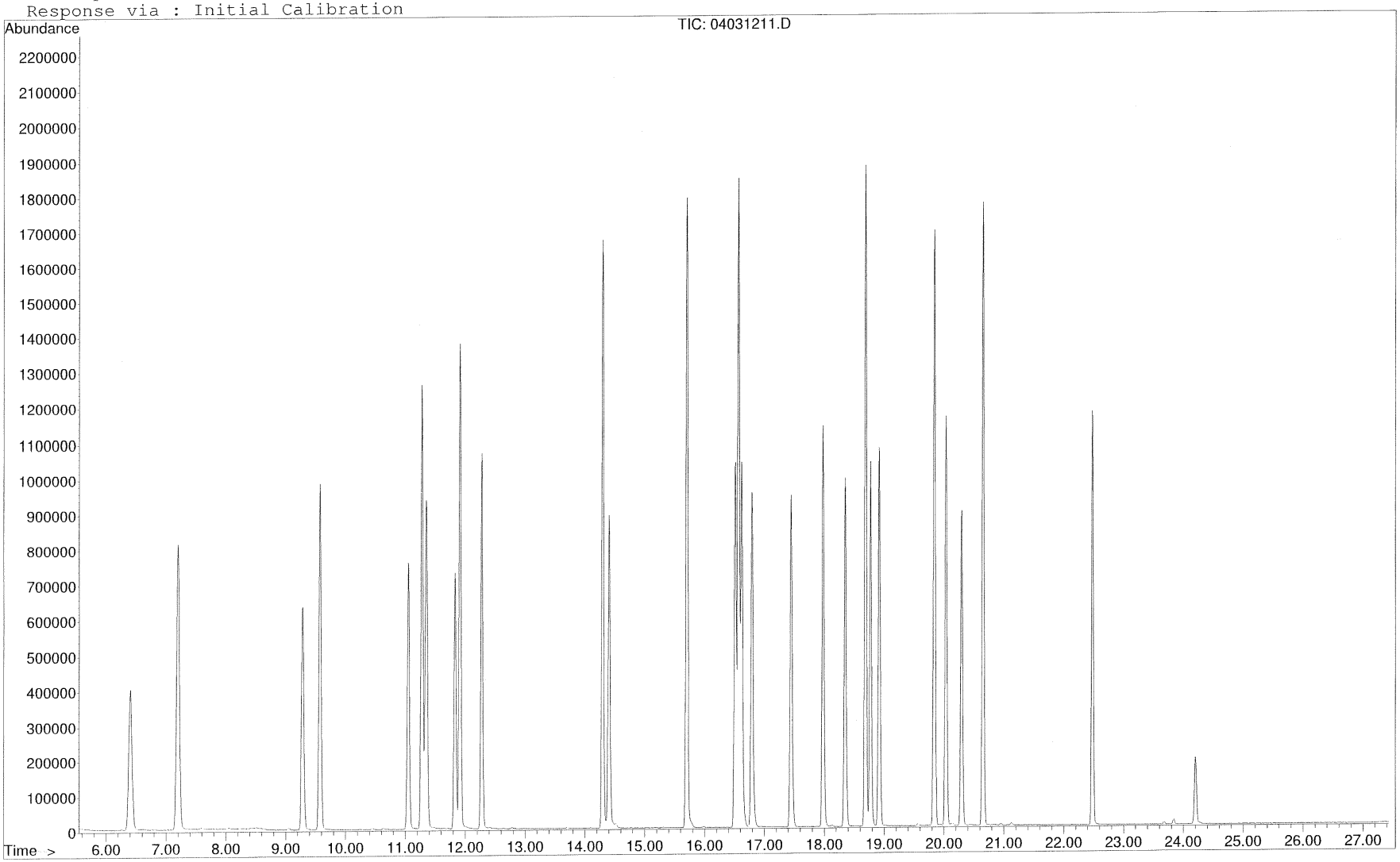
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\040312\04031211.D
Acq On : 3 Apr 2012 6:01 pm
Sample : ICV VOA9 040312
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Apr 4 9:37 2012

Vial: 12
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 040312V9.RES

Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **GC-TCD 1_120330A** **Run No.:** 47326

