RTI Laboratories, Inc.

Date: *12-Jan.12*

CLIENT: Shaw Environmental & Infrastructure, Inc.
Project: Kirtland AFB
CO#: 501
Tracking #: 140705-036A
Project No.: 140705
Prime Contract: W912DY-10-D0014
Task Order: 02
Work Order: 1112398

CASE NARRATIVE

SAMPLE RECEIPT:
Samples were received at the RTI Laboratory, Livonia, MI via commercial delivery on 12/13/2011. Samples were received in good condition. The sample set consisted of 28 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 45161:
- Sample ID 1112398-017Adup elevated RPD for Cyclohexane (200%).

Analytical Sequence ID 45190:
- Sample ID 1112398-010ADUP exhibited slightly elevated RPD results for Benzene (27.5%).

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.

RTI Laboratories, Inc.

Date: *12-Jan.12*

CLIENT: Shaw Environmental & Infrastructure, Inc.
Project: Kirtland AFB
CO#: 501
Tracking #: 140705-036A
Project No.: 140705
Prime Contract: W912DY-10-D0014
Task Order: 02
Work Order: 1112398

CASE NARRATIVE

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: _____ Date: 1/12/2012
Charles O'Bryan, Director, Quality Management

RTI Laboratories - Definitions and Acronyms

WO#: 1112398

Date Reported: 1/10/2012
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
RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits

2086

Shaw™
Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV061
Page 1 of 3

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

Samples Shipment Date: 08 DEC 2011
Lab Destination: RTI Laboratories
Lab Contact: Mike Truchan
Project Contact: Pamela Moss
Carrier/Waybill No.: UPS/2323121231

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

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

Special Instructions:

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

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

1. Relinquished By (Signature/Affiliation) Tim Poage — Date: 12/8/11 Time: 1400
2. Relinquished By (Signature/Affiliation) — Date: Time:
3. Relinquished By (Signature/Affiliation) — Date: Time:

1. Received By (Signature/Affiliation) S. Mc — Date: 12/13/11 Time: 9:52
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
VA0734	SVMW-12-150-GS-VA0734-REG	06 DEC 2011	13:50	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		586
VA0734	SVMW-12-150-GS-VA0734-REG	06 DEC 2011	13:50	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0735	SVMW-12-250-GS-VA0735-REG	06 DEC 2011	14:18	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		613
VA0735	SVMW-12-250-GS-VA0735-REG	06 DEC 2011	14:18	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0736	SVMW-12-350-GS-VA0736-REG	06 DEC 2011	14:46	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		687
VA0736	SVMW-12-350-GS-VA0736-REG	06 DEC 2011	14:46	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0737	SVMW-12-450-GS-VA0737-REG	06 DEC 2011	15:13	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by			N		726

Shaw
Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV061

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
							MA DEP, VOCs / TPH by TO-15					
VA0737	SVMW-12-450-GS-VA0737-REG	06 DEC 2011	15:13	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		733
VA0766	SVEW-10-410-GS-VA0766-REG	06 DEC 2011	15:38	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0766	SVEW-10-410-GS-VA0766-REG	06 DEC 2011	15:38	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0877	KAFB-106124-025-GS-VA0877-REG	05 DEC 2011	09:12	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		606
VA0877	KAFB-106124-025-GS-VA0877-REG	05 DEC 2011	09:12	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0878	KAFB-106124-050-GS-VA0878-REG	05 DEC 2011	09:43	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		100
VA0878	KAFB-106124-050-GS-VA0878-REG	05 DEC 2011	09:43	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0879	KAFB-106124-150-GS-VA0879-REG	05 DEC 2011	10:30	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		680
VA0879	KAFB-106124-150-GS-VA0879-REG	05 DEC 2011	10:30	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0880	KAFB-106124-150-GS-VA0880-FD	05 DEC 2011	10:30	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		735
VA0880	KAFB-106124-150-GS-VA0880-FD	05 DEC 2011	10:30	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		21
VA0881	KAFB-106124-250-GS-VA0881-REG	06 DEC 2011	9:08	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0881	KAFB-106124-250-GS-VA0881-REG	06 DEC 2011	9:08	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		1
VA0882	KAFB-106124-350-GS-VA0882-REG	06 DEC 2011	9:46	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0882	KAFB-106124-350-GS-VA0882-REG	06 DEC 2011	9:46	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		608
VA0883	KAFB-106124-450-GS-VA0883-REG	06 DEC 2011	10:47	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		81
VA0883	KAFB-106124-450-GS-VA0883-REG	06 DEC 2011	10:47	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0884	KAFB-106125-025-GS-VA0884-REG	07 DEC 2011	9:22	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		40
VA0884	KAFB-106125-025-GS-VA0884-REG	07 DEC 2011	9:22	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0885	KAFB-106125-050-GS-VA0885-REG	07 DEC 2011	9:52	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0885	KAFB-106125-050-GS-VA0885-REG	07 DEC 2011	9:52	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0886	KAFB-106125-150-GS-VA0886-REG	07 DEC 2011	10:39	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		757
VA0886	KAFB-106125-150-GS-VA0886-REG	07 DEC 2011	10:39	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0887	KAFB-106125-250-GS-VA0887-REG	07 DEC 2011	11:16	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0887	KAFB-106125-250-GS-VA0887-REG	07 DEC 2011	11:16	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		755
VA0888	KAFB-106125-350-GS-VA0888-REG	07 DEC 2011	11:48	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		517
VA0888	KAFB-106125-350-GS-VA0888-REG	07 DEC 2011	11:48	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		

Shaw™
Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV061

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA0889	KAFB-106125-350-GS-VA0889-FD	07 DEC 2011	11:48	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		811
VA0889	KAFB-106125-350-GS-VA0889-FD	07 DEC 2011	11:48	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0890	KAFB-106125-450-GS-VA0890-REG	07 DEC 2011	12:42	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		546
VA0890	KAFB-106125-450-GS-VA0890-REG	07 DEC 2011	12:42	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0891	KAFB-106126-025-GS-VA0891-REG	08 DEC 2011	9:25	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		702
VA0891	KAFB-106126-025-GS-VA0891-REG	08 DEC 2011	9:25	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0892	KAFB-106126-050-GS-VA0892-REG	08 DEC 2011	9:58	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		103
VA0892	KAFB-106126-050-GS-VA0892-REG	08 DEC 2011	9:58	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0893	KAFB-106126-150-GS-VA0893-REG	08 DEC 2011	10:40	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		791
VA0893	KAFB-106126-150-GS-VA0893-REG	08 DEC 2011	10:40	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0894	KAFB-106126-250-GS-VA0894-REG	08 DEC 2011	11:13	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		796
VA0894	KAFB-106126-250-GS-VA0894-REG	08 DEC 2011	11:13	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0895	KAFB-106126-350-GS-VA0895-REG	08 DEC 2011	11:48	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		733
VA0895	KAFB-106126-350-GS-VA0895-REG	08 DEC 2011	11:48	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0969	KAFB-106138-025-GS-VA0969-REG	07 DEC 2011	14:33	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		663
VA0969	KAFB-106138-025-GS-VA0969-REG	07 DEC 2011	14:33	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0970	KAFB-106138-050-GS-VA0970-REG	07 DEC 2011	15:02	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0970	KAFB-106138-050-GS-VA0970-REG	07 DEC 2011	15:02	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		740
VA0971	KAFB-106138-150-GS-VA0971-REG	07 DEC 2011	15:37	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		788
VA0971	KAFB-106138-150-GS-VA0971-REG	07 DEC 2011	15:37	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA8061-TB	FIELDQC-GS-VA8061-TB-TB	05 DEC 2011	08:00	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15			N		814

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

22 LBS 2 OF 6
DWT: 26,17,15

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4096 0691

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

REF 1:140705
REF 2:BA010030

BILLING: P/P

RTI LABORATORIES
31628 GLENDALE ST

LIVONIA MI 48150

P: RED2 S: MNITE I: 3
19F – FL2
1Z10335E034096 0691
LCC2DLS MILIV216 DEC 13 05:41:25 2011
US 4821 HIP 11.1.3 ZEBRAZ4MP

WS 14.0.21 HP LaserJet 4 21.0A 10/2011

CUSTODY SEAL
DATE 12/8/11
SIGNATURE TC Nagy

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

- 10 Door : 1249
UPST 365488 MI 48150
MI 482 9-02

UPS GROUND

1Z10335E0341888287

P39D115 I542519 Dec 12 17:18:08 2011 US

SS1039 HIP 11.1.3 BTLP2844L 6059 T

RTI LABORATORIES
31628 GLENDALE ST

LIVONIA MI 48150

P: RED2 S: MNITE I: 3

19F – FL2

1Z10335E034188 8287

LCC2DLS MILIV216 DEC 13 05:31:20 2011
US 4821 HIP 11.1.3 ZEBRAZ4MP

CUSTODY SEAL
DATE 12/8/11
SIGNATURE

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

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

1 LBS 3 OF 6
DWT: 13,13,13

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4239 1703

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

REF 1:140705
REF 2:BA010030

BILLING: P/P
HAZARDOUS MATERIALS - GROUND ONLY

RTI LABORATORIES
31628 GLENDALE ST
LIVONIA MI 48150
P: RED2 S: MNITE I: 3
19F – FL2
1Z10335E034239 1703
LCC2DLS MILIV216 DEC 13 05:31:29 2011
US 4821 HIP 11.1.3 ZEBRAZ4MP

WS 14.0.21 HP LaserJet 4 21.0A 10/2011

T - 10 Door: 1249
UPST 365488 MI 48150
MI 482 9-02

UPS GROUND

1Z10335E0342391703

P39D115 1542519 Dec 12 17:20:49 2011 US
SS1039 HIP

CUSTODY SEAL 6059 T
DATE 12/8/11
SIGNATURE

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

RTI LABORATORIES, INC.

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

Sample Receipt Checklist

Client Name: **SHA04**

Date and Time Received: **12/13/2011 9:52:00 AM**

Work Order Number **1112398** RcptNo: **1**

Received by: **Stephanie Mercieca**

Completed by:

Reviewed by:

Completed Date: 12/13/2011 2:28:05 PM

Reviewed Date: 12/14/2011 8:26:53 AM

Carrier name: UPS

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

Case Number: SDG: SAS:

Adjusted? _____ Checked by

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

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1112398-001A	Container-01 of 01	Bottle				
1112398-001B	Container-01 of 01	Bottle				
1112398-002A	Container-01 of 01	Bottle				
1112398-002B	Container-01 of 01	Bottle				
1112398-003A	Container-01 of 01	Bottle				
1112398-003B	Container-01 of 01	Bottle				
1112398-004A	Container-01 of 01	Bottle				
1112398-004B	Container-01 of 01	Bottle				
1112398-005A	Container-01 of 01	Bottle				
1112398-005B	Container-01 of 01	Bottle				
1112398-006A	Container-01 of 01	Bottle				
1112398-006B	Container-01 of 01	Bottle				
1112398-007A	Container-01 of 01	Bottle				
1112398-007B	Container-01 of 01	Bottle				
1112398-008A	Container-01 of 01	Bottle				
1112398-008B	Container-01 of 01	Bottle				
1112398-009A	Container-01 of 01	Bottle				
1112398-009B	Container-01 of 01	Bottle				
1112398-010A	Container-01 of 01	Bottle				
1112398-010B	Container-01 of 01	Bottle				
1112398-011A	Container-01 of 01	Bottle				
1112398-011B	Container-01 of 01	Bottle				
1112398-012A	Container-01 of 01	Bottle				
1112398-012B	Container-01 of 01	Bottle				
1112398-013A	Container-01 of 01	Bottle				
1112398-013B	Container-01 of 01	Bottle				
1112398-014A	Container-01 of 01	Bottle				
1112398-014B	Container-01 of 01	Bottle				
1112398-015A	Container-01 of 01	Bottle				
1112398-015B	Container-01 of 01	Bottle				
1112398-016A	Container-01 of 01	Bottle				
1112398-016B	Container-01 of 01	Bottle				
1112398-017A	Container-01 of 01	Bottle				
1112398-017B	Container-01 of 01	Bottle				

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1112398-018A	Container-01 of 01	Bottle				
1112398-018B	Container-01 of 01	Bottle				
1112398-019A	Container-01 of 01	Bottle				
1112398-019B	Container-01 of 01	Bottle				
1112398-020A	Container-01 of 01	Bottle				
1112398-020B	Container-01 of 01	Bottle				
1112398-021A	Container-01 of 01	Bottle				
1112398-021B	Container-01 of 01	Bottle				
1112398-022A	Container-01 of 01	Bottle				
1112398-022B	Container-01 of 01	Bottle				
1112398-023A	Container-01 of 01	Bottle				
1112398-023B	Container-01 of 01	Bottle				
1112398-024A	Container-01 of 01	Bottle				
1112398-024B	Container-01 of 01	Bottle				
1112398-025A	Container-01 of 01	Bottle				
1112398-025B	Container-01 of 01	Bottle				
1112398-026A	Container-01 of 01	Bottle				
1112398-026B	Container-01 of 01	Bottle				
1112398-027A	Container-01 of 01	Bottle				
1112398-027B	Container-01 of 01	Bottle				
1112398-028A	Container-01 of 01	Bottle				

Adjusted? _____ Checked by _____

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

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

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

Client Instructions:

Date Contacted: Contacted By:

Regarding:

CorrectiveAction:

Comments:
Tracking Numbers: UPS
1Z10335E0340960691, UPS
1Z10335E0341888287, UPS
1Z10335E0342391703

RTI Laboratories - Workorder Sample Summary

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1112398-001	VA0734		12/6/2011 1:50 PM	12/13/2011 9:52 AM	Air
1112398-001	VA0734		12/6/2011 1:50 PM	12/13/2011 9:52 AM	Air
1112398-002	VA0735		12/6/2011 2:18 PM	12/13/2011 9:52 AM	Air
1112398-002	VA0735		12/6/2011 2:18 PM	12/13/2011 9:52 AM	Air
1112398-003	VA0736		12/6/2011 2:46 PM	12/13/2011 9:52 AM	Air
1112398-003	VA0736		12/6/2011 2:46 PM	12/13/2011 9:52 AM	Air
1112398-004	VA0737		12/6/2011 3:13 PM	12/13/2011 9:52 AM	Air
1112398-004	VA0737		12/6/2011 3:13 PM	12/13/2011 9:52 AM	Air
1112398-005	VA0766		12/6/2011 3:38 PM	12/13/2011 9:52 AM	Air
1112398-005	VA0766		12/6/2011 3:38 PM	12/13/2011 9:52 AM	Air
1112398-006	VA0877		12/5/2011 9:12 AM	12/13/2011 9:52 AM	Air
1112398-006	VA0877		12/5/2011 9:12 AM	12/13/2011 9:52 AM	Air
1112398-007	VA0878		12/5/2011 9:43 AM	12/13/2011 9:52 AM	Air
1112398-007	VA0878		12/5/2011 9:43 AM	12/13/2011 9:52 AM	Air
1112398-008	VA0879		12/5/2011 10:30 AM	12/13/2011 9:52 AM	Air
1112398-008	VA0879		12/5/2011 10:30 AM	12/13/2011 9:52 AM	Air
1112398-009	VA0880		12/5/2011 10:30 AM	12/13/2011 9:52 AM	Air
1112398-009	VA0880		12/5/2011 10:30 AM	12/13/2011 9:52 AM	Air
1112398-010	VA0881		12/6/2011 9:08 AM	12/13/2011 9:52 AM	Air
1112398-010	VA0881		12/6/2011 9:08 AM	12/13/2011 9:52 AM	Air
1112398-011	VA0882		12/6/2011 9:46 AM	12/13/2011 9:52 AM	Air
1112398-011	VA0882		12/6/2011 9:46 AM	12/13/2011 9:52 AM	Air
1112398-012	VA0883		12/6/2011 10:47 AM	12/13/2011 9:52 AM	Air
1112398-012	VA0883		12/6/2011 10:47 AM	12/13/2011 9:52 AM	Air
1112398-013	VA0884		12/7/2011 9:22 AM	12/13/2011 9:52 AM	Air
1112398-013	VA0884		12/7/2011 9:22 AM	12/13/2011 9:52 AM	Air
1112398-014	VA0885		12/7/2011 9:52 AM	12/13/2011 9:52 AM	Air
1112398-014	VA0885		12/7/2011 9:52 AM	12/13/2011 9:52 AM	Air
1112398-015	VA0886		12/7/2011 10:39 AM	12/13/2011 9:52 AM	Air
1112398-015	VA0886		12/7/2011 10:39 AM	12/13/2011 9:52 AM	Air
1112398-016	VA0887		12/7/2011 11:16 AM	12/13/2011 9:52 AM	Air
1112398-016	VA0887		12/7/2011 11:16 AM	12/13/2011 9:52 AM	Air
1112398-017	VA0888		12/7/2011 11:48 AM	12/13/2011 9:52 AM	Air
1112398-017	VA0888		12/7/2011 11:48 AM	12/13/2011 9:52 AM	Air
1112398-018	VA0889		12/7/2011 11:48 AM	12/13/2011 9:52 AM	Air
1112398-018	VA0889		12/7/2011 11:48 AM	12/13/2011 9:52 AM	Air
1112398-019	VA0890		12/7/2011 12:42 PM	12/13/2011 9:52 AM	Air
1112398-019	VA0890		12/7/2011 12:42 PM	12/13/2011 9:52 AM	Air
1112398-020	VA0891		12/8/2011 9:25 AM	12/13/2011 9:52 AM	Air
1112398-020	VA0891		12/8/2011 9:25 AM	12/13/2011 9:52 AM	Air
1112398-021	VA0892		12/8/2011 9:58 AM	12/13/2011 9:52 AM	Air
1112398-021	VA0892		12/8/2011 9:58 AM	12/13/2011 9:52 AM	Air
1112398-022	VA0893		12/8/2011 10:40 AM	12/13/2011 9:52 AM	Air
1112398-022	VA0893		12/8/2011 10:40 AM	12/13/2011 9:52 AM	Air
1112398-023	VA0894		12/8/2011 11:13 AM	12/13/2011 9:52 AM	Air

RTI Laboratories - Workorder Sample Summary

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1112398-023	VA0894		12/8/2011 11:13 AM	12/13/2011 9:52 AM	Air
1112398-024	VA0895		12/8/2011 11:48 AM	12/13/2011 9:52 AM	Air
1112398-024	VA0895		12/8/2011 11:48 AM	12/13/2011 9:52 AM	Air
1112398-025	VA0969		12/7/2011 2:33 PM	12/13/2011 9:52 AM	Air
1112398-025	VA0969		12/7/2011 2:33 PM	12/13/2011 9:52 AM	Air
1112398-026	VA0970		12/7/2011 3:02 PM	12/13/2011 9:52 AM	Air
1112398-026	VA0970		12/7/2011 3:02 PM	12/13/2011 9:52 AM	Air
1112398-027	VA0971		12/7/2011 3:37 PM	12/13/2011 9:52 AM	Air
1112398-027	VA0971		12/7/2011 3:37 PM	12/13/2011 9:52 AM	Air
1112398-028	VA8061-TB		12/5/2011 8:00 AM	12/13/2011 9:52 AM	Air

RTI Laboratories - DATES REPORT

WO#: 1112398

Date Reported: 1/10/2012
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
1112398-001A	VA0734	12/6/2011 1:50 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/16/2011 11:43 PM
				EPA_TO15-Volatile Organic Compounds			12/31/2011 4:39 AM
1112398-001B	VA0734	12/6/2011 1:50 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/3/2012 1:26 PM
1112398-002A	VA0735	12/6/2011 2:18 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/21/2011 10:45 PM
				EPA_TO15-Volatile Organic Compounds			12/28/2011 9:05 PM
1112398-002B	VA0735	12/6/2011 2:18 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/3/2012 1:41 PM
1112398-003A	VA0736	12/6/2011 2:46 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/21/2011 11:34 PM
				EPA_TO15-Volatile Organic Compounds			12/28/2011 9:57 PM
1112398-003B	VA0736	12/6/2011 2:46 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/3/2012 1:56 PM
1112398-004A	VA0737	12/6/2011 3:13 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/22/2011 12:19 AM
				EPA_TO15-Volatile Organic Compounds			12/29/2011 2:00 PM
1112398-004B	VA0737	12/6/2011 3:13 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/3/2012 2:11 PM
1112398-005A	VA0766	12/6/2011 3:38 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/22/2011 1:08 AM
				EPA_TO15-Volatile Organic Compounds			12/29/2011 2:52 PM
1112398-005B	VA0766	12/6/2011 3:38 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/3/2012 2:26 PM
1112398-006A	VA0877	12/5/2011 9:12 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/16/2011 6:25 PM
				EPA_TO15-Volatile Organic Compounds			12/28/2011 2:00 PM

RTI Laboratories - DATES REPORT

WO#: 1112398

Date Reported: 1/10/2012
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
1112398-006B	VA0877	12/5/2011 9:12 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/3/2012 2:45 PM
1112398-007A	VA0878	12/5/2011 9:43 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/16/2011 7:15 PM
				EPA_TO15-Volatile Organic Compounds			12/28/2011 2:52 PM
1112398-007B	VA0878	12/5/2011 9:43 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/3/2012 3:01 PM
1112398-008A	VA0879	12/5/2011 10:30 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/23/2011 9:55 AM
				EPA_TO15-Volatile Organic Compounds			12/28/2011 4:23 PM
1112398-008B	VA0879	12/5/2011 10:30 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/3/2012 3:16 PM
1112398-009A	VA0880	12/5/2011 10:30 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/23/2011 10:37 AM
				EPA_TO15-Volatile Organic Compounds			12/28/2011 5:09 PM
1112398-009B	VA0880	12/5/2011 10:30 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/3/2012 3:31 PM
1112398-010A	VA0881	12/6/2011 9:08 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/16/2011 8:49 PM
				EPA_TO15-Volatile Organic Compounds			1/3/2012 12:35 PM
1112398-010B	VA0881	12/6/2011 9:08 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/3/2012 3:46 PM
1112398-011A	VA0882	12/6/2011 9:46 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/16/2011 10:16 PM
				EPA_TO15-Volatile Organic Compounds			12/31/2011 3:53 AM
1112398-011B	VA0882	12/6/2011 9:46 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/4/2012 12:05 PM

RTI Laboratories - DATES REPORT

WO#: 1112398

Date Reported: 1/10/2012
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
1112398-012A	VA0883	12/6/2011 10:47 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/16/2011 11:00 PM
				EPA_TO15-Volatile Organic Compounds			12/28/2011 7:28 PM
1112398-012B	VA0883	12/6/2011 10:47 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/4/2012 12:21 PM
1112398-013A	VA0884	12/7/2011 9:22 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/19/2011 5:53 PM
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/23/2011 11:20 AM
				EPA_TO15-Volatile Organic Compounds			12/29/2011 3:38 PM
1112398-013B	VA0884	12/7/2011 9:22 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/4/2012 12:36 PM
1112398-014A	VA0885	12/7/2011 9:52 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/27/2011 1:12 PM
				EPA_TO15-Volatile Organic Compounds			12/29/2011 4:25 PM
1112398-014B	VA0885	12/7/2011 9:52 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/4/2012 12:51 PM
1112398-015A	VA0886	12/7/2011 10:39 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/27/2011 1:56 PM
				EPA_TO15-Volatile Organic Compounds			12/29/2011 5:12 PM
1112398-015B	VA0886	12/7/2011 10:39 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/4/2012 1:09 PM
1112398-016A	VA0887	12/7/2011 11:16 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/27/2011 2:39 PM
				EPA_TO15-Volatile Organic Compounds			12/29/2011 5:58 PM
1112398-016B	VA0887	12/7/2011 11:16 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/4/2012 1:24 PM
1112398-017A	VA0888	12/7/2011 11:48 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/19/2011 9:33 PM
				EPA_TO15-Volatile Organic Compounds			12/29/2011 6:43 PM

RTI Laboratories - DATES REPORT

WO#: 1112398

Date Reported: 1/10/2012
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
1112398-017A	VA0888	12/7/2011 11:48 AM	Air				
				EPA_TO15-Volatile Organic Compounds			12/31/2011 6:16 AM
1112398-017B	VA0888	12/7/2011 11:48 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/4/2012 1:39 PM
1112398-018A	VA0889	12/7/2011 11:48 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/22/2011 2:40 AM
				EPA_TO15-Volatile Organic Compounds			12/31/2011 7:05 AM
1112398-018B	VA0889	12/7/2011 11:48 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/4/2012 1:54 PM
1112398-019A	VA0890	12/7/2011 12:42 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/19/2011 11:01 PM
				EPA_TO15-Volatile Organic Compounds			12/29/2011 9:01 PM
1112398-019B	VA0890	12/7/2011 12:42 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/4/2012 2:11 PM
1112398-020A	VA0891	12/8/2011 9:25 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/22/2011 4:08 AM
				EPA_TO15-Volatile Organic Compounds			12/29/2011 11:22 PM
1112398-020B	VA0891	12/8/2011 9:25 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/4/2012 2:32 PM
1112398-021A	VA0892	12/8/2011 9:58 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/28/2011 3:52 PM
				EPA_TO15-Volatile Organic Compounds			12/31/2011 8:39 AM
1112398-021B	VA0892	12/8/2011 9:58 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/4/2012 3:18 PM
1112398-022A	VA0893	12/8/2011 10:40 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2012 1:21 PM
				EPA_TO15-Volatile Organic Compounds			12/31/2011 9:27 AM

RTI Laboratories - DATES REPORT

WO#: 1112398

Date Reported: 1/10/2012
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
1112398-022B	VA0893	12/8/2011 10:40 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/4/2012 3:33 PM
1112398-023A	VA0894	12/8/2011 11:13 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2012 2:05 PM
				EPA_TO15-Volatile Organic Compounds			12/31/2011 10:14 AM
1112398-023B	VA0894	12/8/2011 11:13 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/4/2012 3:48 PM
1112398-024A	VA0895	12/8/2011 11:48 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/22/2011 7:01 PM
				EPA_TO15-Volatile Organic Compounds			12/31/2011 11:02 AM
1112398-024B	VA0895	12/8/2011 11:48 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/4/2012 4:03 PM
1112398-025A	VA0969	12/7/2011 2:33 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/27/2011 3:21 PM
				EPA_TO15-Volatile Organic Compounds			12/29/2011 9:47 PM
1112398-025B	VA0969	12/7/2011 2:33 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/4/2012 4:21 PM
1112398-026A	VA0970	12/7/2011 3:02 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/28/2011 4:36 PM
				EPA_TO15-Volatile Organic Compounds			12/31/2011 7:52 AM
1112398-026B	VA0970	12/7/2011 3:02 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/4/2012 4:36 PM
1112398-027A	VA0971	12/7/2011 3:37 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2012 12:37 PM
				EPA_TO15-Volatile Organic Compounds			12/29/2011 10:34 PM
1112398-027B	VA0971	12/7/2011 3:37 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/4/2012 4:52 PM