Analytical Run Date: 3/30/2012 **InstrumentID:** GC-TCD 1

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

Calibration ID: 45325 **Column ID:** 100/120mesh x 1mm ID

Column Length: 2m

Run Comments: PR 4-5-12 MSB 040612rsl

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
MBLK-033012 TCD	ASTM-D2504	MBLK	R47326	3/30/2012 9:49:00 AM	Robert Lynch		
CCV 033012 TCD-A	ASTM-D2504	CCV	R47326	3/30/2012 10:08:00 AM	Robert Lynch		
CRQL 033012 TCD-A	ASTM-D2504	CRQL	R47326	3/30/2012 10:42:00 AM	Robert Lynch		
LCS-033012 TCD-A	ASTM-D2504	LCS	R47326	3/30/2012 11:11:00 AM	Robert Lynch		
1203903-001B	ASTM-D2504	SAMP	R47326	3/30/2012 11:29:00 AM	Robert Lynch		
1203903-002B	ASTM-D2504	SAMP	R47326	3/30/2012 11:45:00 AM	Robert Lynch		
1203903-003B	ASTM-D2504	SAMP	R47326	3/30/2012 12:00:00 PM	Robert Lynch		
1203903-004B	ASTM-D2504	SAMP	R47326	3/30/2012 12:15:00 PM	Robert Lynch		
1203903-005B	ASTM-D2504	SAMP	R47326	3/30/2012 12:30:00 PM	Robert Lynch		
1203903-006B	ASTM-D2504	SAMP	R47326	3/30/2012 12:45:00 PM	Robert Lynch		
1203903-007B	ASTM-D2504	SAMP	R47326	3/30/2012 1:00:00 PM	Robert Lynch		
1203903-008B	ASTM-D2504	SAMP	R47326	3/30/2012 1:14:00 PM	Robert Lynch		
1203903-009B	ASTM-D2504	SAMP	R47326	3/30/2012 1:35:00 PM	Robert Lynch		
1203903-010B	ASTM-D2504	SAMP	R47326	3/30/2012 1:50:00 PM	Robert Lynch		
1203903-010BDUP	ASTM-D2504	DUP	R47326	3/30/2012 2:05:00 PM	Robert Lynch		
CCV 033012 TCD-B	ASTM-D2504	CCV	R47326	3/30/2012 2:21:00 PM	Robert Lynch		
1203903-011B	ASTM-D2504	SAMP	R47326	3/30/2012 2:37:00 PM	Robert Lynch		
1203903-012B	ASTM-D2504	SAMP	R47326	3/30/2012 2:53:00 PM	Robert Lynch		
1203903-013B	ASTM-D2504	SAMP	R47326	3/30/2012 3:09:00 PM	Robert Lynch		
1203903-014B	ASTM-D2504	SAMP	R47326	3/30/2012 3:24:00 PM	Robert Lynch		
1203903-015B	ASTM-D2504	SAMP	R47326	3/30/2012 3:39:00 PM	Robert Lynch		
1203903-016B	ASTM-D2504	SAMP	R47326	3/30/2012 3:57:00 PM	Robert Lynch		
1203903-017B	ASTM-D2504	SAMP	R47326	3/30/2012 4:13:00 PM	Robert Lynch		
1203903-018B	ASTM-D2504	SAMP	R47326	3/30/2012 4:29:00 PM	Robert Lynch		
1203903-019B	ASTM-D2504	SAMP	R47326	3/30/2012 4:44:00 PM	Robert Lynch		
CCV 033012 TCD-C	ASTM-D2504	CCV	R47326	3/30/2012 4:59:00 PM	Robert Lynch		
CRQL 033012 TCD-C	ASTM-D2504	CRQL	R47326	3/30/2012 5:16:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

18-Apr-12

RunNo 47326

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
924892	MBLK-033012 TCD	ASTM-D2504	MBLK	,TA\033012\0330	3/30/2012 9:49:0	1	R47326		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
924893	CCV 033012 TCD-A	ASTM-D2504	CCV	,TA\033012\0330	3/30/2012 10:08:	1	R47326		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.663	2.663		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Carbon Monoxide	A	%	2.693	2.693		2.5	0	0	0.025	0.1	0	108%	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	%	2.082	2.082		2	0	0	0.025	0.5	0	104%	85	115	0%	
Nitrogen	A	%	2.779	2.779		2.5	0	0	0.025	0.1	0	111%	85	115	0%	
Oxygen	A	%	2.496	2.496		2.5	0	0	0.025	0.1	0	100%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
924894	CRQL 033012 TCD-A	ASTM-D2504	CRQL	,TA\033012\0330	3/30/2012 10:42:	1	R47326		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.31	0.31		0.3	0	0	0.025	0.1	0	103%	80	120	0%	
Carbon Monoxide	A	%	0.155	0.155		0.14	0	0	0.025	0.1	0	111%	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%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
924907	CCV 033012 TCD-B	ASTM-D2504	CCV	,TA\033012\0330	3/30/2012 2:21:0	1	R47326		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.662	2.662		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Carbon Monoxide	A	%	2.675	2.675		2.5	0	0	0.025	0.1	0	107%	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	%	2.257	2.257		2	0	0	0.025	0.5	0	113%	85	115	0%	
Nitrogen	A	%	2.758	2.758		2.5	0	0	0.025	0.1	0	110%	85	115	0%	
Oxygen	A	%	2.491	2.491		2.5	0	0	0.025	0.1	0	100%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
924908	1203903-011B (Container-01 of 01)	ASTM-D2504	SAMP	,TA\033012\0330	3/30/2012 2:37:0	1	R47326		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.097	0.097		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	%	79.157	79.157		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	19.916	19.916		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
924909	1203903-012B (Container-01 of 01)	ASTM-D2504	SAMP	,TA\033012\0330	3/30/2012 2:53:0	1	R47326		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.639	0.639		0	0	0	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	79.964	79.964		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
924918	CCV 033012 TCD-C	ASTM-D2504	CCV	,TA\033012\0330	3/30/2012 4:59:0	1	R47326		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.671	2.671		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Carbon Monoxide	A	%	2.7	2.7		2.5	0	0	0.025	0.1	0	108%	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	%	2.139	2.139		2	0	0	0.025	0.5	0	107%	85	115	0%	
Nitrogen	A	%	2.689	2.689		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Oxygen	A	%	2.471	2.471		2.5	0	0	0.025	0.1	0	99%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
924919	CRQL 033012 TCD-C	ASTM-D2504	CRQL	,TA\033012\0330	3/30/2012 5:16:0	1	R47326		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.321	0.321		0.3	0	0	0.025	0.1	0	107%	80	120	0%	
Carbon Monoxide	A	%	0.143	0.143		0.14	0	0	0.025	0.1	0	102%	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	%	0.092	0.092		0.09	0	0	0.025	0.5	0	102%	80	120	0%	
Nitrogen	A	%	1.437	1.437		1.39	0	0	0.025	0.1	0	103%	80	120	0%	
Oxygen	A	%	0.084	0.084		0.08	0	0	0.025	0.1	0	105%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\033012\03301202.D Vial: 1
Acq On : 30 Mar 2012 10:08 am Operator:
Sample : CCV 033012 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title : D2504 air analysis
Last Update : Mon Apr 02 12:09:49 2012
Response via : Multiple Level Calibration

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Oxygen	2.500	2.496	0.2	0	0.05
2	Nitrogen	2.500	2.779	-11.2	0	0.03
3	Carbon Monoxide	2.500	2.693	-7.7	0	0.00
4	Methane	2.000	2.082	-4.1	0	0.03
5	Carbon dioxide	2.500	2.663	-6.5	0	0.02

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\033012\03301202.D Vial: 1
Acq On : 30 Mar 2012 10:08 am Operator:
Sample : CCV 033012 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 3 8:24 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

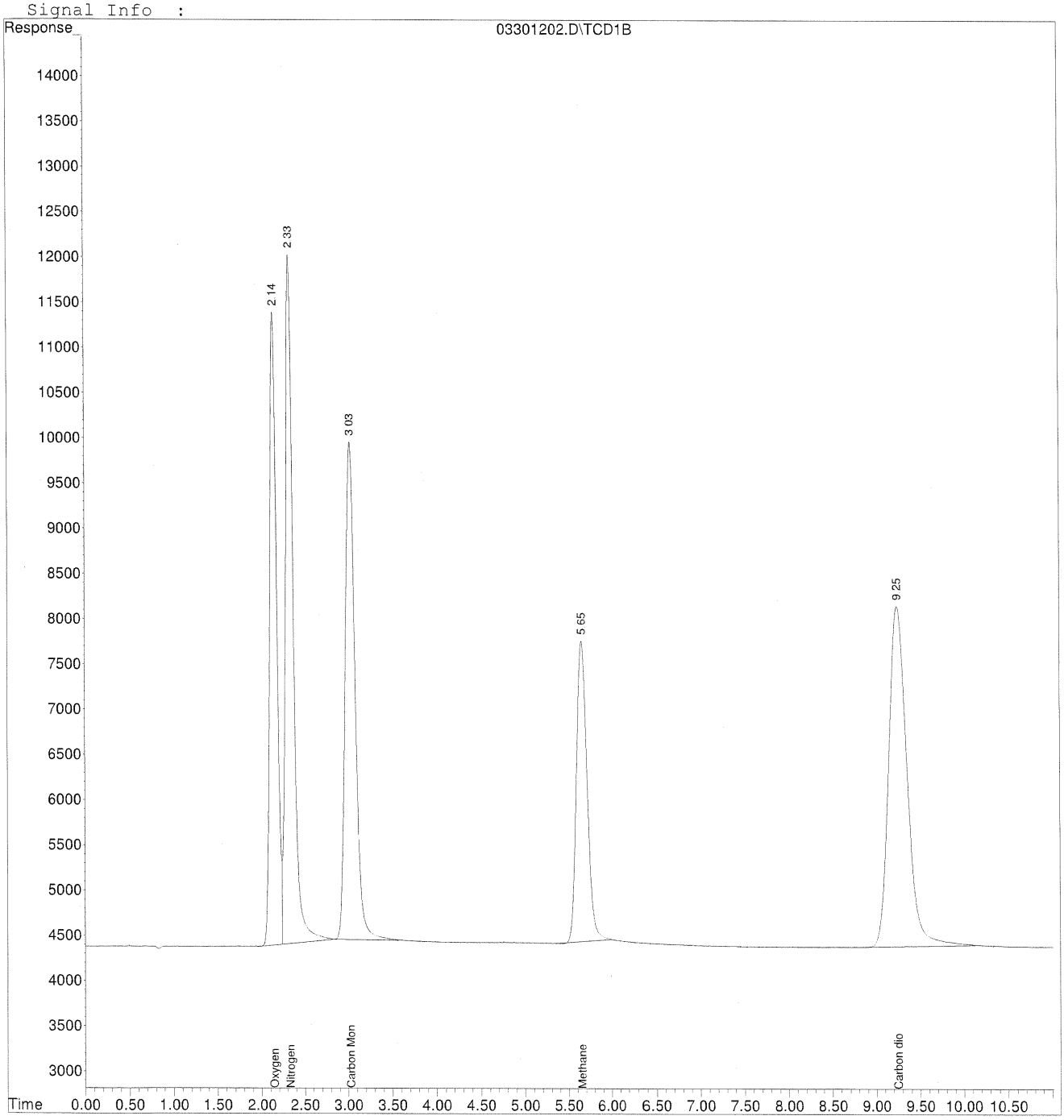
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.15	386684	2.496 %
2)	Nitrogen	2.33	487795	2.779 %
3)	Carbon Monoxide	3.03	434017	2.693 %
4)	Methane	5.66	281248	2.082 %
5)	Carbon dioxide	9.25	546859	2.663 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\033012\03301202.D Vial: 1
Acq On : 30 Mar 2012 10:08 am Operator:
Sample : CCV 033012 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Apr 3 8:24 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
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\033012\03301216.D Vial: 1
Acq On : 30 Mar 2012 2:21 pm Operator:
Sample : CCV 033012 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title : D2504 air analysis
Last Update : Mon Apr 02 12:09:49 2012
Response via : Multiple Level Calibration

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Oxygen	2.500	2.491	0.4	0	0.05
2	Nitrogen	2.500	2.758	-10.3	0	0.03
3	Carbon Monoxide	2.500	2.675	-7.0	0	0.00
4	Methane	2.000	2.257	-12.9	0	0.03
5	Carbon dioxide	2.500	2.662	-6.5	0	0.01

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\033012\03301216.D Vial: 1
Acq On : 30 Mar 2012 2:21 pm Operator:
Sample : CCV 033012 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 30 13:32 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