RTI Laboratories - DATES REPORT

WO#: 1112398

Date Reported: 1/10/2012
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
1112398-028A	VA8061-TB	12/5/2011 8:00 AM	Air	EPA_TO15-Volatile Organic Compounds			12/28/2011 1:08 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2011 1:50:00 PM
Project:	Kirtland AFB		
Lab ID:	1112398-001	**Matrix:**	Air
Client Sample ID:	VA0734		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.12	0.10		%	1	1/3/2012 1:26 PM
Carbon Monoxide	ND	0.10	U	%	1	1/3/2012 1:26 PM
Methane	ND	0.50	U	%	1	1/3/2012 1:26 PM
Nitrogen	79	0.10		%	1	1/3/2012 1:26 PM
Oxygen	20	0.10		%	1	1/3/2012 1:26 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/31/2011 4:39 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/31/2011 4:39 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/31/2011 4:39 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/31/2011 4:39 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/31/2011 4:39 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/31/2011 4:39 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/31/2011 4:39 AM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/31/2011 4:39 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/31/2011 4:39 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/31/2011 4:39 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/31/2011 4:39 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/31/2011 4:39 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/31/2011 4:39 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/31/2011 4:39 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/31/2011 4:39 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/31/2011 4:39 AM
2-Butanone	ND	40	U	ppbv	40	12/31/2011 4:39 AM
2-Hexanone	ND	40	U	ppbv	40	12/31/2011 4:39 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Acetone	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Benzene	85	40		ppbv	40	12/31/2011 4:39 AM
Benzyl chloride	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Bromoform	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Bromomethane	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Carbon disulfide	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Carbon tetrachloride	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Chlorobenzene	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Chloroethane	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Chloroform	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Chloromethane	ND	40	U	ppbv	40	12/31/2011 4:39 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/31/2011 4:39 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/31/2011 4:39 AM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2011 1:50:00 PM
Project:	Kirtland AFB		
Lab ID:	1112398-001	**Matrix:**	Air
Client Sample ID:	VA0734		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	230	80		ppbv	40	12/31/2011 4:39 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Ethyl acetate	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Ethylbenzene	48	80	J	ppbv	40	12/31/2011 4:39 AM
Heptane	240	40		ppbv	40	12/31/2011 4:39 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/31/2011 4:39 AM
m,p-Xylene	140	80		ppbv	40	12/31/2011 4:39 AM
Methylene chloride	ND	200	U	ppbv	40	12/31/2011 4:39 AM
n-Hexane	130	80		ppbv	40	12/31/2011 4:39 AM
Naphthalene	ND	40	U	ppbv	40	12/31/2011 4:39 AM
o-Xylene	44	40		ppbv	40	12/31/2011 4:39 AM
Propylene	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Styrene	ND	40	U	ppbv	40	12/31/2011 4:39 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Toluene	550	40		ppbv	40	12/31/2011 4:39 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/31/2011 4:39 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Trichloroethene	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Vinyl acetate	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Vinyl chloride	ND	40	U	ppbv	40	12/31/2011 4:39 AM
Xylenes, Total	180	120		ppbv	40	12/31/2011 4:39 AM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	40	12/31/2011 4:39 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,700,000	940,000		µg/m³	8000	12/16/2011 11:43 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/16/2011 11:43 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/16/2011 11:43 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	8000	12/16/2011 11:43 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2011 2:18:00 PM
Project:	Kirtland AFB		
Lab ID:	1112398-002	**Matrix:**	Air
Client Sample ID:	VA0735		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.16	0.10		%	1	1/3/2012 1:41 PM
Carbon Monoxide	ND	0.10	U	%	1	1/3/2012 1:41 PM
Methane	ND	0.50	U	%	1	1/3/2012 1:41 PM
Nitrogen	79	0.10		%	1	1/3/2012 1:41 PM
Oxygen	20	0.10		%	1	1/3/2012 1:41 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	12/28/2011 9:05 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	12/28/2011 9:05 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	12/28/2011 9:05 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	12/28/2011 9:05 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	12/28/2011 9:05 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	12/28/2011 9:05 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	12/28/2011 9:05 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	12/28/2011 9:05 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	12/28/2011 9:05 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	12/28/2011 9:05 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	12/28/2011 9:05 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	12/28/2011 9:05 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	12/28/2011 9:05 PM
1,3-Butadiene	ND	400	U	ppbv	400	12/28/2011 9:05 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	12/28/2011 9:05 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	12/28/2011 9:05 PM
2-Butanone	ND	400	U	ppbv	400	12/28/2011 9:05 PM
2-Hexanone	ND	400	U	ppbv	400	12/28/2011 9:05 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Acetone	980	400		ppbv	400	12/28/2011 9:05 PM
Benzene	3,000	400		ppbv	400	12/28/2011 9:05 PM
Benzyl chloride	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Bromodichloromethane	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Bromoform	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Bromomethane	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Carbon disulfide	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Carbon tetrachloride	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Chlorobenzene	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Chlorodibromomethane	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Chloroethane	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Chloroform	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Chloromethane	ND	400	U	ppbv	400	12/28/2011 9:05 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	12/28/2011 9:05 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	12/28/2011 9:05 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2011 2:18:00 PM
Project:	Kirtland AFB		
Lab ID:	1112398-002	**Matrix:**	Air
Client Sample ID:	VA0735		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	3,400	800		ppbv	400	12/28/2011 9:05 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Ethyl acetate	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Ethylbenzene	ND	800	U	ppbv	400	12/28/2011 9:05 PM
Heptane	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	12/28/2011 9:05 PM
m,p-Xylene	ND	800	U	ppbv	400	12/28/2011 9:05 PM
Methylene chloride	ND	2,000	U	ppbv	400	12/28/2011 9:05 PM
n-Hexane	2,400	800		ppbv	400	12/28/2011 9:05 PM
Naphthalene	ND	400	U	ppbv	400	12/28/2011 9:05 PM
o-Xylene	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Propylene	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Styrene	ND	400	U	ppbv	400	12/28/2011 9:05 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Tetrachloroethene	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Tetrahydrofuran	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Toluene	1,100	400		ppbv	400	12/28/2011 9:05 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	12/28/2011 9:05 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Trichloroethene	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Vinyl acetate	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Vinyl chloride	ND	400	U	ppbv	400	12/28/2011 9:05 PM
Xylenes, Total	ND	1,200	U	ppbv	400	12/28/2011 9:05 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	400	12/28/2011 9:05 PM
Mass APH Air **Air-Phase Petroleum Hydrocarbons**	**Method:**					**Analyst: RH3**
C5-C8 Aliphatic Hydrocarbons	490,000	47,000		µg/m³	400	12/21/2011 10:45 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/21/2011 10:45 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/21/2011 10:45 PM
Surr: 4-Bromofluorobenzene	95.7	70-130		%REC	400	12/21/2011 10:45 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2011 2:46:00 PM
Project:	Kirtland AFB		
Lab ID:	1112398-003	**Matrix:**	Air
Client Sample ID:	VA0736		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.48	0.10		%	1	1/3/2012 1:56 PM
Carbon Monoxide	ND	0.10	U	%	1	1/3/2012 1:56 PM
Methane	ND	0.50	U	%	1	1/3/2012 1:56 PM
Nitrogen	81	0.10		%	1	1/3/2012 1:56 PM
Oxygen	18	0.10		%	1	1/3/2012 1:56 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	12/28/2011 9:57 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	12/28/2011 9:57 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	12/28/2011 9:57 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	12/28/2011 9:57 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	12/28/2011 9:57 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	12/28/2011 9:57 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	12/28/2011 9:57 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	12/28/2011 9:57 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	12/28/2011 9:57 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	12/28/2011 9:57 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	12/28/2011 9:57 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	12/28/2011 9:57 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	12/28/2011 9:57 PM
1,3-Butadiene	ND	400	U	ppbv	400	12/28/2011 9:57 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	12/28/2011 9:57 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	12/28/2011 9:57 PM
2-Butanone	ND	400	U	ppbv	400	12/28/2011 9:57 PM
2-Hexanone	ND	400	U	ppbv	400	12/28/2011 9:57 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Acetone	740	400		ppbv	400	12/28/2011 9:57 PM
Benzene	710	400		ppbv	400	12/28/2011 9:57 PM
Benzyl chloride	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Bromodichloromethane	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Bromoform	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Bromomethane	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Carbon disulfide	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Carbon tetrachloride	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Chlorobenzene	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Chlorodibromomethane	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Chloroethane	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Chloroform	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Chloromethane	ND	400	U	ppbv	400	12/28/2011 9:57 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	12/28/2011 9:57 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	12/28/2011 9:57 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2011 2:46:00 PM
Project:	Kirtland AFB		
Lab ID:	1112398-003	**Matrix:**	Air
Client Sample ID:	VA0736		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,600	800		ppbv	400	12/28/2011 9:57 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Ethyl acetate	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Ethylbenzene	ND	800	U	ppbv	400	12/28/2011 9:57 PM
Heptane	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	12/28/2011 9:57 PM
m,p-Xylene	ND	800	U	ppbv	400	12/28/2011 9:57 PM
Methylene chloride	1,100	2,000	J	ppbv	400	12/28/2011 9:57 PM
n-Hexane	1,100	800		ppbv	400	12/28/2011 9:57 PM
Naphthalene	ND	400	U	ppbv	400	12/28/2011 9:57 PM
o-Xylene	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Propylene	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Styrene	ND	400	U	ppbv	400	12/28/2011 9:57 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Tetrachloroethene	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Tetrahydrofuran	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Toluene	950	400		ppbv	400	12/28/2011 9:57 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	12/28/2011 9:57 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Trichloroethene	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Vinyl acetate	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Vinyl chloride	ND	400	U	ppbv	400	12/28/2011 9:57 PM
Xylenes, Total	ND	1,200	U	ppbv	400	12/28/2011 9:57 PM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	400	12/28/2011 9:57 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	210,000	47,000		µg/m³	400	12/21/2011 11:34 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/21/2011 11:34 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/21/2011 11:34 PM
Surr: 4-Bromofluorobenzene	94.4	70-130		%REC	400	12/21/2011 11:34 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2011 3:13:00 PM
Project:	Kirtland AFB		
Lab ID:	1112398-004	**Matrix:**	Air
Client Sample ID:	VA0737		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.12	0.10		%	1	1/3/2012 2:11 PM
Carbon Monoxide	ND	0.10	U	%	1	1/3/2012 2:11 PM
Methane	ND	0.50	U	%	1	1/3/2012 2:11 PM
Nitrogen	79	0.10		%	1	1/3/2012 2:11 PM
Oxygen	20	0.10		%	1	1/3/2012 2:11 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/29/2011 2:00 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/29/2011 2:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/29/2011 2:00 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/29/2011 2:00 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/29/2011 2:00 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/29/2011 2:00 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/29/2011 2:00 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/29/2011 2:00 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/29/2011 2:00 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/29/2011 2:00 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/29/2011 2:00 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/29/2011 2:00 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/29/2011 2:00 PM
1,3-Butadiene	ND	800	U	ppbv	800	12/29/2011 2:00 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/29/2011 2:00 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/29/2011 2:00 PM
2-Butanone	ND	800	U	ppbv	800	12/29/2011 2:00 PM
2-Hexanone	ND	800	U	ppbv	800	12/29/2011 2:00 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Acetone	900	800		ppbv	800	12/29/2011 2:00 PM
Benzene	1,400	800		ppbv	800	12/29/2011 2:00 PM
Benzyl chloride	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Bromodichloromethane	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Bromoform	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Bromomethane	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Carbon disulfide	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Carbon tetrachloride	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Chlorobenzene	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Chlorodibromomethane	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Chloroethane	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Chloroform	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Chloromethane	ND	800	U	ppbv	800	12/29/2011 2:00 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/29/2011 2:00 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/29/2011 2:00 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2011 3:13:00 PM
Project:	Kirtland AFB		
Lab ID:	1112398-004	**Matrix:**	Air
Client Sample ID:	VA0737		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	6,000	1,600		ppbv	800	12/29/2011 2:00 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Ethyl acetate	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Ethylbenzene	ND	1,600	U	ppbv	800	12/29/2011 2:00 PM
Heptane	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/29/2011 2:00 PM
m,p-Xylene	ND	1,600	U	ppbv	800	12/29/2011 2:00 PM
Methylene chloride	2,700	4,000	J	ppbv	800	12/29/2011 2:00 PM
n-Hexane	1,800	1,600		ppbv	800	12/29/2011 2:00 PM
Naphthalene	ND	800	U	ppbv	800	12/29/2011 2:00 PM
o-Xylene	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Propylene	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Styrene	ND	800	U	ppbv	800	12/29/2011 2:00 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Tetrachloroethene	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Tetrahydrofuran	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Toluene	900	800		ppbv	800	12/29/2011 2:00 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/29/2011 2:00 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Trichloroethene	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Vinyl acetate	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Vinyl chloride	ND	800	U	ppbv	800	12/29/2011 2:00 PM
Xylenes, Total	ND	2,400	U	ppbv	800	12/29/2011 2:00 PM
Surr: 4-Bromofluorobenzene	118	70-130		%REC	800	12/29/2011 2:00 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	860,000	94,000		µg/m³	800	12/22/2011 12:19 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	12/22/2011 12:19 AM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	12/22/2011 12:19 AM
Surr: 4-Bromofluorobenzene	98.3	70-130		%REC	800	12/22/2011 12:19 AM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2011 3:38:00 PM
Project:	Kirtland AFB		
Lab ID:	1112398-005	**Matrix:**	Air
Client Sample ID:	VA0766		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.070	0.10	J	%	1	1/3/2012 2:26 PM
Carbon Monoxide	ND	0.10	U	%	1	1/3/2012 2:26 PM
Methane	ND	0.50	U	%	1	1/3/2012 2:26 PM
Nitrogen	78	0.10		%	1	1/3/2012 2:26 PM
Oxygen	21	0.10		%	1	1/3/2012 2:26 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	12/29/2011 2:52 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	12/29/2011 2:52 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	12/29/2011 2:52 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	12/29/2011 2:52 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	12/29/2011 2:52 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	12/29/2011 2:52 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	12/29/2011 2:52 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	12/29/2011 2:52 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	12/29/2011 2:52 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	12/29/2011 2:52 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	12/29/2011 2:52 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	12/29/2011 2:52 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	12/29/2011 2:52 PM
1,3-Butadiene	ND	400	U	ppbv	400	12/29/2011 2:52 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	12/29/2011 2:52 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	12/29/2011 2:52 PM
2-Butanone	620	400		ppbv	400	12/29/2011 2:52 PM
2-Hexanone	ND	400	U	ppbv	400	12/29/2011 2:52 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Acetone	4,800	400		ppbv	400	12/29/2011 2:52 PM
Benzene	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Benzyl chloride	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Bromodichloromethane	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Bromoform	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Bromomethane	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Carbon disulfide	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Carbon tetrachloride	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Chlorobenzene	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Chlorodibromomethane	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Chloroethane	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Chloroform	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Chloromethane	ND	400	U	ppbv	400	12/29/2011 2:52 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	12/29/2011 2:52 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	12/29/2011 2:52 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2011 3:38:00 PM
Project:	Kirtland AFB		
Lab ID:	1112398-005	**Matrix:**	Air
Client Sample ID:	VA0766		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	670	800	J	ppbv	400	12/29/2011 2:52 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Ethyl acetate	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Ethylbenzene	ND	800	U	ppbv	400	12/29/2011 2:52 PM
Heptane	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	12/29/2011 2:52 PM
m,p-Xylene	ND	800	U	ppbv	400	12/29/2011 2:52 PM
Methylene chloride	1,600	2,000	J	ppbv	400	12/29/2011 2:52 PM
n-Hexane	1,000	800		ppbv	400	12/29/2011 2:52 PM
Naphthalene	ND	400	U	ppbv	400	12/29/2011 2:52 PM
o-Xylene	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Propylene	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Styrene	ND	400	U	ppbv	400	12/29/2011 2:52 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Tetrachloroethene	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Tetrahydrofuran	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Toluene	1,200	400		ppbv	400	12/29/2011 2:52 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	12/29/2011 2:52 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Trichloroethene	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Vinyl acetate	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Vinyl chloride	ND	400	U	ppbv	400	12/29/2011 2:52 PM
Xylenes, Total	ND	1,200	U	ppbv	400	12/29/2011 2:52 PM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	400	12/29/2011 2:52 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	120,000	47,000		µg/m³	400	12/22/2011 1:08 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/22/2011 1:08 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/22/2011 1:08 AM
Surr: 4-Bromofluorobenzene	97.7	70-130		%REC	400	12/22/2011 1:08 AM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2011 9:12:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-006	**Matrix:**	Air
Client Sample ID:	VA0877		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.71	0.10		%	1	1/3/2012 2:45 PM
Carbon Monoxide	ND	0.10	U	%	1	1/3/2012 2:45 PM
Methane	ND	0.50	U	%	1	1/3/2012 2:45 PM
Nitrogen	79	0.10		%	1	1/3/2012 2:45 PM
Oxygen	20	0.10		%	1	1/3/2012 2:45 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	12/28/2011 2:00 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	12/28/2011 2:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	12/28/2011 2:00 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	12/28/2011 2:00 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	12/28/2011 2:00 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	12/28/2011 2:00 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	12/28/2011 2:00 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	12/28/2011 2:00 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	12/28/2011 2:00 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	12/28/2011 2:00 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	12/28/2011 2:00 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	12/28/2011 2:00 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	12/28/2011 2:00 PM
1,3-Butadiene	ND	400	U	ppbv	400	12/28/2011 2:00 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	12/28/2011 2:00 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	12/28/2011 2:00 PM
2-Butanone	ND	400	U	ppbv	400	12/28/2011 2:00 PM
2-Hexanone	ND	400	U	ppbv	400	12/28/2011 2:00 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Acetone	2,100	400		ppbv	400	12/28/2011 2:00 PM
Benzene	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Benzyl chloride	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Bromodichloromethane	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Bromoform	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Bromomethane	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Carbon disulfide	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Carbon tetrachloride	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Chlorobenzene	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Chlorodibromomethane	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Chloroethane	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Chloroform	970	400		ppbv	400	12/28/2011 2:00 PM
Chloromethane	ND	400	U	ppbv	400	12/28/2011 2:00 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	12/28/2011 2:00 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	12/28/2011 2:00 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2011 9:12:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-006	**Matrix:**	Air
Client Sample ID:	VA0877		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	ND	800	U	ppbv	400	12/28/2011 2:00 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Ethyl acetate	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Ethylbenzene	ND	800	U	ppbv	400	12/28/2011 2:00 PM
Heptane	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	12/28/2011 2:00 PM
m,p-Xylene	ND	800	U	ppbv	400	12/28/2011 2:00 PM
Methylene chloride	7,200	2,000		ppbv	400	12/28/2011 2:00 PM
n-Hexane	2,800	800		ppbv	400	12/28/2011 2:00 PM
Naphthalene	ND	400	U	ppbv	400	12/28/2011 2:00 PM
o-Xylene	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Propylene	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Styrene	ND	400	U	ppbv	400	12/28/2011 2:00 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Tetrachloroethene	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Tetrahydrofuran	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Toluene	720	400		ppbv	400	12/28/2011 2:00 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	12/28/2011 2:00 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Trichloroethene	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Vinyl acetate	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Vinyl chloride	ND	400	U	ppbv	400	12/28/2011 2:00 PM
Xylenes, Total	ND	1,200	U	ppbv	400	12/28/2011 2:00 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	400	12/28/2011 2:00 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	140,000	47,000		µg/m³	400	12/16/2011 6:25 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/16/2011 6:25 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/16/2011 6:25 PM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	400	12/16/2011 6:25 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2011 9:43:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-007	**Matrix:**	Air
Client Sample ID:	VA0878		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.68	0.10		%	1	1/3/2012 3:01 PM
Carbon Monoxide	ND	0.10	U	%	1	1/3/2012 3:01 PM
Methane	ND	0.50	U	%	1	1/3/2012 3:01 PM
Nitrogen	79	0.10		%	1	1/3/2012 3:01 PM
Oxygen	20	0.10		%	1	1/3/2012 3:01 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	12/28/2011 2:52 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	12/28/2011 2:52 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	12/28/2011 2:52 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	12/28/2011 2:52 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	12/28/2011 2:52 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	12/28/2011 2:52 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	12/28/2011 2:52 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	12/28/2011 2:52 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	12/28/2011 2:52 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	12/28/2011 2:52 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	12/28/2011 2:52 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	12/28/2011 2:52 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	12/28/2011 2:52 PM
1,3-Butadiene	ND	400	U	ppbv	400	12/28/2011 2:52 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	12/28/2011 2:52 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	12/28/2011 2:52 PM
2-Butanone	ND	400	U	ppbv	400	12/28/2011 2:52 PM
2-Hexanone	ND	400	U	ppbv	400	12/28/2011 2:52 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Acetone	1,200	400		ppbv	400	12/28/2011 2:52 PM
Benzene	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Benzyl chloride	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Bromodichloromethane	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Bromoform	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Bromomethane	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Carbon disulfide	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Carbon tetrachloride	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Chlorobenzene	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Chlorodibromomethane	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Chloroethane	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Chloroform	760	400		ppbv	400	12/28/2011 2:52 PM
Chloromethane	ND	400	U	ppbv	400	12/28/2011 2:52 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	12/28/2011 2:52 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	12/28/2011 2:52 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2011 9:43:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-007	**Matrix:**	Air
Client Sample ID:	VA0878		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	440	800	J	ppbv	400	12/28/2011 2:52 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Ethyl acetate	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Ethylbenzene	ND	800	U	ppbv	400	12/28/2011 2:52 PM
Heptane	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	12/28/2011 2:52 PM
m,p-Xylene	ND	800	U	ppbv	400	12/28/2011 2:52 PM
Methylene chloride	2,900	2,000		ppbv	400	12/28/2011 2:52 PM
n-Hexane	1,100	800		ppbv	400	12/28/2011 2:52 PM
Naphthalene	ND	400	U	ppbv	400	12/28/2011 2:52 PM
o-Xylene	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Propylene	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Styrene	ND	400	U	ppbv	400	12/28/2011 2:52 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Tetrachloroethene	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Tetrahydrofuran	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Toluene	980	400		ppbv	400	12/28/2011 2:52 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	12/28/2011 2:52 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Trichloroethene	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Vinyl acetate	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Vinyl chloride	ND	400	U	ppbv	400	12/28/2011 2:52 PM
Xylenes, Total	ND	1,200	U	ppbv	400	12/28/2011 2:52 PM
Surr: 4-Bromofluorobenzene	117	70-130		%REC	400	12/28/2011 2:52 PM
Mass APH Air Air-Phase Petroleum Hydrocarbons	**Method:**					**Analyst: RH3**
C5-C8 Aliphatic Hydrocarbons	440,000	47,000		µg/m³	400	12/16/2011 7:15 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/16/2011 7:15 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/16/2011 7:15 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	400	12/16/2011 7:15 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2011 10:30:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-008	**Matrix:**	Air
Client Sample ID:	VA0879		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.15	0.10		%	1	1/3/2012 3:16 PM
Carbon Monoxide	ND	0.10	U	%	1	1/3/2012 3:16 PM
Methane	ND	0.50	U	%	1	1/3/2012 3:16 PM
Nitrogen	79	0.10		%	1	1/3/2012 3:16 PM
Oxygen	20	0.10		%	1	1/3/2012 3:16 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/28/2011 4:23 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/28/2011 4:23 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/28/2011 4:23 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/28/2011 4:23 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/28/2011 4:23 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/28/2011 4:23 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/28/2011 4:23 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/28/2011 4:23 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/28/2011 4:23 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/28/2011 4:23 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/28/2011 4:23 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/28/2011 4:23 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/28/2011 4:23 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/28/2011 4:23 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/28/2011 4:23 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/28/2011 4:23 PM
2-Butanone	ND	40	U	ppbv	40	12/28/2011 4:23 PM
2-Hexanone	ND	40	U	ppbv	40	12/28/2011 4:23 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Acetone	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Benzene	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Benzyl chloride	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Bromoform	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Bromomethane	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Carbon disulfide	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Chlorobenzene	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Chloroethane	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Chloroform	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Chloromethane	ND	40	U	ppbv	40	12/28/2011 4:23 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/28/2011 4:23 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/28/2011 4:23 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2011 10:30:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-008	**Matrix:**	Air
Client Sample ID:	VA0879		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	63	80	J	ppbv	40	12/28/2011 4:23 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Ethyl acetate	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Ethylbenzene	ND	80	U	ppbv	40	12/28/2011 4:23 PM
Heptane	46	40		ppbv	40	12/28/2011 4:23 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/28/2011 4:23 PM
m,p-Xylene	ND	80	U	ppbv	40	12/28/2011 4:23 PM
Methylene chloride	ND	200	U	ppbv	40	12/28/2011 4:23 PM
n-Hexane	ND	80	U	ppbv	40	12/28/2011 4:23 PM
Naphthalene	ND	40	U	ppbv	40	12/28/2011 4:23 PM
o-Xylene	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Propylene	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Styrene	ND	40	U	ppbv	40	12/28/2011 4:23 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Toluene	100	40		ppbv	40	12/28/2011 4:23 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/28/2011 4:23 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Trichloroethene	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Vinyl acetate	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Vinyl chloride	ND	40	U	ppbv	40	12/28/2011 4:23 PM
Xylenes, Total	ND	120	U	ppbv	40	12/28/2011 4:23 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	40	12/28/2011 4:23 PM
Mass APH Air **Air-Phase Petroleum Hydrocarbons**	**Method:**					**Analyst: RH3**
C5-C8 Aliphatic Hydrocarbons	20,000	4,700		µg/m³	40	12/23/2011 9:55 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/23/2011 9:55 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/23/2011 9:55 AM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	40	12/23/2011 9:55 AM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2011 10:30:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-009	**Matrix:**	Air
Client Sample ID:	VA0880		

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	1/3/2012 3:31 PM
Carbon Monoxide	ND	0.10	U	%	1	1/3/2012 3:31 PM
Methane	ND	0.50	U	%	1	1/3/2012 3:31 PM
Nitrogen	79	0.10		%	1	1/3/2012 3:31 PM
Oxygen	20	0.10		%	1	1/3/2012 3:31 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/28/2011 5:09 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/28/2011 5:09 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/28/2011 5:09 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/28/2011 5:09 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/28/2011 5:09 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/28/2011 5:09 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/28/2011 5:09 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/28/2011 5:09 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/28/2011 5:09 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/28/2011 5:09 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/28/2011 5:09 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/28/2011 5:09 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/28/2011 5:09 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/28/2011 5:09 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/28/2011 5:09 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/28/2011 5:09 PM
2-Butanone	ND	40	U	ppbv	40	12/28/2011 5:09 PM
2-Hexanone	ND	40	U	ppbv	40	12/28/2011 5:09 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Acetone	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Benzene	61	40		ppbv	40	12/28/2011 5:09 PM
Benzyl chloride	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Bromoform	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Bromomethane	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Carbon disulfide	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Chlorobenzene	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Chloroethane	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Chloroform	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Chloromethane	ND	40	U	ppbv	40	12/28/2011 5:09 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/28/2011 5:09 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/28/2011 5:09 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2011 10:30:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-009	**Matrix:**	Air
Client Sample ID:	VA0880		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	120	80		ppbv	40	12/28/2011 5:09 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Ethyl acetate	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Ethylbenzene	ND	80	U	ppbv	40	12/28/2011 5:09 PM
Heptane	130	40		ppbv	40	12/28/2011 5:09 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/28/2011 5:09 PM
m,p-Xylene	73	80	J	ppbv	40	12/28/2011 5:09 PM
Methylene chloride	ND	200	U	ppbv	40	12/28/2011 5:09 PM
n-Hexane	75	80	J	ppbv	40	12/28/2011 5:09 PM
Naphthalene	ND	40	U	ppbv	40	12/28/2011 5:09 PM
o-Xylene	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Propylene	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Styrene	ND	40	U	ppbv	40	12/28/2011 5:09 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Toluene	270	40		ppbv	40	12/28/2011 5:09 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/28/2011 5:09 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Trichloroethene	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Vinyl acetate	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Vinyl chloride	ND	40	U	ppbv	40	12/28/2011 5:09 PM
Xylenes, Total	73	120	J	ppbv	40	12/28/2011 5:09 PM
Surr: 4-Bromofluorobenzene	118	70-130		%REC	40	12/28/2011 5:09 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	13,000	4,700		µg/m³	40	12/23/2011 10:37 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/23/2011 10:37 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/23/2011 10:37 AM
Surr: 4-Bromofluorobenzene	97.0	70-130		%REC	40	12/23/2011 10:37 AM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2011 9:08:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-010	**Matrix:**	Air
Client Sample ID:	VA0881		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.13	0.10		%	1	1/3/2012 3:46 PM
Carbon Monoxide	ND	0.10	U	%	1	1/3/2012 3:46 PM
Methane	ND	0.50	U	%	1	1/3/2012 3:46 PM
Nitrogen	79	0.10		%	1	1/3/2012 3:46 PM
Oxygen	20	0.10		%	1	1/3/2012 3:46 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	16	U	ppbv	16	1/3/2012 12:35 PM
1,1,2,2-Tetrachloroethane	ND	16	U	ppbv	16	1/3/2012 12:35 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	16	U	ppbv	16	1/3/2012 12:35 PM
1,1,2-Trichloroethane	ND	16	U	ppbv	16	1/3/2012 12:35 PM
1,1-Dichloroethane	ND	16	U	ppbv	16	1/3/2012 12:35 PM
1,1-Dichloroethene	ND	16	U	ppbv	16	1/3/2012 12:35 PM
1,2,4-Trichlorobenzene	ND	16	U	ppbv	16	1/3/2012 12:35 PM
1,2,4-Trimethylbenzene	ND	16	U	ppbv	16	1/3/2012 12:35 PM
1,2-Dibromoethane	ND	16	U	ppbv	16	1/3/2012 12:35 PM
1,2-Dichlorobenzene	ND	16	U	ppbv	16	1/3/2012 12:35 PM
1,2-Dichloroethane	ND	16	U	ppbv	16	1/3/2012 12:35 PM
1,2-Dichloropropane	ND	16	U	ppbv	16	1/3/2012 12:35 PM
1,3,5-Trimethylbenzene	ND	16	U	ppbv	16	1/3/2012 12:35 PM
1,3-Butadiene	ND	16	U	ppbv	16	1/3/2012 12:35 PM
1,3-Dichlorobenzene	ND	16	U	ppbv	16	1/3/2012 12:35 PM
1,4-Dichlorobenzene	ND	16	U	ppbv	16	1/3/2012 12:35 PM
2-Butanone	ND	16	U	ppbv	16	1/3/2012 12:35 PM
2-Hexanone	ND	16	U	ppbv	16	1/3/2012 12:35 PM
4-Methyl-2-pentanone	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Acetone	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Benzene	27	16		ppbv	16	1/3/2012 12:35 PM
Benzyl chloride	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Bromodichloromethane	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Bromoform	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Bromomethane	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Carbon disulfide	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Carbon tetrachloride	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Chlorobenzene	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Chlorodibromomethane	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Chloroethane	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Chloroform	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Chloromethane	ND	16	U	ppbv	16	1/3/2012 12:35 PM
cis-1,2-Dichloroethene	ND	16	U	ppbv	16	1/3/2012 12:35 PM
cis-1,3-dichloropropene	ND	16	U	ppbv	16	1/3/2012 12:35 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2011 9:08:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-010	**Matrix:**	Air
Client Sample ID:	VA0881		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	54	32		ppbv	16	1/3/2012 12:35 PM
Dichlorodifluoromethane	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Ethyl acetate	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Ethylbenzene	ND	32	U	ppbv	16	1/3/2012 12:35 PM
Heptane	47	16		ppbv	16	1/3/2012 12:35 PM
Hexachlorobutadiene	ND	32	U	ppbv	16	1/3/2012 12:35 PM
m,p-Xylene	30	32	J	ppbv	16	1/3/2012 12:35 PM
Methylene chloride	ND	80	U	ppbv	16	1/3/2012 12:35 PM
n-Hexane	38	32		ppbv	16	1/3/2012 12:35 PM
Naphthalene	ND	16	U	ppbv	16	1/3/2012 12:35 PM
o-Xylene	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Propylene	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Styrene	ND	16	U	ppbv	16	1/3/2012 12:35 PM
tert-Butyl Methyl Ether	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Tetrachloroethene	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Tetrahydrofuran	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Toluene	120	16		ppbv	16	1/3/2012 12:35 PM
trans-1,2-Dichloroethene	ND	16	U	ppbv	16	1/3/2012 12:35 PM
trans-1,3-dichloropropene	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Trichloroethene	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Trichlorofluoromethane	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Vinyl acetate	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Vinyl chloride	ND	16	U	ppbv	16	1/3/2012 12:35 PM
Xylenes, Total	30	48	J	ppbv	16	1/3/2012 12:35 PM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	16	1/3/2012 12:35 PM
Mass APH Air Air-Phase Petroleum Hydrocarbons	**Method:**					**Analyst: RH3**
C5-C8 Aliphatic Hydrocarbons	1,400,000	940,000		µg/m³	8000	12/16/2011 8:49 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/16/2011 8:49 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/16/2011 8:49 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	8000	12/16/2011 8:49 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2011 9:46:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-011	**Matrix:**	Air
Client Sample ID:	VA0882		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.15	0.10		%	1	1/4/2012 12:05 PM
Carbon Monoxide	ND	0.10	U	%	1	1/4/2012 12:05 PM
Methane	ND	0.50	U	%	1	1/4/2012 12:05 PM
Nitrogen	79	0.10		%	1	1/4/2012 12:05 PM
Oxygen	20	0.10		%	1	1/4/2012 12:05 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/31/2011 3:53 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/31/2011 3:53 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/31/2011 3:53 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/31/2011 3:53 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/31/2011 3:53 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/31/2011 3:53 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/31/2011 3:53 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/31/2011 3:53 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/31/2011 3:53 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/31/2011 3:53 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/31/2011 3:53 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/31/2011 3:53 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/31/2011 3:53 AM
1,3-Butadiene	ND	800	U	ppbv	800	12/31/2011 3:53 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/31/2011 3:53 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/31/2011 3:53 AM
2-Butanone	ND	800	U	ppbv	800	12/31/2011 3:53 AM
2-Hexanone	ND	800	U	ppbv	800	12/31/2011 3:53 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Acetone	1,000	800		ppbv	800	12/31/2011 3:53 AM
Benzene	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Benzyl chloride	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Bromodichloromethane	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Bromoform	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Bromomethane	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Carbon disulfide	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Carbon tetrachloride	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Chlorobenzene	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Chlorodibromomethane	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Chloroethane	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Chloroform	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Chloromethane	ND	800	U	ppbv	800	12/31/2011 3:53 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/31/2011 3:53 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/31/2011 3:53 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2011 9:46:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-011	**Matrix:**	Air
Client Sample ID:	VA0882		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	8,100	1,600		ppbv	800	12/31/2011 3:53 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Ethyl acetate	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Ethylbenzene	ND	1,600	U	ppbv	800	12/31/2011 3:53 AM
Heptane	840	800		ppbv	800	12/31/2011 3:53 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/31/2011 3:53 AM
m,p-Xylene	ND	1,600	U	ppbv	800	12/31/2011 3:53 AM
Methylene chloride	ND	4,000	U	ppbv	800	12/31/2011 3:53 AM
n-Hexane	7,100	1,600		ppbv	800	12/31/2011 3:53 AM
Naphthalene	ND	800	U	ppbv	800	12/31/2011 3:53 AM
o-Xylene	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Propylene	2,100	800		ppbv	800	12/31/2011 3:53 AM
Styrene	ND	800	U	ppbv	800	12/31/2011 3:53 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Tetrachloroethene	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Tetrahydrofuran	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Toluene	1,500	800		ppbv	800	12/31/2011 3:53 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/31/2011 3:53 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Trichloroethene	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Vinyl acetate	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Vinyl chloride	ND	800	U	ppbv	800	12/31/2011 3:53 AM
Xylenes, Total	ND	2,400	U	ppbv	800	12/31/2011 3:53 AM
Surr: 4-Bromofluorobenzene	117	70-130		%REC	800	12/31/2011 3:53 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,800,000	940,000		µg/m³	8000	12/16/2011 10:16 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/16/2011 10:16 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/16/2011 10:16 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	8000	12/16/2011 10:16 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2011 10:47:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-012	**Matrix:**	Air
Client Sample ID:	VA0883		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.23	0.10		%	1	1/4/2012 12:21 PM
Carbon Monoxide	ND	0.10	U	%	1	1/4/2012 12:21 PM
Methane	ND	0.50	U	%	1	1/4/2012 12:21 PM
Nitrogen	80	0.10		%	1	1/4/2012 12:21 PM
Oxygen	19	0.10		%	1	1/4/2012 12:21 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
1,3-Butadiene	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
2-Butanone	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
2-Hexanone	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Acetone	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Benzene	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Benzyl chloride	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Bromodichloromethane	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Bromoform	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Bromomethane	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Carbon disulfide	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Chlorobenzene	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Chloroethane	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Chloroform	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Chloromethane	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2011 10:47:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-012	**Matrix:**	Air
Client Sample ID:	VA0883		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	25,000	16,000		ppbv	8000	12/28/2011 7:28 PM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Ethyl acetate	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Ethylbenzene	ND	16,000	U	ppbv	8000	12/28/2011 7:28 PM
Heptane	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	12/28/2011 7:28 PM
m,p-Xylene	ND	16,000	U	ppbv	8000	12/28/2011 7:28 PM
Methylene chloride	ND	40,000	U	ppbv	8000	12/28/2011 7:28 PM
n-Hexane	24,000	16,000		ppbv	8000	12/28/2011 7:28 PM
Naphthalene	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
o-Xylene	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Propylene	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Styrene	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Tetrachloroethene	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Toluene	9,900	8,000		ppbv	8000	12/28/2011 7:28 PM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Trichloroethene	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Vinyl acetate	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Vinyl chloride	ND	8,000	U	ppbv	8000	12/28/2011 7:28 PM
Xylenes, Total	ND	24,000	U	ppbv	8000	12/28/2011 7:28 PM
Surr: 4-Bromofluorobenzene	121	70-130		%REC	8000	12/28/2011 7:28 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	5,900,000	940,000		µg/m³	8000	12/16/2011 11:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/16/2011 11:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/16/2011 11:00 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	8000	12/16/2011 11:00 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/7/2011 9:22:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-013	**Matrix:**	Air
Client Sample ID:	VA0884		

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	1/4/2012 12:36 PM
Carbon Monoxide	ND	0.10	U	%	1	1/4/2012 12:36 PM
Methane	ND	0.50	U	%	1	1/4/2012 12:36 PM
Nitrogen	78	0.10		%	1	1/4/2012 12:36 PM
Oxygen	20	0.10		%	1	1/4/2012 12:36 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/29/2011 3:38 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/29/2011 3:38 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/29/2011 3:38 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/29/2011 3:38 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/29/2011 3:38 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/29/2011 3:38 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/29/2011 3:38 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/29/2011 3:38 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/29/2011 3:38 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/29/2011 3:38 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/29/2011 3:38 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/29/2011 3:38 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/29/2011 3:38 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/29/2011 3:38 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/29/2011 3:38 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/29/2011 3:38 PM
2-Butanone	ND	40	U	ppbv	40	12/29/2011 3:38 PM
2-Hexanone	ND	40	U	ppbv	40	12/29/2011 3:38 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Acetone	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Benzene	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Benzyl chloride	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Bromoform	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Bromomethane	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Carbon disulfide	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Chlorobenzene	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Chloroethane	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Chloroform	140	40		ppbv	40	12/29/2011 3:38 PM
Chloromethane	ND	40	U	ppbv	40	12/29/2011 3:38 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/29/2011 3:38 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/29/2011 3:38 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/7/2011 9:22:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-013	**Matrix:**	Air
Client Sample ID:	VA0884		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	42	80	J	ppbv	40	12/29/2011 3:38 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Ethyl acetate	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Ethylbenzene	ND	80	U	ppbv	40	12/29/2011 3:38 PM
Heptane	54	40		ppbv	40	12/29/2011 3:38 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/29/2011 3:38 PM
m,p-Xylene	58	80	J	ppbv	40	12/29/2011 3:38 PM
Methylene chloride	ND	200	U	ppbv	40	12/29/2011 3:38 PM
n-Hexane	ND	80	U	ppbv	40	12/29/2011 3:38 PM
Naphthalene	ND	40	U	ppbv	40	12/29/2011 3:38 PM
o-Xylene	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Propylene	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Styrene	ND	40	U	ppbv	40	12/29/2011 3:38 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Toluene	170	40		ppbv	40	12/29/2011 3:38 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/29/2011 3:38 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Trichloroethene	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Vinyl acetate	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Vinyl chloride	ND	40	U	ppbv	40	12/29/2011 3:38 PM
Xylenes, Total	58	120	J	ppbv	40	12/29/2011 3:38 PM
Surr: 4-Bromofluorobenzene	117	70-130		%REC	40	12/29/2011 3:38 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	8,900	4,700		µg/m³	40	12/23/2011 11:20 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/23/2011 11:20 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/23/2011 11:20 AM
Surr: 4-Bromofluorobenzene	96.8	70-130		%REC	40	12/23/2011 11:20 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/7/2011 9:52:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-014	**Matrix:**	Air
Client Sample ID:	VA0885		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	1.9	0.10		%	1	1/4/2012 12:51 PM
Carbon Monoxide	ND	0.10	U	%	1	1/4/2012 12:51 PM
Methane	ND	0.50	U	%	1	1/4/2012 12:51 PM
Nitrogen	79	0.10		%	1	1/4/2012 12:51 PM
Oxygen	18	0.10		%	1	1/4/2012 12:51 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
1,1,2,2-Tetrachloroethane	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
1,1,2-Trichloroethane	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
1,1-Dichloroethane	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
1,1-Dichloroethene	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
1,2,4-Trichlorobenzene	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
1,2,4-Trimethylbenzene	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
1,2-Dibromoethane	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
1,2-Dichlorobenzene	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
1,2-Dichloroethane	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
1,2-Dichloropropane	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
1,3,5-Trimethylbenzene	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
1,3-Butadiene	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
1,3-Dichlorobenzene	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
1,4-Dichlorobenzene	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
2-Butanone	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
2-Hexanone	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
4-Methyl-2-pentanone	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
Acetone	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
Benzene	15	8.0		ppbv	8	12/29/2011 4:25 PM
Benzyl chloride	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
Bromodichloromethane	13	8.0		ppbv	8	12/29/2011 4:25 PM
Bromoform	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
Bromomethane	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
Carbon disulfide	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
Carbon tetrachloride	21	8.0		ppbv	8	12/29/2011 4:25 PM
Chlorobenzene	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
Chlorodibromomethane	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
Chloroethane	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
Chloroform	200	8.0		ppbv	8	12/29/2011 4:25 PM
Chloromethane	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
cis-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
cis-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/7/2011 9:52:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-014	**Matrix:**	Air
Client Sample ID:	VA0885		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	28	16		ppbv	8	12/29/2011 4:25 PM
Dichlorodifluoromethane	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
Ethyl acetate	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
Ethylbenzene	10	16	J	ppbv	8	12/29/2011 4:25 PM
Heptane	32	8.0		ppbv	8	12/29/2011 4:25 PM
Hexachlorobutadiene	ND	16	U	ppbv	8	12/29/2011 4:25 PM
m,p-Xylene	31	16		ppbv	8	12/29/2011 4:25 PM
Methylene chloride	ND	40	U	ppbv	8	12/29/2011 4:25 PM
n-Hexane	14	16	J	ppbv	8	12/29/2011 4:25 PM
Naphthalene	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
o-Xylene	9.8	8.0		ppbv	8	12/29/2011 4:25 PM
Propylene	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
Styrene	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
tert-Butyl Methyl Ether	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
Tetrachloroethene	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
Tetrahydrofuran	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
Toluene	93	8.0		ppbv	8	12/29/2011 4:25 PM
trans-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
trans-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
Trichloroethene	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
Trichlorofluoromethane	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
Vinyl acetate	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
Vinyl chloride	ND	8.0	U	ppbv	8	12/29/2011 4:25 PM
Xylenes, Total	41	24		ppbv	8	12/29/2011 4:25 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	8	12/29/2011 4:25 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	3,900	940		µg/m³	8	12/27/2011 1:12 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	12/27/2011 1:12 PM
C9-C12 Aliphatic Hydrocarbons	820	1,500	J	µg/m³	8	12/27/2011 1:12 PM
Surr: 4-Bromofluorobenzene	98.9	70-130		%REC	8	12/27/2011 1:12 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/7/2011 10:39:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-015	**Matrix:**	Air
Client Sample ID:	VA0886		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.22	0.10		%	1	1/4/2012 1:09 PM
Carbon Monoxide	ND	0.10	U	%	1	1/4/2012 1:09 PM
Methane	ND	0.50	U	%	1	1/4/2012 1:09 PM
Nitrogen	80	0.10		%	1	1/4/2012 1:09 PM
Oxygen	19	0.10		%	1	1/4/2012 1:09 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
1,1,2,2-Tetrachloroethane	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
1,1,2-Trichloroethane	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
1,1-Dichloroethane	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
1,1-Dichloroethene	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
1,2,4-Trichlorobenzene	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
1,2,4-Trimethylbenzene	8.2	8.0		ppbv	8	12/29/2011 5:12 PM
1,2-Dibromoethane	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
1,2-Dichlorobenzene	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
1,2-Dichloroethane	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
1,2-Dichloropropane	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
1,3,5-Trimethylbenzene	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
1,3-Butadiene	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
1,3-Dichlorobenzene	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
1,4-Dichlorobenzene	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
2-Butanone	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
2-Hexanone	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
4-Methyl-2-pentanone	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
Acetone	8.2	8.0		ppbv	8	12/29/2011 5:12 PM
Benzene	25	8.0		ppbv	8	12/29/2011 5:12 PM
Benzyl chloride	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
Bromodichloromethane	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
Bromoform	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
Bromomethane	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
Carbon disulfide	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
Carbon tetrachloride	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
Chlorobenzene	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
Chlorodibromomethane	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
Chloroethane	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
Chloroform	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
Chloromethane	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
cis-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
cis-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/7/2011 10:39:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-015	**Matrix:**	Air
Client Sample ID:	VA0886		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	45	16		ppbv	8	12/29/2011 5:12 PM
Dichlorodifluoromethane	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
Ethyl acetate	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
Ethylbenzene	13	16	J	ppbv	8	12/29/2011 5:12 PM
Heptane	54	8.0		ppbv	8	12/29/2011 5:12 PM
Hexachlorobutadiene	ND	16	U	ppbv	8	12/29/2011 5:12 PM
m,p-Xylene	40	16		ppbv	8	12/29/2011 5:12 PM
Methylene chloride	ND	40	U	ppbv	8	12/29/2011 5:12 PM
n-Hexane	25	16		ppbv	8	12/29/2011 5:12 PM
Naphthalene	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
o-Xylene	13	8.0		ppbv	8	12/29/2011 5:12 PM
Propylene	8.3	8.0		ppbv	8	12/29/2011 5:12 PM
Styrene	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
tert-Butyl Methyl Ether	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
Tetrachloroethene	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
Tetrahydrofuran	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
Toluene	150	8.0		ppbv	8	12/29/2011 5:12 PM
trans-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
trans-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
Trichloroethene	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
Trichlorofluoromethane	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
Vinyl acetate	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
Vinyl chloride	ND	8.0	U	ppbv	8	12/29/2011 5:12 PM
Xylenes, Total	53	24		ppbv	8	12/29/2011 5:12 PM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	8	12/29/2011 5:12 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	5,600	940		µg/m³	8	12/27/2011 1:56 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	12/27/2011 1:56 PM
C9-C12 Aliphatic Hydrocarbons	570	1,500	J	µg/m³	8	12/27/2011 1:56 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	8	12/27/2011 1:56 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/7/2011 11:16:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-016	**Matrix:**	Air
Client Sample ID:	VA0887		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.13	0.10		%	1	1/4/2012 1:24 PM
Carbon Monoxide	ND	0.10	U	%	1	1/4/2012 1:24 PM
Methane	ND	0.50	U	%	1	1/4/2012 1:24 PM
Nitrogen	78	0.10		%	1	1/4/2012 1:24 PM
Oxygen	20	0.10		%	1	1/4/2012 1:24 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/29/2011 5:58 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/29/2011 5:58 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/29/2011 5:58 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/29/2011 5:58 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/29/2011 5:58 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/29/2011 5:58 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/29/2011 5:58 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/29/2011 5:58 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/29/2011 5:58 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/29/2011 5:58 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/29/2011 5:58 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/29/2011 5:58 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/29/2011 5:58 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/29/2011 5:58 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/29/2011 5:58 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/29/2011 5:58 PM
2-Butanone	ND	40	U	ppbv	40	12/29/2011 5:58 PM
2-Hexanone	ND	40	U	ppbv	40	12/29/2011 5:58 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Acetone	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Benzene	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Benzyl chloride	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Bromoform	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Bromomethane	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Carbon disulfide	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Chlorobenzene	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Chloroethane	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Chloroform	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Chloromethane	ND	40	U	ppbv	40	12/29/2011 5:58 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/29/2011 5:58 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/29/2011 5:58 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/7/2011 11:16:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-016	**Matrix:**	Air
Client Sample ID:	VA0887		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	73	80	J	ppbv	40	12/29/2011 5:58 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Ethyl acetate	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Ethylbenzene	ND	80	U	ppbv	40	12/29/2011 5:58 PM
Heptane	77	40		ppbv	40	12/29/2011 5:58 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/29/2011 5:58 PM
m,p-Xylene	67	80	J	ppbv	40	12/29/2011 5:58 PM
Methylene chloride	ND	200	U	ppbv	40	12/29/2011 5:58 PM
n-Hexane	45	80	J	ppbv	40	12/29/2011 5:58 PM
Naphthalene	ND	40	U	ppbv	40	12/29/2011 5:58 PM
o-Xylene	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Propylene	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Styrene	ND	40	U	ppbv	40	12/29/2011 5:58 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Toluene	200	40		ppbv	40	12/29/2011 5:58 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/29/2011 5:58 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Trichloroethene	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Vinyl acetate	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Vinyl chloride	ND	40	U	ppbv	40	12/29/2011 5:58 PM
Xylenes, Total	67	120	J	ppbv	40	12/29/2011 5:58 PM
Surr: 4-Bromofluorobenzene	116	70-130		%REC	40	12/29/2011 5:58 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	9,000	4,700		µg/m³	40	12/27/2011 2:39 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/27/2011 2:39 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/27/2011 2:39 PM
Surr: 4-Bromofluorobenzene	96.4	70-130		%REC	40	12/27/2011 2:39 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/7/2011 11:48:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-017	**Matrix:**	Air
Client Sample ID:	VA0888		