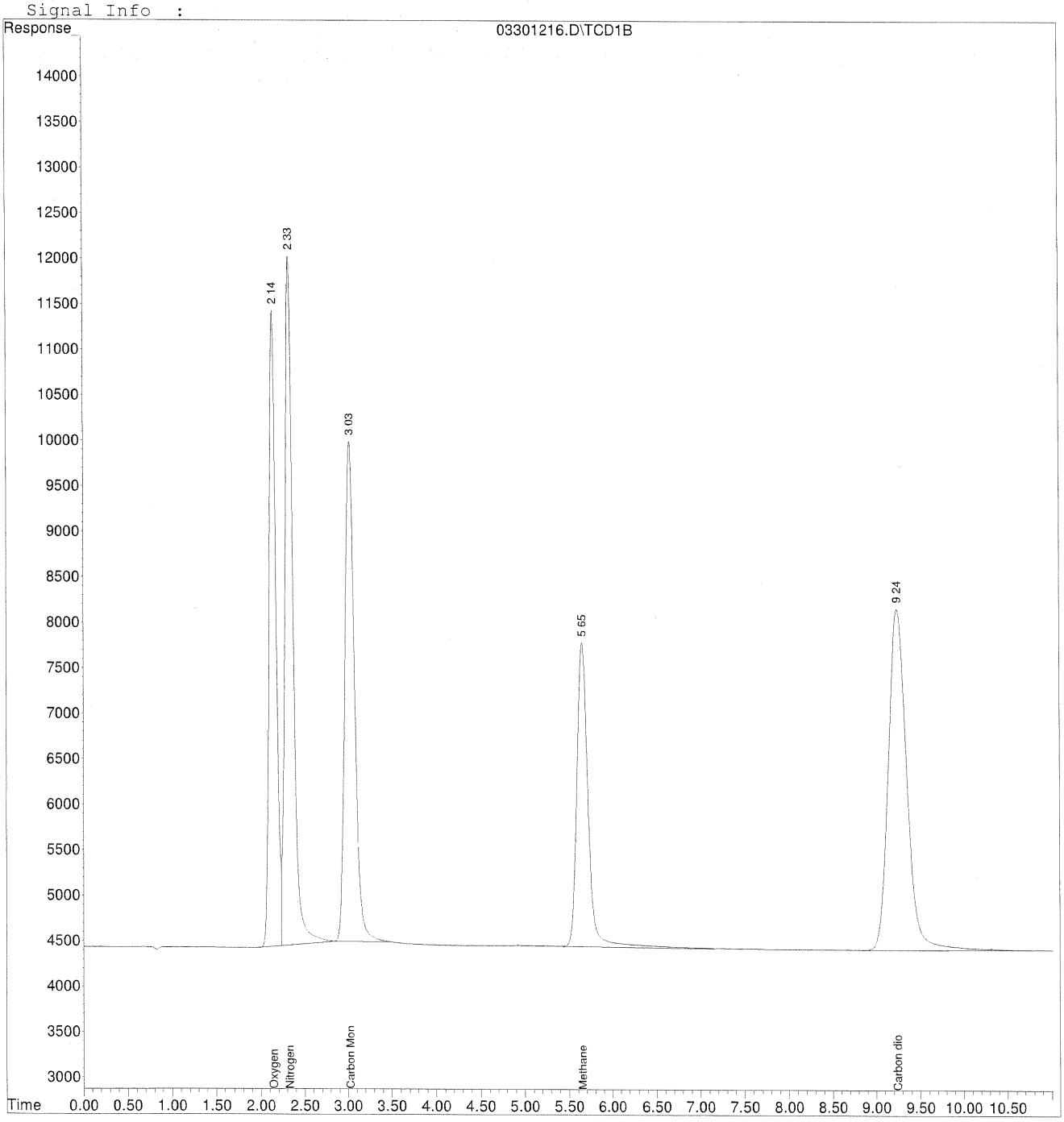
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	385972	2.491 %
2)	Nitrogen	2.33	483993	2.758 %
3)	Carbon Monoxide	3.03	431139	2.675 %
4)	Methane	5.65	304761	2.257 %
5)	Carbon dioxide	9.24	546785	2.662 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\033012\03301216.D Vial: 1
Acq On : 30 Mar 2012 2:21 pm Operator:
Sample : CCV 033012 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Mar 30 13:32 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
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\033012\03301226.D Vial: 1
Acq On : 30 Mar 2012 4:59 pm Operator:
Sample : CCV 033012 TCD-C Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title : D2504 air analysis
Last Update : Mon Apr 02 12:09:49 2012
Response via : Multiple Level Calibration

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Oxygen	2.500	2.471	1.2	0	0.04
2	Nitrogen	2.500	2.689	-7.6	0	0.03
3	Carbon Monoxide	2.500	2.700	-8.0	0	0.00
4	Methane	2.000	2.139	-6.9	0	0.02
5	Carbon dioxide	2.500	2.671	-6.8	0	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\033012\03301226.D Vial: 1
Acq On : 30 Mar 2012 4:59 pm Operator:
Sample : CCV 033012 TCD-C Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 30 16:31 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

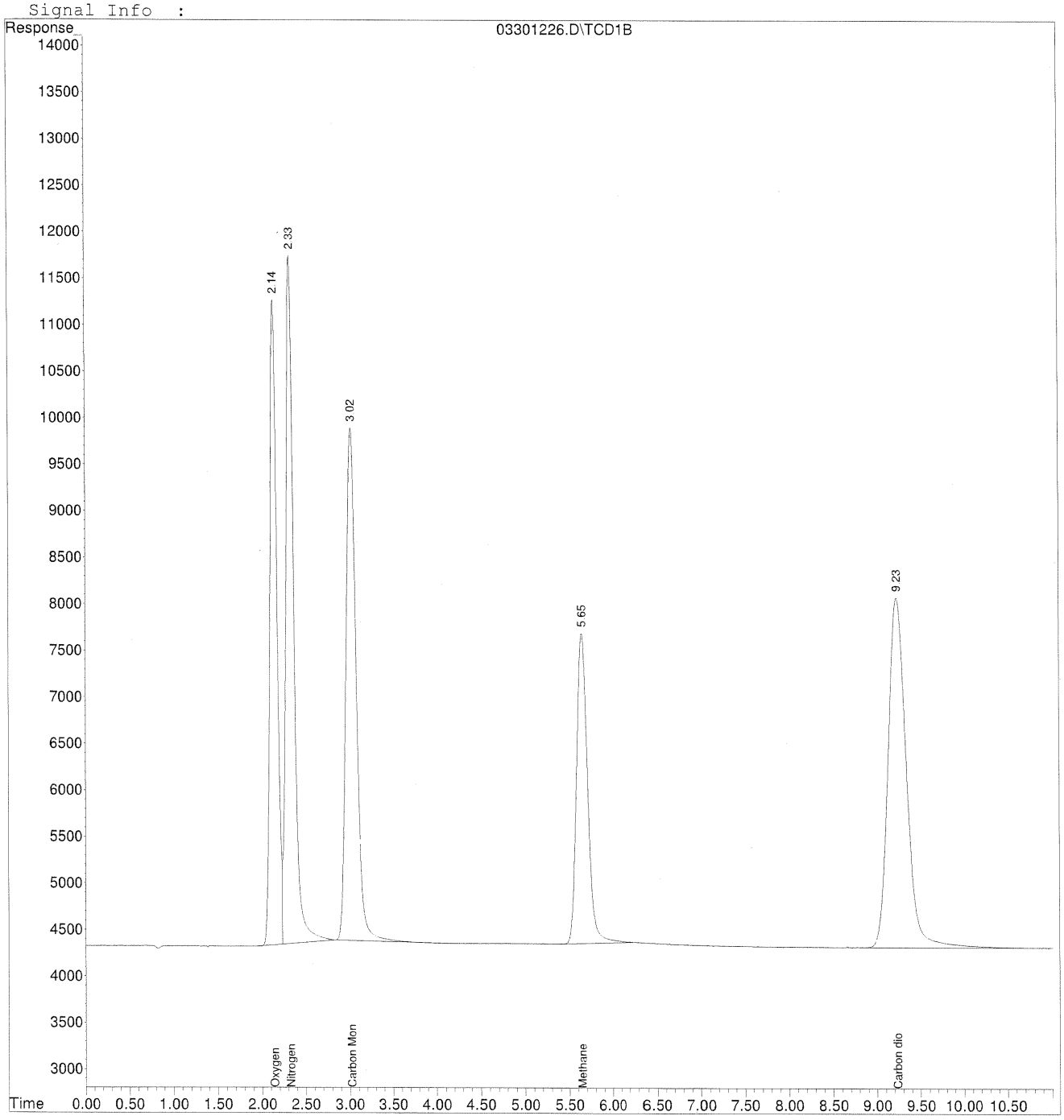
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	382754	2.471 %
2)	Nitrogen	2.33	472037	2.689 %
3)	Carbon Monoxide	3.02	435270	2.700 %
4)	Methane	5.65	288868	2.139 %
5)	Carbon dioxide	9.23	548542	2.671 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\033012\03301226.D Vial: 1
Acq On : 30 Mar 2012 4:59 pm Operator:
Sample : CCV 033012 TCD-C Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Mar 30 16:31 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-TCD 1_120402A **Run No.:** 47327

Analytical Run Date: 4/2/2012 **InstrumentID:** GC-TCD 1

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

Calibration ID: 45325 **Column ID:** 100/120mesh x 1mm ID

Column Length: 2m

Run Comments: ch rev 4/3/12/PR 040312JDH rsl040312

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
MBLK-040212 TCD	ASTM-D2504	MBLK	R47327	4/2/2012 11:08:00 AM	Robert Lynch		
CCV-040212 TCD	ASTM-D2504	CCV	R47327	4/2/2012 12:00:00 PM	Robert Lynch		
LCS-040212 TCD	ASTM-D2504	LCS	R47327	4/2/2012 12:15:00 PM	Robert Lynch		
CRQL-040212 TCD	ASTM-D2504	CRQL	R47327	4/2/2012 12:47:00 PM	Robert Lynch		
1203903-020B	ASTM-D2504	SAMP	R47327	4/2/2012 1:12:00 PM	Robert Lynch		
1203903-021B	ASTM-D2504	SAMP	R47327	4/2/2012 1:31:00 PM	Robert Lynch		
1203903-022B	ASTM-D2504	SAMP	R47327	4/2/2012 1:47:00 PM	Robert Lynch		
1203903-023B	ASTM-D2504	SAMP	R47327	4/2/2012 2:39:00 PM	Robert Lynch		
1203903-024B	ASTM-D2504	SAMP	R47327	4/2/2012 3:07:00 PM	Robert Lynch		
1203903-025B	ASTM-D2504	SAMP	R47327	4/2/2012 3:29:00 PM	Robert Lynch		
1203903-026B	ASTM-D2504	SAMP	R47327	4/2/2012 3:49:00 PM	Robert Lynch		
1203984-001B	ASTM-D2504	SAMP	R47327	4/2/2012 4:36:00 PM	Robert Lynch		
1203984-002B	ASTM-D2504	SAMP	R47327	4/2/2012 4:59:00 PM	Robert Lynch		
1203984-003B	ASTM-D2504	SAMP	R47327	4/2/2012 5:27:00 PM	Robert Lynch		
1203903-026BDUP	ASTM-D2504	DUP	R47327	4/2/2012 5:44:00 PM	Robert Lynch		
CCV 040212 TCD-B	ASTM-D2504	CCV	R47327	4/2/2012 6:01:00 PM	Robert Lynch		
CRQL 040212 TCD-B	ASTM-D2504	CRQL	R47327	4/2/2012 6:45:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

18-Apr-12

RunNo 47327

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
924921	MBLK-040212 TCD	ASTM-D2504	MBLK	,TA\040212\0402	4/2/2012 11:08:0	1	R47327		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
924922	CCV-040212 TCD	ASTM-D2504	CCV	,TA\040212\0402	4/2/2012 12:00:0	1	R47327		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.596	2.596		2.5	0	0	0.025	0.1	0	104%	85	115	0%	
Carbon Monoxide	A	%	2.706	2.706		2.5	0	0	0.025	0.1	0	108%	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	%	2.085	2.085		2	0	0	0.025	0.5	0	104%	85	115	0%	
Nitrogen	A	%	2.702	2.702		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Oxygen	A	%	2.477	2.477		2.5	0	0	0.025	0.1	0	99%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
924923	LCS-040212 TCD	ASTM-D2504	LCS	,TA\040212\0402	4/2/2012 12:15:0	1	R47327		0	924922	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.62	2.62		2.5	0	2.596	0.025	0.1	0	105%	70	130	1%	
Carbon Monoxide	A	%	2.693	2.693		2.5	0	2.706	0.025	0.1	0	108%	70	130	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
924936	CCV 040212 TCD-B	ASTM-D2504	CCV	,TA\040212\0402	4/2/2012 6:01:00	1	R47327		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.633	2.633		2.5	0	0	0.025	0.1	0	105%	85	115	0%	
Carbon Monoxide	A	%	2.734	2.734		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	%	2.09	2.09		2	0	0	0.025	0.5	0	105%	85	115	0%	
Nitrogen	A	%	2.657	2.657		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Oxygen	A	%	2.484	2.484		2.5	0	0	0.025	0.1	0	99%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
924937	CRQL 040212 TCD-B	ASTM-D2504	CRQL	,TA\040212\0402	4/2/2012 6:45:00	1	R47327		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.306	0.306		0.3	0	0	0.025	0.1	0	102%	80	120	0%	
Carbon Monoxide	A	%	0.149	0.149		0.14	0	0	0.025	0.1	0	106%	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	%	0.089	0.089		0.09	0	0	0.025	0.5	0	99%	80	120	0%	
Nitrogen	A	%	1.447	1.447		1.39	0	0	0.025	0.1	0	104%	80	120	0%	
Oxygen	A	%	0.085	0.085		0.08	0	0	0.025	0.1	0	106%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\040212\04021202.D Vial: 1
Acq On : 2 Apr 2012 12:00 pm Operator:
Sample : CCV-040212 TCD Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title : D2504 air analysis
Last Update : Mon Apr 02 12:09:49 2012
Response via : Multiple Level Calibration