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	1/4/2012 1:39 PM
Carbon Monoxide	ND	0.10	U	%	1	1/4/2012 1:39 PM
Methane	ND	0.50	U	%	1	1/4/2012 1:39 PM
Nitrogen	78	0.10		%	1	1/4/2012 1:39 PM
Oxygen	20	0.10		%	1	1/4/2012 1:39 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/31/2011 6:16 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/31/2011 6:16 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/31/2011 6:16 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/31/2011 6:16 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/31/2011 6:16 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/31/2011 6:16 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/31/2011 6:16 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/31/2011 6:16 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/31/2011 6:16 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/31/2011 6:16 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/31/2011 6:16 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/31/2011 6:16 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/31/2011 6:16 AM
1,3-Butadiene	ND	800	U	ppbv	800	12/31/2011 6:16 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/31/2011 6:16 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/31/2011 6:16 AM
2-Butanone	ND	800	U	ppbv	800	12/31/2011 6:16 AM
2-Hexanone	ND	800	U	ppbv	800	12/31/2011 6:16 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Acetone	2,300	800		ppbv	800	12/31/2011 6:16 AM
Benzene	900	800		ppbv	800	12/31/2011 6:16 AM
Benzyl chloride	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Bromodichloromethane	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Bromoform	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Bromomethane	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Carbon disulfide	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Carbon tetrachloride	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Chlorobenzene	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Chlorodibromomethane	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Chloroethane	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Chloroform	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Chloromethane	ND	800	U	ppbv	800	12/31/2011 6:16 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/31/2011 6:16 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/31/2011 6:16 AM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/7/2011 11:48:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-017	**Matrix:**	Air
Client Sample ID:	VA0888		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	8,000	1,600		ppbv	800	12/31/2011 6:16 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Ethyl acetate	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Ethylbenzene	ND	1,600	U	ppbv	800	12/31/2011 6:16 AM
Heptane	1,200	800		ppbv	800	12/31/2011 6:16 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/31/2011 6:16 AM
m,p-Xylene	ND	1,600	U	ppbv	800	12/31/2011 6:16 AM
Methylene chloride	1,800	4,000	J	ppbv	800	12/31/2011 6:16 AM
n-Hexane	8,600	1,600		ppbv	800	12/31/2011 6:16 AM
Naphthalene	ND	800	U	ppbv	800	12/31/2011 6:16 AM
o-Xylene	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Propylene	2,800	800		ppbv	800	12/31/2011 6:16 AM
Styrene	ND	800	U	ppbv	800	12/31/2011 6:16 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Tetrachloroethene	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Tetrahydrofuran	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Toluene	2,500	800		ppbv	800	12/31/2011 6:16 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/31/2011 6:16 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Trichloroethene	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Vinyl acetate	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Vinyl chloride	ND	800	U	ppbv	800	12/31/2011 6:16 AM
Xylenes, Total	ND	2,400	U	ppbv	800	12/31/2011 6:16 AM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	800	12/31/2011 6:16 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,500,000	940,000		µg/m³	8000	12/19/2011 9:33 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/19/2011 9:33 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/19/2011 9:33 PM
Surr: 4-Bromofluorobenzene	99.1	70-130		%REC	8000	12/19/2011 9:33 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/7/2011 11:48:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-018	**Matrix:**	Air
Client Sample ID:	VA0889		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.12	0.10		%	1	1/4/2012 1:54 PM
Carbon Monoxide	ND	0.10	U	%	1	1/4/2012 1:54 PM
Methane	ND	0.50	U	%	1	1/4/2012 1:54 PM
Nitrogen	78	0.10		%	1	1/4/2012 1:54 PM
Oxygen	20	0.10		%	1	1/4/2012 1:54 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/31/2011 7:05 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/31/2011 7:05 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/31/2011 7:05 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/31/2011 7:05 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/31/2011 7:05 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/31/2011 7:05 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/31/2011 7:05 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/31/2011 7:05 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/31/2011 7:05 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/31/2011 7:05 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/31/2011 7:05 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/31/2011 7:05 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/31/2011 7:05 AM
1,3-Butadiene	ND	800	U	ppbv	800	12/31/2011 7:05 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/31/2011 7:05 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/31/2011 7:05 AM
2-Butanone	ND	800	U	ppbv	800	12/31/2011 7:05 AM
2-Hexanone	ND	800	U	ppbv	800	12/31/2011 7:05 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Acetone	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Benzene	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Benzyl chloride	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Bromodichloromethane	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Bromoform	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Bromomethane	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Carbon disulfide	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Carbon tetrachloride	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Chlorobenzene	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Chlorodibromomethane	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Chloroethane	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Chloroform	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Chloromethane	ND	800	U	ppbv	800	12/31/2011 7:05 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/31/2011 7:05 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/31/2011 7:05 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/7/2011 11:48:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-018	**Matrix:**	Air
Client Sample ID:	VA0889		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	4,700	1,600		ppbv	800	12/31/2011 7:05 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Ethyl acetate	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Ethylbenzene	ND	1,600	U	ppbv	800	12/31/2011 7:05 AM
Heptane	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/31/2011 7:05 AM
m,p-Xylene	ND	1,600	U	ppbv	800	12/31/2011 7:05 AM
Methylene chloride	ND	4,000	U	ppbv	800	12/31/2011 7:05 AM
n-Hexane	4,700	1,600		ppbv	800	12/31/2011 7:05 AM
Naphthalene	ND	800	U	ppbv	800	12/31/2011 7:05 AM
o-Xylene	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Propylene	1,700	800		ppbv	800	12/31/2011 7:05 AM
Styrene	ND	800	U	ppbv	800	12/31/2011 7:05 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Tetrachloroethene	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Tetrahydrofuran	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Toluene	1,700	800		ppbv	800	12/31/2011 7:05 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/31/2011 7:05 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Trichloroethene	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Vinyl acetate	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Vinyl chloride	ND	800	U	ppbv	800	12/31/2011 7:05 AM
Xylenes, Total	ND	2,400	U	ppbv	800	12/31/2011 7:05 AM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	800	12/31/2011 7:05 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,000,000	940,000		µg/m³	8000	12/22/2011 2:40 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/22/2011 2:40 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/22/2011 2:40 AM
Surr: 4-Bromofluorobenzene	97.4	70-130		%REC	8000	12/22/2011 2:40 AM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/7/2011 12:42:00 PM
Project:	Kirtland AFB		
Lab ID:	1112398-019	**Matrix:**	Air
Client Sample ID:	VA0890		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.22	0.10		%	1	1/4/2012 2:11 PM
Carbon Monoxide	ND	0.10	U	%	1	1/4/2012 2:11 PM
Methane	ND	0.50	U	%	1	1/4/2012 2:11 PM
Nitrogen	80	0.10		%	1	1/4/2012 2:11 PM
Oxygen	18	0.10		%	1	1/4/2012 2:11 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
1,3-Butadiene	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
2-Butanone	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
2-Hexanone	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Acetone	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Benzene	15,000	8,000		ppbv	8000	12/29/2011 9:01 PM
Benzyl chloride	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Bromodichloromethane	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Bromoform	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Bromomethane	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Carbon disulfide	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Chlorobenzene	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Chloroethane	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Chloroform	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Chloromethane	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/7/2011 12:42:00 PM
Project:	Kirtland AFB		
Lab ID:	1112398-019	**Matrix:**	Air
Client Sample ID:	VA0890		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	51,000	16,000		ppbv	8000	12/29/2011 9:01 PM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Ethyl acetate	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Ethylbenzene	ND	16,000	U	ppbv	8000	12/29/2011 9:01 PM
Heptane	14,000	8,000		ppbv	8000	12/29/2011 9:01 PM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	12/29/2011 9:01 PM
m,p-Xylene	ND	16,000	U	ppbv	8000	12/29/2011 9:01 PM
Methylene chloride	ND	40,000	U	ppbv	8000	12/29/2011 9:01 PM
n-Hexane	38,000	16,000		ppbv	8000	12/29/2011 9:01 PM
Naphthalene	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
o-Xylene	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Propylene	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Styrene	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Tetrachloroethene	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Toluene	26,000	8,000		ppbv	8000	12/29/2011 9:01 PM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Trichloroethene	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Vinyl acetate	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Vinyl chloride	ND	8,000	U	ppbv	8000	12/29/2011 9:01 PM
Xylenes, Total	ND	24,000	U	ppbv	8000	12/29/2011 9:01 PM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	8000	12/29/2011 9:01 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	7,300,000	940,000		µg/m³	8000	12/19/2011 11:01 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/19/2011 11:01 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/19/2011 11:01 PM
Surr: 4-Bromofluorobenzene	98.2	70-130		%REC	8000	12/19/2011 11:01 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/8/2011 9:25:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-020	**Matrix:**	Air
Client Sample ID:	VA0891		

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	1/4/2012 2:32 PM
Carbon Monoxide	ND	0.10	U	%	1	1/4/2012 2:32 PM
Methane	ND	0.50	U	%	1	1/4/2012 2:32 PM
Nitrogen	79	0.10		%	1	1/4/2012 2:32 PM
Oxygen	20	0.10		%	1	1/4/2012 2:32 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/29/2011 11:22 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/29/2011 11:22 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/29/2011 11:22 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/29/2011 11:22 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/29/2011 11:22 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/29/2011 11:22 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/29/2011 11:22 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/29/2011 11:22 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/29/2011 11:22 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/29/2011 11:22 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/29/2011 11:22 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/29/2011 11:22 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/29/2011 11:22 PM
1,3-Butadiene	ND	800	U	ppbv	800	12/29/2011 11:22 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/29/2011 11:22 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/29/2011 11:22 PM
2-Butanone	ND	800	U	ppbv	800	12/29/2011 11:22 PM
2-Hexanone	ND	800	U	ppbv	800	12/29/2011 11:22 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Acetone	3,900	800		ppbv	800	12/29/2011 11:22 PM
Benzene	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Benzyl chloride	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Bromodichloromethane	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Bromoform	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Bromomethane	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Carbon disulfide	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Carbon tetrachloride	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Chlorobenzene	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Chlorodibromomethane	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Chloroethane	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Chloroform	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Chloromethane	ND	800	U	ppbv	800	12/29/2011 11:22 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/29/2011 11:22 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/29/2011 11:22 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/8/2011 9:25:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-020	**Matrix:**	Air
Client Sample ID:	VA0891		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,100	1,600	J	ppbv	800	12/29/2011 11:22 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Ethyl acetate	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Ethylbenzene	ND	1,600	U	ppbv	800	12/29/2011 11:22 PM
Heptane	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/29/2011 11:22 PM
m,p-Xylene	ND	1,600	U	ppbv	800	12/29/2011 11:22 PM
Methylene chloride	2,500	4,000	J	ppbv	800	12/29/2011 11:22 PM
n-Hexane	1,700	1,600		ppbv	800	12/29/2011 11:22 PM
Naphthalene	ND	800	U	ppbv	800	12/29/2011 11:22 PM
o-Xylene	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Propylene	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Styrene	ND	800	U	ppbv	800	12/29/2011 11:22 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Tetrachloroethene	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Tetrahydrofuran	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Toluene	ND	800	U	ppbv	800	12/29/2011 11:22 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/29/2011 11:22 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Trichloroethene	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Vinyl acetate	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Vinyl chloride	ND	800	U	ppbv	800	12/29/2011 11:22 PM
Xylenes, Total	ND	2,400	U	ppbv	800	12/29/2011 11:22 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	800	12/29/2011 11:22 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	640,000	94,000		µg/m³	800	12/22/2011 4:08 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	12/22/2011 4:08 AM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	12/22/2011 4:08 AM
Surr: 4-Bromofluorobenzene	98.1	70-130		%REC	800	12/22/2011 4:08 AM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/8/2011 9:58:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-021	**Matrix:**	Air
Client Sample ID:	VA0892		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.49	0.10		%	1	1/4/2012 3:18 PM
Carbon Monoxide	ND	0.10	U	%	1	1/4/2012 3:18 PM
Methane	ND	0.50	U	%	1	1/4/2012 3:18 PM
Nitrogen	78	0.10		%	1	1/4/2012 3:18 PM
Oxygen	20	0.10		%	1	1/4/2012 3:18 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/31/2011 8:39 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/31/2011 8:39 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/31/2011 8:39 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/31/2011 8:39 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/31/2011 8:39 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/31/2011 8:39 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/31/2011 8:39 AM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/31/2011 8:39 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/31/2011 8:39 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/31/2011 8:39 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/31/2011 8:39 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/31/2011 8:39 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/31/2011 8:39 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/31/2011 8:39 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/31/2011 8:39 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/31/2011 8:39 AM
2-Butanone	ND	40	U	ppbv	40	12/31/2011 8:39 AM
2-Hexanone	ND	40	U	ppbv	40	12/31/2011 8:39 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Acetone	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Benzene	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Benzyl chloride	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Bromoform	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Bromomethane	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Carbon disulfide	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Carbon tetrachloride	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Chlorobenzene	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Chloroethane	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Chloroform	54	40		ppbv	40	12/31/2011 8:39 AM
Chloromethane	ND	40	U	ppbv	40	12/31/2011 8:39 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/31/2011 8:39 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/31/2011 8:39 AM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/8/2011 9:58:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-021	**Matrix:**	Air
Client Sample ID:	VA0892		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	79	80	J	ppbv	40	12/31/2011 8:39 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Ethyl acetate	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Ethylbenzene	ND	80	U	ppbv	40	12/31/2011 8:39 AM
Heptane	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/31/2011 8:39 AM
m,p-Xylene	ND	80	U	ppbv	40	12/31/2011 8:39 AM
Methylene chloride	ND	200	U	ppbv	40	12/31/2011 8:39 AM
n-Hexane	48	80	J	ppbv	40	12/31/2011 8:39 AM
Naphthalene	ND	40	U	ppbv	40	12/31/2011 8:39 AM
o-Xylene	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Propylene	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Styrene	ND	40	U	ppbv	40	12/31/2011 8:39 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Toluene	81	40		ppbv	40	12/31/2011 8:39 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/31/2011 8:39 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Trichloroethene	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Vinyl acetate	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Vinyl chloride	ND	40	U	ppbv	40	12/31/2011 8:39 AM
Xylenes, Total	ND	120	U	ppbv	40	12/31/2011 8:39 AM
Surr: 4-Bromofluorobenzene	118	70-130		%REC	40	12/31/2011 8:39 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	39,000	4,700		µg/m³	40	12/28/2011 3:52 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/28/2011 3:52 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/28/2011 3:52 PM
Surr: 4-Bromofluorobenzene	93.4	70-130		%REC	40	12/28/2011 3:52 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/8/2011 10:40:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-022	**Matrix:**	Air
Client Sample ID:	VA0893		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.18	0.10		%	1	1/4/2012 3:33 PM
Carbon Monoxide	ND	0.10	U	%	1	1/4/2012 3:33 PM
Methane	ND	0.50	U	%	1	1/4/2012 3:33 PM
Nitrogen	79	0.10		%	1	1/4/2012 3:33 PM
Oxygen	20	0.10		%	1	1/4/2012 3:33 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
1,1,2,2-Tetrachloroethane	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
1,1,2-Trichloroethane	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
1,1-Dichloroethane	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
1,1-Dichloroethene	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
1,2,4-Trichlorobenzene	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
1,2,4-Trimethylbenzene	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
1,2-Dibromoethane	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
1,2-Dichlorobenzene	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
1,2-Dichloroethane	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
1,2-Dichloropropane	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
1,3,5-Trimethylbenzene	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
1,3-Butadiene	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
1,3-Dichlorobenzene	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
1,4-Dichlorobenzene	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
2-Butanone	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
2-Hexanone	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
4-Methyl-2-pentanone	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Acetone	9.4	8.0		ppbv	8	12/31/2011 9:27 AM
Benzene	19	8.0		ppbv	8	12/31/2011 9:27 AM
Benzyl chloride	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Bromodichloromethane	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Bromoform	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Bromomethane	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Carbon disulfide	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Carbon tetrachloride	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Chlorobenzene	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Chlorodibromomethane	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Chloroethane	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Chloroform	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Chloromethane	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
cis-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
cis-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/8/2011 10:40:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-022	**Matrix:**	Air
Client Sample ID:	VA0893		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	30	16		ppbv	8	12/31/2011 9:27 AM
Dichlorodifluoromethane	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Ethyl acetate	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Ethylbenzene	8.6	16	J	ppbv	8	12/31/2011 9:27 AM
Heptane	37	8.0		ppbv	8	12/31/2011 9:27 AM
Hexachlorobutadiene	ND	16	U	ppbv	8	12/31/2011 9:27 AM
m,p-Xylene	26	16		ppbv	8	12/31/2011 9:27 AM
Methylene chloride	ND	40	U	ppbv	8	12/31/2011 9:27 AM
n-Hexane	17	16		ppbv	8	12/31/2011 9:27 AM
Naphthalene	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
o-Xylene	8.2	8.0		ppbv	8	12/31/2011 9:27 AM
Propylene	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Styrene	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
tert-Butyl Methyl Ether	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Tetrachloroethene	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Tetrahydrofuran	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Toluene	110	8.0		ppbv	8	12/31/2011 9:27 AM
trans-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
trans-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Trichloroethene	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Trichlorofluoromethane	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Vinyl acetate	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Vinyl chloride	ND	8.0	U	ppbv	8	12/31/2011 9:27 AM
Xylenes, Total	35	24		ppbv	8	12/31/2011 9:27 AM
Surr: 4-Bromofluorobenzene	116	70-130		%REC	8	12/31/2011 9:27 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	4,800	940		µg/m³	8	1/2/2012 1:21 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	1/2/2012 1:21 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500	U	µg/m³	8	1/2/2012 1:21 PM
Surr: 4-Bromofluorobenzene	95.3	70-130		%REC	8	1/2/2012 1:21 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/8/2011 11:13:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-023	**Matrix:**	Air
Client Sample ID:	VA0894		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.12	0.10		%	1	1/4/2012 3:48 PM
Carbon Monoxide	ND	0.10	U	%	1	1/4/2012 3:48 PM
Methane	ND	0.50	U	%	1	1/4/2012 3:48 PM
Nitrogen	78	0.10		%	1	1/4/2012 3:48 PM
Oxygen	20	0.10		%	1	1/4/2012 3:48 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
1,1,2,2-Tetrachloroethane	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
1,1,2-Trichloroethane	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
1,1-Dichloroethane	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
1,1-Dichloroethene	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
1,2,4-Trichlorobenzene	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
1,2,4-Trimethylbenzene	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
1,2-Dibromoethane	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
1,2-Dichlorobenzene	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
1,2-Dichloroethane	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
1,2-Dichloropropane	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
1,3,5-Trimethylbenzene	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
1,3-Butadiene	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
1,3-Dichlorobenzene	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
1,4-Dichlorobenzene	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
2-Butanone	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
2-Hexanone	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
4-Methyl-2-pentanone	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Acetone	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Benzene	13	8.0		ppbv	8	12/31/2011 10:14 AM
Benzyl chloride	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Bromodichloromethane	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Bromoform	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Bromomethane	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Carbon disulfide	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Carbon tetrachloride	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Chlorobenzene	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Chlorodibromomethane	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Chloroethane	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Chloroform	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Chloromethane	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
cis-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
cis-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/8/2011 11:13:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-023	**Matrix:**	Air
Client Sample ID:	VA0894		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	18	16		ppbv	8	12/31/2011 10:14 AM
Dichlorodifluoromethane	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Ethyl acetate	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Ethylbenzene	ND	16	U	ppbv	8	12/31/2011 10:14 AM
Heptane	22	8.0		ppbv	8	12/31/2011 10:14 AM
Hexachlorobutadiene	ND	16	U	ppbv	8	12/31/2011 10:14 AM
m,p-Xylene	17	16		ppbv	8	12/31/2011 10:14 AM
Methylene chloride	ND	40	U	ppbv	8	12/31/2011 10:14 AM
n-Hexane	11	16	J	ppbv	8	12/31/2011 10:14 AM
Naphthalene	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
o-Xylene	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Propylene	9.9	8.0		ppbv	8	12/31/2011 10:14 AM
Styrene	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
tert-Butyl Methyl Ether	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Tetrachloroethene	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Tetrahydrofuran	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Toluene	55	8.0		ppbv	8	12/31/2011 10:14 AM
trans-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
trans-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Trichloroethene	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Trichlorofluoromethane	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Vinyl acetate	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Vinyl chloride	ND	8.0	U	ppbv	8	12/31/2011 10:14 AM
Xylenes, Total	17	24	J	ppbv	8	12/31/2011 10:14 AM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	8	12/31/2011 10:14 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	3,800	940		µg/m³	8	1/2/2012 2:05 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	1/2/2012 2:05 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500	U	µg/m³	8	1/2/2012 2:05 PM
Surr: 4-Bromofluorobenzene	95.4	70-130		%REC	8	1/2/2012 2:05 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/8/2011 11:48:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-024	**Matrix:**	Air
Client Sample ID:	VA0895		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.11	0.10		%	1	1/4/2012 4:03 PM
Carbon Monoxide	ND	0.10	U	%	1	1/4/2012 4:03 PM
Methane	ND	0.50	U	%	1	1/4/2012 4:03 PM
Nitrogen	78	0.10		%	1	1/4/2012 4:03 PM
Oxygen	20	0.10		%	1	1/4/2012 4:03 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/31/2011 11:02 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/31/2011 11:02 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/31/2011 11:02 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/31/2011 11:02 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/31/2011 11:02 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/31/2011 11:02 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/31/2011 11:02 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/31/2011 11:02 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/31/2011 11:02 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/31/2011 11:02 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/31/2011 11:02 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/31/2011 11:02 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/31/2011 11:02 AM
1,3-Butadiene	ND	800	U	ppbv	800	12/31/2011 11:02 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/31/2011 11:02 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/31/2011 11:02 AM
2-Butanone	ND	800	U	ppbv	800	12/31/2011 11:02 AM
2-Hexanone	ND	800	U	ppbv	800	12/31/2011 11:02 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Acetone	870	800		ppbv	800	12/31/2011 11:02 AM
Benzene	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Benzyl chloride	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Bromodichloromethane	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Bromoform	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Bromomethane	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Carbon disulfide	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Carbon tetrachloride	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Chlorobenzene	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Chlorodibromomethane	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Chloroethane	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Chloroform	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Chloromethane	ND	800	U	ppbv	800	12/31/2011 11:02 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/31/2011 11:02 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/31/2011 11:02 AM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/8/2011 11:48:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-024	**Matrix:**	Air
Client Sample ID:	VA0895		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	3,200	1,600		ppbv	800	12/31/2011 11:02 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Ethyl acetate	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Ethylbenzene	ND	1,600	U	ppbv	800	12/31/2011 11:02 AM
Heptane	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/31/2011 11:02 AM
m,p-Xylene	1,100	1,600	J	ppbv	800	12/31/2011 11:02 AM
Methylene chloride	ND	4,000	U	ppbv	800	12/31/2011 11:02 AM
n-Hexane	3,500	1,600		ppbv	800	12/31/2011 11:02 AM
Naphthalene	ND	800	U	ppbv	800	12/31/2011 11:02 AM
o-Xylene	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Propylene	1,800	800		ppbv	800	12/31/2011 11:02 AM
Styrene	ND	800	U	ppbv	800	12/31/2011 11:02 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Tetrachloroethene	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Tetrahydrofuran	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Toluene	1,500	800		ppbv	800	12/31/2011 11:02 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/31/2011 11:02 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Trichloroethene	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Vinyl acetate	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Vinyl chloride	ND	800	U	ppbv	800	12/31/2011 11:02 AM
Xylenes, Total	1,100	2,400	J	ppbv	800	12/31/2011 11:02 AM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	800	12/31/2011 11:02 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,200,000	94,000		µg/m³	800	12/22/2011 7:01 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	12/22/2011 7:01 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	12/22/2011 7:01 PM
Surr: 4-Bromofluorobenzene	99.6	70-130		%REC	800	12/22/2011 7:01 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/7/2011 2:33:00 PM
Project:	Kirtland AFB		
Lab ID:	1112398-025	**Matrix:**	Air
Client Sample ID:	VA0969		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	1.1	0.10		%	1	1/4/2012 4:21 PM
Carbon Monoxide	ND	0.10	U	%	1	1/4/2012 4:21 PM
Methane	ND	0.50	U	%	1	1/4/2012 4:21 PM
Nitrogen	79	0.10		%	1	1/4/2012 4:21 PM
Oxygen	19	0.10		%	1	1/4/2012 4:21 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/29/2011 9:47 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/29/2011 9:47 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/29/2011 9:47 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/29/2011 9:47 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/29/2011 9:47 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/29/2011 9:47 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/29/2011 9:47 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/29/2011 9:47 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/29/2011 9:47 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/29/2011 9:47 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/29/2011 9:47 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/29/2011 9:47 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/29/2011 9:47 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/29/2011 9:47 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/29/2011 9:47 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/29/2011 9:47 PM
2-Butanone	ND	40	U	ppbv	40	12/29/2011 9:47 PM
2-Hexanone	ND	40	U	ppbv	40	12/29/2011 9:47 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Acetone	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Benzene	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Benzyl chloride	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Bromoform	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Bromomethane	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Carbon disulfide	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Chlorobenzene	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Chloroethane	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Chloroform	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Chloromethane	ND	40	U	ppbv	40	12/29/2011 9:47 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/29/2011 9:47 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/29/2011 9:47 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/7/2011 2:33:00 PM
Project:	Kirtland AFB		
Lab ID:	1112398-025	**Matrix:**	Air
Client Sample ID:	VA0969		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	75	80	J	ppbv	40	12/29/2011 9:47 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Ethyl acetate	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Ethylbenzene	ND	80	U	ppbv	40	12/29/2011 9:47 PM
Heptane	62	40		ppbv	40	12/29/2011 9:47 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/29/2011 9:47 PM
m,p-Xylene	52	80	J	ppbv	40	12/29/2011 9:47 PM
Methylene chloride	ND	200	U	ppbv	40	12/29/2011 9:47 PM
n-Hexane	54	80	J	ppbv	40	12/29/2011 9:47 PM
Naphthalene	ND	40	U	ppbv	40	12/29/2011 9:47 PM
o-Xylene	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Propylene	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Styrene	ND	40	U	ppbv	40	12/29/2011 9:47 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Toluene	210	40		ppbv	40	12/29/2011 9:47 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/29/2011 9:47 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Trichloroethene	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Vinyl acetate	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Vinyl chloride	ND	40	U	ppbv	40	12/29/2011 9:47 PM
Xylenes, Total	52	120	J	ppbv	40	12/29/2011 9:47 PM
Surr: 4-Bromofluorobenzene	118	70-130		%REC	40	12/29/2011 9:47 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	9,100	4,700		µg/m³	40	12/27/2011 3:21 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/27/2011 3:21 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/27/2011 3:21 PM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	40	12/27/2011 3:21 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/7/2011 3:02:00 PM
Project:	Kirtland AFB		
Lab ID:	1112398-026	**Matrix:**	Air
Client Sample ID:	VA0970		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	1.6	0.10		%	1	1/4/2012 4:36 PM
Carbon Monoxide	ND	0.10	U	%	1	1/4/2012 4:36 PM
Methane	ND	0.50	U	%	1	1/4/2012 4:36 PM
Nitrogen	78	0.10		%	1	1/4/2012 4:36 PM
Oxygen	19	0.10		%	1	1/4/2012 4:36 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
1,1,2,2-Tetrachloroethane	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
1,1,2-Trichloroethane	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
1,1-Dichloroethane	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
1,1-Dichloroethene	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
1,2,4-Trichlorobenzene	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
1,2,4-Trimethylbenzene	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
1,2-Dibromoethane	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
1,2-Dichlorobenzene	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
1,2-Dichloroethane	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
1,2-Dichloropropane	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
1,3,5-Trimethylbenzene	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
1,3-Butadiene	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
1,3-Dichlorobenzene	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
1,4-Dichlorobenzene	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
2-Butanone	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
2-Hexanone	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
4-Methyl-2-pentanone	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Acetone	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Benzene	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Benzyl chloride	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Bromodichloromethane	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Bromoform	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Bromomethane	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Carbon disulfide	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Carbon tetrachloride	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Chlorobenzene	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Chlorodibromomethane	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Chloroethane	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Chloroform	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Chloromethane	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
cis-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
cis-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/7/2011 3:02:00 PM
Project:	Kirtland AFB		
Lab ID:	1112398-026	**Matrix:**	Air
Client Sample ID:	VA0970		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	32	16		ppbv	8	12/31/2011 7:52 AM
Dichlorodifluoromethane	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Ethyl acetate	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Ethylbenzene	ND	16	U	ppbv	8	12/31/2011 7:52 AM
Heptane	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Hexachlorobutadiene	ND	16	U	ppbv	8	12/31/2011 7:52 AM
m,p-Xylene	ND	16	U	ppbv	8	12/31/2011 7:52 AM
Methylene chloride	ND	40	U	ppbv	8	12/31/2011 7:52 AM
n-Hexane	30	16		ppbv	8	12/31/2011 7:52 AM
Naphthalene	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
o-Xylene	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Propylene	11	8.0		ppbv	8	12/31/2011 7:52 AM
Styrene	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
tert-Butyl Methyl Ether	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Tetrachloroethene	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Tetrahydrofuran	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Toluene	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
trans-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
trans-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Trichloroethene	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Trichlorofluoromethane	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Vinyl acetate	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Vinyl chloride	ND	8.0	U	ppbv	8	12/31/2011 7:52 AM
Xylenes, Total	ND	24	U	ppbv	8	12/31/2011 7:52 AM
Surr: 4-Bromofluorobenzene	116	70-130		%REC	8	12/31/2011 7:52 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	3,500	940		µg/m³	8	12/28/2011 4:36 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	12/28/2011 4:36 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500	U	µg/m³	8	12/28/2011 4:36 PM
Surr: 4-Bromofluorobenzene	95.4	70-130		%REC	8	12/28/2011 4:36 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/7/2011 3:37:00 PM
Project:	Kirtland AFB		
Lab ID:	1112398-027	**Matrix:**	Air
Client Sample ID:	VA0971		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.051	0.10	J	%	1	1/4/2012 4:52 PM
Carbon Monoxide	ND	0.10	U	%	1	1/4/2012 4:52 PM
Methane	ND	0.50	U	%	1	1/4/2012 4:52 PM
Nitrogen	78	0.10		%	1	1/4/2012 4:52 PM
Oxygen	21	0.10		%	1	1/4/2012 4:52 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
1,1,2,2-Tetrachloroethane	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
1,1,2-Trichloroethane	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
1,1-Dichloroethane	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
1,1-Dichloroethene	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
1,2,4-Trichlorobenzene	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
1,2,4-Trimethylbenzene	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
1,2-Dibromoethane	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
1,2-Dichlorobenzene	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
1,2-Dichloroethane	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
1,2-Dichloropropane	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
1,3,5-Trimethylbenzene	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
1,3-Butadiene	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
1,3-Dichlorobenzene	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
1,4-Dichlorobenzene	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
2-Butanone	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
2-Hexanone	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
4-Methyl-2-pentanone	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Acetone	9.8	8.0		ppbv	8	12/29/2011 10:34 PM
Benzene	16	8.0		ppbv	8	12/29/2011 10:34 PM
Benzyl chloride	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Bromodichloromethane	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Bromoform	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Bromomethane	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Carbon disulfide	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Carbon tetrachloride	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Chlorobenzene	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Chlorodibromomethane	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Chloroethane	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Chloroform	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Chloromethane	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
cis-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
cis-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/7/2011 3:37:00 PM
Project:	Kirtland AFB		
Lab ID:	1112398-027	**Matrix:**	Air
Client Sample ID:	VA0971		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	35	16		ppbv	8	12/29/2011 10:34 PM
Dichlorodifluoromethane	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Ethyl acetate	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Ethylbenzene	ND	16	U	ppbv	8	12/29/2011 10:34 PM
Heptane	27	8.0		ppbv	8	12/29/2011 10:34 PM
Hexachlorobutadiene	ND	16	U	ppbv	8	12/29/2011 10:34 PM
m,p-Xylene	21	16		ppbv	8	12/29/2011 10:34 PM
Methylene chloride	ND	40	U	ppbv	8	12/29/2011 10:34 PM
n-Hexane	22	16		ppbv	8	12/29/2011 10:34 PM
Naphthalene	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
o-Xylene	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Propylene	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Styrene	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
tert-Butyl Methyl Ether	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Tetrachloroethene	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Tetrahydrofuran	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Toluene	85	8.0		ppbv	8	12/29/2011 10:34 PM
trans-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
trans-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Trichloroethene	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Trichlorofluoromethane	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Vinyl acetate	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Vinyl chloride	ND	8.0	U	ppbv	8	12/29/2011 10:34 PM
Xylenes, Total	21	24	J	ppbv	8	12/29/2011 10:34 PM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	8	12/29/2011 10:34 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	3,700	940		µg/m³	8	1/2/2012 12:37 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	1/2/2012 12:37 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500	U	µg/m³	8	1/2/2012 12:37 PM
Surr: 4-Bromofluorobenzene	96.8	70-130		%REC	8	1/2/2012 12:37 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2011 8:00:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-028	**Matrix:**	Air
Client Sample ID:	VA8061-TB		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/28/2011 1:08 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/28/2011 1:08 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/28/2011 1:08 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/28/2011 1:08 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/28/2011 1:08 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/28/2011 1:08 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/28/2011 1:08 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/28/2011 1:08 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/28/2011 1:08 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/28/2011 1:08 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/28/2011 1:08 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/28/2011 1:08 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/28/2011 1:08 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/28/2011 1:08 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/28/2011 1:08 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/28/2011 1:08 PM
2-Butanone	ND	40	U	ppbv	40	12/28/2011 1:08 PM
2-Hexanone	ND	40	U	ppbv	40	12/28/2011 1:08 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Acetone	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Benzene	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Benzyl chloride	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Bromoform	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Bromomethane	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Carbon disulfide	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Chlorobenzene	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Chloroethane	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Chloroform	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Chloromethane	ND	40	U	ppbv	40	12/28/2011 1:08 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/28/2011 1:08 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Cyclohexane	ND	80	U	ppbv	40	12/28/2011 1:08 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Ethyl acetate	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Ethylbenzene	ND	80	U	ppbv	40	12/28/2011 1:08 PM
Heptane	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/28/2011 1:08 PM
m,p-Xylene	ND	80	U	ppbv	40	12/28/2011 1:08 PM
Methylene chloride	ND	200	U	ppbv	40	12/28/2011 1:08 PM

RTI Laboratories - Analytical Report

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2011 8:00:00 AM
Project:	Kirtland AFB		
Lab ID:	1112398-028	**Matrix:**	Air
Client Sample ID:	VA8061-TB		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
n-Hexane	ND	80	U	ppbv	40	12/28/2011 1:08 PM
Naphthalene	ND	40	U	ppbv	40	12/28/2011 1:08 PM
o-Xylene	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Propylene	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Styrene	ND	40	U	ppbv	40	12/28/2011 1:08 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Toluene	49	40		ppbv	40	12/28/2011 1:08 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/28/2011 1:08 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Trichloroethene	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Vinyl acetate	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Vinyl chloride	ND	40	U	ppbv	40	12/28/2011 1:08 PM
Xylenes, Total	ND	120	U	ppbv	40	12/28/2011 1:08 PM
Surr: 4-Bromofluorobenzene	119	70-130		%REC	40	12/28/2011 1:08 PM

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45016

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

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

Sample ID:	1112398-010Adup	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45016	
Client ID:	VA0881	Batch ID:	R45016	TestNo:	MA_APH			Analysis Date:	12/16/2011	SeqNo:	885653	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	1,300,000	940,000						1,373,000	5.02	30	
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000						0	0	30	U
Surr: 4-Bromofluorobenzene	740,000		716,000		103	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45018

Sample ID:	MBLK 121911 VOA9	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45018	
Client ID:	PBW	Batch ID:	R45018	TestNo:	MA_APH			Analysis Date:	12/19/2011	SeqNo:	885829	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons		ND	120									U
C9-C10 Aromatic Hydrocarbons		ND	130									U
C9-C12 Aliphatic Hydrocarbons		ND	190									U
Surr: 4-Bromofluorobenzene		86		89.50		96.3	70	130				

Sample ID:	1112398-013Adup	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45018	
Client ID:	VA0884	Batch ID:	R45018	TestNo:	MA_APH			Analysis Date:	12/19/2011	SeqNo:	885838	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons		ND	940,000						0	0	30	U
C9-C10 Aromatic Hydrocarbons		ND	1,100,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons		ND	1,500,000						0	0	30	U
Surr: 4-Bromofluorobenzene		730,000		716,000		103	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45089

Sample ID:	1112398-018Adup	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45089	
Client ID:	VA0889	Batch ID:	R45089	TestNo:	MA_APH			Analysis Date:	12/22/2011	SeqNo:	887171	

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

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

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

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45120

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

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	86		89.50		95.7	70	130				

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

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

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45142

Sample ID:	Blank 122711 VOA	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45142	
Client ID:	PBW	Batch ID:	R45142	TestNo:	MA_APH			Analysis Date:	12/27/2011	SeqNo:	888135	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	87		89.50		97.2	70	130				

Sample ID:	1112696-031Adup	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45142	
Client ID:	ZZZZZZ	Batch ID:	R45142	TestNo:	MA_APH			Analysis Date:	12/27/2011	SeqNo:	888142	

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	680,000		716,000		94.3	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45160

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

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

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45160

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

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	15		12.50		117	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45160

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

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

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45160

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

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

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45161

Sample ID:	Blank VOA1 12291	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45161
Client ID:	PBW	Batch ID:	R45161	TestNo:	TO-15			Analysis Date:	12/29/2011	SeqNo:	888372

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#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45161

Sample ID:	Blank VOA1 12291	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45161
Client ID:	PBW	Batch ID:	R45161	TestNo:	TO-15			Analysis Date:	12/29/2011	SeqNo:	888372

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	15		12.50		119	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45161

Sample ID:	1112398-017Adup	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45161
Client ID:	VA0888	Batch ID:	R45161	TestNo:	TO-15			Analysis Date:	12/29/2011	SeqNo:	888380

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	ND	8,000						0	0	25	U
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#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45161

Sample ID:	1112398-017Adup	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45161
Client ID:	VA0888	Batch ID:	R45161	TestNo:	TO-15			Analysis Date:	12/29/2011	SeqNo:	888380

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	ND	16,000						9,840	200	25	RU
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	ND	8,000						0	0	25	U
Hexachlorobutadiene	ND	16,000						0	0	25	U
m,p-Xylene	ND	16,000						0	0	25	U
Methylene chloride	ND	40,000						0	0	25	U
n-Hexane	8,200	16,000						10,240	21.6	25	J
Naphthalene	ND	8,000						0	0	25	U
o-Xylene	ND	8,000						0	0	25	U
Propylene	ND	8,000						0	0	25	U
Styrene	ND	8,000						0	0	25	U
tert-Butyl Methyl Ether	ND	8,000						0	0	25	U
Tetrachloroethene	ND	8,000						0	0	25	U
Tetrahydrofuran	ND	8,000						0	0	25	U
Toluene	ND	8,000						0	0	25	U
trans-1,2-Dichloroethene	ND	8,000						0	0	25	U
trans-1,3-dichloropropene	ND	8,000						0	0	25	U
Trichloroethene	ND	8,000						0	0	25	U
Trichlorofluoromethane	ND	8,000						0	0	25	U
Vinyl acetate	ND	8,000						0	0	25	U
Vinyl chloride	ND	8,000						0	0	25	U
Xylenes, Total	ND	24,000						0	0	25	U
Surr: 4-Bromofluorobenzene	96,000		100,000		95.7	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45164

Sample ID:	Blank 122811 VOA	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45164	
Client ID:	PBW	Batch ID:	R45164	TestNo:	MA_APH			Analysis Date:	12/28/2011	SeqNo:	888405	

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	81		89.50		90.8	70	130				

Sample ID:	1112696-026Adup	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45164	
Client ID:	ZZZZZZ	Batch ID:	R45164	TestNo:	MA_APH			Analysis Date:	12/28/2011	SeqNo:	888409	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	2,400,000	940,000						2,598,000	6.78	30	
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000						0	0	30	U
Surr: 4-Bromofluorobenzene	670,000		716,000		93.6	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45189

Sample ID:	MBLK VOA1 123011	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45189
Client ID:	PBW	Batch ID:	R45189	TestNo:	TO-15			Analysis Date:	12/31/2011	SeqNo:	889186

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#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45189

Sample ID:	MBLK VOA1 123011	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45189
Client ID:	PBW	Batch ID:	R45189	TestNo:	TO-15			Analysis Date:	12/31/2011	SeqNo:	889186

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	14		12.50		113	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45189

Sample ID:	1112398-001Adup	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45189	
Client ID:	VA0734	Batch ID:	R45189	TestNo:	TO-15			Analysis Date:	12/31/2011	SeqNo:	889189	

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	82	40						84.80	3.85	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#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45189

Sample ID:	1112398-001Adup	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45189	
Client ID:	VA0734	Batch ID:	R45189	TestNo:	TO-15			Analysis Date:	12/31/2011	SeqNo:	889189	