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Oxygen	2.500	2.477	0.9	0	0.05
2	Nitrogen	2.500	2.702	-8.1	0	0.03
3	Carbon Monoxide	2.500	2.706	-8.2	0	0.00
4	Methane	2.000	2.085	-4.2	0	0.03
5	Carbon dioxide	2.500	2.596	-3.8	0	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\040212\04021202.D Vial: 1
Acq On : 2 Apr 2012 12:00 pm Operator:
Sample : CCV-040212 TCD Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 2 11:30 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

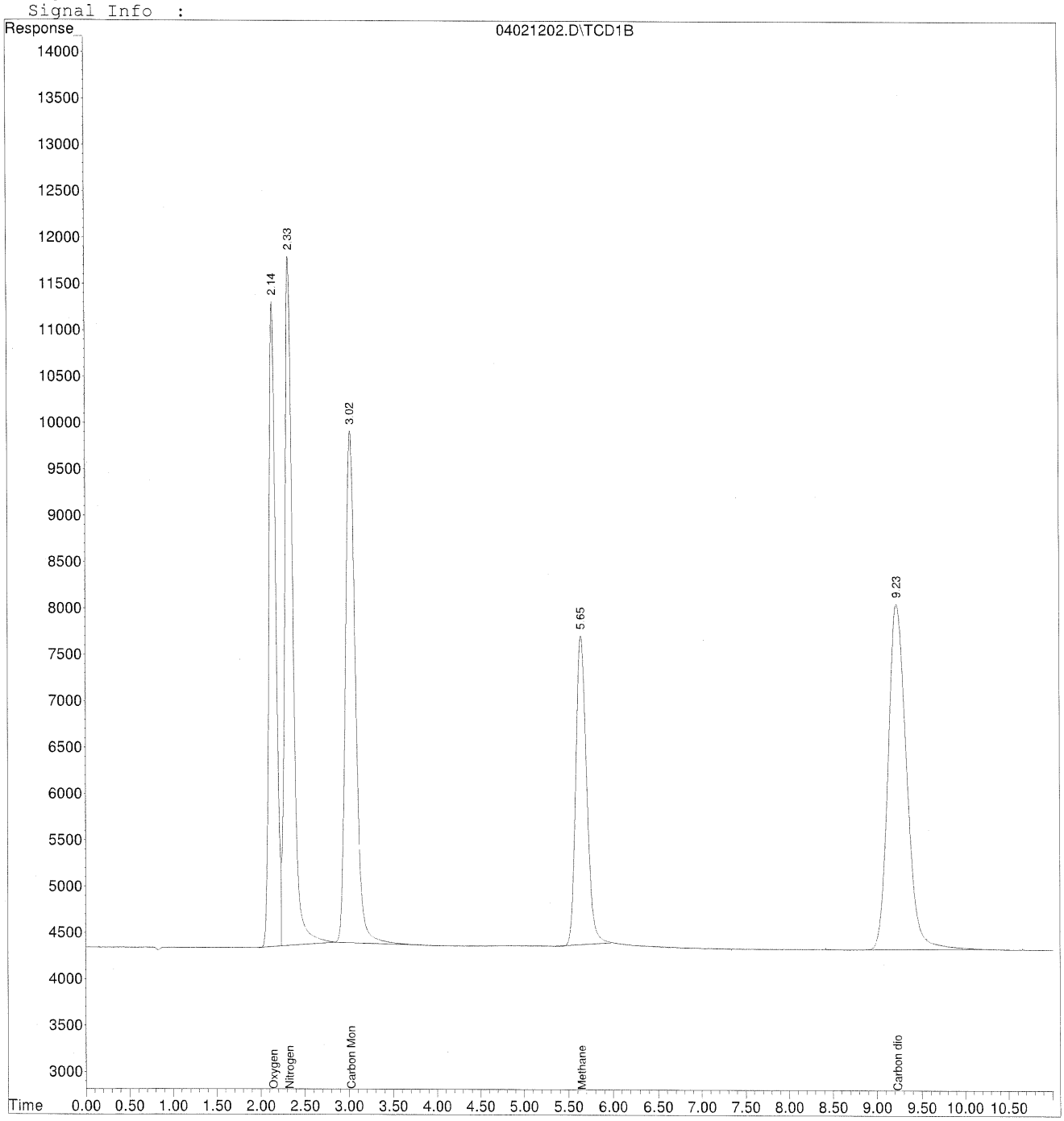
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	383718	2.477 %
2)	Nitrogen	2.33	474235	2.702 %
3)	Carbon Monoxide	3.03	436262	2.706 %
4)	Methane	5.65	281546	2.085 %
5)	Carbon dioxide	9.23	533097	2.596 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\040212\04021202.D Vial: 1
Acq On : 2 Apr 2012 12:00 pm Operator:
Sample : CCV-040212 TCD Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Apr 2 11:30 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
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\040212\04021216.D Vial: 1
Acq On : 2 Apr 2012 6:01 pm Operator:
Sample : CCV 040212 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title : D2504 air analysis
Last Update : Mon Apr 02 12:09:49 2012
Response via : Multiple Level Calibration