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	220	80						228.8	4.47	25	
Dichlorodifluoromethane	ND	40						0	0	25	U
Ethyl acetate	ND	40						0	0	25	U
Ethylbenzene	49	80						48.40	0.823	25	J
Heptane	240	40						242.0	2.51	25	
Hexachlorobutadiene	ND	80						0	0	25	U
m,p-Xylene	140	80						138.4	1.15	25	
Methylene chloride	ND	200						0	0	25	U
n-Hexane	120	80						128.4	5.11	25	
Naphthalene	ND	40						0	0	25	U
o-Xylene	44	40						44.00	0	25	
Propylene	ND	40						0	0	25	U
Styrene	ND	40						0	0	25	U
tert-Butyl Methyl Ether	ND	40						0	0	25	U
Tetrachloroethene	ND	40						0	0	25	U
Tetrahydrofuran	ND	40						0	0	25	U
Toluene	540	40						545.2	1.48	25	
trans-1,2-Dichloroethene	ND	40						0	0	25	U
trans-1,3-dichloropropene	ND	40						0	0	25	U
Trichloroethene	ND	40						0	0	25	U
Trichlorofluoromethane	ND	40						0	0	25	U
Vinyl acetate	ND	40						0	0	25	U
Vinyl chloride	ND	40						0	0	25	U
Xylenes, Total	180	120						182.4	0.873	25	
Surr: 4-Bromofluorobenzene	570		500.0		114	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45190

Sample ID:	MBLK VOA1 010212	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45190	
Client ID:	PBW	Batch ID:	R45190	TestNo:	TO-15			Analysis Date:	1/3/2012	SeqNo:	889230	

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#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45190

Sample ID:	MBLK VOA1 010212	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45190
Client ID:	PBW	Batch ID:	R45190	TestNo:	TO-15			Analysis Date:	1/3/2012	SeqNo:	889230

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	14		12.50		115	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45190

Sample ID:	1112398-010ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45190	
Client ID:	VA0881	Batch ID:	R45190	TestNo:	TO-15			Analysis Date:	1/3/2012	SeqNo:	889385	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	16						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	16						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	16						0	0	25	U
1,1,2-Trichloroethane	ND	16						0	0	25	U
1,1-Dichloroethane	ND	16						0	0	25	U
1,1-Dichloroethene	ND	16						0	0	25	U
1,2,4-Trichlorobenzene	ND	16						0	0	25	U
1,2,4-Trimethylbenzene	ND	16						0	0	25	U
1,2-Dibromoethane	ND	16						0	0	25	U
1,2-Dichlorobenzene	ND	16						0	0	25	U
1,2-Dichloroethane	ND	16						0	0	25	U
1,2-Dichloropropane	ND	16						0	0	25	U
1,3,5-Trimethylbenzene	ND	16						0	0	25	U
1,3-Butadiene	ND	16						0	0	25	U
1,3-Dichlorobenzene	ND	16						0	0	25	U
1,4-Dichlorobenzene	ND	16						0	0	25	U
2-Butanone	ND	16						0	0	25	U
2-Hexanone	ND	16						0	0	25	U
4-Methyl-2-pentanone	ND	16						0	0	25	U
Acetone	ND	16						0	0	25	U
Benzene	35	16						26.56	27.5	25	R
Benzyl chloride	ND	16						0	0	25	U
Bromodichloromethane	ND	16						0	0	25	U
Bromoform	ND	16						0	0	25	U
Bromomethane	ND	16						0	0	25	U
Carbon disulfide	ND	16						0	0	25	U
Carbon tetrachloride	ND	16						0	0	25	U
Chlorobenzene	ND	16						0	0	25	U
Chlorodibromomethane	ND	16						0	0	25	U
Chloroethane	ND	16						0	0	25	U
Chloroform	ND	16						0	0	25	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45190

Sample ID:	1112398-010ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45190	
Client ID:	VA0881	Batch ID:	R45190	TestNo:	TO-15			Analysis Date:	1/3/2012	SeqNo:	889385	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	16						0	0	25	U
cis-1,2-Dichloroethene	ND	16						0	0	25	U
cis-1,3-dichloropropene	ND	16						0	0	25	U
Cyclohexane	67	32						54.08	20.7	25	
Dichlorodifluoromethane	ND	16						0	0	25	U
Ethyl acetate	ND	16						0	0	25	U
Ethylbenzene	ND	32						0	0	25	U
Heptane	52	16						46.88	9.74	25	
Hexachlorobutadiene	ND	32						0	0	25	U
m,p-Xylene	37	32						30.08	20.1	25	
Methylene chloride	ND	80						0	0	25	U
n-Hexane	48	32						38.40	22.9	25	
Naphthalene	ND	16						0	0	25	U
o-Xylene	ND	16						0	0	25	U
Propylene	ND	16						0	0	25	U
Styrene	ND	16						0	0	25	U
tert-Butyl Methyl Ether	ND	16						0	0	25	U
Tetrachloroethene	ND	16						0	0	25	U
Tetrahydrofuran	ND	16						0	0	25	U
Toluene	140	16						120.8	16.3	25	
trans-1,2-Dichloroethene	ND	16						0	0	25	U
trans-1,3-dichloropropene	ND	16						0	0	25	U
Trichloroethene	ND	16						0	0	25	U
Trichlorofluoromethane	ND	16						0	0	25	U
Vinyl acetate	ND	16						0	0	25	U
Vinyl chloride	ND	16						0	0	25	U
Xylenes, Total	37	48						30.08	20.1	25	J
Surr: 4-Bromofluorobenzene	220		200.0		110	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45192

Sample ID:	Blank 010212 VOA	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45192	
Client ID:	PBW	Batch ID:	R45192	TestNo:	MA_APH			Analysis Date:	1/2/2012	SeqNo:	889285	

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:	1112696-016Adup	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45192	
Client ID:	ZZZZZZ	Batch ID:	R45192	TestNo:	MA_APH			Analysis Date:	1/2/2012	SeqNo:	889292	

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	680,000		716,000		95.6	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45326

Sample ID:	mblk	Samp Type:	MBLK	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	45326	
Client ID:	PBW	Batch ID:	R45326	TestNo:	ASTM-D2504			Analysis Date:	1/3/2012	SeqNo:	891747	

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

Sample ID:	lcs	Samp Type:	LCS	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	45326	
Client ID:	LCSW	Batch ID:	R45326	TestNo:	ASTM-D2504			Analysis Date:	1/3/2012	SeqNo:	891749	

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	104	70	130	2.686	3.56	0	
Carbon Monoxide	2.7	0.10	2.500	0	109	70	130	2.749	0.804	0	
Methane	2.1	0.50	2.000	0	107	70	130	2.141	0.468	0	
Nitrogen	2.7	0.10	2.500	0	107	70	130	2.666	0.0750	0	
Oxygen	2.5	0.10	2.500	0	99.9	70	130	2.468	1.17	0	

Sample ID:	1112398-010bDUP	Samp Type:	DUP	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	45326	
Client ID:	VA0881	Batch ID:	R45326	TestNo:	ASTM-D2504			Analysis Date:	1/3/2012	SeqNo:	891761	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.14	0.10						0.1290	6.02	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	79	0.10						79.31	0.110	20	
Oxygen	20	0.10						20.22	0.0247	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112398

Date Reported: 1/10/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45327

Sample ID:	mblk	Samp Type:	MBLK	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	45327	
Client ID:	PBW	Batch ID:	R45327	TestNo:	ASTM-D2504			Analysis Date:	1/4/2012	SeqNo:	891764	

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

Sample ID:	lcs	Samp Type:	LCS	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	45327	
Client ID:	LCSW	Batch ID:	R45327	TestNo:	ASTM-D2504			Analysis Date:	1/4/2012	SeqNo:	891766	

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	103	70	130	2.574	0.272	0	
Carbon Monoxide	2.7	0.10	2.500	0	107	70	130	2.655	0.937	0	
Methane	2.1	0.50	2.000	0	104	70	130	2.064	0.820	0	
Nitrogen	2.6	0.10	2.500	0	105	70	130	2.603	0.689	0	
Oxygen	2.4	0.10	2.500	0	97.9	70	130	2.428	0.820	0	

Sample ID:	1112398-020bDUP	Samp Type:	DUP	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	45327	
Client ID:	VA0891	Batch ID:	R45327	TestNo:	ASTM-D2504			Analysis Date:	1/4/2012	SeqNo:	891778	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.67	0.10						0.6110	9.21	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	78	0.10						78.57	0.597	20	
Oxygen	20	0.10						20.04	0.938	20	

RTI Laboratories

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

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

Analyst: Rachel Hill **Column:**

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

Column Length: 30m

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

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

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	10.04	10.04		9.6	0	0	0.107	1	0	105%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.16	10.16		10	0	0	0.211	1	0	102%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.46	10.46		9.8	0	0	0.108	1	0	107%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.76	9.76		9.8	0	0	0.2	1	0	100%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.06	10.06		9.7	0	0	0.111	1	0	104%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.3	10.3		9.9	0	0	0.097	1	0	104%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	7.95	7.95		9.1	0	0	0.271	1	0	87%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.71	9.71		9.8	0	0	0.245	1	0	99%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.73	9.73		9.6	0	0	0.186	1	0	101%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.91	9.91		9.7	0	0	0.208	1	0	102%	70	130	0%	
1,2-Dichloroethane	A	ppbv	9.48	9.48		9.7	0	0	0.196	1	0	98%	70	130	0%	
1,2-Dichloropropane	A	ppbv	9.89	9.89		9.8	0	0	0.224	1	0	101%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.39	9.39		9.7	0	0	0.24	1	0	97%	70	130	0%	
1,3-Butadiene	A	ppbv	10.67	10.67		9.8	0	0	0.152	1	0	109%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.9	9.9		9.7	0	0	0.202	1	0	102%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	9.77	9.77		9.6	0	0	0.194	1	0	102%	70	130	0%	
1,4-Dioxane	A	ppbv	10.05	10.05		9.6	0	0	0.128	1	0	105%	70	130	0%	
2-Butanone	A	ppbv	9.23	9.23		9.9	0	0	0.287	1	0	93%	70	130	0%	
2-Hexanone	A	ppbv	10.42	10.42		9.8	0	0	0.135	1	0	106%	70	130	0%	
2-Propanol	A	ppbv	10.4	10.4		10.1	0	0	0.329	1	0	103%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.58	10.58		10	0	0	0.157	1	0	106%	70	130	0%	
Acetone	A	ppbv	9.51	9.51		10	0	0	0.43	1	0	95%	70	130	0%	
Benzene	A	ppbv	9.51	9.51		9.6	0	0	0.126	1	0	99%	70	130	0%	
Benzyl chloride	A	ppbv	9.67	9.67		9.7	0	0	0.155	1	0	100%	70	130	0%	
Bromodichloromethane	A	ppbv	9.85	9.85		9.6	0	0	0.156	1	0	103%	70	130	0%	
Bromoform	A	ppbv	9.88	9.88		9.6	0	0	0.197	1	0	103%	70	130	0%	
Bromomethane	A	ppbv	9.64	9.64		9.3	0	0	0.075	1	0	104%	70	130	0%	
Carbon disulfide	A	ppbv	10.13	10.13		9.7	0	0	0.093	1	0	104%	70	130	0%	
Carbon tetrachloride	A	ppbv	9.6	9.6		9.5	0	0	0.114	1	0	101%	70	130	0%	
Chlorobenzene	A	ppbv	9.85	9.85		9.9	0	0	0.275	1	0	99%	70	130	0%	
Chlorodibromomethane	A	ppbv	9.93	9.93		9.2	0	0	0.165	1	0	108%	70	130	0%	
Chloroethane	A	ppbv	9.36	9.36		9.8	0	0	0.063	1	0	96%	70	130	0%	
Chloroform	A	ppbv	10.23	10.23		9.4	0	0	0.126	1	0	109%	70	130	0%	
Chloromethane	A	ppbv	9.24	9.24		9.8	0	0	0.104	1	0	94%	70	130	0%	

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

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

Evaluate Continuing Calibration Report

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

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

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

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

(#) = Out of Range

Evaluate Continuing Calibration Report

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

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

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

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

Quantitation Report (QT Reviewed)

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	755730	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	2585950	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	1698616	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.19	95	978481	12.64	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 101.12%				
Target Compounds							Qvalue
2) Propylene	5.52	41	799432	10.52	ppbv		98
3) Dichlorodifluoromethane	5.59	85	1885685	9.42	ppbv		100
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	1513269	10.22	ppbv		86
5) Chloromethane	6.00	50	640614	9.24	ppbv		99
6) Vinyl chloride	6.21	62	921226	12.03	ppbv	#	100
7) 1,3-Butadiene	6.28	39	715434	10.67	ppbv		98
8) Bromomethane	6.85	94	792374	9.64	ppbv		99
9) Chloroethane	7.01	64	443447	9.36	ppbv		100
10) Trichlorofluoromethane	7.34	101	1601952	9.73	ppbv		99
11) Ethanol	7.56	45	182333	9.66	ppbv		99
12) Freon113	8.00	101	1387001	10.46	ppbv		93
13) 1,1-Dichloroethene	8.10	61	1085743	10.30	ppbv		97
14) Acetone	8.19	43	971963	9.51	ppbv		98
15) Carbon disulfide	8.47	76	2123887	10.13	ppbv	#	100
16) 2-Propanol	8.23	45	1093576	10.40	ppbv	#	69
17) Methylene chloride	8.76	49	820632	10.07	ppbv		92
18) tert-Butyl Methyl Ether	8.95	73	1367058	9.29	ppbv		93
19) trans-1,2-Dichloroethene	9.04	61	1023392	10.25	ppbv		94
20) n-Hexane	9.23	57	1164832	10.64	ppbv		99
21) 1,1-Dichloroethane	9.60	63	1231745	10.06	ppbv		98
22) Vinyl acetate	9.53	43	1507377	10.12	ppbv		98
23) cis-1,2-Dichloroethene	10.28	96	715443	10.07	ppbv		96
24) 2-Butanone	10.25	43	991162	9.23	ppbv		98
25) Ethyl acetate	10.20	43	1359593	9.93	ppbv	#	100
26) Tetrahydrofuran	10.59	42	694340	10.16	ppbv		95
27) Chloroform	10.61	83	1250658	10.23	ppbv		99
28) 1,1,1-Trichloroethane	10.86	97	1176578	10.04	ppbv		98
29) Cyclohexane	10.86	56	1127988	10.97	ppbv		95
30) Carbon tetrachloride	11.02	117	1115089	9.60	ppbv		99
31) Benzene	11.30	78	1639605	9.51	ppbv		99
32) 1,2-Dichloroethane	11.38	62	618461	9.48	ppbv		98
34) Heptane	11.35	43	1351261	10.76	ppbv		96
35) Trichloroethene	12.03	130	841303	9.97	ppbv		96
36) 1,2-Dichloropropane	12.39	63	626797	9.89	ppbv		96
37) 1,4-Dioxane	12.46	88	310903	10.05	ppbv		94
38) Bromodichloromethane	12.67	83	1129031	9.85	ppbv		99
39) cis-1,3-Dichloropropene	13.23	75	932501	9.64	ppbv		98
40) 4-Methyl-2-pentanone	13.33	58	521107	10.58	ppbv		93
41) Toluene	13.63	91	1749974	9.78	ppbv		99
42) trans-1,3-Dichloropropene	13.93	75	756645	9.13	ppbv		99
43) 1,1,2-Trichloroethane	14.20	97	619306	9.76	ppbv		97
44) Tetrachloroethene	14.33	166	972158	10.48	ppbv		99
45) 2-Hexanone	14.41	43	1077215	10.42	ppbv		99
46) Chlorodibromomethane	14.75	129	946859	9.93	ppbv		99
47) 1,2-Dibromoethane	14.99	107	886856	9.73	ppbv		100
49) Chlorobenzene	15.59	112	1166755	9.85	ppbv		95
50) Ethylbenzene	15.63	91	1876669	9.81	ppbv		96
51) m,p-Xylene	15.78	91	2825862	18.98	ppbv		96
52) o-Xylene	16.38	91	1396247	10.01	ppbv	#	94

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

Quantitation Report (QT Reviewed)

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

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

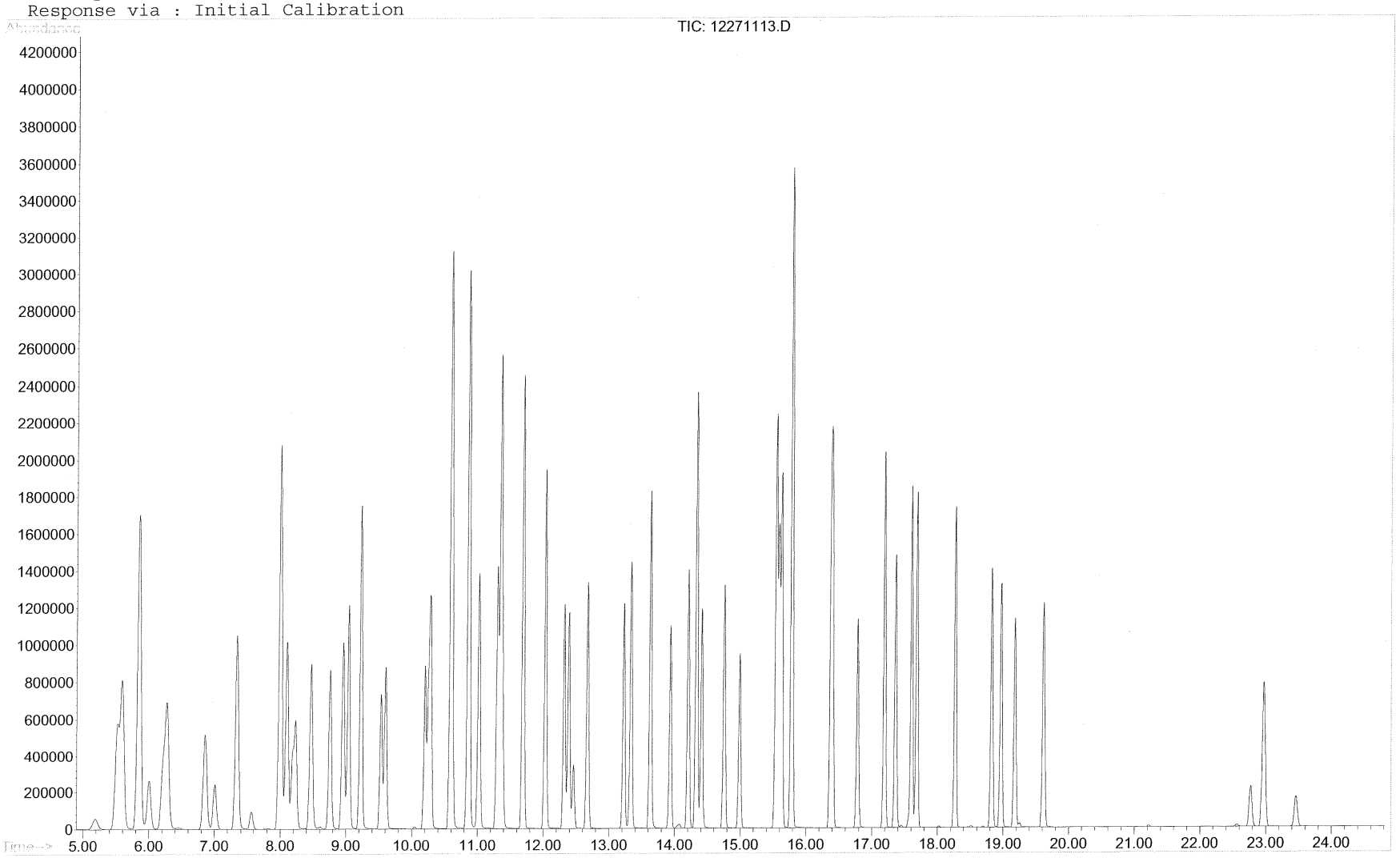
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.40	104	1065598	10.01	ppbv	98
54)	Bromoform	16.78	173	755956	9.88	ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.36	83	1113451	10.16	ppbv	99
57)	4-Ethyltoluene	17.60	105	1664750	9.62	ppbv	97
58)	1,3,5-Trimethylbenzene	17.68	105	1358118	9.39	ppbv	98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

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

Quantitation Report

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

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



RTI Laboratories

Run ID: VOA1_111229A **Run No.:** 45161

Analytical Run Date: 12/29/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

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

Column Length: 30m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 122911	BFB_TUNE	TUNE	R45161	12/29/2011 10:12:00 AM	Robert Lynch		
CCV VOA1 122911	EPA_TO15	ICV	R45161	12/29/2011 10:58:00 AM	Robert Lynch		
RLVS VOA1 122911	EPA_TO15	RLVS	R45161	12/29/2011 11:49:00 AM	Robert Lynch		
Blank VOA1 12291	EPA_TO15	MBLK	R45161	12/29/2011 1:12:00 PM	Charles O`Bryan		
1112398-004A	EPA_TO15	SAMP	R45161	12/29/2011 2:00:00 PM	Robert Lynch		
1112398-005A	EPA_TO15	SAMP	R45161	12/29/2011 2:52:00 PM	Robert Lynch		
1112398-013A	EPA_TO15	SAMP	R45161	12/29/2011 3:38:00 PM	Robert Lynch		
1112398-014A	EPA_TO15	SAMP	R45161	12/29/2011 4:25:00 PM	Robert Lynch		
1112398-015A	EPA_TO15	SAMP	R45161	12/29/2011 5:12:00 PM	Robert Lynch		
1112398-016A	EPA_TO15	SAMP	R45161	12/29/2011 5:58:00 PM	Robert Lynch		
1112398-017A	EPA_TO15	SAMP	R45161	12/29/2011 6:43:00 PM	Robert Lynch		Over-diluted sample. Will re-run at lower dilution. Reported here to show that sample and duplicate were analyzed.
1112398-017Adup	EPA_TO15	DUP	R45161	12/29/2011 7:29:00 PM	Charles O`Bryan		
1112398-019A	EPA_TO15	SAMP	R45161	12/29/2011 9:01:00 PM	Robert Lynch		
1112398-025A	EPA_TO15	SAMP	R45161	12/29/2011 9:47:00 PM	Robert Lynch		
1112398-027A	EPA_TO15	SAMP	R45161	12/29/2011 10:34:00 PM	Robert Lynch		
1112398-020A	EPA_TO15	SAMP	R45161	12/29/2011 11:22:00 PM	Robert Lynch		
RLVS2 VOA1 12291	EPA_TO15	RLVS	R45161	12/30/2011 9:43:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

11-Jan-12

RunNo 45161

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
888369	BFB VOA1 122911	BFB_TUNE	TUNE	\1\DATA\122911	12/29/2011 10:1	1	R45161		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0.5	0.5		100	0	0	0	0	0	1%	0	2	0%	
174	M		82.7	82.7		100	0	0	0	0	0	83%	50	120	0%	
175	M		7.2	7.2		100	0	0	0	0	0	7%	4	9	0%	
176	M		100.4	100.4		100	0	0	0	0	0	100%	93	101	0%	
177	M		6.6	6.6		100	0	0	0	0	0	7%	5	9	0%	
50	M		19.2	19.2		100	0	0	0	0	0	19%	8	40	0%	
75	M		44.1	44.1		100	0	0	0	0	0	44%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.8	6.8		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
888370	CCV VOA1 122911	EPA_TO15	ICV	\1\DATA\122911	12/29/2011 10:5	1	R45161		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	9.55	9.55		9.6	0	0	0.107	1	0	99%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	9.8	9.8		10	0	0	0.211	1	0	98%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.05	11.05		9.8	0	0	0.108	1	0	113%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.68	9.68		9.8	0	0	0.2	1	0	99%	70	130	0%	
1,1-Dichloroethane	A	ppbv	9.23	9.23		9.7	0	0	0.111	1	0	95%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.59	10.59		9.9	0	0	0.097	1	0	107%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	6.78	6.78		9.1	0	0	0.271	1	0	75%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.68	9.68		9.8	0	0	0.245	1	0	99%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.89	9.89		9.6	0	0	0.186	1	0	103%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.95	9.95		9.7	0	0	0.208	1	0	103%	70	130	0%	
1,2-Dichloroethane	A	ppbv	8.71	8.71		9.7	0	0	0.196	1	0	90%	70	130	0%	
1,2-Dichloropropane	A	ppbv	9.02	9.02		9.8	0	0	0.224	1	0	92%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.63	9.63		9.7	0	0	0.24	1	0	99%	70	130	0%	
1,3-Butadiene	A	ppbv	9.98	9.98		9.8	0	0	0.152	1	0	102%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.11	10.11		9.7	0	0	0.202	1	0	104%	70	130	0%	

1

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
888370	CCV VOA1 122911	EPA_TO15	ICV	\1\DATA\122911	12/29/2011 10:5	1	R45161		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.07	10.07		9.6	0	0	0.194	1	0	105%	70	130	0%	
1,4-Dioxane	A	ppbv	9.65	9.65		9.6	0	0	0.128	1	0	101%	70	130	0%	
2-Butanone	A	ppbv	8.41	8.41		9.9	0	0	0.287	1	0	85%	70	130	0%	
2-Hexanone	A	ppbv	9.44	9.44		9.8	0	0	0.135	1	0	96%	70	130	0%	
2-Propanol	A	ppbv	9.66	9.66		10.1	0	0	0.329	1	0	96%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	9.6	9.6		10	0	0	0.157	1	0	96%	70	130	0%	
Acetone	A	ppbv	8.6	8.6		10	0	0	0.43	1	0	86%	70	130	0%	
Benzene	A	ppbv	8.93	8.93		9.6	0	0	0.126	1	0	93%	70	130	0%	
Benzyl chloride	A	ppbv	9.41	9.41		9.7	0	0	0.155	1	0	97%	70	130	0%	
Bromodichloromethane	A	ppbv	9.3	9.3		9.6	0	0	0.156	1	0	97%	70	130	0%	
Bromoform	A	ppbv	10.14	10.14		9.6	0	0	0.197	1	0	106%	70	130	0%	
Bromomethane	A	ppbv	9.85	9.85		9.3	0	0	0.075	1	0	106%	70	130	0%	
Carbon disulfide	A	ppbv	10.49	10.49		9.7	0	0	0.093	1	0	108%	70	130	0%	
Carbon tetrachloride	A	ppbv	9.52	9.52		9.5	0	0	0.114	1	0	100%	70	130	0%	
Chlorobenzene	A	ppbv	9.97	9.97		9.9	0	0	0.275	1	0	101%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.18	10.18		9.2	0	0	0.165	1	0	111%	70	130	0%	
Chloroethane	A	ppbv	9.34	9.34		9.8	0	0	0.063	1	0	95%	70	130	0%	
Chloroform	A	ppbv	9.5	9.5		9.4	0	0	0.126	1	0	101%	70	130	0%	
Chloromethane	A	ppbv	8.64	8.64		9.8	0	0	0.104	1	0	88%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	9.84	9.84		9.8	0	0	0.107	1	0	100%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.03	9.03		9.5	0	0	0.166	1	0	95%	70	130	0%	
Cyclohexane	A	ppbv	9.67	9.67		9.8	0	0	0.684	2	0	99%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.24	9.24		9.2	0	0	0.086	1	0	100%	70	130	0%	
Ethanol	A	ppbv	8.79	8.79		9.2	0	0	1.962	5	0	96%	70	130	0%	
Ethyl acetate	A	ppbv	8.8	8.8		9.8	0	0	0.157	1	0	90%	70	130	0%	
Ethylbenzene	A	ppbv	9.65	9.65		9.8	0	0	0.737	2	0	98%	70	130	0%	
Heptane	A	ppbv	9.34	9.34		9.9	0	0	0.249	1	0	94%	70	130	0%	
Hexachlorobutadiene	A	ppbv	7.22	7.22		9.4	0	0	0.374	2	0	77%	70	130	0%	
m,p-Xylene	A	ppbv	18.45	18.45		19.2	0	0	0.524	2	0	96%	70	130	0%	
Methylene chloride	A	ppbv	9.47	9.47		10	0	0	2.077	5	0	95%	70	130	0%	
n-Hexane	A	ppbv	9.74	9.74		10.1	0	0	0.692	2	0	96%	70	130	0%	
Naphthalene	A	ppbv	7.3	7.3		9.2	0	0	0.247	1	0	79%	70	130	0%	
o-Xylene	A	ppbv	9.85	9.85		10	0	0	0.258	1	0	99%	70	130	0%	
Propylene	A	ppbv	9.73	9.73		10.2	0	0	0.075	1	0	95%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
888370	CCV VOA1 122911	EPA_TO15	ICV	.\1\DATA\122911	12/29/2011 10:5	1	R45161		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	10.09	10.09		9.8	0	0	0.263	1	0	103%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	8.62	8.62		9.9	0	0	0.228	1	0	87%	70	130	0%	
Tetrachloroethene	A	ppbv	10.59	10.59		9.6	0	0	0.148	1	0	110%	70	130	0%	
Tetrahydrofuran	A	ppbv	8.98	8.98		10	0	0	0.201	1	0	90%	70	130	0%	
Toluene	A	ppbv	9.71	9.71		9.8	0	0	0.158	1	0	99%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	9.56	9.56		9.8	0	0	0.117	1	0	98%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	8.74	8.74		9.1	0	0	0.171	1	0	96%	70	130	0%	
Trichloroethene	A	ppbv	10.16	10.16		9.6	0	0	0.119	1	0	106%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.46	10.46		9.6	0	0	0.148	1	0	109%	70	130	0%	
Vinyl acetate	A	ppbv	8.9	8.9		9.9	0	0	0.266	1	0	90%	70	130	0%	
Vinyl chloride	A	ppbv	11.44	11.44		9.4	0	0	0.072	1	0	122%	70	130	0%	
Xylenes, Total	C	ppbv	28.3	28.3		29.2	0	0	0.782	3	0	97%	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	12.4	12.4		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
888371	RLVS VOA1 122911	EPA_TO15	RLVS	.\1\DATA\122911	12/29/2011 11:4	1	R45161		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	0.97	0.97		0.996	0	0	0.107	1	0	97%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.33	1.33		1	0	0	0.211	1	0	133%	70	130	0%	S
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	0.97	0.97		0.98	0	0	0.108	1	0	99%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.99	0.99		0.98	0	0	0.2	1	0	101%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.01	1.01		0.97	0	0	0.111	1	0	104%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.01	1.01		0.99	0	0	0.097	1	0	102%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.13	1.13		0.91	0	0	0.271	1	0	124%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	1.4	1.4		0.98	0	0	0.245	1	0	143%	70	130	0%	S
1,2-Dibromoethane	A	ppbv	0.96	0.96		0.96	0	0	0.186	1	0	100%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.34	1.34		0.97	0	0	0.208	1	0	138%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	1.12	1.12		0.97	0	0	0.196	1	0	115%	70	130	0%	
1,2-Dichloropropane	A	ppbv	1.12	1.12		0.98	0	0	0.224	1	0	114%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\122911\12291102.D Vial: 1
Acq On : 29 Dec 2011 10:58 am Operator: RACHEL HILL
Sample : CCV VOA1 122911 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

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

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	102	0.00
2	T	Propylene	1.257	1.199	4.6	93	-0.02
3	T	Dichlorodifluoromethane	3.312	3.327	-0.5	95	-0.02
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.450	2.661	-8.6	104	-0.01
5	T	Chloromethane	1.147	1.043	9.1	88	-0.02
6	T	Vinyl chloride	1.266	1.541	-21.7	143	-0.02
7	T	1,3-Butadiene	1.109	1.129	-1.8	100	0.00
8	T	Bromomethane	1.360	1.440	-5.9	106	-0.02
9	T	Chloroethane	0.784	0.796	-1.5	98	0.00
10	T	Trichlorofluoromethane	2.722	2.967	-9.0	102	-0.01
11	T	Ethanol	0.312	0.298	4.5	97	-0.01
12	T	Freon113	2.193	2.473	-12.8	97	-0.01
13	T	1,1-Dichloroethene	1.743	1.865	-7.0	96	0.00
14	T	Acetone	1.691	1.455	14.0	77	-0.01
15	T	Carbon disulfide	3.466	3.747	-8.1	100	-0.01
16	T	2-Propanol	1.740	1.664	4.4	93	-0.01
17	T	Methylene chloride	1.347	1.276	5.3	85	0.00
18	T	tert-Butyl Methyl Ether	2.434	2.119	12.9	76	0.00
19	T	trans-1,2-Dichloroethene	1.651	1.610	2.5	85	0.00
20	T	n-Hexane	1.810	1.746	3.5	83	0.00
21	T	1,1-Dichloroethane	2.026	1.927	4.9	83	0.00
22	T	Vinyl acetate	2.464	2.215	10.1	73	0.00
23	T	cis-1,2-Dichloroethene	1.175	1.180	-0.4	89	0.00
24	T	2-Butanone	1.777	1.510	15.0	75	0.00
25	T	Ethyl acetate	2.265	2.035	10.2	81	0.00
26	T	Tetrahydrofuran	1.131	1.015	10.3	79	0.00
27	T	Chloroform	2.022	1.959	3.1	83	0.00
28	T	1,1,1-Trichloroethane	1.938	1.928	0.5	84	0.00
29	T	Cyclohexane	1.701	1.679	1.3	82	0.00
30	T	Carbon tetrachloride	1.920	1.924	-0.2	88	0.00
31	T	Benzene	2.853	2.654	7.0	79	0.00
32	T	1,2-Dichloroethane	1.079	0.969	10.2	78	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	105	0.00
34	T	Heptane	0.607	0.572	5.8	81	0.00
35	T	Trichloroethene	0.408	0.431	-5.6	97	0.00
36	T	1,2-Dichloropropane	0.306	0.282	7.8	84	0.00
37	T	1,4-Dioxane	0.150	0.150	0.0	102	0.00
38	T	Bromodichloromethane	0.554	0.537	3.1	90	0.00
39	T	cis-1,3-Dichloropropene	0.468	0.444	5.1	91	0.00
40	T	4-Methyl-2-pentanone	0.238	0.228	4.2	92	0.00
41	T	Toluene	0.865	0.857	0.9	94	0.00
42	T	trans-1,3-Dichloropropene	0.400	0.384	4.0	93	0.00
43	T	1,1,2-Trichloroethane	0.307	0.303	1.3	96	0.00
44	T	Tetrachloroethene	0.449	0.495	-10.2	101	0.00
45	T	2-Hexanone	0.500	0.481	3.8	94	0.00
46	T	Chlorodibromomethane	0.461	0.479	-3.9	100	0.00
47	T	1,2-Dibromoethane	0.441	0.454	-2.9	100	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	106	0.00
49	T	Chlorobenzene	0.872	0.878	-0.7	101	0.00
50	T	Ethylbenzene	1.408	1.387	1.5	98	0.00
51	T	m,p-Xylene	1.096	1.053	3.9	96	0.00
52	T	o-Xylene	1.026	1.010	1.6	98	0.00
53	T	Styrene	0.783	0.807	-3.1	101	0.00
54	T	Bromoform	0.563	0.595	-5.7	105	0.00
55	S	4-Bromofluorobenzene	0.570	0.565	0.9	105	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\122911\12291102.D Vial: 1
Acq On : 29 Dec 2011 10:58 am Operator: RACHEL HILL
Sample : CCV VOA1 122911 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

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

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.806	0.790	2.0	99	0.00
57	T	4-Ethyltoluene	1.274	1.260	1.1	103	0.00
58	T	1,3,5-Trimethylbenzene	1.064	1.056	0.8	104	0.00
59	T	1,2,4-Trimethylbenzene	1.004	0.992	1.2	102	0.00
60	T	1,3-Dichlorobenzene	0.640	0.667	-4.2	105	0.00
61	T	1,4-Dichlorobenzene	0.603	0.633	-5.0	106	0.00
62	T	Benzyl chloride	0.940	0.912	3.0	100	0.00
63	T	1,2-Dichlorobenzene	0.596	0.611	-2.5	104	0.00
64	T	1,2,4-Trichlorobenzene	0.138	0.103	25.4	86	0.00
65	T	Hexachlorobutadiene	0.310	0.238	23.2	87	0.00
66		Naphthalene	0.251	0.199	20.7	86	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122911\12291102.D Vial: 1
Acq On : 29 Dec 2011 10:58 am Operator: RACHEL HILL
Sample : CCV VOA1 122911 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 29 11:28 2011 Quant Results File: 122711V1.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	664651	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	2326619	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	1549467	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.20	95	875961	12.40	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 99.20%				
Target Compounds							Qvalue
2) Propylene	5.50	41	650117	9.73	ppbv		98
3) Dichlorodifluoromethane	5.58	85	1627299	9.24	ppbv		100
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	1344147	10.32	ppbv		88
5) Chloromethane	5.99	50	526674	8.64	ppbv		99
6) Vinyl chloride	6.21	62	770015	11.44	ppbv		99
7) 1,3-Butadiene	6.27	39	588445	9.98	ppbv		98
8) Bromomethane	6.84	94	712126	9.85	ppbv		99
9) Chloroethane	7.00	64	389482	9.34	ppbv		100
10) Trichlorofluoromethane	7.33	101	1514535	10.46	ppbv		99
11) Ethanol	7.56	45	145949	8.79	ppbv		99
12) Freon113	7.99	101	1288860	11.05	ppbv		96
13) 1,1-Dichloroethene	8.09	61	981813	10.59	ppbv		99
14) Acetone	8.18	43	773509	8.60	ppbv	#	97
15) Carbon disulfide	8.46	76	1932640	10.49	ppbv	#	100
16) 2-Propanol	8.23	45	893641	9.66	ppbv	#	1
17) Methylene chloride	8.75	49	678447	9.47	ppbv		99
18) tert-Butyl Methyl Ether	8.95	73	1115394	8.62	ppbv		95
19) trans-1,2-Dichloroethene	9.04	61	839185	9.56	ppbv		100
20) n-Hexane	9.22	57	937761	9.74	ppbv		99
21) 1,1-Dichloroethane	9.60	63	993798	9.23	ppbv		99
22) Vinyl acetate	9.53	43	1165989	8.90	ppbv		99
23) cis-1,2-Dichloroethene	10.28	96	614766	9.84	ppbv		99
24) 2-Butanone	10.25	43	794877	8.41	ppbv		99
25) Ethyl acetate	10.20	43	1060424	8.80	ppbv	#	100
26) Tetrahydrofuran	10.58	42	539525	8.98	ppbv		96
27) Chloroform	10.61	83	1020887	9.50	ppbv		99
28) 1,1,1-Trichloroethane	10.86	97	984300	9.55	ppbv		99
29) Cyclohexane	10.87	56	874815	9.67	ppbv		97
30) Carbon tetrachloride	11.02	117	971853	9.52	ppbv		99
31) Benzene	11.30	78	1354531	8.93	ppbv		100
32) 1,2-Dichloroethane	11.38	62	499846	8.71	ppbv		98
34) Heptane	11.35	43	1054896	9.34	ppbv		97
35) Trichloroethene	12.03	130	770878	10.16	ppbv		98
36) 1,2-Dichloropropane	12.39	63	514442	9.02	ppbv		97
37) 1,4-Dioxane	12.46	88	268402	9.65	ppbv		100
38) Bromodichloromethane	12.67	83	959903	9.30	ppbv		100
39) cis-1,3-Dichloropropene	13.23	75	785916	9.03	ppbv		100
40) 4-Methyl-2-pentanone	13.34	58	425267	9.60	ppbv		96
41) Toluene	13.63	91	1563457	9.71	ppbv		98
42) trans-1,3-Dichloropropene	13.94	75	651166	8.74	ppbv		99
43) 1,1,2-Trichloroethane	14.21	97	552677	9.68	ppbv		99
44) Tetrachloroethene	14.33	166	884005	10.59	ppbv		99
45) 2-Hexanone	14.41	43	878251	9.44	ppbv		99
46) Chlorodibromomethane	14.76	129	872882	10.18	ppbv		99
47) 1,2-Dibromoethane	14.99	107	810623	9.89	ppbv		100
49) Chlorobenzene	15.58	112	1077609	9.97	ppbv		99
50) Ethylbenzene	15.63	91	1685167	9.65	ppbv		97
51) m,p-Xylene	15.78	91	2506033	18.45	ppbv		97
52) o-Xylene	16.37	91	1252328	9.85	ppbv		96

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122911\12291102.D Vial: 1
Acq On : 29 Dec 2011 10:58 am Operator: RACHEL HILL
Sample : CCV VOA1 122911 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 29 11:28 2011 Quant Results File: 122711V1.RES

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

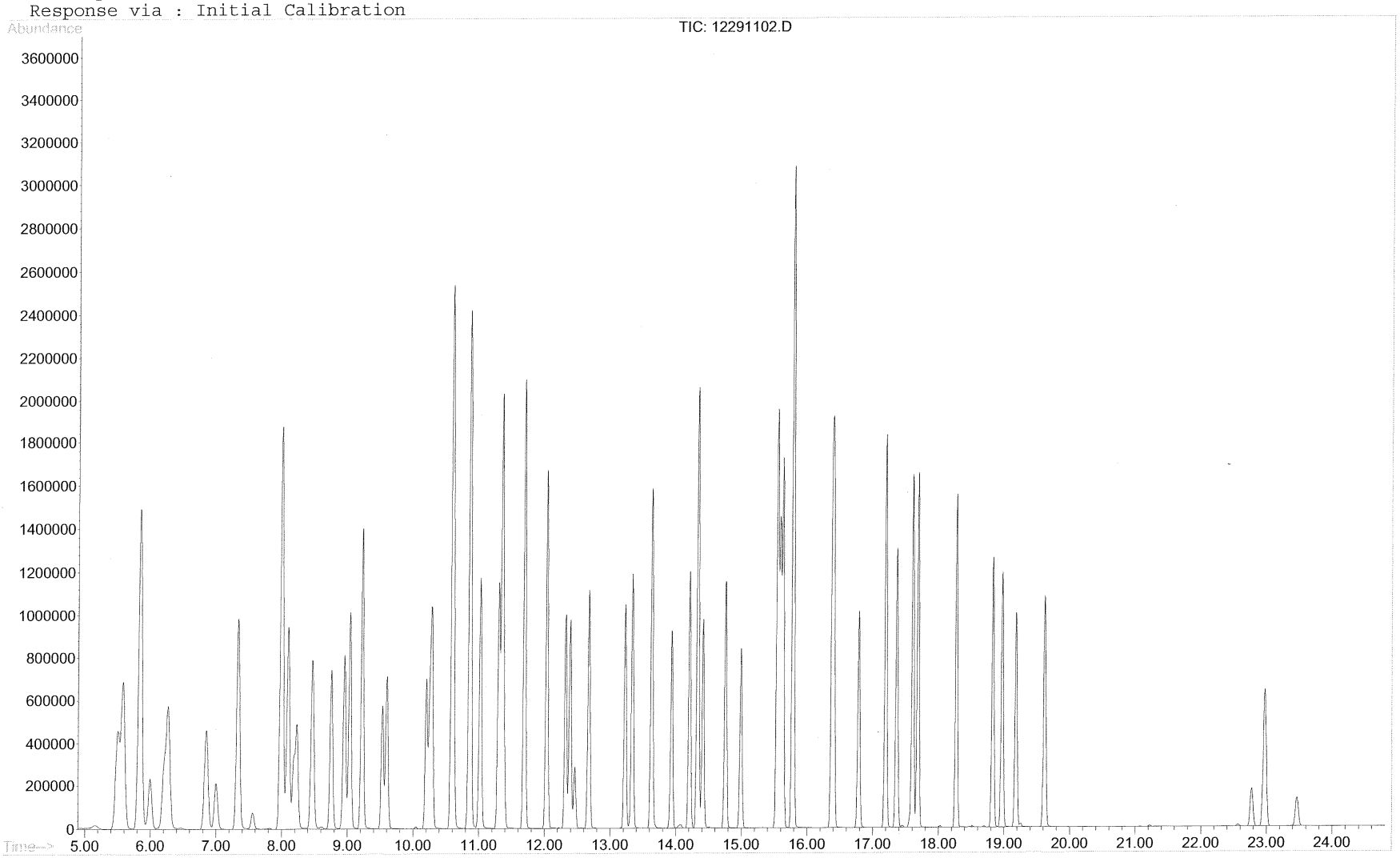
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.40	104	979755	10.09	ppbv	97
54)	Bromoform	16.78	173	707768	10.14	ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.36	83	979625	9.80	ppbv	99
57)	4-Ethyltoluene	17.60	105	1530115	9.69	ppbv	98
58)	1,3,5-Trimethylbenzene	17.69	105	1270317	9.63	ppbv	99
59)	1,2,4-Trimethylbenzene	18.27	105	1205154	9.68	ppbv	99
60)	1,3-Dichlorobenzene	18.83	146	802060	10.11	ppbv	98
61)	1,4-Dichlorobenzene	18.97	146	753068	10.07	ppbv	98
62)	Benzyl chloride	19.18	91	1097052	9.41	ppbv	99
63)	1,2-Dichlorobenzene	19.62	146	734939	9.95	ppbv	98
64)	1,2,4-Trichlorobenzene	22.77	180	116233	6.78	ppbv	98
65)	Hexachlorobutadiene	22.97	225	277567	7.22	ppbv	99
66)	Naphthalene	23.46	128	227156	7.30	ppbv	99

(#) = qualifier out of range (m) = manual integration
12291102.D 122711V1.M Mon Jan 02 11:45:56 2012 Page 2

Quantitation Report

Data File : C:\HPCHEM\1\DATA\122911\12291102.D Vial: 1
Acq On : 29 Dec 2011 10:58 am Operator: RACHEL HILL
Sample : CCV VOA1 122911 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 29 11:28 2011 Quant Results File: 122711V1.RES

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



RTI Laboratories

Run ID: VOA1_111230A **Run No.:** 45189

Analytical Run Date: 12/30/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

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

Column Length: 30m

Run Comments: For 1112696-012a the vent tip on the bottle was unscrewed when we received it. Sample was at ambient temperature. Was instructed to fill with nitrogen and run accordingly.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 123011	BFB_TUNE	TUNE	R45189	12/30/2011 10:52:00 AM	Robert Lynch		
1ppbv ICAL	EPA_TO15	ICAL	R45189	12/30/2011 3:51:00 PM	Robert Lynch		
15ppbv ICAL	EPA_TO15	ICAL	R45189	12/30/2011 6:12:00 PM	Robert Lynch		
20ppbv ICAL	EPA_TO15	ICAL	R45189	12/30/2011 7:00:00 PM	Robert Lynch		
30ppbv ICAL	EPA_TO15	ICAL	R45189	12/30/2011 7:49:00 PM	Robert Lynch		
10ppbv ICAL	EPA_TO15	ICAL	R45189	12/30/2011 8:36:00 PM	Robert Lynch		
12ppbv ICAL	EPA_TO15	ICAL	R45189	12/30/2011 9:23:00 PM	Robert Lynch		
50ppbv ICAL	EPA_TO15	ICAL	R45189	12/30/2011 10:14:00 PM	Robert Lynch		
BFB2 VOA1 123011	BFB_TUNE	TUNE	R45189	12/30/2011 11:00:00 PM	Robert Lynch		
ICV VOA1 123011	EPA_TO15	ICV	R45189	12/31/2011 12:35:00 AM	Robert Lynch		
RLVS VOA1 123011	EPA_TO15	RLVS	R45189	12/31/2011 1:23:00 AM	Robert Lynch		
MBLK VOA1 123011	EPA_TO15	MBLK	R45189	12/31/2011 2:17:00 AM	Charles O`Bryan		
1112398-011A	EPA_TO15	SAMP	R45189	12/31/2011 3:53:00 AM	Robert Lynch		
1112398-001A	EPA_TO15	SAMP	R45189	12/31/2011 4:39:00 AM	Robert Lynch		
1112398-001Adup	EPA_TO15	DUP	R45189	12/31/2011 5:26:00 AM	Charles O`Bryan		
1112398-017A	EPA_TO15	SAMP	R45189	12/31/2011 6:16:00 AM	Robert Lynch		
1112398-018A	EPA_TO15	SAMP	R45189	12/31/2011 7:05:00 AM	Robert Lynch		
1112398-026A	EPA_TO15	SAMP	R45189	12/31/2011 7:52:00 AM	Robert Lynch		
1112398-021A	EPA_TO15	SAMP	R45189	12/31/2011 8:39:00 AM	Robert Lynch		
1112398-022A	EPA_TO15	SAMP	R45189	12/31/2011 9:27:00 AM	Robert Lynch		
1112398-023A	EPA_TO15	SAMP	R45189	12/31/2011 10:14:00 AM	Robert Lynch		
1112398-024A	EPA_TO15	SAMP	R45189	12/31/2011 11:02:00 AM	Robert Lynch		
1112696-039A	EPA_TO15	SAMP	R45189	12/31/2011 11:49:00 AM	Robert Lynch		
1112696-011A	EPA_TO15	SAMP	R45189	12/31/2011 12:41:00 PM	Robert Lynch		
1112696-012A	EPA_TO15	SAMP	R45189	12/31/2011 1:29:00 PM	Robert Lynch		Vent tip on bottle received loose/unscrewed causing leakage.
1112696-020A	EPA_TO15	SAMP	R45189	12/31/2011 2:18:00 PM	Robert Lynch		High concentrations of non-target analytes present. Do not want to run at a lower dilution due to likelihood of interferances from non-targets.
RLVS2 VOA1 12301	EPA_TO15	RLVS	R45189	12/31/2011 3:05:00 PM	Robert Lynch		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
889184	ICV VOA1 123011	EPA_TO15	ICV	.\1\DATA\123011	12/31/2011 12:3	1	R45189		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	9.77	9.77		9.6	0	0	0.107	1	0	102%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	9.66	9.66		10	0	0	0.211	1	0	97%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	9.82	9.82		9.8	0	0	0.108	1	0	100%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	8.79	8.79		9.8	0	0	0.2	1	0	90%	70	130	0%	
1,1-Dichloroethane	A	ppbv	9.48	9.48		9.7	0	0	0.111	1	0	98%	70	130	0%	
1,1-Dichloroethene	A	ppbv	9.87	9.87		9.9	0	0	0.097	1	0	100%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	6.98	6.98		9.1	0	0	0.271	1	0	77%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.06	9.06		9.8	0	0	0.245	1	0	92%	70	130	0%	
1,2-Dibromoethane	A	ppbv	8.7	8.7		9.6	0	0	0.186	1	0	91%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.03	9.03		9.7	0	0	0.208	1	0	93%	70	130	0%	
1,2-Dichloroethane	A	ppbv	9.12	9.12		9.7	0	0	0.196	1	0	94%	70	130	0%	
1,2-Dichloropropane	A	ppbv	8.97	8.97		9.8	0	0	0.224	1	0	92%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	8.95	8.95		9.7	0	0	0.24	1	0	92%	70	130	0%	
1,3-Butadiene	A	ppbv	11.13	11.13		9.8	0	0	0.152	1	0	114%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.02	9.02		9.7	0	0	0.202	1	0	93%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	9.01	9.01		9.6	0	0	0.194	1	0	94%	70	130	0%	
1,4-Dioxane	A	ppbv	8.65	8.65		9.6	0	0	0.128	1	0	90%	70	130	0%	
2-Butanone	A	ppbv	9.42	9.42		9.9	0	0	0.287	1	0	95%	70	130	0%	
2-Hexanone	A	ppbv	9.57	9.57		9.8	0	0	0.135	1	0	98%	70	130	0%	
2-Propanol	A	ppbv	10.03	10.03		10.1	0	0	0.329	1	0	99%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	9.61	9.61		10	0	0	0.157	1	0	96%	70	130	0%	
Acetone	A	ppbv	8.99	8.99		10	0	0	0.43	1	0	90%	70	130	0%	
Benzene	A	ppbv	8.92	8.92		9.6	0	0	0.126	1	0	93%	70	130	0%	
Benzyl chloride	A	ppbv	9.23	9.23		9.7	0	0	0.155	1	0	95%	70	130	0%	
Bromodichloromethane	A	ppbv	9.09	9.09		9.6	0	0	0.156	1	0	95%	70	130	0%	
Bromoform	A	ppbv	9.11	9.11		9.6	0	0	0.197	1	0	95%	70	130	0%	
Bromomethane	A	ppbv	10.06	10.06		9.3	0	0	0.075	1	0	108%	70	130	0%	
Carbon disulfide	A	ppbv	9.81	9.81		9.7	0	0	0.093	1	0	101%	70	130	0%	
Carbon tetrachloride	A	ppbv	9.22	9.22		9.5	0	0	0.114	1	0	97%	70	130	0%	
Chlorobenzene	A	ppbv	9.06	9.06		9.9	0	0	0.275	1	0	92%	70	130	0%	
Chlorodibromomethane	A	ppbv	8.87	8.87		9.2	0	0	0.165	1	0	96%	70	130	0%	
Chloroethane	A	ppbv	9.58	9.58		9.8	0	0	0.063	1	0	98%	70	130	0%	
Chloroform	A	ppbv	10.02	10.02		9.4	0	0	0.126	1	0	107%	70	130	0%	
Chloromethane	A	ppbv	9.48	9.48		9.8	0	0	0.104	1	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
889184	ICV VOA1 123011	EPA_TO15	ICV	\1\DATA\123011	12/31/2011 12:3	1	R45189		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
cis-1,2-Dichloroethene	A	ppbv	9.39	9.39		9.8	0	0	0.107	1	0	96%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	8.68	8.68		9.5	0	0	0.166	1	0	91%	70	130	0%	
Cyclohexane	A	ppbv	10.43	10.43		9.8	0	0	0.684	2	0	106%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.86	9.86		9.2	0	0	0.086	1	0	107%	70	130	0%	
Ethanol	A	ppbv	8.91	8.91		9.2	0	0	1.962	5	0	97%	70	130	0%	
Ethyl acetate	A	ppbv	9.63	9.63		9.8	0	0	0.157	1	0	98%	70	130	0%	
Ethylbenzene	A	ppbv	9.22	9.22		9.8	0	0	0.737	2	0	94%	70	130	0%	
Heptane	A	ppbv	10.27	10.27		9.9	0	0	0.249	1	0	104%	70	130	0%	
Hexachlorobutadiene	A	ppbv	7.55	7.55		9.4	0	0	0.374	2	0	80%	70	130	0%	
m,p-Xylene	A	ppbv	18.2	18.2		19.2	0	0	0.524	2	0	95%	70	130	0%	
Methylene chloride	A	ppbv	9.56	9.56		10	0	0	2.077	5	0	96%	70	130	0%	
n-Hexane	A	ppbv	10.01	10.01		10.1	0	0	0.692	2	0	99%	70	130	0%	
Naphthalene	A	ppbv	7.38	7.38		9.2	0	0	0.247	1	0	80%	70	130	0%	
o-Xylene	A	ppbv	9.51	9.51		10	0	0	0.258	1	0	95%	70	130	0%	
Propylene	A	ppbv	10.74	10.74		10.2	0	0	0.075	1	0	105%	70	130	0%	
Styrene	A	ppbv	9.37	9.37		9.8	0	0	0.263	1	0	96%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	8.75	8.75		9.9	0	0	0.228	1	0	88%	70	130	0%	
Tetrachloroethene	A	ppbv	9.44	9.44		9.6	0	0	0.148	1	0	98%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.02	10.02		10	0	0	0.201	1	0	100%	70	130	0%	
Toluene	A	ppbv	8.82	8.82		9.8	0	0	0.158	1	0	90%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	9.62	9.62		9.8	0	0	0.117	1	0	98%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	8.35	8.35		9.1	0	0	0.171	1	0	92%	70	130	0%	
Trichloroethene	A	ppbv	9.13	9.13		9.6	0	0	0.119	1	0	95%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.14	10.14		9.6	0	0	0.148	1	0	106%	70	130	0%	
Vinyl acetate	A	ppbv	9.51	9.51		9.9	0	0	0.266	1	0	96%	70	130	0%	
Vinyl chloride	A	ppbv	11.46	11.46		9.4	0	0	0.072	1	0	122%	70	130	0%	
Xylenes, Total	C	ppbv	27.71	27.71		29.2	0	0	0.782	3	0	95%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		1.25	0	0	0	0	0	1000%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.77	12.77		12.5	0	0	0	0	0	102%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\123011\12301117.D Vial: 1
Acq On : 31 Dec 2011 12:35 am Operator: RACHEL HILL
Sample : ICV VOA1 123011 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\123011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:41:02 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	105	0.00
2	T	Propylene	1.217	1.281	-5.3	104	0.00
3	T	Dichlorodifluoromethane	3.196	3.425	-7.2	104	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.389	2.649	-10.9	103	0.00
5	T	Chloromethane	1.120	1.118	0.2	99	0.00
6	T	Vinyl chloride	1.269	1.546	-21.8	102	0.00
7	T	1,3-Butadiene	1.073	1.219	-13.6	102	0.00
8	T	Bromomethane	1.347	1.457	-8.2	101	0.00
9	T	Chloroethane	0.777	0.809	-4.1	98	0.00
10	T	Trichlorofluoromethane	2.746	2.901	-5.6	95	0.00
11	T	Ethanol	0.340	0.329	3.2	85	0.00
12	T	Freon113	2.232	2.236	-0.2	85	0.00
13	T	1,1-Dichloroethene	1.766	1.760	0.3	89	0.00
14	T	Acetone	1.714	1.541	10.1	82	0.00
15	T	Carbon disulfide	3.465	3.503	-1.1	93	0.00
16	T	2-Propanol	1.782	1.771	0.6	88	-0.01
17	T	Methylene chloride	1.349	1.290	4.4	90	0.00
18	T	tert-Butyl Methyl Ether	2.413	2.134	11.6	79	0.00
19	T	trans-1,2-Dichloroethene	1.661	1.631	1.8	89	0.00
20	T	n-Hexane	1.821	1.805	0.9	90	0.00
21	T	1,1-Dichloroethane	2.020	1.974	2.3	90	0.00
22	T	Vinyl acetate	2.486	2.389	3.9	85	0.00
23	T	cis-1,2-Dichloroethene	1.184	1.135	4.1	86	0.00
24	T	2-Butanone	1.841	1.752	4.8	89	0.00
25	T	Ethyl acetate	2.300	2.260	1.7	91	0.00
26	T	Tetrahydrofuran	1.134	1.136	-0.2	91	0.00
27	T	Chloroform	2.019	2.064	-2.2	93	0.00
28	T	1,1,1-Trichloroethane	1.946	1.981	-1.8	91	0.00
29	T	Cyclohexane	1.727	1.838	-6.4	94	0.00
30	T	Carbon tetrachloride	1.923	1.866	3.0	86	0.00
31	T	Benzene	2.884	2.679	7.1	84	0.00
32	T	1,2-Dichloroethane	1.098	1.033	5.9	87	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	113	0.00
34	T	Heptane	0.632	0.656	-3.8	96	0.00
35	T	Trichloroethene	0.428	0.407	4.9	85	0.00
36	T	1,2-Dichloropropane	0.329	0.301	8.5	87	0.00
37	T	1,4-Dioxane	0.161	0.145	9.9	81	0.00
38	T	Bromodichloromethane	0.595	0.563	5.4	89	0.00
39	T	cis-1,3-Dichloropropene	0.504	0.460	8.7	86	0.00
40	T	4-Methyl-2-pentanone	0.257	0.247	3.9	88	0.00
41	T	Toluene	0.950	0.855	10.0	85	0.00
42	T	trans-1,3-Dichloropropene	0.434	0.398	8.3	87	0.00
43	T	1,1,2-Trichloroethane	0.335	0.301	10.1	84	0.00
44	T	Tetrachloroethene	0.490	0.481	1.8	87	0.00
45	T	2-Hexanone	0.540	0.527	2.4	89	0.00
46	T	Chlorodibromomethane	0.510	0.462	9.4	83	0.00
47	T	1,2-Dibromoethane	0.487	0.441	9.4	83	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	110	0.00
49	T	Chlorobenzene	0.910	0.832	8.6	82	0.00
50	T	Ethylbenzene	1.460	1.374	5.9	86	0.00
51	T	m,p-Xylene	1.132	1.073	5.2	89	0.00
52	T	o-Xylene	1.061	1.008	5.0	86	0.00
53	T	Styrene	0.810	0.774	4.4	84	0.00
54	T	Bromoform	0.586	0.556	5.1	83	0.00
55	S	4-Bromofluorobenzene	0.573	0.585	-2.1	111	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\123011\12301117.D Vial: 1
Acq On : 31 Dec 2011 12:35 am Operator: RACHEL HILL
Sample : ICV VOA1 123011 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\123011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:41:02 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	0.810	0.783	3.3	89	0.00
57	T	4-Ethyltoluene	1.298	1.206	7.1	86	0.00
58	T	1,3,5-Trimethylbenzene	1.081	0.997	7.8	86	0.00
59	T	1,2,4-Trimethylbenzene	1.024	0.946	7.6	85	0.00
60	T	1,3-Dichlorobenzene	0.653	0.607	7.0	82	0.00
61	T	1,4-Dichlorobenzene	0.607	0.570	6.1	82	0.00
62	T	Benzyl chloride	0.927	0.883	4.7	86	0.00
63	T	1,2-Dichlorobenzene	0.601	0.560	6.8	82	0.00
64	T	1,2,4-Trichlorobenzene	0.141	0.108	23.4	76	0.00
65	T	Hexachlorobutadiene	0.308	0.248	19.5	81	0.00
66		Naphthalene	0.257	0.207	19.5	77	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\123011\12301117.D Vial: 1
Acq On : 31 Dec 2011 12:35 am Operator: RACHEL HILL
Sample : ICV VOA1 123011 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 3 10:41 2012 Quant Results File: 123011V1.RES

Quant Method : C:\HPCHEM\1\METHODS\123011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:41:02 2012
Response via : Initial Calibration
DataAcq Meth : 123011V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	724900	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	2461904	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	1662130	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.20	95	972753	12.77	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 102.16%				
Target Compounds							Qvalue
2) Propylene	5.52	41	757743	10.74	ppbv		97
3) Dichlorodifluoromethane	5.59	85	1827290	9.86	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	1459244	10.53	ppbv		86
5) Chloromethane	6.00	50	615936	9.48	ppbv		99
6) Vinyl chloride	6.22	62	842944	11.46	ppbv		100
7) 1,3-Butadiene	6.27	39	692628	11.13	ppbv		98
8) Bromomethane	6.86	94	785693	10.06	ppbv		98
9) Chloroethane	7.00	64	431426	9.58	ppbv		100
10) Trichlorofluoromethane	7.34	101	1615300	10.14	ppbv		99
11) Ethanol	7.57	45	175756	8.91	ppbv		99
12) Freon113	8.00	101	1270681	9.82	ppbv		92
13) 1,1-Dichloroethene	8.10	61	1010231	9.87	ppbv		95
14) Acetone	8.19	43	893665	8.99	ppbv	#	96
15) Carbon disulfide	8.47	76	1970588	9.81	ppbv	#	100
16) 2-Propanol	8.23	45	1037169	10.03	ppbv	#	66
17) Methylene chloride	8.76	49	747950	9.56	ppbv		91
18) tert-Butyl Methyl Ether	8.96	73	1224949	8.75	ppbv		93
19) trans-1,2-Dichloroethene	9.04	61	926671	9.62	ppbv		93
20) n-Hexane	9.23	57	1057211	10.01	ppbv		98
21) 1,1-Dichloroethane	9.60	63	1110363	9.48	ppbv		98
22) Vinyl acetate	9.53	43	1371747	9.51	ppbv		97
23) cis-1,2-Dichloroethene	10.29	96	644804	9.39	ppbv		95
24) 2-Butanone	10.25	43	1005992	9.42	ppbv		94
25) Ethyl acetate	10.20	43	1284336	9.63	ppbv	#	100
26) Tetrahydrofuran	10.59	42	659057	10.02	ppbv		95
27) Chloroform	10.61	83	1172755	10.02	ppbv		99
28) 1,1,1-Trichloroethane	10.86	97	1103144	9.77	ppbv		97
29) Cyclohexane	10.87	56	1044555	10.43	ppbv		94
30) Carbon tetrachloride	11.02	117	1028081	9.22	ppbv		98
31) Benzene	11.30	78	1491594	8.92	ppbv		98
32) 1,2-Dichloroethane	11.38	62	580903	9.12	ppbv		98
34) Heptane	11.35	43	1278587	10.27	ppbv		95
35) Trichloroethene	12.03	130	768654	9.13	ppbv		95
36) 1,2-Dichloropropane	12.39	63	580163	8.97	ppbv		96
37) 1,4-Dioxane	12.46	88	274587	8.65	ppbv		93
38) Bromodichloromethane	12.68	83	1064066	9.09	ppbv		99
39) cis-1,3-Dichloropropene	13.23	75	860326	8.68	ppbv		98
40) 4-Methyl-2-pentanone	13.34	58	485649	9.61	ppbv		92
41) Toluene	13.63	91	1649893	8.82	ppbv		98
42) trans-1,3-Dichloropropene	13.94	75	713309	8.35	ppbv		98
43) 1,1,2-Trichloroethane	14.21	97	580203	8.79	ppbv		97
44) Tetrachloroethene	14.33	166	910319	9.44	ppbv		99
45) 2-Hexanone	14.41	43	1017043	9.57	ppbv		98
46) Chlorodibromomethane	14.76	129	891734	8.87	ppbv		99
47) 1,2-Dibromoethane	14.99	107	834111	8.70	ppbv		100
49) Chlorobenzene	15.59	112	1095857	9.06	ppbv		94
50) Ethylbenzene	15.63	91	1790201	9.22	ppbv		95
51) m,p-Xylene	15.78	91	2739231	18.20	ppbv		95
52) o-Xylene	16.37	91	1340924	9.51	ppbv	#	93

(#) = qualifier out of range (m) = manual integration
12301117.D 123011V1.M Tue Jan 03 16:12:42 2012 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\123011\12301117.D Vial: 1
Acq On : 31 Dec 2011 12:35 am Operator: RACHEL HILL
Sample : ICV VOA1 123011 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 3 10:41 2012 Quant Results File: 123011V1.RES

Quant Method : C:\HPCHEM\1\METHODS\123011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:41:02 2012
Response via : Initial Calibration
DataAcq Meth : 123011V1

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
53) Styrene	16.41	104	1008641	9.37	ppbv		99
54) Bromoform	16.79	173	709429	9.11	ppbv		99
56) 1,1,2,2-Tetrachloroethane	17.36	83	1040593	9.66	ppbv	#	99
57) 4-Ethyltoluene	17.60	105	1572107	9.11	ppbv		96
58) 1,3,5-Trimethylbenzene	17.69	105	1285563	8.95	ppbv		97
59) 1,2,4-Trimethylbenzene	18.27	105	1232500	9.06	ppbv		98
60) 1,3-Dichlorobenzene	18.83	146	782599	9.02	ppbv		99
61) 1,4-Dichlorobenzene	18.97	146	727790	9.01	ppbv		99
62) Benzyl chloride	19.18	91	1138262	9.23	ppbv		98
63) 1,2-Dichlorobenzene	19.62	146	722188	9.03	ppbv		99
64) 1,2,4-Trichlorobenzene	22.78	180	130697	6.98	ppbv		98
65) Hexachlorobutadiene	22.97	225	309702	7.55	ppbv		99
66) Naphthalene	23.46	128	252708	7.38	ppbv		99

(#) = qualifier out of range (m) = manual integration
12301117.D 123011V1.M Tue Jan 03 16:12:42 2012 Page 2

Quantitation Report

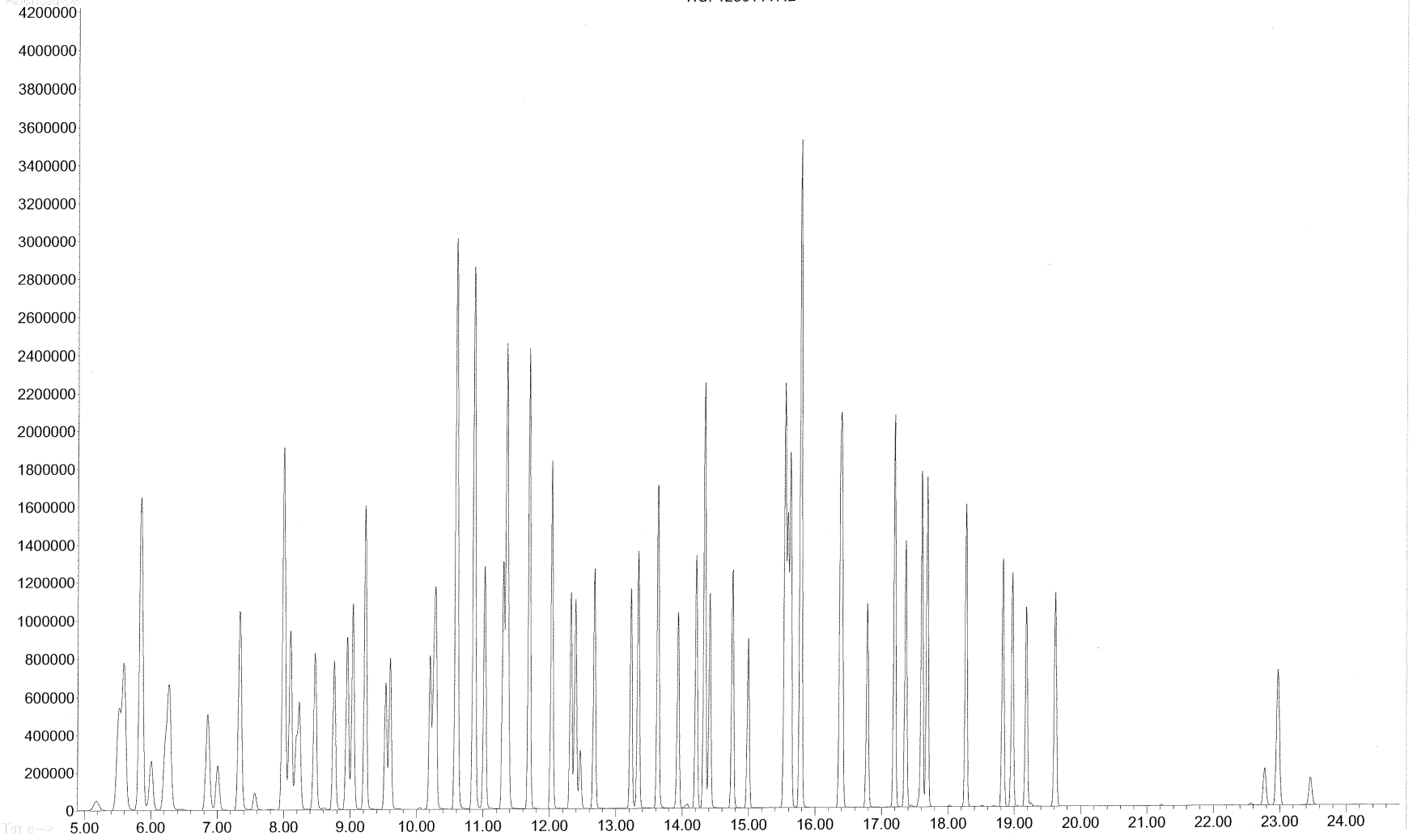
Data File : C:\HPCHEM\1\DATA\123011\12301117.D
Acq On : 31 Dec 2011 12:35 am
Sample : ICV VOA1 123011
Misc : ICV EPA TO15
MS Integration Params: CLME.P
Quant Time: Jan 3 10:41 2012

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

Quant Results File: 123011V1.RES

Method : C:\HPCHEM\1\METHODS\123011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:41:02 2012
Response via : Initial Calibration