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Oxygen	2.500	2.484	0.6	0	0.05
2	Nitrogen	2.500	2.657	-6.3	0	0.03
3	Carbon Monoxide	2.500	2.734	-9.4	0	0.00
4	Methane	2.000	2.090	-4.5	0	0.02
5	Carbon dioxide	2.500	2.633	-5.3	0	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\040212\04021216.D Vial: 1
Acq On : 2 Apr 2012 6:01 pm Operator:
Sample : CCV 040212 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 2 17:27 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

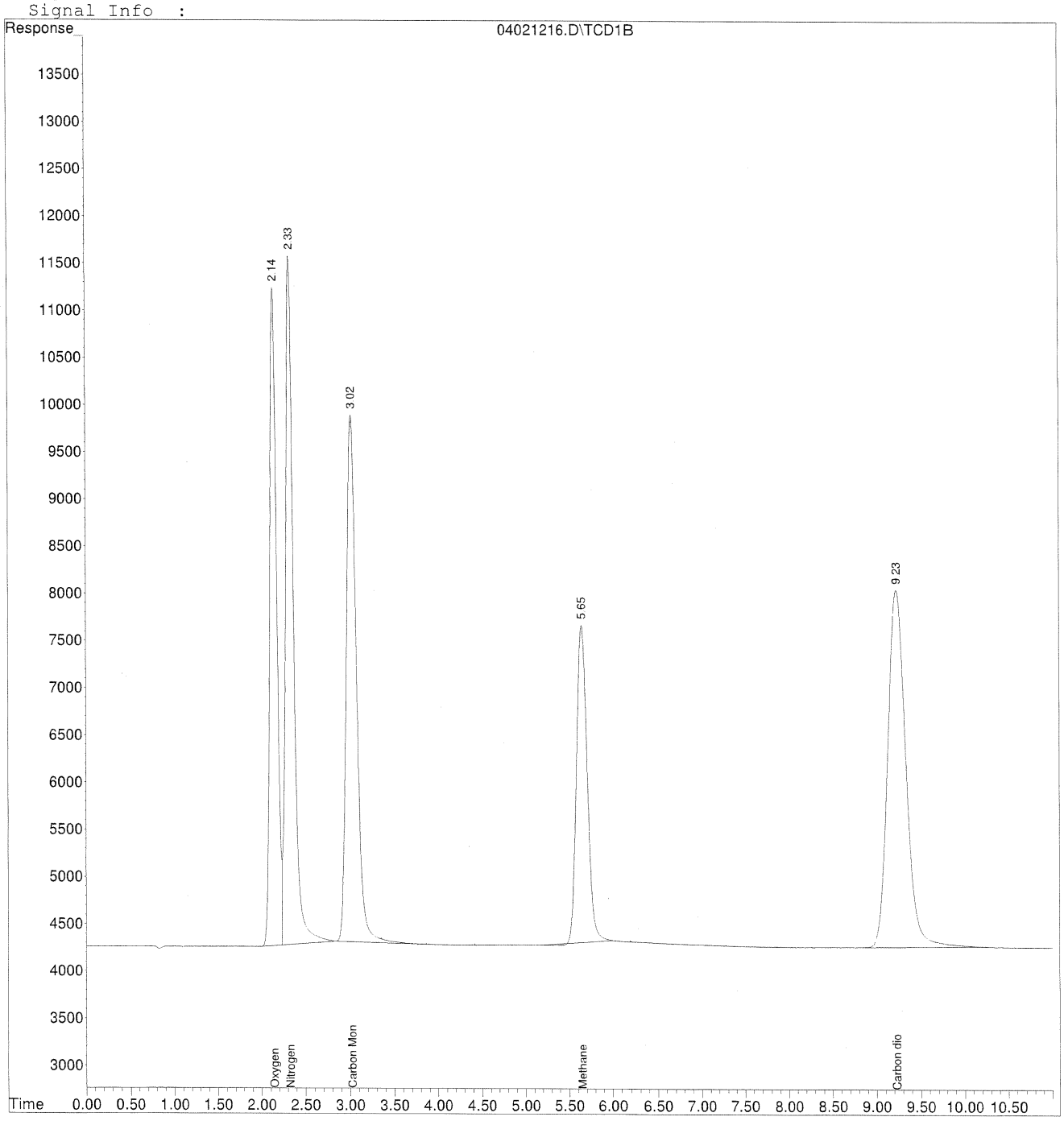
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	384822	2.484 %
2)	Nitrogen	2.33	466328	2.657 %
3)	Carbon Monoxide	3.03	440672	2.734 %
4)	Methane	5.65	282248	2.090 %
5)	Carbon dioxide	9.23	540741	2.633 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\040212\04021216.D Vial: 1
Acq On : 2 Apr 2012 6:01 pm Operator:
Sample : CCV 040212 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Apr 2 17:27 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Response Factor Report GC/TCD

Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title : D2504 air analysis
Last Update : Wed Jan 04 17:34:10 2012

Calibration Files
1 =12221102.D 2 =12221103.D 3 =12221104.D
4 =12221105.D 5 =12221106.D 6 =12221107.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1)	Oxygen	1.462	1.533	1.525	1.518	1.533	1.749	1.549 E5	5.91
2)	Nitrogen	1.766	1.744	1.737	1.709	1.688	1.861	1.755 E5	3.22
3)	Carbon Monoxide	1.659	1.607	1.601	1.572	1.540	1.692	1.612 E5	3.45
4)	Methane	1.383	1.347	1.342	1.317	1.290	1.424	1.351 E5	3.52
5)	Carbon dioxide	2.110	2.039	2.036	1.991	1.966	2.179	2.054 E5	3.83

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

122211.M Tue Mar 06 17:38:36 2012 TESTCAL

Compound List Report GC/TCD

Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title : D2504 air analysis
Last Update : Wed Jan 04 17:34:10 2012
Response via : Initial Calibration
Total Cpnds : 5