TIC: 12301117.D



RTI Laboratories

Run ID: VOA1_120102A **Run No.:** 45190

Analytical Run Date: 1/2/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

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

Column Length: 30m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 010212	BFB_TUNE	TUNE	R45190	1/2/2012 9:30:00 AM	Robert Lynch		
1ppb ICAL	EPA_TO15	ICAL	R45190	1/2/2012 3:46:00 PM	Robert Lynch		
10ppb ICAL	EPA_TO15	ICAL	R45190	1/2/2012 4:32:00 PM	Robert Lynch		
12ppb ICAL	EPA_TO15	ICAL	R45190	1/2/2012 5:18:00 PM	Robert Lynch		
15ppb ICAL	EPA_TO15	ICAL	R45190	1/2/2012 6:04:00 PM	Robert Lynch		
20ppb ICAL	EPA_TO15	ICAL	R45190	1/2/2012 6:50:00 PM	Robert Lynch		
30ppb ICAL	EPA_TO15	ICAL	R45190	1/2/2012 7:38:00 PM	Robert Lynch		
50ppb ICAL	EPA_TO15	ICAL	R45190	1/2/2012 8:26:00 PM	Robert Lynch		
BFB2 VOA1 010212	BFB_TUNE	TUNE	R45190	1/2/2012 9:10:00 PM	Robert Lynch		
ICV VOA1 010212	EPA_TO15	ICV	R45190	1/2/2012 10:42:00 PM	Robert Lynch		
RLVS VOA1 010212	EPA_TO15	RLVS	R45190	1/2/2012 11:29:00 PM	Robert Lynch		
MBLK VOA1 010212	EPA_TO15	MBLK	R45190	1/3/2012 12:21:00 AM	Charles O`Bryan		
1112696-002A	EPA_TO15	SAMP	R45190	1/3/2012 4:55:00 AM	Robert Lynch		
1112696-003A	EPA_TO15	SAMP	R45190	1/3/2012 5:40:00 AM	Robert Lynch		
1112696-004A	EPA_TO15	SAMP	R45190	1/3/2012 7:18:00 AM	Robert Lynch		
1112696-022A	EPA_TO15	SAMP	R45190	1/3/2012 8:49:00 AM	Robert Lynch		
1112696-023A	EPA_TO15	SAMP	R45190	1/3/2012 9:34:00 AM	Robert Lynch		
1112398-010A	EPA_TO15	SAMP	R45190	1/3/2012 12:35:00 PM	Robert Lynch		
1112398-010ADUP	EPA_TO15	DUP	R45190	1/3/2012 1:21:00 PM	Charles O`Bryan		
1112696-027A	EPA_TO15	SAMP	R45190	1/3/2012 2:07:00 PM	Robert Lynch		
1112696-032A	EPA_TO15	SAMP	R45190	1/3/2012 2:53:00 PM	Robert Lynch		
1112696-033A	EPA_TO15	SAMP	R45190	1/3/2012 3:38:00 PM	Robert Lynch		
1112696-034A	EPA_TO15	SAMP	R45190	1/3/2012 4:23:00 PM	Robert Lynch		
1112696-035A	EPA_TO15	SAMP	R45190	1/3/2012 5:09:00 PM	Robert Lynch		
RLVS2 VOA1 01021	EPA_TO15	RLVS	R45190	1/3/2012 7:26:00 PM	Robert Lynch		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
889228	ICV VOA1 010212	EPA_TO15	ICV	\1\DATA\010212	1/2/2012 10:42:0	1	R45190		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	9.74	9.74		9.6	0	0	0.107	1	0	101%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	9.89	9.89		10	0	0	0.211	1	0	99%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.06	10.06		9.8	0	0	0.108	1	0	103%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.96	9.96		9.8	0	0	0.2	1	0	102%	70	130	0%	
1,1-Dichloroethane	A	ppbv	9.28	9.28		9.7	0	0	0.111	1	0	96%	70	130	0%	
1,1-Dichloroethene	A	ppbv	9.88	9.88		9.9	0	0	0.097	1	0	100%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.02	9.02		9.1	0	0	0.271	1	0	99%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.99	9.99		9.8	0	0	0.245	1	0	102%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.24	10.24		9.6	0	0	0.186	1	0	107%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.68	10.68		9.7	0	0	0.208	1	0	110%	70	130	0%	
1,2-Dichloroethane	A	ppbv	8.99	8.99		9.7	0	0	0.196	1	0	93%	70	130	0%	
1,2-Dichloropropane	A	ppbv	9.19	9.19		9.8	0	0	0.224	1	0	94%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.59	9.59		9.7	0	0	0.24	1	0	99%	70	130	0%	
1,3-Butadiene	A	ppbv	10.82	10.82		9.8	0	0	0.152	1	0	110%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.56	10.56		9.7	0	0	0.202	1	0	109%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	10.53	10.53		9.6	0	0	0.194	1	0	110%	70	130	0%	
1,4-Dioxane	A	ppbv	10.25	10.25		9.6	0	0	0.128	1	0	107%	70	130	0%	
2-Butanone	A	ppbv	9.78	9.78		9.9	0	0	0.287	1	0	99%	70	130	0%	
2-Hexanone	A	ppbv	10.21	10.21		9.8	0	0	0.135	1	0	104%	70	130	0%	
2-Propanol	A	ppbv	10.45	10.45		10.1	0	0	0.329	1	0	103%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.04	10.04		10	0	0	0.157	1	0	100%	70	130	0%	
Acetone	A	ppbv	9.27	9.27		10	0	0	0.43	1	0	93%	70	130	0%	
Benzene	A	ppbv	9.05	9.05		9.6	0	0	0.126	1	0	94%	70	130	0%	
Benzyl chloride	A	ppbv	10.05	10.05		9.7	0	0	0.155	1	0	104%	70	130	0%	
Bromodichloromethane	A	ppbv	9.65	9.65		9.6	0	0	0.156	1	0	101%	70	130	0%	
Bromoform	A	ppbv	10.2	10.2		9.6	0	0	0.197	1	0	106%	70	130	0%	
Bromomethane	A	ppbv	9.79	9.79		9.3	0	0	0.075	1	0	105%	70	130	0%	
Carbon disulfide	A	ppbv	10.19	10.19		9.7	0	0	0.093	1	0	105%	70	130	0%	
Carbon tetrachloride	A	ppbv	9.66	9.66		9.5	0	0	0.114	1	0	102%	70	130	0%	
Chlorobenzene	A	ppbv	9.79	9.79		9.9	0	0	0.275	1	0	99%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.56	10.56		9.2	0	0	0.165	1	0	115%	70	130	0%	
Chloroethane	A	ppbv	9.41	9.41		9.8	0	0	0.063	1	0	96%	70	130	0%	
Chloroform	A	ppbv	9.8	9.8		9.4	0	0	0.126	1	0	104%	70	130	0%	
Chloromethane	A	ppbv	9.49	9.49		9.8	0	0	0.104	1	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
889228	ICV VOA1 010212	EPA_TO15	ICV	:\1\DATA\010212	1/2/2012 10:42:0	1	R45190		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
cis-1,2-Dichloroethene	A	ppbv	9.75	9.75		9.8	0	0	0.107	1	0	99%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.26	9.26		9.5	0	0	0.166	1	0	97%	70	130	0%	
Cyclohexane	A	ppbv	9.83	9.83		9.8	0	0	0.684	2	0	100%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.42	9.42		9.2	0	0	0.086	1	0	102%	70	130	0%	
Ethanol	A	ppbv	9.29	9.29		9.2	0	0	1.962	5	0	101%	70	130	0%	
Ethyl acetate	A	ppbv	9.39	9.39		9.8	0	0	0.157	1	0	96%	70	130	0%	
Ethylbenzene	A	ppbv	9.49	9.49		9.8	0	0	0.737	2	0	97%	70	130	0%	
Heptane	A	ppbv	10.04	10.04		9.9	0	0	0.249	1	0	101%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.02	9.02		9.4	0	0	0.374	2	0	96%	70	130	0%	
m,p-Xylene	A	ppbv	18.12	18.12		19.2	0	0	0.524	2	0	94%	70	130	0%	
Methylene chloride	A	ppbv	9.23	9.23		10	0	0	2.077	5	0	92%	70	130	0%	
n-Hexane	A	ppbv	9.71	9.71		10.1	0	0	0.692	2	0	96%	70	130	0%	
Naphthalene	A	ppbv	9.41	9.41		9.2	0	0	0.247	1	0	102%	70	130	0%	
o-Xylene	A	ppbv	9.76	9.76		10	0	0	0.258	1	0	98%	70	130	0%	
Propylene	A	ppbv	10.47	10.47		10.2	0	0	0.075	1	0	103%	70	130	0%	
Styrene	A	ppbv	10.03	10.03		9.8	0	0	0.263	1	0	102%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	9.16	9.16		9.9	0	0	0.228	1	0	93%	70	130	0%	
Tetrachloroethene	A	ppbv	11.01	11.01		9.6	0	0	0.148	1	0	115%	70	130	0%	
Tetrahydrofuran	A	ppbv	9.91	9.91		10	0	0	0.201	1	0	99%	70	130	0%	
Toluene	A	ppbv	9.75	9.75		9.8	0	0	0.158	1	0	99%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	9.39	9.39		9.8	0	0	0.117	1	0	96%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.02	9.02		9.1	0	0	0.171	1	0	99%	70	130	0%	
Trichloroethene	A	ppbv	10.06	10.06		9.6	0	0	0.119	1	0	105%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.03	10.03		9.6	0	0	0.148	1	0	104%	70	130	0%	
Vinyl acetate	A	ppbv	9.32	9.32		9.9	0	0	0.266	1	0	94%	70	130	0%	
Vinyl chloride	A	ppbv	11.16	11.16		9.4	0	0	0.072	1	0	119%	70	130	0%	
Xylenes, Total	C	ppbv	27.88	27.88		29.2	0	0	0.782	3	0	95%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		1.25	0	0	0	0	0	1000%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.65	12.65		12.5	0	0	0	0	0	101%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\010212\01021217.D Vial: 2
Acq On : 2 Jan 2012 10:42 pm Operator: RACHEL HILL
Sample : ICV VOA1 010212 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	125	0.00
2	T	Propylene	1.259	1.292	-2.6	113	0.00
3	T	Dichlorodifluoromethane	3.346	3.427	-2.4	112	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.493	2.636	-5.7	117	0.00
5	T	Chloromethane	1.165	1.164	0.1	106	0.00
6	T	Vinyl chloride	1.391	1.652	-18.8	113	0.00
7	T	1,3-Butadiene	1.113	1.229	-10.4	114	0.00
8	T	Bromomethane	1.372	1.444	-5.2	124	0.00
9	T	Chloroethane	0.795	0.813	-2.3	116	0.00
10	T	Trichlorofluoromethane	2.815	2.940	-4.4	119	0.00
11	T	Ethanol	0.361	0.365	-1.1	105	0.00
12	T	Freon113	2.309	2.370	-2.6	112	0.00
13	T	1,1-Dichloroethene	1.823	1.819	0.2	110	0.00
14	T	Acetone	1.828	1.693	7.4	98	0.00
15	T	Carbon disulfide	3.521	3.700	-5.1	116	0.00
16	T	2-Propanol	1.894	1.959	-3.4	105	0.00
17	T	Methylene chloride	1.411	1.303	7.7	103	0.00
18	T	tert-Butyl Methyl Ether	2.584	2.390	7.5	99	0.00
19	T	trans-1,2-Dichloroethene	1.744	1.671	4.2	105	0.00
20	T	n-Hexane	1.917	1.843	3.9	104	0.00
21	T	1,1-Dichloroethane	2.131	2.038	4.4	105	0.00
22	T	Vinyl acetate	2.687	2.531	5.8	93	0.00
23	T	cis-1,2-Dichloroethene	1.227	1.220	0.6	111	0.00
24	T	2-Butanone	1.943	1.918	1.3	104	0.00
25	T	Ethyl acetate	2.491	2.387	4.2	99	0.00
26	T	Tetrahydrofuran	1.235	1.224	0.9	97	0.00
27	T	Chloroform	2.153	2.153	0.0	105	0.00
28	T	1,1,1-Trichloroethane	2.058	2.089	-1.5	107	0.00
29	T	Cyclohexane	1.841	1.847	-0.3	103	0.00
30	T	Carbon tetrachloride	2.013	2.046	-1.6	111	0.00
31	T	Benzene	3.044	2.868	5.8	101	0.00
32	T	1,2-Dichloroethane	1.182	1.095	7.4	97	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	132	0.00
34	T	Heptane	0.714	0.725	-1.5	103	0.00
35	T	Trichloroethene	0.471	0.493	-4.7	113	0.00
36	T	1,2-Dichloropropane	0.371	0.348	6.2	98	0.00
37	T	1,4-Dioxane	0.177	0.188	-6.2	109	0.00
38	T	Bromodichloromethane	0.664	0.668	-0.6	106	0.00
39	T	cis-1,3-Dichloropropene	0.559	0.545	2.5	101	0.00
40	T	4-Methyl-2-pentanone	0.287	0.288	-0.3	101	0.00
41	T	Toluene	1.038	1.032	0.6	104	0.00
42	T	trans-1,3-Dichloropropene	0.475	0.471	0.8	102	0.00
43	T	1,1,2-Trichloroethane	0.363	0.368	-1.4	106	0.00
44	T	Tetrachloroethene	0.515	0.590	-14.6	117	0.00
45	T	2-Hexanone	0.600	0.625	-4.2	102	0.00
46	T	Chlorodibromomethane	0.540	0.581	-7.6	111	0.00
47	T	1,2-Dibromoethane	0.512	0.546	-6.6	111	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\010212\01021217.D Vial: 2
Acq On : 2 Jan 2012 10:42 pm Operator: RACHEL HILL
Sample : ICV VOA1 010212 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	Chlorobenzene	1.000	0.989	1.1	111	0.00
50	T	Ethylbenzene	1.640	1.589	3.1	107	0.00
51	T	m,p-Xylene	1.295	1.223	5.6	105	0.00
52	T	o-Xylene	1.202	1.172	2.5	108	0.00
53	T	Styrene	0.900	0.921	-2.3	111	0.00
54	T	Bromoform	0.642	0.683	-6.4	118	0.00
55	S	4-Bromofluorobenzene	0.589	0.596	-1.2	137	0.00
56	T	1,1,2,2-Tetrachloroethane	0.919	0.908	1.2	110	0.00
57	T	4-Ethyltoluene	1.458	1.449	0.6	114	0.00
58	T	1,3,5-Trimethylbenzene	1.214	1.199	1.2	115	0.00
59	T	1,2,4-Trimethylbenzene	1.140	1.163	-2.0	116	0.00
60	T	1,3-Dichlorobenzene	0.707	0.770	-8.9	122	0.00
61	T	1,4-Dichlorobenzene	0.662	0.726	-9.7	122	0.00
62	T	Benzyl chloride	1.024	1.061	-3.6	113	0.00
63	T	1,2-Dichlorobenzene	0.647	0.712	-10.0	123	0.00
64	T	1,2,4-Trichlorobenzene	0.140	0.138	1.4	115	0.00
65	T	Hexachlorobutadiene	0.320	0.307	4.1	116	0.00
66		Naphthalene	0.251	0.257	-2.4	114	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010212\01021217.D Vial: 2
Acq On : 2 Jan 2012 10:42 pm Operator: RACHEL HILL
Sample : ICV VOA1 010212 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 3 11:53 2012 Quant Results File: 010212V1.RES

Quant Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Initial Calibration
DataAcq Meth : 010212V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	693847	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	2180387	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	1548744	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.19	95	922731	12.65	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 101.20%				
Target Compounds							Qvalue
2) Propylene	5.52	41	731564	10.47	ppbv		97
3) Dichlorodifluoromethane	5.59	85	1750134	9.42	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	1390238	10.05	ppbv		84
5) Chloromethane	6.00	50	613804	9.49	ppbv		99
6) Vinyl chloride	6.21	62	861916	11.16	ppbv		99
7) 1,3-Butadiene	6.28	39	668411	10.82	ppbv		97
8) Bromomethane	6.86	94	745457	9.79	ppbv		99
9) Chloroethane	7.00	64	415190	9.41	ppbv		100
10) Trichlorofluoromethane	7.34	101	1566641	10.03	ppbv		99
11) Ethanol	7.56	45	186443	9.29	ppbv		100
12) Freon113	8.00	101	1289107	10.06	ppbv		95
13) 1,1-Dichloroethene	8.10	61	999834	9.88	ppbv		98
14) Acetone	8.19	43	939947	9.27	ppbv	#	96
15) Carbon disulfide	8.47	76	1992238	10.19	ppbv	#	100
16) 2-Propanol	8.23	45	1098324	10.45	ppbv	#	66
17) Methylene chloride	8.76	49	723085	9.23	ppbv		95
18) tert-Butyl Methyl Ether	8.95	73	1313356	9.16	ppbv		94
19) trans-1,2-Dichloroethene	9.04	61	908939	9.39	ppbv		96
20) n-Hexane	9.23	57	1033135	9.71	ppbv		98
21) 1,1-Dichloroethane	9.60	63	1097305	9.28	ppbv		99
22) Vinyl acetate	9.53	43	1390597	9.32	ppbv		98
23) cis-1,2-Dichloroethene	10.28	96	663752	9.75	ppbv		98
24) 2-Butanone	10.25	43	1054247	9.78	ppbv		94
25) Ethyl acetate	10.20	43	1298659	9.39	ppbv	#	99
26) Tetrahydrofuran	10.59	42	679370	9.91	ppbv		96
27) Chloroform	10.61	83	1171173	9.80	ppbv		99
28) 1,1,1-Trichloroethane	10.86	97	1113023	9.74	ppbv		99
29) Cyclohexane	10.86	56	1004597	9.83	ppbv		96
30) Carbon tetrachloride	11.02	117	1078924	9.66	ppbv		99
31) Benzene	11.30	78	1528245	9.05	ppbv		99
32) 1,2-Dichloroethane	11.38	62	589486	8.99	ppbv		99
34) Heptane	11.35	43	1251534	10.04	ppbv		96
35) Trichloroethene	12.03	130	826200	10.06	ppbv		97
36) 1,2-Dichloropropane	12.39	63	594754	9.19	ppbv		97
37) 1,4-Dioxane	12.46	88	315602	10.25	ppbv		98
38) Bromodichloromethane	12.67	83	1118015	9.65	ppbv		99
39) cis-1,3-Dichloropropene	13.22	75	903704	9.26	ppbv		99
40) 4-Methyl-2-pentanone	13.33	58	501768	10.04	ppbv		95
41) Toluene	13.63	91	1764828	9.75	ppbv		99
42) trans-1,3-Dichloropropene	13.93	75	746898	9.02	ppbv		100
43) 1,1,2-Trichloroethane	14.21	97	629845	9.96	ppbv		98

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010212\01021217.D Vial: 2
Acq On : 2 Jan 2012 10:42 pm Operator: RACHEL HILL
Sample : ICV VOA1 010212 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 3 11:53 2012 Quant Results File: 010212V1.RES

Quant Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Initial Calibration
DataAcq Meth : 010212V1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Tetrachloroethene	14.33	166	988235	11.01	ppbv	99
45) 2-Hexanone	14.41	43	1068198	10.21	ppbv	99
46) Chlorodibromomethane	14.75	129	993970	10.56	ppbv	100
47) 1,2-Dibromoethane	14.99	107	913703	10.24	ppbv	99
49) Chlorobenzene	15.59	112	1212952	9.79	ppbv	97
50) Ethylbenzene	15.63	91	1929149	9.49	ppbv	97
51) m,p-Xylene	15.78	91	2908376	18.12	ppbv	96
52) o-Xylene	16.38	91	1452560	9.76	ppbv	95
53) Styrene	16.40	104	1118448	10.03	ppbv	98
54) Bromoform	16.78	173	812037	10.20	ppbv	99
56) 1,1,2,2-Tetrachloroethane	17.36	83	1125070	9.89	ppbv	99
57) 4-Ethyltoluene	17.60	105	1759434	9.74	ppbv	97
58) 1,3,5-Trimethylbenzene	17.68	105	1441487	9.59	ppbv	99
59) 1,2,4-Trimethylbenzene	18.27	105	1411591	9.99	ppbv	99
60) 1,3-Dichlorobenzene	18.82	146	925403	10.56	ppbv	98
61) 1,4-Dichlorobenzene	18.96	146	863439	10.53	ppbv	98
62) Benzyl chloride	19.18	91	1274560	10.05	ppbv	100
63) 1,2-Dichlorobenzene	19.61	146	856270	10.68	ppbv	99
64) 1,2,4-Trichlorobenzene	22.77	180	155997	9.02	ppbv	98
65) Hexachlorobutadiene	22.97	225	357717	9.02	ppbv	99
66) Naphthalene	23.46	128	292418	9.41	ppbv	99

(#) = qualifier out of range (m) = manual integration
01021217.D 010212V1.M Thu Jan 12 10:24:28 2012 Page 2

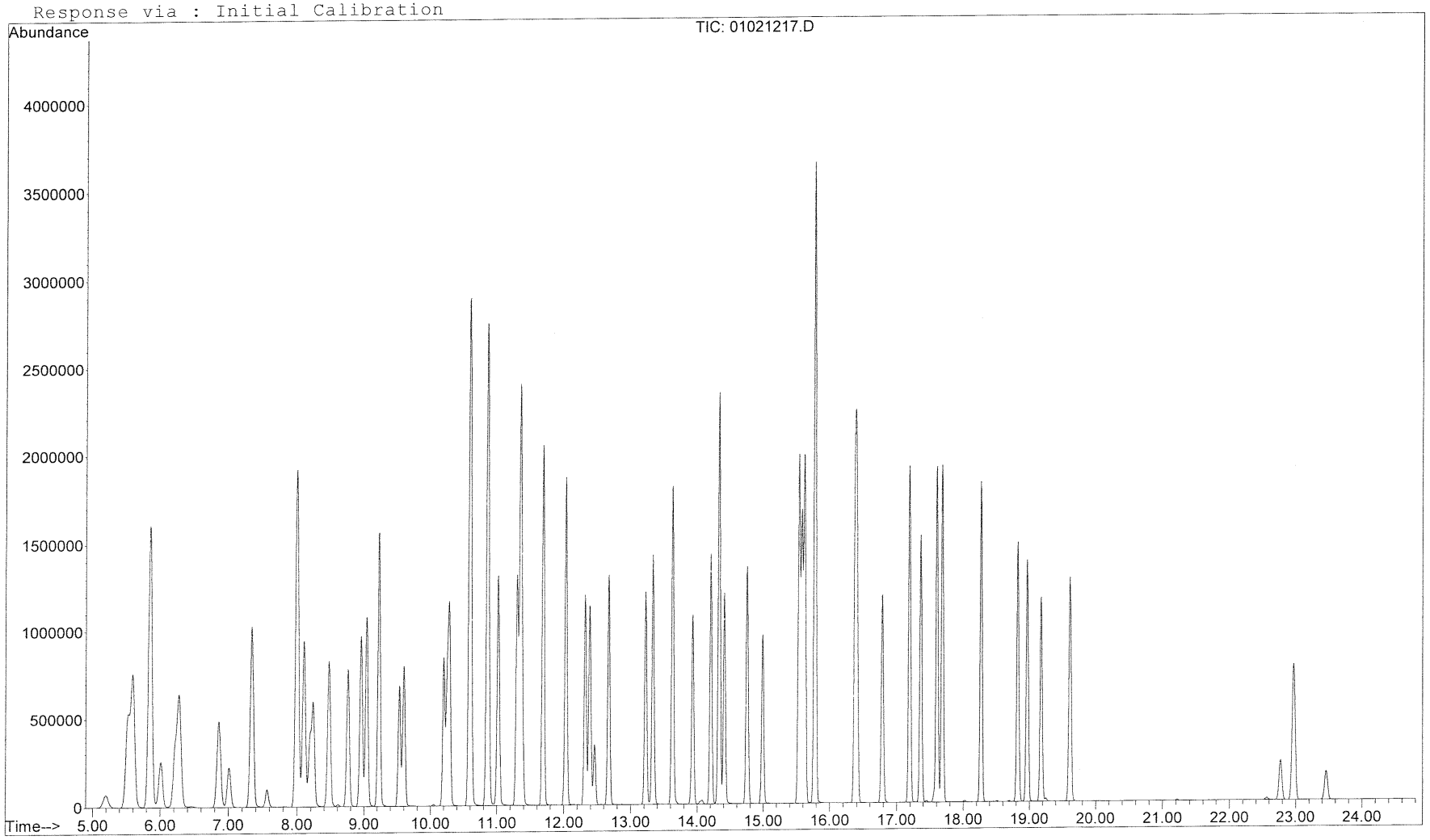
Quantitation Report

Data File : C:\HPCHEM\1\DATA\010212\01021217.D
Acq On : 2 Jan 2012 10:42 pm
Sample : ICV VOA1 010212
Misc : ICV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Jan 3 11:53 2012

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

Quant Results File: 010212V1.RES

Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Initial Calibration



Response Factor Report VOA 1

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

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

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

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

Response Factor Report VOA 1

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

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

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

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

Compound List Report VOA 1

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

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

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\123011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:41:02 2012
Response via : Initial Calibration

Calibration Files
2 =12301106.D 4 =12301112.D 5 =12301113.D
6 =12301109.D 7 =12301110.D 8 =12301111.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.176	1.287	1.280	1.171	1.175	1.185	1.217	4.26
3)	T	Dichlorodifluoromet	2.925	3.453	3.425	3.106	3.125	3.170	3.196	5.80
4)	T	1,2-Dichloro-1,2,2,	2.056	2.692	2.645	2.313	2.367	2.405	2.389	9.26
5)	T	Chloromethane	1.164	1.182	1.174	1.121	1.076	1.021	1.120	5.23
6)	T	Vinyl chloride	1.322	1.596	1.571	1.438	1.246	0.909	1.269	24.50
7)	T	1,3-Butadiene	1.076	1.252	1.225	1.120	1.081	0.994	1.073	15.14
8)	T	Bromomethane	1.119	1.508	1.462	1.285	1.265	1.405	1.347	9.89
9)	T	Chloroethane	0.699	0.861	0.835	0.759	0.706	0.785	0.777	7.82
10)	T	Trichlorofluorometh	2.370	3.186	2.998	2.767	2.475	2.785	2.746	10.35
11)	T	Ethanol	0.302	0.407	0.389	0.312	0.293	0.338	0.340	13.90
12)	T	Freon113	2.102	2.741	2.446	2.380	2.011	2.083	2.232	13.63
13)	T	1,1-Dichloroethene	1.703	2.060	1.869	1.814	1.550	1.711	1.766	9.43
14)	T	Acetone	2.110	1.970	1.828	1.581	1.381	1.594	1.714	15.27
15)	T	Carbon disulfide	3.187	3.966	3.795	3.485	3.122	3.432	3.465	9.09
16)	T	2-Propanol	1.596	2.100	2.063	1.656	1.586	1.752	1.782	11.98
17)	T	Methylene chloride	1.634	1.500	1.353	1.343	1.142	1.249	1.349	12.61
18)	T	tert-Butyl Methyl E	2.799	2.834	2.577	2.241	1.895	2.338	2.413	14.14
19)	T	trans-1,2-Dichloroe	1.706	1.911	1.732	1.685	1.452	1.594	1.661	8.93
20)	T	n-Hexane	1.888	2.108	1.940	1.835	1.617	1.714	1.821	9.63
21)	T	1,1-Dichloroethane	2.084	2.289	2.125	1.983	1.766	1.974	2.020	8.23
22)	T	Vinyl acetate	2.307	2.955	2.756	2.437	2.049	2.413	2.486	13.02
23)	T	cis-1,2-Dichloroeth	1.142	1.377	1.269	1.146	1.026	1.197	1.184	9.50
24)	T	2-Butanone	2.094	2.073	2.047	1.751	1.432	1.648	1.841	14.84
25)	T	Ethyl acetate	2.700	2.614	2.559	2.214	1.857	2.110	2.300	14.10
26)	T	Tetrahydrofuran	1.151	1.303	1.295	1.089	1.038	1.031	1.134	10.65
27)	T	Chloroform	2.128	2.335	2.204	2.029	1.832	1.866	2.019	10.74
28)	T	1,1,1-Trichloroetha	1.906	2.294	2.172	1.994	1.763	1.840	1.946	11.59
29)	T	Cyclohexane	1.942	2.047	1.885	1.789	1.575	1.519	1.727	14.92
30)	T	Carbon tetrachlorid	1.751	2.270	2.127	1.902	1.705	1.937	1.923	10.92
31)	T	Benzene	3.423	3.345	3.115	2.736	2.339	2.714	2.884	14.42
32)	T	1,2-Dichloroethane	1.293	1.245	1.183	1.053	0.913	1.031	1.098	13.05
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.730	0.773	0.753	0.649	0.573	0.521	0.632	20.67
35)	T	Trichloroethene	0.397	0.541	0.523	0.434	0.378	0.400	0.428	18.66
36)	T	1,2-Dichloropropane	0.381	0.390	0.379	0.322	0.273	0.296	0.329	16.80
37)	T	1,4-Dioxane	0.138	0.202	0.202	0.154	0.137	0.160	0.161	18.15
38)	T	Bromodichloromethan	0.597	0.719	0.707	0.605	0.521	0.548	0.595	15.78
39)	T	cis-1,3-Dichloropro	0.520	0.607	0.596	0.493	0.428	0.471	0.504	15.24
40)	T	4-Methyl-2-pentanon	0.231	0.317	0.315	0.253	0.229	0.240	0.257	16.36
41)	T	Toluene	1.076	1.144	1.107	0.981	0.788	0.847	0.950	18.03
42)	T	trans-1,3-Dichlorop	0.420	0.517	0.512	0.442	0.372	0.410	0.434	14.15
43)	T	1,1,2-Trichloroetha	0.335	0.404	0.396	0.344	0.288	0.313	0.335	15.37
44)	T	Tetrachloroethene	0.467	0.626	0.607	0.525	0.443	0.432	0.490	21.41
45)	T	2-Hexanone	0.469	0.669	0.666	0.542	0.491	0.500	0.540	17.09
46)	T	Chlorodibromomethan	0.464	0.634	0.613	0.538	0.445	0.485	0.510	17.42
47)	T	1,2-Dibromoethane	0.487	0.598	0.581	0.497	0.416	0.452	0.487	16.73
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.989	1.111	1.062	0.885	0.785	0.836	0.910	16.47
50)	T	Ethylbenzene	1.751	1.767	1.711	1.411	1.278	1.256	1.460	19.56
51)	T	m,p-Xylene	1.327	1.334	1.303	1.051	0.960	0.816	1.132	19.53
52)	T	o-Xylene	1.244	1.284	1.252	1.024	0.948	0.912	1.061	19.12
53)	T	Styrene	0.828	1.016	0.966	0.804	0.737	0.723	0.810	17.96
54)	T	Bromoform	0.575	0.739	0.688	0.580	0.528	0.549	0.586	16.96
55)	S	4-Bromofluorobenzen	0.640	0.581	0.559	0.544	0.572	0.559	0.573	5.53
56)	T	1,1,2,2-Tetrachloro	1.111	0.972	0.906	0.724	0.708	0.678	0.810	23.48
57)	T	4-Ethyltoluene	1.854	1.546	1.392	1.131	1.101	1.125	1.298	24.45

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\123011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:41:02 2012
Response via : Initial Calibration

Calibration Files
2 =12301106.D 4 =12301112.D 5 =12301113.D
6 =12301109.D 7 =12301110.D 8 =12301111.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.575	1.275	1.169	0.924	0.915	0.927	1.081	25.52
59)	T	1,2,4-Trimethylbenz	1.478	1.222	1.106	0.880	0.863	0.873	1.024	25.23
60)	T	1,3-Dichlorobenzene	0.872	0.819	0.704	0.562	0.551	0.581	0.653	22.78
61)	T	1,4-Dichlorobenzene	0.784	0.764	0.657	0.528	0.516	0.549	0.607	21.30
62)	T	Benzyl chloride		1.135	1.041	0.813	0.820	0.827	0.927	16.23
63)	T	1,2-Dichlorobenzene	0.835	0.752	0.645	0.506	0.507	0.526	0.601	24.49
64)	T	1,2,4-Trichlorobenz	0.177	0.157	0.139	0.105	0.118	0.149	0.141	18.73
65)	T	Hexachlorobutadiene	0.502	0.337	0.305	0.231	0.246	0.290	0.308	30.24
66)		Naphthalene	0.272	0.296	0.265	0.202	0.228	0.282	0.257	13.73

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\123011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:41:02 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	5.52	0.521	A	2	A	B
3		T	Dichlorodifluoromethane	85	5.59	0.528	A	3	A	B
4		T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.85	0.552	A	2	A	B
5		T	Chloromethane	50	6.01	0.567	A	3	A	B
6		T	Vinyl chloride	62	6.22	0.587	A	2	A	B
7		T	1,3-Butadiene	39	6.27	0.592	A	2	A	B
8		T	Bromomethane	94	6.86	0.648	A	3	A	B
9		T	Chloroethane	64	7.01	0.661	A	3	A	B
10		T	Trichlorofluoromethane	101	7.34	0.693	A	3	A	B
11		T	Ethanol	45	7.57	0.714	A	2	A	B
12		T	Freon113	101	8.00	0.755	A	2	A	B
13		T	1,1-Dichloroethene	61	8.10	0.765	A	2	A	B
14		T	Acetone	43	8.19	0.773	A	2	A	B
15		T	Carbon disulfide	76	8.47	0.800	A	3	A	B
16		T	2-Propanol	45	8.24	0.778	A	2	A	B
17		T	Methylene chloride	49	8.76	0.827	A	2	A	B
18		T	tert-Butyl Methyl Ether	73	8.96	0.845	A	2	A	B
19		T	trans-1,2-Dichloroethene	61	9.04	0.853	A	2	A	B
20		T	n-Hexane	57	9.23	0.871	A	3	A	B
21		T	1,1-Dichloroethane	63	9.60	0.906	A	3	A	B
22		T	Vinyl acetate	43	9.53	0.900	A	2	A	B
23		T	cis-1,2-Dichloroethene	96	10.29	0.971	A	3	A	B
24		T	2-Butanone	43	10.25	0.967	A	2	A	B
25		T	Ethyl acetate	43	10.20	0.963	A	3	A	B
26		T	Tetrahydrofuran	42	10.59	1.000	A	2	A	B
27		T	Chloroform	83	10.61	1.001	A	2	A	B
28		T	1,1,1-Trichloroethane	97	10.86	1.025	A	3	A	B
29		T	Cyclohexane	56	10.87	1.026	A	2	A	B
30		T	Carbon tetrachloride	117	11.02	1.040	A	3	A	B
31		T	Benzene	78	11.30	1.067	A	3	A	B
32		T	1,2-Dichloroethane	62	11.38	1.074	A	3	A	B
33	I		1,4-Difluorobenzene	114	11.69	1.000	A	2	A	B
34		T	Heptane	43	11.35	0.971	A	3	A	B
35		T	Trichloroethene	130	12.03	1.029	A	3	A	B
36		T	1,2-Dichloropropane	63	12.39	1.059	A	3	A	B
37		T	1,4-Dioxane	88	12.46	1.066	A	2	A	B
38		T	Bromodichloromethane	83	12.68	1.084	A	2	A	B
39		T	cis-1,3-Dichloropropene	75	13.23	1.131	A	2	A	B
40		T	4-Methyl-2-pentanone	58	13.33	1.140	A	3	A	B
41		T	Toluene	91	13.63	1.166	A	2	A	B
42		T	trans-1,3-Dichloropropene	75	13.94	1.192	A	3	A	B
43		T	1,1,2-Trichloroethane	97	14.21	1.215	A	3	A	B
44		T	Tetrachloroethene	166	14.33	1.226	A	3	A	B
45		T	2-Hexanone	43	14.41	1.233	A	2	A	B
46		T	Chlorodibromomethane	129	14.76	1.262	A	2	A	B
47		T	1,2-Dibromoethane	107	14.99	1.282	A	2	A	B
48	I		Chlorobenzene-d5	117	15.54	1.000	A	2	A	B
49		T	Chlorobenzene	112	15.59	1.003	A	3	A	B
50		T	Ethylbenzene	91	15.63	1.005	A	2	A	B
51		T	m,p-Xylene	91	15.78	1.015	A	2	A	B
52		T	o-Xylene	91	16.37	1.054	A	2	A	B
53		T	Styrene	104	16.40	1.055	A	3	A	B
54		T	Bromoform	173	16.79	1.080	A	3	A	B
55		S	4-Bromofluorobenzene	95	17.19	1.106	A	2	A	B
56		T	1,1,2,2-Tetrachloroethane	83	17.36	1.117	A	2	A	B
57		T	4-Ethyltoluene	105	17.61	1.133	A	1	A	B
58		T	1,3,5-Trimethylbenzene	105	17.69	1.138	A	2	A	B
59		T	1,2,4-Trimethylbenzene	105	18.27	1.176	A	2	A	B
60		T	1,3-Dichlorobenzene	146	18.83	1.211	A	3	A	B
61		T	1,4-Dichlorobenzene	146	18.97	1.220	A	3	A	B
62		T	Benzyl chloride	91	19.18	1.234	A	2	A	B
63		T	1,2-Dichlorobenzene	146	19.62	1.262	A	3	A	B
64		T	1,2,4-Trichlorobenzene	180	22.77	1.465	A	3	A	B
65		T	Hexachlorobutadiene	225	22.97	1.478	A	2	A	B
66			Naphthalene	128	23.46	1.509	A	2	A	B

```
Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
  A/H = Area or Height
ID  R = R.T.  B = R.T. & Q  Q = Qvalue L = Largest  A = All
--------------------------------------------------------------------------------
          123011V1.M     Tue Jan 03 16:11:20 2012
```

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Initial Calibration

Calibration Files
2 =01021208.D 4 =01021209.D 5 =01021210.D
6 =01021211.D 7 =01021212.D 8 =01021213.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.229	1.428	1.300	1.267	1.186	1.130	1.259	7.49
3)	T	Dichlorodifluoromet	3.199	3.824	3.566	3.331	3.172	3.023	3.346	8.05
4)	T	1,2-Dichloro-1,2,2,	2.428	2.816	2.774	2.447	2.333	2.297	2.493	8.55
5)	T	Chloromethane	1.162	1.373	1.165	1.201	1.109	1.013	1.165	9.42
6)	T	Vinyl chloride	1.468	1.813	1.604	1.625	1.459	0.958	1.391	26.44
7)	T	1,3-Butadiene	1.131	1.340	1.216	1.201	1.119	0.986	1.113	15.74
8)	T	Bromomethane	1.260	1.448	1.501	1.360	1.286	1.317	1.372	6.56
9)	T	Chloroethane	0.729	0.873	0.840	0.820	0.765	0.735	0.795	6.82
10)	T	Trichlorofluorometh	2.478	3.074	3.093	2.947	2.753	2.642	2.815	8.18
11)	T	Ethanol	0.304	0.433	0.398	0.381	0.335	0.317	0.361	14.04
12)	T	Freon113	2.173	2.644	2.508	2.573	2.293	2.011	2.309	11.84
13)	T	1,1-Dichloroethene	1.749	2.066	1.882	1.964	1.789	1.598	1.823	8.76
14)	T	Acetone	2.102	2.155	1.918	1.886	1.544	1.482	1.828	14.26
15)	T	Carbon disulfide	3.279	3.962	3.820	3.693	3.430	3.137	3.521	8.71
16)	T	2-Propanol	1.599	2.328	2.103	1.971	1.746	1.627	1.894	13.94
17)	T	Methylene chloride	1.650	1.575	1.392	1.486	1.285	1.191	1.411	11.84
18)	T	tert-Butyl Methyl E	2.847	3.004	2.759	2.664	2.192	2.142	2.584	12.66
19)	T	trans-1,2-Dichloroe	1.752	1.973	1.788	1.894	1.632	1.532	1.744	8.93
20)	T	n-Hexane	1.963	2.205	1.974	2.071	1.790	1.671	1.917	9.95
21)	T	1,1-Dichloroethane	2.140	2.413	2.210	2.261	1.973	1.874	2.131	8.59
22)	T	Vinyl acetate	2.305	3.375	2.902	2.865	2.403	2.274	2.687	16.21
23)	T	cis-1,2-Dichloroeth	1.139	1.368	1.332	1.290	1.143	1.111	1.227	8.39
24)	T	2-Butanone	2.085	2.308	1.982	1.954	1.678	1.650	1.943	12.84
25)	T	Ethyl acetate	2.794	2.999	2.606	2.539	2.138	2.031	2.491	13.98
26)	T	Tetrahydrofuran	1.164	1.571	1.332	1.305	1.091	1.045	1.235	14.75
27)	T	Chloroform	2.202	2.562	2.295	2.298	2.001	1.827	2.153	12.19
28)	T	1,1,1-Trichloroetha	1.983	2.441	2.260	2.234	1.938	1.758	2.058	12.54
29)	T	Cyclohexane	2.002	2.239	1.918	2.045	1.714	1.524	1.841	15.81
30)	T	Carbon tetrachlorid	1.821	2.286	2.252	2.123	1.899	1.787	2.013	10.19
31)	T	Benzene	3.428	3.550	3.245	3.132	2.675	2.511	3.044	13.07
32)	T	1,2-Dichloroethane	1.325	1.403	1.247	1.203	1.046	0.967	1.182	13.34
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.751	0.936	0.783	0.796	0.676	0.524	0.714	20.79
35)	T	Trichloroethene	0.410	0.580	0.565	0.510	0.464	0.369	0.471	17.75
36)	T	1,2-Dichloropropane	0.386	0.468	0.403	0.397	0.339	0.276	0.371	16.82
37)	T	1,4-Dioxane	0.133	0.228	0.211	0.193	0.165	0.135	0.177	20.65
38)	T	Bromodichloromethan	0.605	0.838	0.755	0.718	0.636	0.511	0.664	16.84
39)	T	cis-1,3-Dichloropro	0.526	0.712	0.628	0.589	0.519	0.425	0.559	16.54
40)	T	4-Methyl-2-pentanon	0.230	0.376	0.325	0.313	0.273	0.222	0.287	19.12
41)	T	Toluene	1.088	1.320	1.166	1.092	0.952	0.763	1.038	17.95
42)	T	trans-1,3-Dichlorop	0.422	0.609	0.531	0.498	0.442	0.365	0.475	16.75
43)	T	1,1,2-Trichloroetha	0.349	0.459	0.393	0.384	0.338	0.282	0.363	15.49
44)	T	Tetrachloroethene	0.479	0.668	0.566	0.568	0.516	0.399	0.515	18.68
45)	T	2-Hexanone	0.470	0.812	0.667	0.662	0.572	0.463	0.600	20.63
46)	T	Chlorodibromomethan	0.467	0.696	0.574	0.589	0.529	0.432	0.540	16.51
47)	T	1,2-Dibromoethane	0.495	0.649	0.544	0.543	0.484	0.399	0.512	15.29
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	1.013	1.221	1.170	1.039	0.915	0.789	1.000	15.92
50)	T	Ethylbenzene	1.778	2.050	1.948	1.713	1.484	1.231	1.640	19.47
51)	T	m,p-Xylene	1.374	1.607	1.529	1.313	1.103	0.846	1.295	21.75
52)	T	o-Xylene	1.280	1.492	1.442	1.264	1.092	0.910	1.202	19.30
53)	T	Styrene	0.840	1.142	1.090	0.956	0.839	0.709	0.900	18.79
54)	T	Bromoform	0.605	0.793	0.766	0.677	0.603	0.512	0.642	16.73
55)	S	4-Bromofluorobenzen	0.661	0.597	0.588	0.581	0.567	0.547	0.589	6.02
56)	T	1,1,2,2-Tetrachloro	1.192	1.140	1.072	0.898	0.785	0.648	0.919	23.86
57)	T	4-Ethyltoluene	1.984	1.746	1.641	1.415	1.231	1.042	1.458	23.65

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Initial Calibration

Calibration Files
2 =01021208.D 4 =01021209.D 5 =01021210.D
6 =01021211.D 7 =01021212.D 8 =01021213.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.693	1.441	1.371	1.166	1.019	0.861	1.214	24.77
59)	T	1,2,4-Trimethylbenz	1.585	1.383	1.281	1.068	0.948	0.806	1.140	24.92
60)	T	1,3-Dichlorobenzene	0.939	0.871	0.800	0.663	0.599	0.502	0.707	23.26
61)	T	1,4-Dichlorobenzene	0.845	0.818	0.759	0.624	0.564	0.470	0.662	22.03
62)	T	Benzyl chloride		1.285	1.214	1.023	0.877	0.720	1.024	22.83
63)	T	1,2-Dichlorobenzene	0.894	0.794	0.742	0.606	0.529	0.437	0.647	25.70
64)	T	1,2,4-Trichlorobenz	0.187	0.165	0.155	0.119	0.111	0.100	0.140	24.72
65)	T	Hexachlorobutadiene	0.509	0.364	0.340	0.273	0.242	0.214	0.320	30.66
66)		Naphthalene	0.284	0.310	0.292	0.224	0.206	0.189	0.251	20.19

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Initial Calibration
Total Cpnds : 66

PK#			Compound Name	QIon	Exp RT	Rel RT	Cal	#Qual	A/H	ID
1	I		Bromochloromethane	130	10.59	1.000	A	2	A	B
2		T	Propylene	41	5.52	0.521	A	2	A	B
3		T	Dichlorodifluoromethane	85	5.59	0.528	A	3	A	B
4		T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.85	0.552	A	2	A	B
5		T	Chloromethane	50	6.01	0.567	A	3	A	B
6		T	Vinyl chloride	62	6.21	0.587	A	2	A	B
7		T	1,3-Butadiene	39	6.27	0.593	A	2	A	B
8		T	Bromomethane	94	6.85	0.647	A	3	A	B
9		T	Chloroethane	64	7.00	0.661	A	3	A	B
10		T	Trichlorofluoromethane	101	7.34	0.693	A	3	A	B
11		T	Ethanol	45	7.56	0.714	A	2	A	B
12		T	Freon113	101	8.00	0.755	A	2	A	B
13		T	1,1-Dichloroethene	61	8.10	0.765	A	2	A	B
14		T	Acetone	43	8.18	0.773	A	2	A	B
15		T	Carbon disulfide	76	8.47	0.799	A	3	A	B
16		T	2-Propanol	45	8.23	0.777	A	2	A	B
17		T	Methylene chloride	49	8.76	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	10.25	0.968	A	2	A	B
25		T	Ethyl acetate	43	10.20	0.963	A	3	A	B
26		T	Tetrahydrofuran	42	10.59	1.000	A	2	A	B
27		T	Chloroform	83	10.60	1.001	A	2	A	B
28		T	1,1,1-Trichloroethane	97	10.86	1.025	A	3	A	B
29		T	Cyclohexane	56	10.86	1.026	A	2	A	B
30		T	Carbon tetrachloride	117	11.02	1.041	A	3	A	B
31		T	Benzene	78	11.30	1.067	A	3	A	B
32		T	1,2-Dichloroethane	62	11.37	1.074	A	3	A	B
33	I		1,4-Difluorobenzene	114	11.69	1.000	A	2	A	B
34		T	Heptane	43	11.35	0.970	A	3	A	B
35		T	Trichloroethene	130	12.03	1.029	A	3	A	B
36		T	1,2-Dichloropropane	63	12.39	1.059	A	3	A	B
37		T	1,4-Dioxane	88	12.46	1.066	A	2	A	B
38		T	Bromodichloromethane	83	12.67	1.084	A	2	A	B
39		T	cis-1,3-Dichloropropene	75	13.23	1.131	A	2	A	B
40		T	4-Methyl-2-pentanone	58	13.33	1.140	A	3	A	B
41		T	Toluene	91	13.63	1.166	A	2	A	B
42		T	trans-1,3-Dichloropropene	75	13.93	1.191	A	3	A	B
43		T	1,1,2-Trichloroethane	97	14.20	1.215	A	3	A	B
44		T	Tetrachloroethene	166	14.33	1.225	A	3	A	B
45		T	2-Hexanone	43	14.41	1.233	A	2	A	B
46		T	Chlorodibromomethane	129	14.75	1.262	A	2	A	B
47		T	1,2-Dibromoethane	107	14.99	1.282	A	2	A	B
48	I		Chlorobenzene-d5	117	15.54	1.000	A	2	A	B
49		T	Chlorobenzene	112	15.58	1.003	A	3	A	B
50		T	Ethylbenzene	91	15.63	1.005	A	2	A	B
51		T	m,p-Xylene	91	15.78	1.015	A	2	A	B
52		T	o-Xylene	91	16.37	1.054	A	2	A	B
53		T	Styrene	104	16.40	1.055	A	3	A	B
54		T	Bromoform	173	16.78	1.080	A	3	A	B
55		S	4-Bromofluorobenzene	95	17.19	1.106	A	2	A	B
56		T	1,1,2,2-Tetrachloroethane	83	17.36	1.117	A	2	A	B
57		T	4-Ethyltoluene	105	17.60	1.133	A	1	A	B
58		T	1,3,5-Trimethylbenzene	105	17.69	1.138	A	2	A	B
59		T	1,2,4-Trimethylbenzene	105	18.27	1.175	A	2	A	B
60		T	1,3-Dichlorobenzene	146	18.83	1.211	A	3	A	B
61		T	1,4-Dichlorobenzene	146	18.97	1.220	A	3	A	B
62		T	Benzyl chloride	91	19.18	1.234	A	2	A	B
63		T	1,2-Dichlorobenzene	146	19.61	1.262	A	3	A	B
64		T	1,2,4-Trichlorobenzene	180	22.78	1.465	A	3	A	B
65		T	Hexachlorobutadiene	225	22.97	1.478	A	2	A	B
66			Naphthalene	128	23.46	1.509	A	2	A	B

```
Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
  A/H = Area or Height
ID  R = R.T.  B = R.T. & Q  Q = Qvalue L = Largest  A = All
--------------------------------------------------------------------------------
          010212V1.M     Wed Jan 04 12:18:01 2012
```

RTI Laboratories

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

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

Analyst: Rachel Hill **Column:**

Calibration ID: 44926 **Column ID:**

Column Length:

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

RTI Laboratories

ANALYTICAL RUN Summary

11-Jan-12

RunNo 45016

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
885645	BFB 121611 VOA9	BFB_TUNE	TUNE	.\1\DATA\121611	12/16/2011 12:0	1	R45016		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		100	0	0	0	0	0	0%	0	2	0%	
174	M		57	57		100	0	0	0	0	0	57%	50	120	0%	
175	M		7.1	7.1		100	0	0	0	0	0	7%	4	9	0%	
176	M		96.9	96.9		100	0	0	0	0	0	97%	93	101	0%	
177	M		6.8	6.8		100	0	0	0	0	0	7%	5	9	0%	
50	M		27	27		100	0	0	0	0	0	27%	8	40	0%	
75	M		50.9	50.9		100	0	0	0	0	0	51%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.8	6.8		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
885646	CCV 121611 VOA9	MA_APH	CCV	.\1\DATA\121611	12/16/2011 1:45:	1	R45016		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	198.64	198.64		234	0	0	0	0	0	85%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	222.38	222.38		266	0	0	0	0	0	84%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	320.67	320.67		378	0	0	0	0	0	85%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	95.32	95.32		89.5	0	0	0	0	0	107%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121611\12161102.D Vial: 1
Acq On : 16 Dec 2011 1:45 pm Operator: RACHEL HILL
Sample : CCV 121611 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 19 15:45 2011 Quant Results File: 120811V9.RES

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

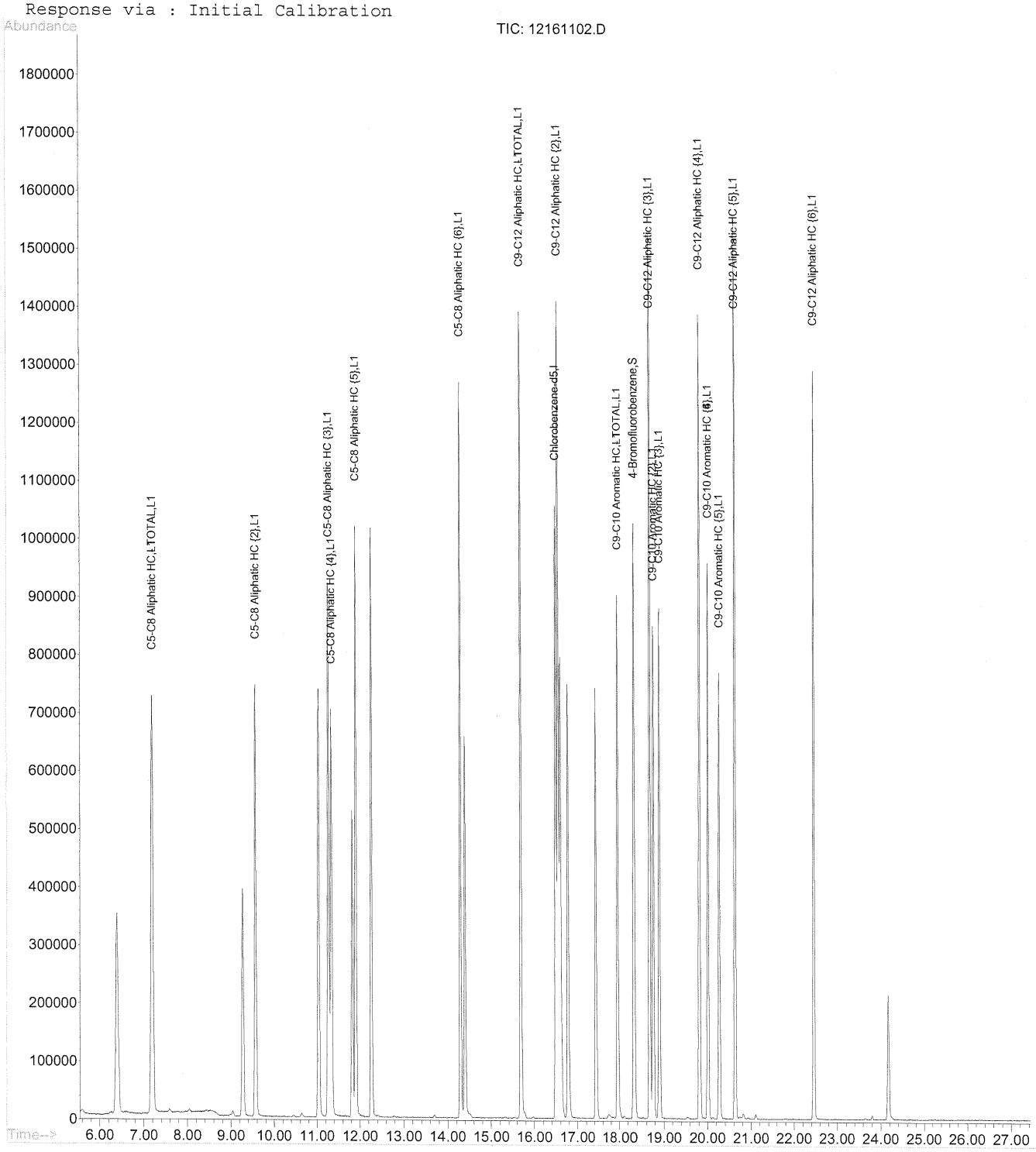
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	693445	12.50	ug/m3	-0.02
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.33	95	502918	95.32	ug/m3	-0.01
Spiked Amount 89.500	Range 70 - 130		Recovery = 106.50%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2498701	27.14	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	1827977	30.29	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	2367281	35.13	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	1760690	29.36	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2259741	34.83	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	2640540	40.85	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	13354930m	198.64	ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	3156433	45.05	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.55	TIC	2992287	44.03	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	3116277	52.32	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	2999606	52.09	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.63	TIC	3183665	61.43	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.46	TIC	2575345	67.47	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	18023613m	320.67	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	192600	42.08	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.75	120	206928	42.26	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.90	120	307728	43.97	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.01	120	71078	48.95	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.27	120	239566	44.48	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	172116	49.21	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1190016m	222.38	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121611\12161102.D Vial: 1
Acq On : 16 Dec 2011 1:45 pm Operator: RACHEL HILL
Sample : CCV 121611 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 19 15:45 2011 Quant Results File: 120811V9.RES

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



RTI Laboratories

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

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

Analyst: Rachel Hill **Column:**

Calibration ID: 44926 **Column ID:**

Column Length:

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

RTI Laboratories

ANALYTICAL RUN Summary

11-Jan-12

RunNo 45018

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
885826	BFB1 121911 VOA9	BFB_TUNE	TUNE	.\1\DATA\121911	12/19/2011 9:22:	1	R45018		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		100	0	0	0	0	0	0%	0	2	0%	
174	M		58	58		100	0	0	0	0	0	58%	50	120	0%	
175	M		7.3	7.3		100	0	0	0	0	0	7%	4	9	0%	
176	M		96.6	96.6		100	0	0	0	0	0	97%	93	101	0%	
177	M		6.5	6.5		100	0	0	0	0	0	7%	5	9	0%	
50	M		26.2	26.2		100	0	0	0	0	0	26%	8	40	0%	
75	M		50.5	50.5		100	0	0	0	0	0	51%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
885827	CCV 121911 VOA9	MA_APH	CCV	.\1\DATA\121911	12/19/2011 10:0	1	R45018		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	225.44	225.44		234	0	0	0	0	0	96%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	252.26	252.26		266	0	0	0	0	0	95%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	367.02	367.02		378	0	0	0	0	0	97%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	93.09	93.09		89.5	0	0	0	0	0	104%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121911\12191102.D Vial: 1
Acq On : 19 Dec 2011 10:08 am Operator: RACHEL HILL
Sample : CCV 121911 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 20 14:35 2011 Quant Results File: 120811V9.RES

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

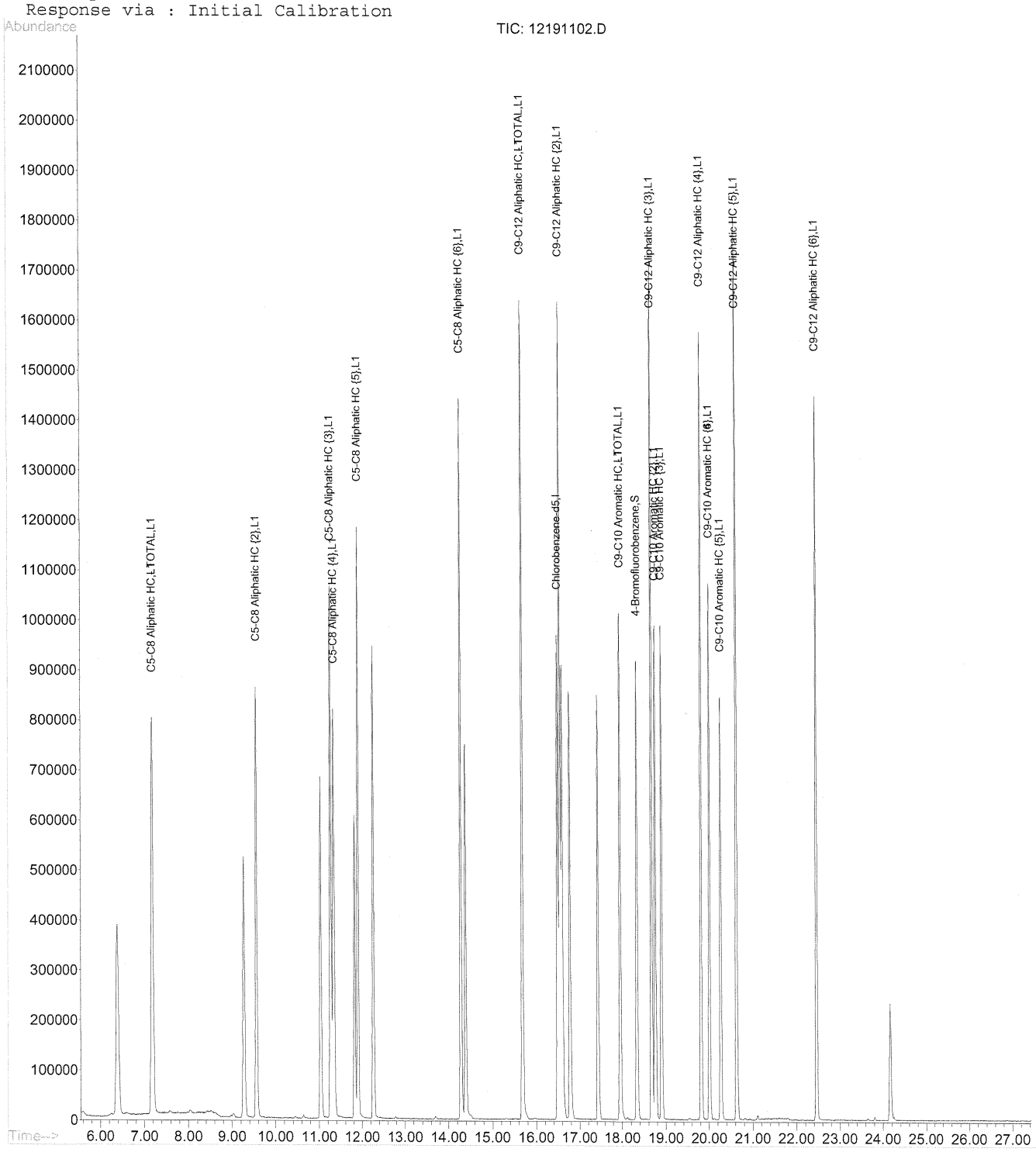
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	641248	12.50	ug/m3	-0.02
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.33	95	454197	93.09	ug/m3	-0.01
Spiked Amount 89.500	Range 70 - 130		Recovery = 104.01%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2765404	30.03	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.56	TIC	2125209	35.22	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	2638991	39.17	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2052868	34.23	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2581957	39.79	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	2991894	46.29	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	15156323m	225.44	ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	3621738	51.70	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.55	TIC	3564042	52.44	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	3533534	59.32	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	3398746	59.02	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.63	TIC	3620674	69.86	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.45	TIC	2889872	75.71	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	20628606m	367.02	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	221549	48.41	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	237867	48.58	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.90	120	345751	49.40	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.01	120	81195	55.92	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	271342	50.38	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	192202	54.96	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1349906m	252.26	ug/m3	

(#) = qualifier out of range (m) = manual integration
12191102.D 120811V9.M Tue Dec 20 14:53:29 2011 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121911\12191102.D Vial: 1
Acq On : 19 Dec 2011 10:08 am Operator: RACHEL HILL
Sample : CCV 121911 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 20 14:35 2011 Quant Results File: 120811V9.RES

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



RTI Laboratories

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

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

Analyst: Rachel Hill **Column:**

Calibration ID: 45089 **Column ID:**

Column Length:

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

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
887156	BFB2 122111 VOA9	BFB_TUNE	TUNE	.\1\DATA\122111	12/21/2011 6:15:	1	R45089		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		100	0	0	0	0	0	0%	0	2	0%	
174	M		59	59		100	0	0	0	0	0	59%	50	120	0%	
175	M		7.2	7.2		100	0	0	0	0	0	7%	4	9	0%	
176	M		95.6	95.6		100	0	0	0	0	0	96%	93	101	0%	
177	M		6.3	6.3		100	0	0	0	0	0	6%	5	9	0%	
50	M		26.6	26.6		100	0	0	0	0	0	27%	8	40	0%	
75	M		52	52		100	0	0	0	0	0	52%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.6	6.6		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
887164	ICV 122111 VOA9	MA_APH	CCV	.\1\DATA\122111	12/21/2011 6:58:	1	R45089		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	241.66	241.66		234	0	0	0	0	0	103%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	274.22	274.22		266	0	0	0	0	0	103%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	401.07	401.07		378	0	0	0	0	0	106%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	91.3	91.3		89.5	0	0	0	0	0	102%	70	130	0%	

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

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122111\12211112.D Vial: 11
Acq On : 21 Dec 2011 6:58 pm Operator: RACHEL HILL
Sample : ICV 122111 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 22 9:48 2011 Quant Results File: 122111V9.RES

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

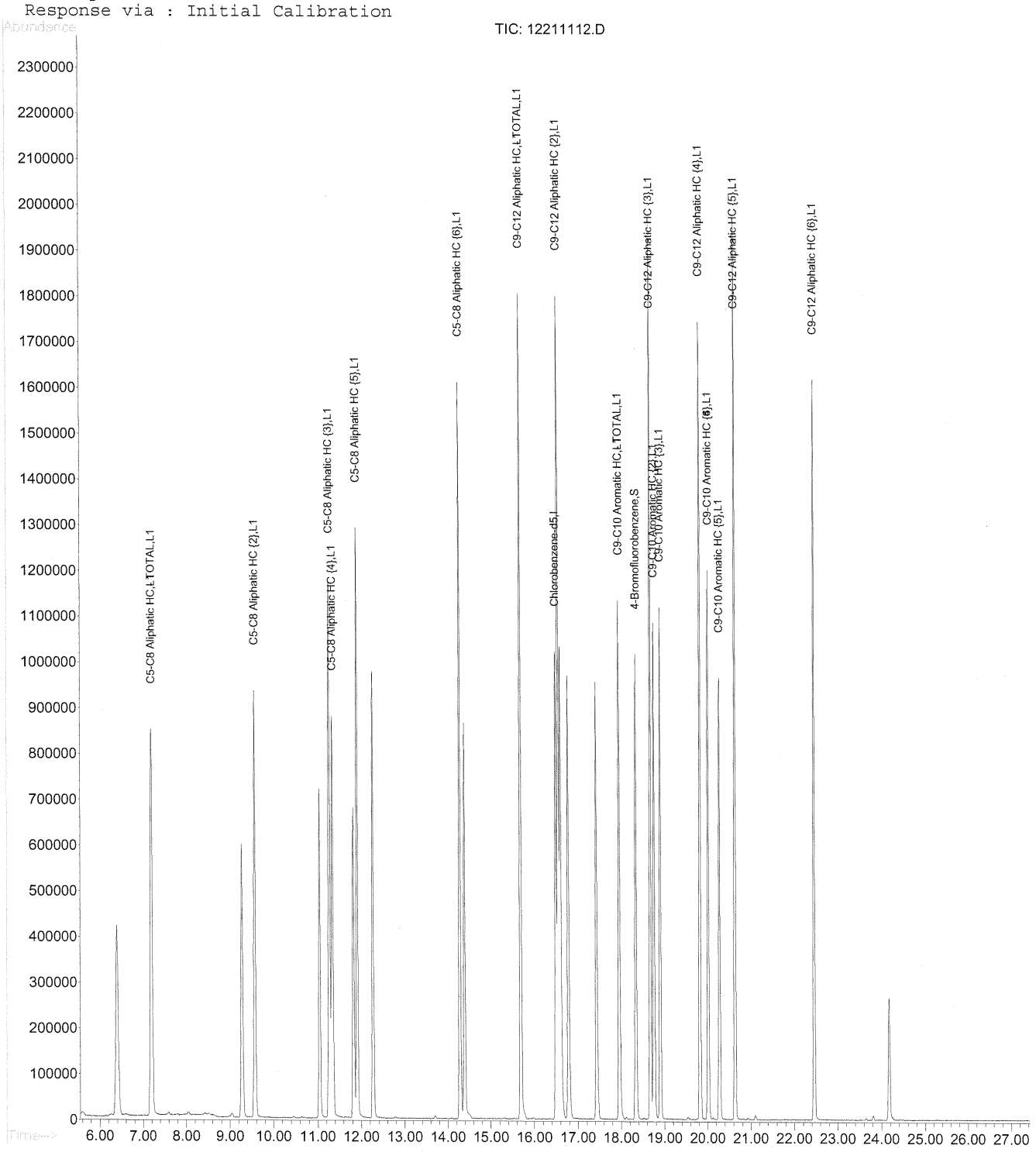
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	684592	12.50	ug/m3	-0.02
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.33	95	505320	91.30	ug/m3	-0.01
Spiked Amount 89.500	Range 70 - 130		Recovery = 102.01%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2954719	31.62	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2292203	36.78	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	2984140	43.08	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	2213504	35.37	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2891384	43.28	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3375915	50.85	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	16711865m	241.66	ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	4067070	57.38	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	3969804	57.56	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	3963061	64.25	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	3772037	63.58	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.63	TIC	3996399	75.24	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.46	TIC	3260396	84.48	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	23028767m	401.07	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	249447	52.72	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	263328	52.19	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.90	120	387215	53.47	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.02	120	90691	60.94	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	301653	54.61	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	218245	61.18	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1510579m	274.22	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\122111\12211112.D Vial: 11
Acq On : 21 Dec 2011 6:58 pm Operator: RACHEL HILL
Sample : ICV 122111 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 22 9:48 2011 Quant Results File: 122111V9.RES

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



RTI Laboratories

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

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

Analyst: Rachel Hill **Column:**

Calibration ID: 45089 **Column ID:**

Column Length:

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

RTI Laboratories

ANALYTICAL RUN Summary

11-Jan-12

RunNo 45120

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
887794	BFB1 122211 VOA9	BFB_TUNE	TUNE	\1\DATA\122211	12/22/2011 3:47:	1	R45120		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		100	0	0	0	0	0	0%	0	2	0%	
174	M		59.3	59.3		100	0	0	0	0	0	59%	50	120	0%	
175	M		7.5	7.5		100	0	0	0	0	0	8%	4	9	0%	
176	M		96.1	96.1		100	0	0	0	0	0	96%	93	101	0%	
177	M		6.4	6.4		100	0	0	0	0	0	6%	5	9	0%	
50	M		26.6	26.6		100	0	0	0	0	0	27%	8	40	0%	
75	M		52.2	52.2		100	0	0	0	0	0	52%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.6	6.6		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
887795	CCV 122211 VOA9	MA_APH	CCV	\1\DATA\122211	12/22/2011 4:30:	1	R45120		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	226.12	226.12		234	0	0	0	0	0	97%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	261.36	261.36		266	0	0	0	0	0	98%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	373.55	373.55		378	0	0	0	0	0	99%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	89.16	89.16		89.5	0	0	0	0	0	100%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122211\12221102.D Vial: 2
Acq On : 22 Dec 2011 4:30 pm Operator: RACHEL HILL
Sample : CCV 122211 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 27 13:30 2011 Quant Results File: 122111V9.RES

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

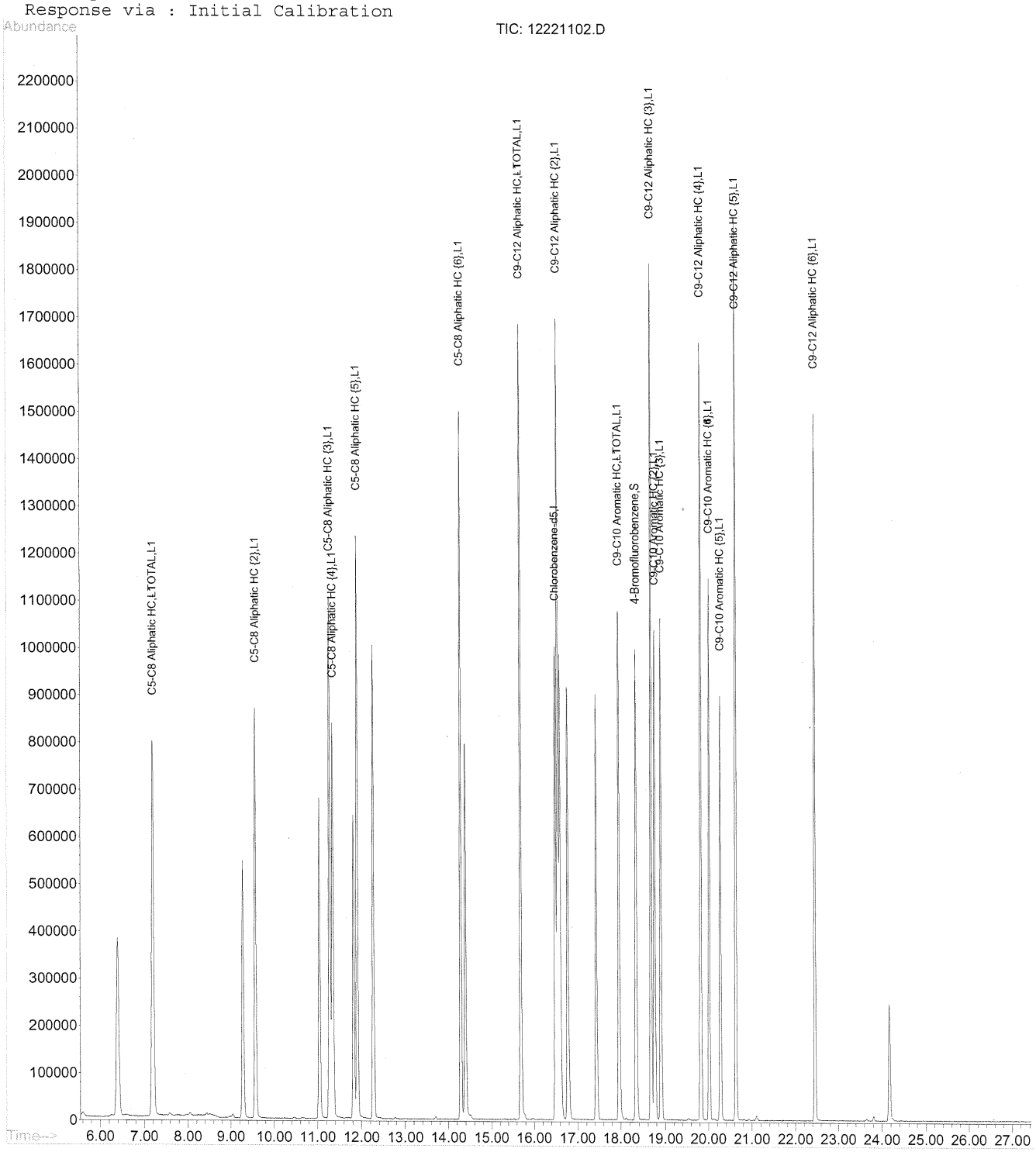
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	673359	12.50	ug/m3	-0.02
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.33	95	485347	89.16	ug/m3	-0.02
Spiked Amount 89.500	Range 70 - 130		Recovery = 99.62%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2743579	29.36	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2146850	34.45	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	2842072	41.03	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2072548	33.11	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2680809	40.13	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3151668	47.47	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	15637526m	226.12	ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	3757447	53.01	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	3726266	54.03	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	3693058	59.87	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	3560423	60.01	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.63	TIC	3741770	70.45	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.45	TIC	2969519	76.94	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	21448483m	373.55	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	237784	50.25	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	252255	49.99	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.90	120	369267	50.99	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.01	120	85497	57.45	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	287770	52.10	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.01	134	207124	58.06	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.96	TIC	1439697m	261.36	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\122211\12221102.D Vial: 2
Acq On : 22 Dec 2011 4:30 pm Operator: RACHEL HILL
Sample : CCV 122211 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 27 13:30 2011 Quant Results File: 122111V9.RES

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



RTI Laboratories

Run ID: VOA9_111227A **Run No.:** 45142

Analytical Run Date: 12/27/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 45089 **Column ID:**

Column Length:

Run Comments: *Note - sample 1112696-31a, all analytes to report need to be unchecked. Was QA'd before I realized I forgot to de-select them. Could not un-check, needs lower dilution.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB 122711 VOA9	BFB_TUNE	TUNE	R45142	12/27/2011 9:59:00 AM	Robert Lynch		
CCV 122711 VOA9	MA_APH	CCV	R45142	12/27/2011 10:42:00 AM	Robert Lynch		
RLVS 122711 VOA9	MA_APH	RLVS	R45142	12/27/2011 11:25:00 AM	Robert Lynch		
Blank 122711 VOA	MA_APH	MBLK	R45142	12/27/2011 12:28:00 PM	Charles O`Bryan		
1112398-014A	MA_APH	SAMP	R45142	12/27/2011 1:12:00 PM	Robert Lynch		
1112398-015A	MA_APH	SAMP	R45142	12/27/2011 1:56:00 PM	Robert Lynch		
1112398-016A	MA_APH	SAMP	R45142	12/27/2011 2:39:00 PM	Robert Lynch		
1112398-025A	MA_APH	SAMP	R45142	12/27/2011 3:21:00 PM	Robert Lynch		
1112696-011A	MA_APH	SAMP	R45142	12/27/2011 5:36:00 PM	Robert Lynch		
1112696-031A	MA_APH	SAMP	R45142	12/27/2011 6:19:00 PM	Robert Lynch		Sample was over diluted. Will re-run at lower dilution. Reported here to show that sample and duplicate were analyzed.
1112696-031Adup	MA_APH	DUP	R45142	12/27/2011 7:01:00 PM	Charles O`Bryan		
1112696-020A	MA_APH	SAMP	R45142	12/27/2011 8:36:00 PM	Robert Lynch		
1112696-004A	MA_APH	SAMP	R45142	12/28/2011 2:13:00 AM	Robert Lynch		
RLVS2 122711 VOA	MA_APH	RLVS	R45142	12/28/2011 4:27:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

11-Jan-12

RunNo 45142

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
888132	BFB 122711 VOA9	BFB_TUNE	TUNE	.\1\DATA\122711	12/27/2011 9:59:	1	R45142		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		100	0	0	0	0	0	0%	0	2	0%	
174	M		59.2	59.2		100	0	0	0	0	0	59%	50	120	0%	
175	M		7.7	7.7		100	0	0	0	0	0	8%	4	9	0%	
176	M		97.5	97.5		100	0	0	0	0	0	98%	93	101	0%	
177	M		6.4	6.4		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		51.3	51.3		100	0	0	0	0	0	51%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.7	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
888133	CCV 122711 VOA9	MA_APH	CCV	.\1\DATA\122711	12/27/2011 10:4	1	R45142		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	235.47	235.47		234	0	0	0	0	0	101%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	262.09	262.09		266	0	0	0	0	0	99%	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	379	379		378	0	0	0	0	0	100%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	89.34	89.34		89.5	0	0	0	0	0	100%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122711\12271102.D Vial: 2
Acq On : 27 Dec 2011 10:42 am Operator: RACHEL HILL
Sample : CCV 122711 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 28 11:05 2011 Quant Results File: 122111V9.RES

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

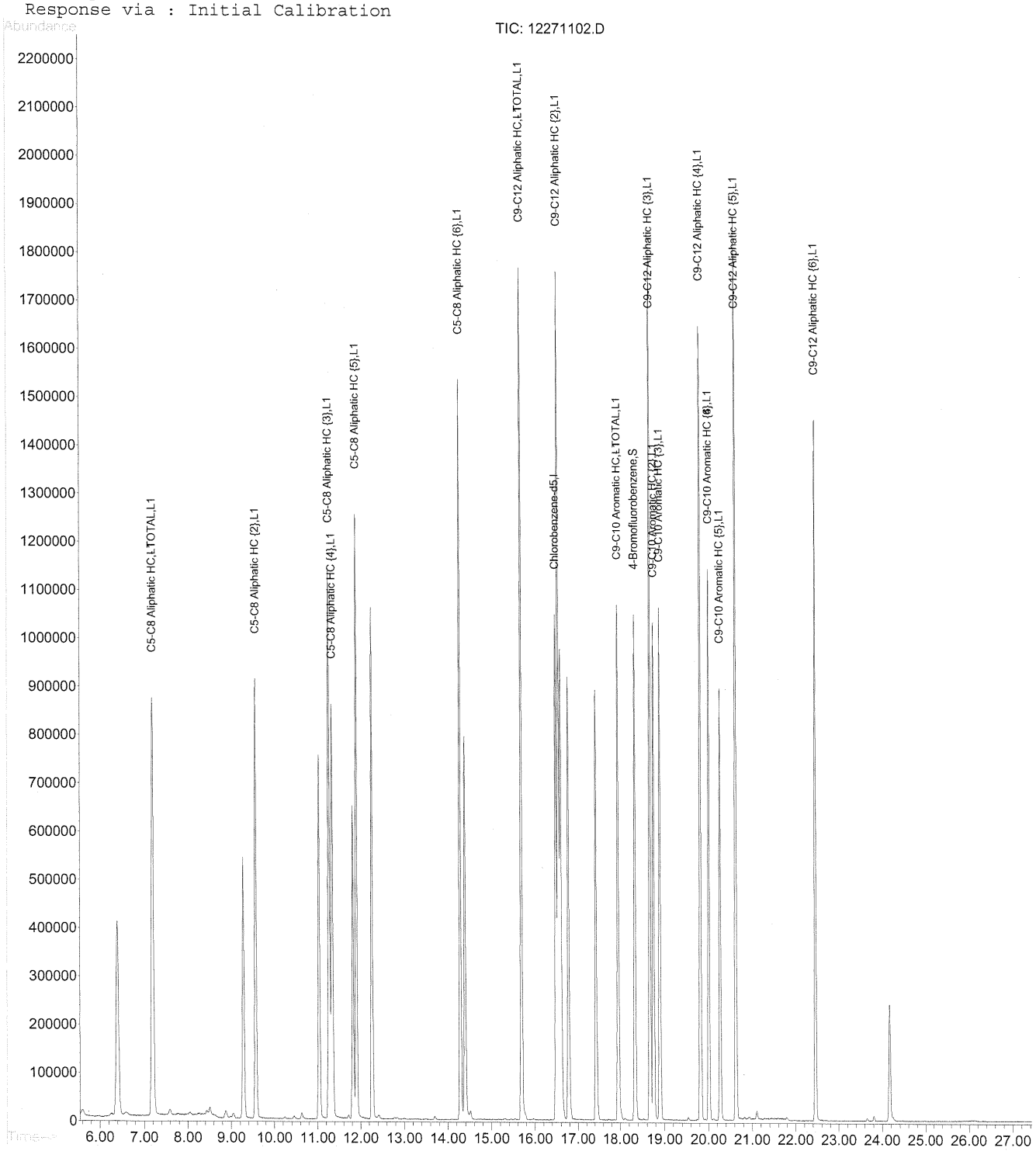
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	713747	12.50	ug/m3	-0.02
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.33	95	515525	89.34	ug/m3	-0.02
Spiked Amount 89.500	Range 70 - 130		Recovery = 99.82%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2992675	32.02	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2239003	35.93	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	2905138	41.94	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2139730	34.19	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2758153	41.29	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3249056	48.94	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	16283755m	235.47	ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	3953207	55.77	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	3819098	55.38	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	3730987	60.49	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	3580495	60.35	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.63	TIC	3741503	70.44	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.46	TIC	2936322	76.08	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	21761612m	379.00	ug/m3	
15) C9-C10 Aromatic HC	17.96	120	235417	49.75	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	251902	49.92	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.90	120	371777	51.34	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.01	120	86354	58.03	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	288071	52.15	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.01	134	210230	58.94	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.96	TIC	1443751m	262.09	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\122711\12271102.D Vial: 2
Acq On : 27 Dec 2011 10:42 am Operator: RACHEL HILL
Sample : CCV 122711 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 28 11:05 2011 Quant Results File: 122111V9.RES

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



RTI Laboratories

Run ID: VOA9_111228A **Run No.:** 45164

Analytical Run Date: 12/28/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 45089 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB 122811 VOA9	BFB_TUNE	TUNE	R45164	12/28/2011 9:40:00 AM	Robert Lynch		
CCV 122811 VOA9	MA_APH	CCV	R45164	12/28/2011 10:24:00 AM	Robert Lynch		
RLVS 122811 VOA9	MA_APH	RLVS	R45164	12/28/2011 11:06:00 AM	Robert Lynch		
Blank 122811 VOA	MA_APH	MBLK	R45164	12/28/2011 12:01:00 PM	Charles O`Bryan		
1112398-021A	MA_APH	SAMP	R45164	12/28/2011 3:52:00 PM	Robert Lynch		
1112398-026A	MA_APH	SAMP	R45164	12/28/2011 4:36:00 PM	Robert Lynch		
1112696-026A	MA_APH	SAMP	R45164	12/28/2011 7:41:00 PM	Robert Lynch		
1112696-026Adup	MA_APH	DUP	R45164	12/28/2011 8:24:00 PM	Charles O`Bryan		
1112696-027A	MA_APH	SAMP	R45164	12/28/2011 9:06:00 PM	Robert Lynch		
1112696-014A	MA_APH	SAMP	R45164	12/29/2011 2:48:00 AM	Robert Lynch		
RLVS2 122811 VOA	MA_APH	RLVS	R45164	12/29/2011 4:13:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

11-Jan-12

RunNo 45164

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
888402	BFB 122811 VOA9	BFB_TUNE	TUNE	.\1\DATA\122811	12/28/2011 9:40:	1	R45164		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		100	0	0	0	0	0	0%	0	2	0%	
174	M		58.9	58.9		100	0	0	0	0	0	59%	50	120	0%	
175	M		7.3	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		6.5	6.5		100	0	0	0	0	0	7%	5	9	0%	
50	M		26.3	26.3		100	0	0	0	0	0	26%	8	40	0%	
75	M		50.8	50.8		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		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
888403	CCV 122811 VOA9	MA_APH	CCV	.\1\DATA\122811	12/28/2011 10:2	1	R45164		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	255.72	255.72		234	0	0	0	0	0	109%	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	293.26	293.26		266	0	0	0	0	0	110%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	416.15	416.15		378	0	0	0	0	0	110%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	88.07	88.07		89.5	0	0	0	0	0	98%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122811\12281102.D Vial: 2
Acq On : 28 Dec 2011 10:24 am Operator: RACHEL HILL
Sample : CCV 122811 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 30 11:07 2011 Quant Results File: 122111V9.RES