PK#	Type	Compound Name	Exp_RT	Rel_RT	Cal	A/H	ID
1		Oxygen	2.09	1.000	A	A	R
2		Nitrogen	2.30	1.000	A	A	R
3		Carbon Monoxide	3.02	1.000	A	A	R
4		Methane	5.62	1.000	A	A	R
5		Carbon dioxide	9.23	1.000	A	A	R

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

122211.M Tue Mar 06 17:38:20 2012 TESTCAL

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122211\12221110.D Vial: 1
Acq On : 22 Dec 2011 4:55 pm Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title : D2504 air analysis
Last Update : Wed Jan 04 17:34:10 2012
Response via : Multiple Level Calibration

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.490	0.4	0	0.03
2	Nitrogen	2.500	2.750	-10.0	0	0.00
3	Carbon Monoxide	2.500	2.683	-7.3	0	-0.03
4	Methane	2.000	2.089	-4.4	0	-0.02
5	Carbon dioxide	2.500	2.594	-3.8	0	-0.07

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\122211\12221110.D Vial: 1
Acq On : 22 Dec 2011 4:55 pm Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title : D2504 air analysis
Last Update : Wed Jan 04 17:34:10 2012
Response via : Multiple Level Calibration

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

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

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 122211.M Tue Mar 06 17:37:31 2012 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122211\12221110.D Vial: 1
Acq On : 22 Dec 2011 4:55 pm Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Jan 4 12:42 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 22 18:56:51 2011
Response via : Initial Calibration
DataAcq Meth : TCD-10M.M

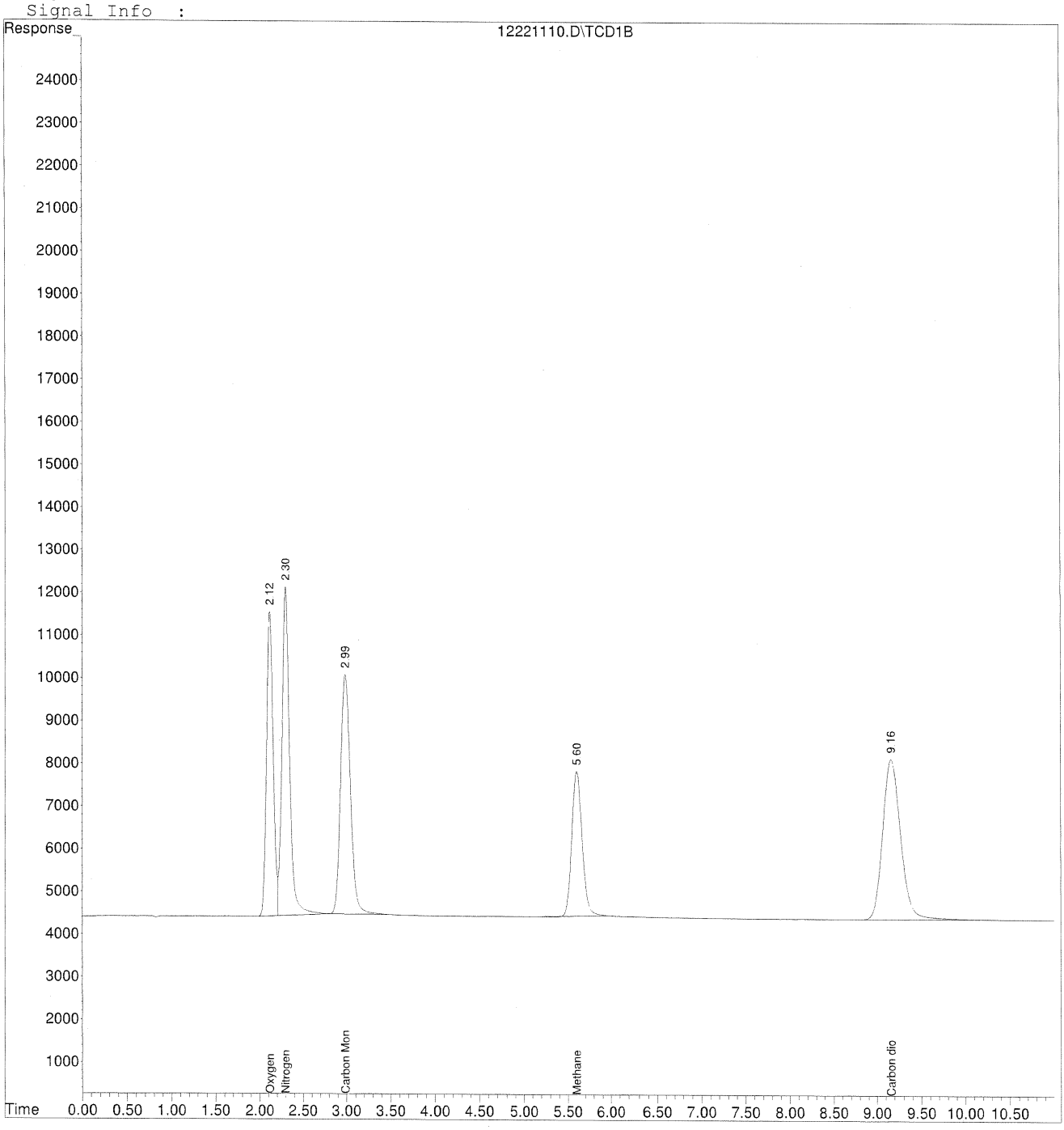
Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.12	385812	2.490 %
2)	Nitrogen	2.30	482618	2.750 %
3)	Carbon Monoxide	2.99	432538	2.683 %
4)	Methane	5.60	282093	2.089 %
5)	Carbon dioxide	9.16f	532664	2.594 %

(f)=RT Delta > 1/2 Window (m)=manual int.
12221110.D 122211.M Tue Mar 06 17:18:41 2012 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122211\12221110.D Vial: 1
Acq On : 22 Dec 2011 4:55 pm Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jan 4 12:42 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 22 18:56:51 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD-10M.M

Volume Inj. :
Signal Phase :
Signal Info :