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

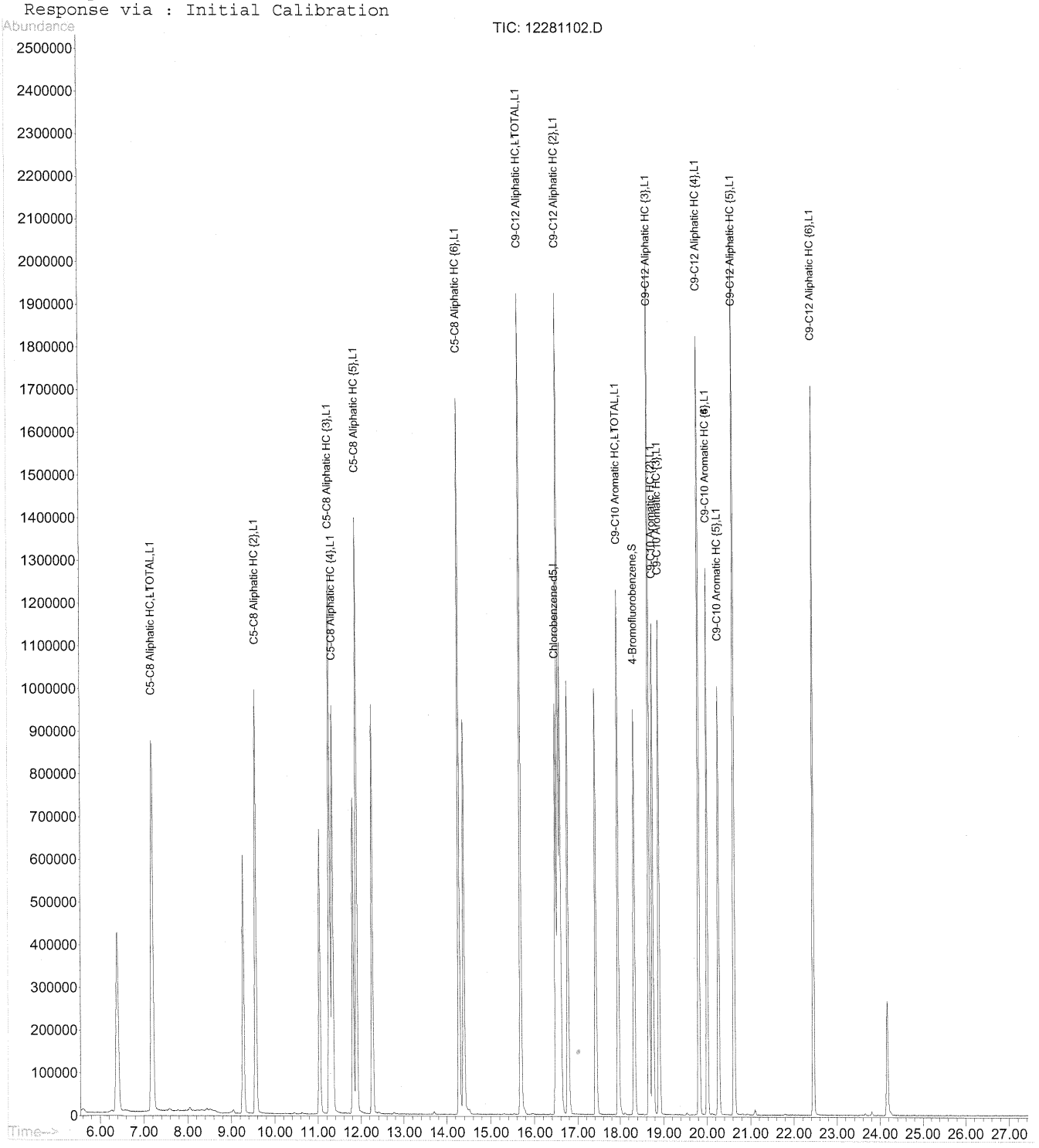
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	656630	12.50	ug/m3	-0.02
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.33	95	467538	88.07	ug/m3	-0.02
Spiked Amount 89.500	Range 70 - 130		Recovery = 98.40%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	3030071	32.43	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2468928	39.62	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	3149018	45.46	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2446482	39.09	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	3058124	45.78	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.28	TIC	3531460	53.19	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	17684083m	255.72	ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	4284916	60.45	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	3989510	57.85	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	4132072	66.99	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	3961436	66.77	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.63	TIC	4180428	78.71	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.45	TIC	3346212	86.70	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	23894574m	416.15	ug/m3	
15) C9-C10 Aromatic HC	17.96	120	267158	56.46	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	284981	56.48	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.90	120	414210	57.20	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.01	120	95051	63.87	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.27	120	322143	58.32	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.01	134	231878	65.00	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.96	TIC	1615421m	293.26	ug/m3	

(#) = qualifier out of range (m) = manual integration
12281102.D 122111V9.M Mon Jan 02 10:27:02 2012

Quantitation Report

Data File : C:\HPCHEM\1\DATA\122811\12281102.D Vial: 2
Acq On : 28 Dec 2011 10:24 am Operator: RACHEL HILL
Sample : CCV 122811 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 30 11:07 2011 Quant Results File: 122111V9.RES

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



RTI Laboratories

Run ID: VOA9_120102A **Run No.:** 45192

Analytical Run Date: 1/2/2012 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 45089 **Column ID:**

Column Length:

Run Comments: For 1112696-012a the vent tip on the bottle was unscrewed when we received it. Sample was at ambient temperature. Was instructed to fill with nitrogen and run accordingly.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB 010212 VOA9	BFB_TUNE	TUNE	R45192	1/2/2012 9:30:00 AM	Robert Lynch		
CCV 010212 VOA9	MA_APH	CCV	R45192	1/2/2012 10:13:00 AM	Robert Lynch		
RLVS 010212 VOA9	MA_APH	RLVS	R45192	1/2/2012 10:56:00 AM	Robert Lynch		
Blank 010212 VOA	MA_APH	MBLK	R45192	1/2/2012 11:53:00 AM	Charles O`Bryan		
1112398-027A	MA_APH	SAMP	R45192	1/2/2012 12:37:00 PM	Robert Lynch		
1112398-022A	MA_APH	SAMP	R45192	1/2/2012 1:21:00 PM	Robert Lynch		
1112398-023A	MA_APH	SAMP	R45192	1/2/2012 2:05:00 PM	Robert Lynch		
1112696-012A	MA_APH	SAMP	R45192	1/2/2012 2:50:00 PM	Robert Lynch		Vent tip on bottle received loose/unscrewed causing leakage.
1112696-013A	MA_APH	SAMP	R45192	1/2/2012 3:33:00 PM	Robert Lynch		
1112696-016A	MA_APH	SAMP	R45192	1/2/2012 5:00:00 PM	Robert Lynch		Sample over-diluted. Will re-analyzed at lower dilution. Reported here to show that sample and duplicate were analyzed.
1112696-016Adup	MA_APH	DUP	R45192	1/2/2012 5:44:00 PM	Charles O`Bryan		
1112696-018A	MA_APH	SAMP	R45192	1/2/2012 7:11:00 PM	Robert Lynch		
1112696-019A	MA_APH	SAMP	R45192	1/2/2012 7:55:00 PM	Robert Lynch		
1112696-010A	MA_APH	SAMP	R45192	1/2/2012 10:50:00 PM	Robert Lynch		
RLVS2 010212 VOA	MA_APH	RLVS	R45192	1/2/2012 11:34:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

11-Jan-12

RunNo 45192

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
889282	BFB 010212 VOA9	BFB_TUNE	TUNE	.\1\DATA\010212	1/2/2012 9:30:00	1	R45192		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		58.8	58.8		100	0	0	0	0	0	59%	50	120	0%	
175	M		7.5	7.5		100	0	0	0	0	0	8%	4	9	0%	
176	M		97.1	97.1		100	0	0	0	0	0	97%	93	101	0%	
177	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	
50	M		24.1	24.1		100	0	0	0	0	0	24%	8	40	0%	
75	M		49.1	49.1		100	0	0	0	0	0	49%	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
889283	CCV 010212 VOA9	MA_APH	CCV	.\1\DATA\010212	1/2/2012 10:13:0	1	R45192		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	237.22	237.22		234	0	0	0	0	0	101%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	265.15	265.15		266	0	0	0	0	0	100%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	354.42	354.42		378	0	0	0	0	0	94%	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	88.12	88.12		89.5	0	0	0	0	0	98%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010212\01021202.D Vial: 2
Acq On : 2 Jan 2012 10:13 am Operator: RACHEL HILL
Sample : CCV 010212 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 3 12:23 2012 Quant Results File: 122111V9.RES

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

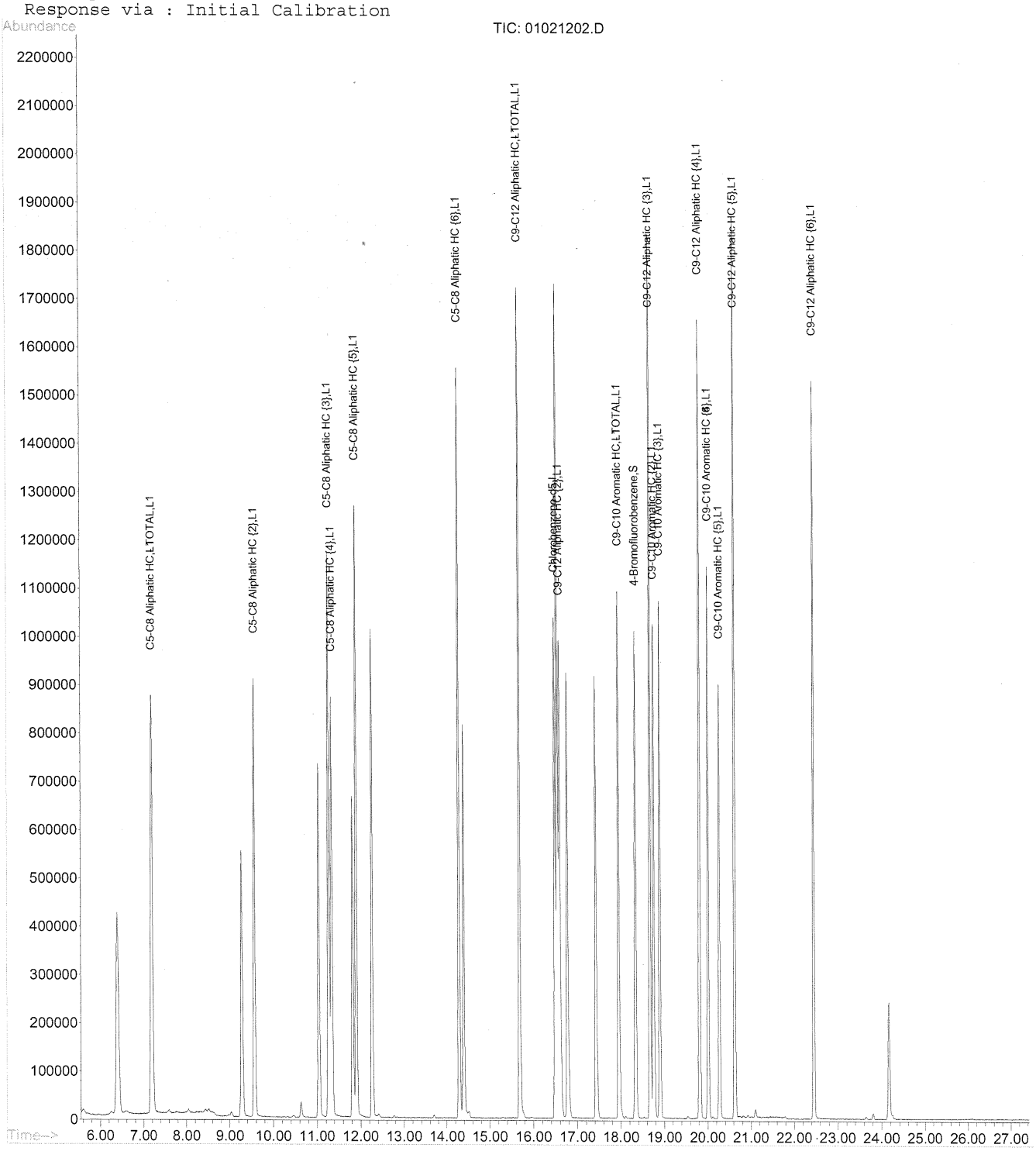
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	700152	12.50	ug/m3	-0.02
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.33	95	498806	88.12	ug/m3	-0.02
Spiked Amount 89.500	Range 70 - 130		Recovery = 98.46%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2990467	32.00	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.56	TIC	2265702	36.36	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	2902041	41.89	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2179995	34.83	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.90	TIC	2819495	42.21	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.28	TIC	3246983	48.91	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	16404683m	237.22	ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	3966246	55.95	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.60	TIC	2189140	31.74	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	3755879	60.89	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.81	TIC	3607207	60.80	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.63	TIC	3775469	71.08	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.45	TIC	3055901	79.18	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	20349842m	354.42	ug/m3	
15) C9-C10 Aromatic HC	17.96	120	240260	50.77	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	254603	50.46	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.89	120	377067	52.07	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.01	120	86755	58.30	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.27	120	292354	52.93	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.01	134	209535	58.74	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.96	TIC	1460574m	265.15	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\010212\01021202.D Vial: 2
Acq On : 2 Jan 2012 10:13 am Operator: RACHEL HILL
Sample : CCV 010212 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 3 12:23 2012 Quant Results File: 122111V9.RES

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



01021202.D 122111V9.M Tue Jan 03 15:54:30 2012 Page 2

Response Factor Report GC/MS Ins

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

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

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

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

Compound List Report GC/MS Ins

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

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

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

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

Response Factor Report GC/MS Ins

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

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

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

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

Compound List Report GC/MS Ins

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

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

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

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

RTI Laboratories

Run ID: GC-PT-FID_120103A **Run No.:** 45326

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

Analyst: Mike Budziak

Calibration ID:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
mblk	ASTM-D2504	MBLK	R45326	1/3/2012 11:18:00 AM	Charles O`Bryan		
ccv std 1-2 a	ASTM-D2504	CCV	R45326	1/3/2012 12:03:00 PM	Robert Lynch		
lcs	ASTM-D2504	LCS	R45326	1/3/2012 12:30:00 PM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R45326	1/3/2012 1:10:00 PM	Robert Lynch		
1112398-001b	ASTM-D2504	SAMP	R45326	1/3/2012 1:26:00 PM	Robert Lynch		
1112398-002b	ASTM-D2504	SAMP	R45326	1/3/2012 1:41:00 PM	Robert Lynch		
1112398-003b	ASTM-D2504	SAMP	R45326	1/3/2012 1:56:00 PM	Robert Lynch		
1112398-004b	ASTM-D2504	SAMP	R45326	1/3/2012 2:11:00 PM	Robert Lynch		
1112398-005b	ASTM-D2504	SAMP	R45326	1/3/2012 2:26:00 PM	Robert Lynch		
1112398-006b	ASTM-D2504	SAMP	R45326	1/3/2012 2:45:00 PM	Robert Lynch		
1112398-007b	ASTM-D2504	SAMP	R45326	1/3/2012 3:01:00 PM	Robert Lynch		
1112398-008b	ASTM-D2504	SAMP	R45326	1/3/2012 3:16:00 PM	Robert Lynch		
1112398-009b	ASTM-D2504	SAMP	R45326	1/3/2012 3:31:00 PM	Robert Lynch		
1112398-010b	ASTM-D2504	SAMP	R45326	1/3/2012 3:46:00 PM	Robert Lynch		
1112398-010bDUP	ASTM-D2504	DUP	R45326	1/3/2012 4:01:00 PM	Charles O`Bryan		
ccv std 1-2 b	ASTM-D2504	CCV	R45326	1/3/2012 4:17:00 PM	Robert Lynch		
crql std 2% c	ASTM-D2504	CRQL	R45326	1/3/2012 4:51:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

11-Jan-12

RunNo 45326

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
891747	mblk	ASTM-D2504	MBLK	\TA\010312\0103	1/3/2012 11:18:0	1	R45326		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
891748	ccv std 1-2 a	ASTM-D2504	CCV	\TA\010312\0103	1/3/2012 12:03:0	1	R45326		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.686	2.686		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Carbon Monoxide	A	%	2.749	2.749		2.5	0	0	0.025	0.1	0	110%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	2.141	2.141		2	0	0	0.025	0.5	0	107%	85	115	0%	
Nitrogen	A	%	2.666	2.666		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Oxygen	A	%	2.468	2.468		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
891749	lcs	ASTM-D2504	LCS	\TA\010312\0103	1/3/2012 12:30:0	1	R45326		0	891748	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.592	2.592		2.5	0	2.686	0.025	0.1	0	104%	70	130	4%	
Carbon Monoxide	A	%	2.727	2.727		2.5	0	2.749	0.025	0.1	0	109%	70	130	1%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Methane	A	%	2.131	2.131		2	0	2.141	0.025	0.5	0	107%	70	130	0%	
Nitrogen	A	%	2.668	2.668		2.5	0	2.666	0.025	0.1	0	107%	70	130	0%	
Oxygen	A	%	2.497	2.497		2.5	0	2.468	0.025	0.1	0	100%	70	130	1%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
891760	1112398-010b (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\010312\0103	1/3/2012 3:46:00	1	R45326		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	%	20.22	20.22		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
891761	1112398-010bDUP	ASTM-D2504	DUP	ıTA\010312\0103	1/3/2012 4:01:00	1	R45326		0	891760	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.137	0.137		0	0	0.129	0.025	0.1	0	0%	0	0	6%	
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	%	79.227	79.227		0	0	79.314	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	20.215	20.215		0	0	20.22	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
891762	ccv std 1-2 b	ASTM-D2504	CCV	ıTA\010312\0103	1/3/2012 4:17:00	1	R45326		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.592	2.592		2.5	0	0	0.025	0.1	0	104%	85	115	0%	
Carbon Monoxide	A	%	2.713	2.713		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	%	2.113	2.113		2	0	0	0.025	0.5	0	106%	85	115	0%	
Nitrogen	A	%	2.65	2.65		2.5	0	0	0.025	0.1	0	106%	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
891763	crql std 2% c	ASTM-D2504	CRQL	ıTA\010312\0103	1/3/2012 4:51:00	1	R45326		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.3	0.3		0.3	0	0	0.025	0.1	0	100%	80	120	0%	
Carbon Monoxide	A	%	0.146	0.146		0.14	0	0	0.025	0.1	0	104%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\010312\01031202.D Vial: 1
Acq On : 3 Jan 2012 12:03 pm Operator:
Sample : ccv std 1-2 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 : 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	2.468	1.3	0	0.02
2	Nitrogen	2.500	2.666	-6.6	0	0.00
3	Carbon Monoxide	2.500	2.749	-10.0	0	-0.04
4	Methane	2.000	2.141	-7.1	0	-0.02
5	Carbon dioxide	2.500	2.686	-7.4	0	-0.05

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\010312\01031202.D Vial: 1
Acq On : 3 Jan 2012 12:03 pm Operator:
Sample : ccv std 1-2 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 : 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 Mon Jan 09 11:54:14 2012 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010312\01031202.D Vial: 1
Acq On : 3 Jan 2012 12:03 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 6 12:57 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 04 17:34:10 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

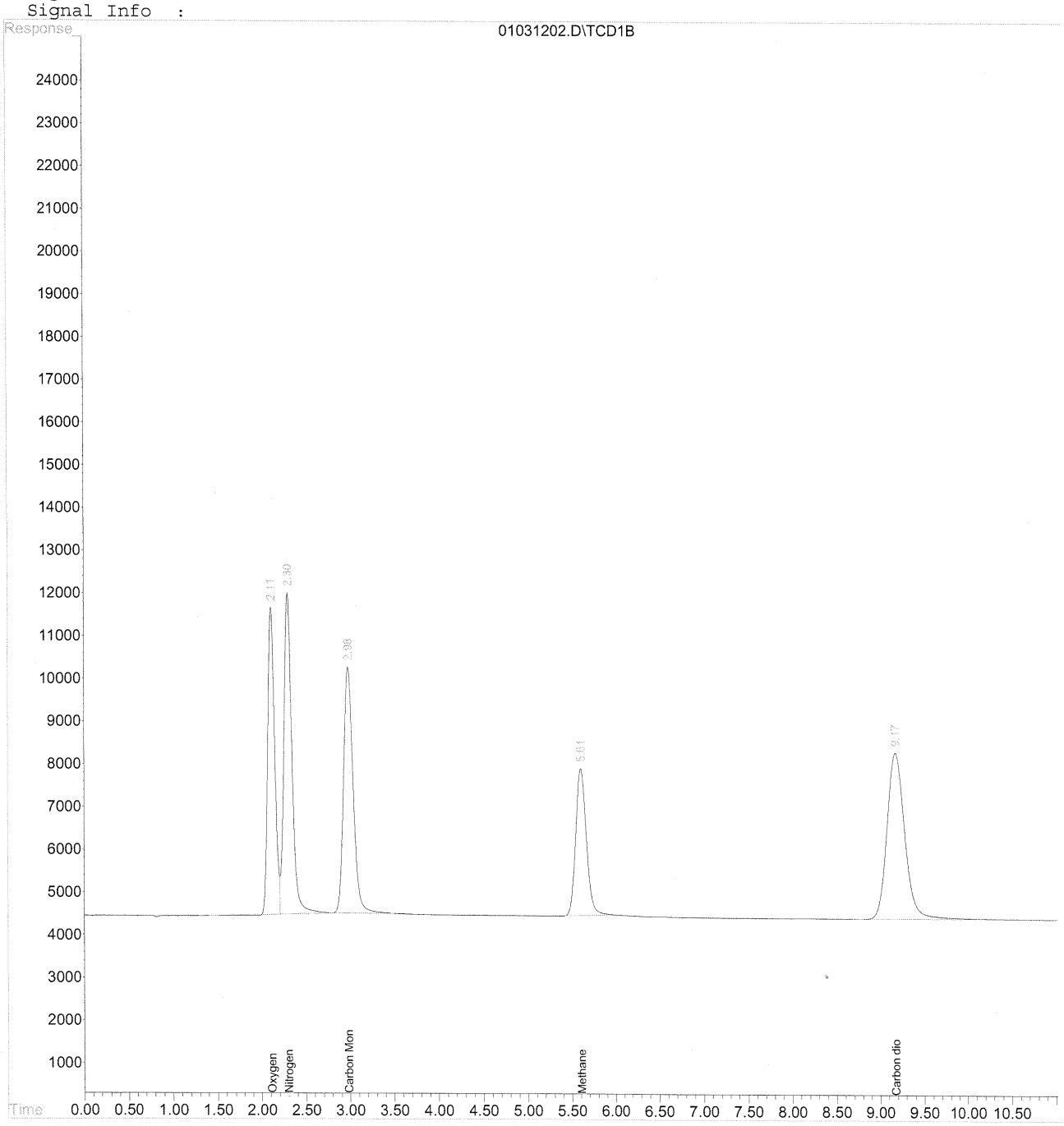
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.11	382331	2.468 %
2)	Nitrogen	2.30	467939	2.666 %
3)	Carbon Monoxide	2.98	443195	2.749 %
4)	Methane	5.61	289180	2.141 %
5)	Carbon dioxide	9.18f	551577	2.686 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010312\01031202.D Vial: 1
Acq On : 3 Jan 2012 12:03 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jan 6 12:57 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 04 17:34:10 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\010312\01031216.D Vial: 1
Acq On : 3 Jan 2012 4:17 pm Operator:
Sample : ccv std 1-2 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 : 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	2.471	1.2	0	0.04
2	Nitrogen	2.500	2.650	-6.0	0	0.02
3	Carbon Monoxide	2.500	2.713	-8.5	0	-0.01
4	Methane	2.000	2.113	-5.6	0	0.00
5	Carbon dioxide	2.500	2.592	-3.7	0	-0.01

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\010312\01031216.D Vial: 1
Acq On : 3 Jan 2012 4:17 pm Operator:
Sample : ccv std 1-2 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 : 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 Mon Jan 09 11:54:24 2012 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010312\01031216.D Vial: 1
Acq On : 3 Jan 2012 4:17 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 6 12:57 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 04 17:34:10 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

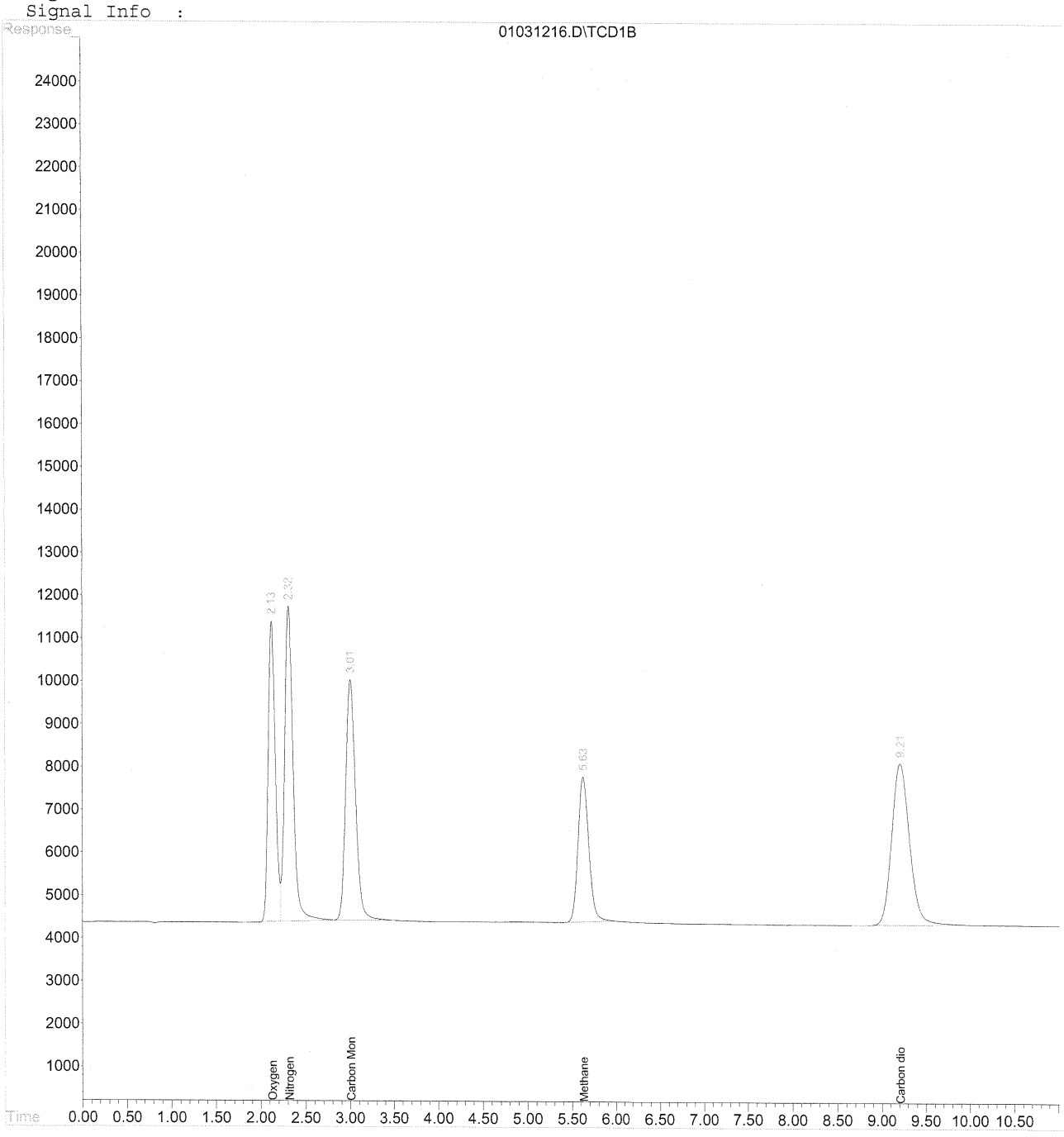
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	382779	2.471 %
2)	Nitrogen	2.32	465152	2.650 %
3)	Carbon Monoxide	3.01	437277	2.713 %
4)	Methane	5.63	285309	2.113 %
5)	Carbon dioxide	9.22	532320	2.592 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010312\01031216.D Vial: 1
Acq On : 3 Jan 2012 4:17 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jan 6 12:57 2012 Quant Results File: 122211.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-PT-FID_120104A **Run No.:** 45327

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

Analyst: Mike Budziak

Calibration ID:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
mblk	ASTM-D2504	MBLK	R45327	1/4/2012 10:54:00 AM	Charles O`Bryan		
ccv std 1-2 a	ASTM-D2504	CCV	R45327	1/4/2012 11:10:00 AM	Robert Lynch		
lcs	ASTM-D2504	LCS	R45327	1/4/2012 11:35:00 AM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R45327	1/4/2012 11:50:00 AM	Robert Lynch		
1112398-011b	ASTM-D2504	SAMP	R45327	1/4/2012 12:05:00 PM	Robert Lynch		
1112398-012b	ASTM-D2504	SAMP	R45327	1/4/2012 12:21:00 PM	Robert Lynch		
1112398-013b	ASTM-D2504	SAMP	R45327	1/4/2012 12:36:00 PM	Robert Lynch		
1112398-014b	ASTM-D2504	SAMP	R45327	1/4/2012 12:51:00 PM	Robert Lynch		
1112398-015b	ASTM-D2504	SAMP	R45327	1/4/2012 1:09:00 PM	Robert Lynch		
1112398-016b	ASTM-D2504	SAMP	R45327	1/4/2012 1:24:00 PM	Robert Lynch		
1112398-017b	ASTM-D2504	SAMP	R45327	1/4/2012 1:39:00 PM	Robert Lynch		
1112398-018b	ASTM-D2504	SAMP	R45327	1/4/2012 1:54:00 PM	Robert Lynch		
1112398-019b	ASTM-D2504	SAMP	R45327	1/4/2012 2:11:00 PM	Robert Lynch		
1112398-020b	ASTM-D2504	SAMP	R45327	1/4/2012 2:32:00 PM	Robert Lynch		
1112398-020bDUP	ASTM-D2504	DUP	R45327	1/4/2012 2:47:00 PM	Charles O`Bryan		
ccv std 1-2 b	ASTM-D2504	CCV	R45327	1/4/2012 3:02:00 PM	Robert Lynch		
1112398-021b	ASTM-D2504	SAMP	R45327	1/4/2012 3:18:00 PM	Robert Lynch		
1112398-022b	ASTM-D2504	SAMP	R45327	1/4/2012 3:33:00 PM	Robert Lynch		
1112398-023b	ASTM-D2504	SAMP	R45327	1/4/2012 3:48:00 PM	Robert Lynch		
1112398-024b	ASTM-D2504	SAMP	R45327	1/4/2012 4:03:00 PM	Robert Lynch		
1112398-025b	ASTM-D2504	SAMP	R45327	1/4/2012 4:21:00 PM	Robert Lynch		
1112398-026b	ASTM-D2504	SAMP	R45327	1/4/2012 4:36:00 PM	Robert Lynch		
1112398-027b	ASTM-D2504	SAMP	R45327	1/4/2012 4:52:00 PM	Robert Lynch		
ccv std 1-2 b	ASTM-D2504	CCV	R45327	1/4/2012 5:06:00 PM	Robert Lynch		
crql std 2% b	ASTM-D2504	CRQL	R45327	1/4/2012 5:29:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

11-Jan-12

RunNo 45327

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
891764	mblk	ASTM-D2504	MBLK	\TA\010412\0104	1/4/2012 10:54:0	1	R45327		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
891765	ccv std 1-2 a	ASTM-D2504	CCV	\TA\010412\0104	1/4/2012 11:10:0	1	R45327		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.574	2.574		2.5	0	0	0.025	0.1	0	103%	85	115	0%	
Carbon Monoxide	A	%	2.655	2.655		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	2.064	2.064		2	0	0	0.025	0.5	0	103%	85	115	0%	
Nitrogen	A	%	2.603	2.603		2.5	0	0	0.025	0.1	0	104%	85	115	0%	
Oxygen	A	%	2.428	2.428		2.5	0	0	0.025	0.1	0	97%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
891766	lcs	ASTM-D2504	LCS	\TA\010412\0104	1/4/2012 11:35:0	1	R45327		0	891765	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.581	2.581		2.5	0	2.574	0.025	0.1	0	103%	70	130	0%	
Carbon Monoxide	A	%	2.68	2.68		2.5	0	2.655	0.025	0.1	0	107%	70	130	1%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Methane	A	%	2.081	2.081		2	0	2.064	0.025	0.5	0	104%	70	130	1%	
Nitrogen	A	%	2.621	2.621		2.5	0	2.603	0.025	0.1	0	105%	70	130	1%	
Oxygen	A	%	2.448	2.448		2.5	0	2.428	0.025	0.1	0	98%	70	130	1%	

1

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
891777	1112398-020b (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\010412\0104	1/4/2012 2:32:00	1	R45327		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	%	20.039	20.039		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
891778	1112398-020bDUP	ASTM-D2504	DUP	ıTA\010412\0104	1/4/2012 2:47:00	1	R45327		0	891777	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.67	0.67		0	0	0.611	0.025	0.1	0	0%	0	0	9%	
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	78.098	78.098		0	0	78.566	0.025	0.1	0	0%	0	0	1%	
Oxygen	A	%	19.852	19.852		0	0	20.039	0.025	0.1	0	0%	0	0	1%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
891779	ccv std 1-2 b	ASTM-D2504	CCV	ıTA\010412\0104	1/4/2012 3:02:00	1	R45327		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.528	2.528		2.5	0	0	0.025	0.1	0	101%	85	115	0%	
Carbon Monoxide	A	%	2.665	2.665		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	%	2.076	2.076		2	0	0	0.025	0.5	0	104%	85	115	0%	
Nitrogen	A	%	2.687	2.687		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Oxygen	A	%	2.458	2.458		2.5	0	0	0.025	0.1	0	98%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
891780	1112398-021b (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\010412\0104	1/4/2012 3:18:00	1	R45327		0	0	

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

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
891785	1112398-026b (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\010412\0104	1/4/2012 4:36:00	1	R45327		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	1.61	1.61		0	0	0	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	78.357	78.357		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	18.814	18.814		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
891786	1112398-027b (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\010412\0104	1/4/2012 4:52:00	1	R45327		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.051	0.051		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	%	77.525	77.525		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	20.736	20.736		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
891787	ccv std 1-2 b	ASTM-D2504	CCV	ıTA\010412\0104	1/4/2012 5:06:00	1	R45327		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.625	2.625		2.5	0	0	0.025	0.1	0	105%	85	115	0%	
Carbon Monoxide	A	%	2.671	2.671		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	%	2.067	2.067		2	0	0	0.025	0.5	0	103%	85	115	0%	
Nitrogen	A	%	2.695	2.695		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Oxygen	A	%	2.46	2.46		2.5	0	0	0.025	0.1	0	98%	85	115	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\010412\01041102.D Vial: 1
Acq On : 4 Jan 2012 11:10 am Operator:
Sample : ccv std 1-2 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 : 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	2.428	2.9	0	0.04
2	Nitrogen	2.500	2.603	-4.1	0	0.02
3	Carbon Monoxide	2.500	2.655	-6.2	0	-0.01
4	Methane	2.000	2.064	-3.2	0	0.01
5	Carbon dioxide	2.500	2.574	-3.0	0	0.00

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\010412\01041102.D Vial: 1
Acq On : 4 Jan 2012 11:10 am Operator:
Sample : ccv std 1-2 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 : 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 Mon Jan 09 11:58:41 2012 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010412\01041102.D Vial: 1
Acq On : 4 Jan 2012 11:10 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 6 13:14 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 04 17:34:10 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

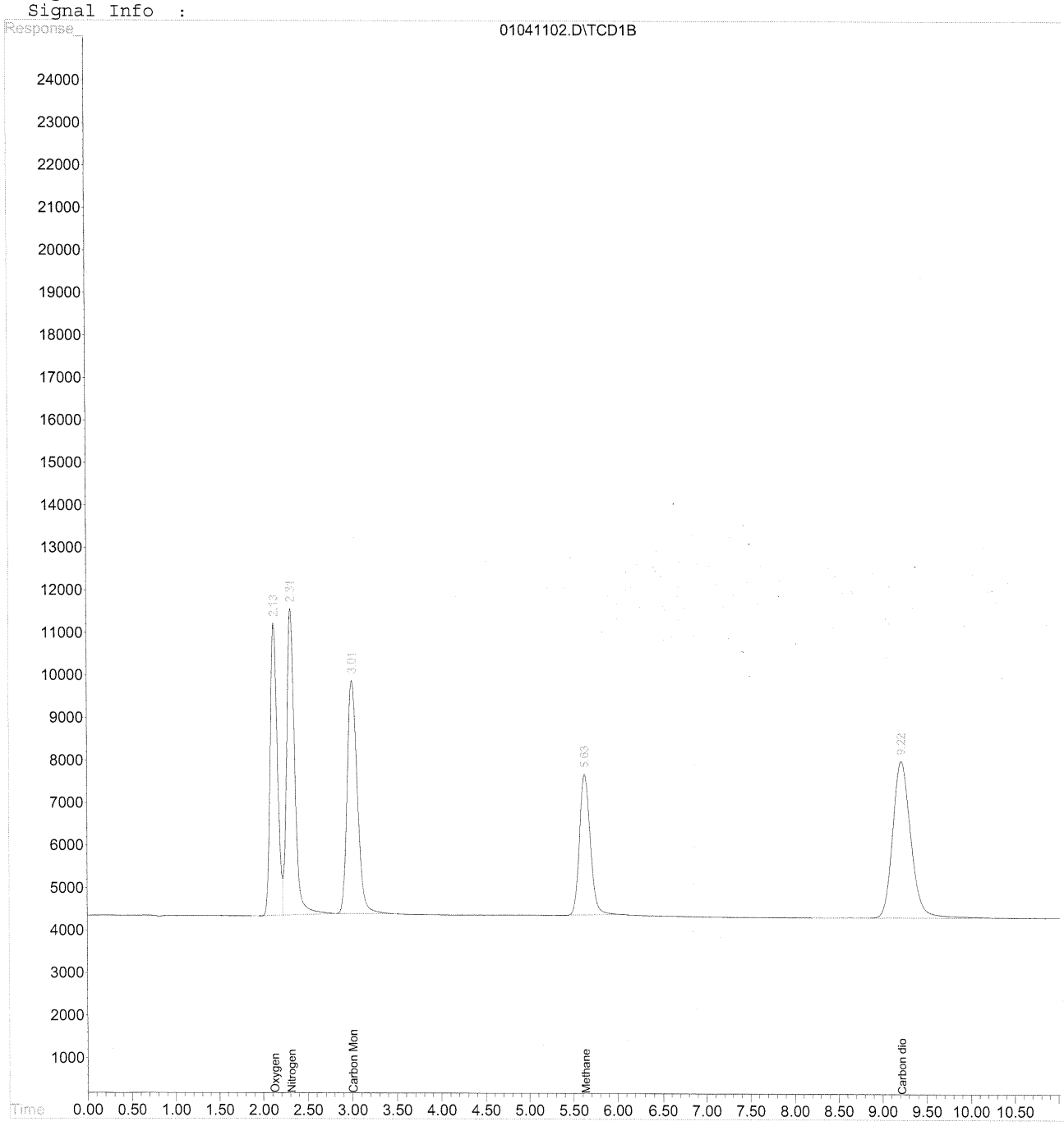
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	376160	2.428 %
2)	Nitrogen	2.32	456809	2.603 %
3)	Carbon Monoxide	3.01	427981	2.655 %
4)	Methane	5.64	278735	2.064 %
5)	Carbon dioxide	9.22	528558	2.574 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010412\01041102.D Vial: 1
Acq On : 4 Jan 2012 11:10 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jan 6 13:14 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 04 17:34:10 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\010412\01041116.D Vial: 1
Acq On : 4 Jan 2012 3:02 pm Operator:
Sample : ccv std 1-2 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 : 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	2.458	1.7	0	0.04
2	Nitrogen	2.500	2.687	-7.5	0	0.02
3	Carbon Monoxide	2.500	2.665	-6.6	0	0.00
4	Methane	2.000	2.076	-3.8	0	0.01
5	Carbon dioxide	2.500	2.528	-1.1	0	0.00

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\010412\01041116.D Vial: 1
Acq On : 4 Jan 2012 3:02 pm Operator:
Sample : ccv std 1-2 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 : 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 Mon Jan 09 11:58:51 2012 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010412\01041116.D Vial: 1
Acq On : 4 Jan 2012 3:02 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 6 13:09 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 04 17:34:10 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

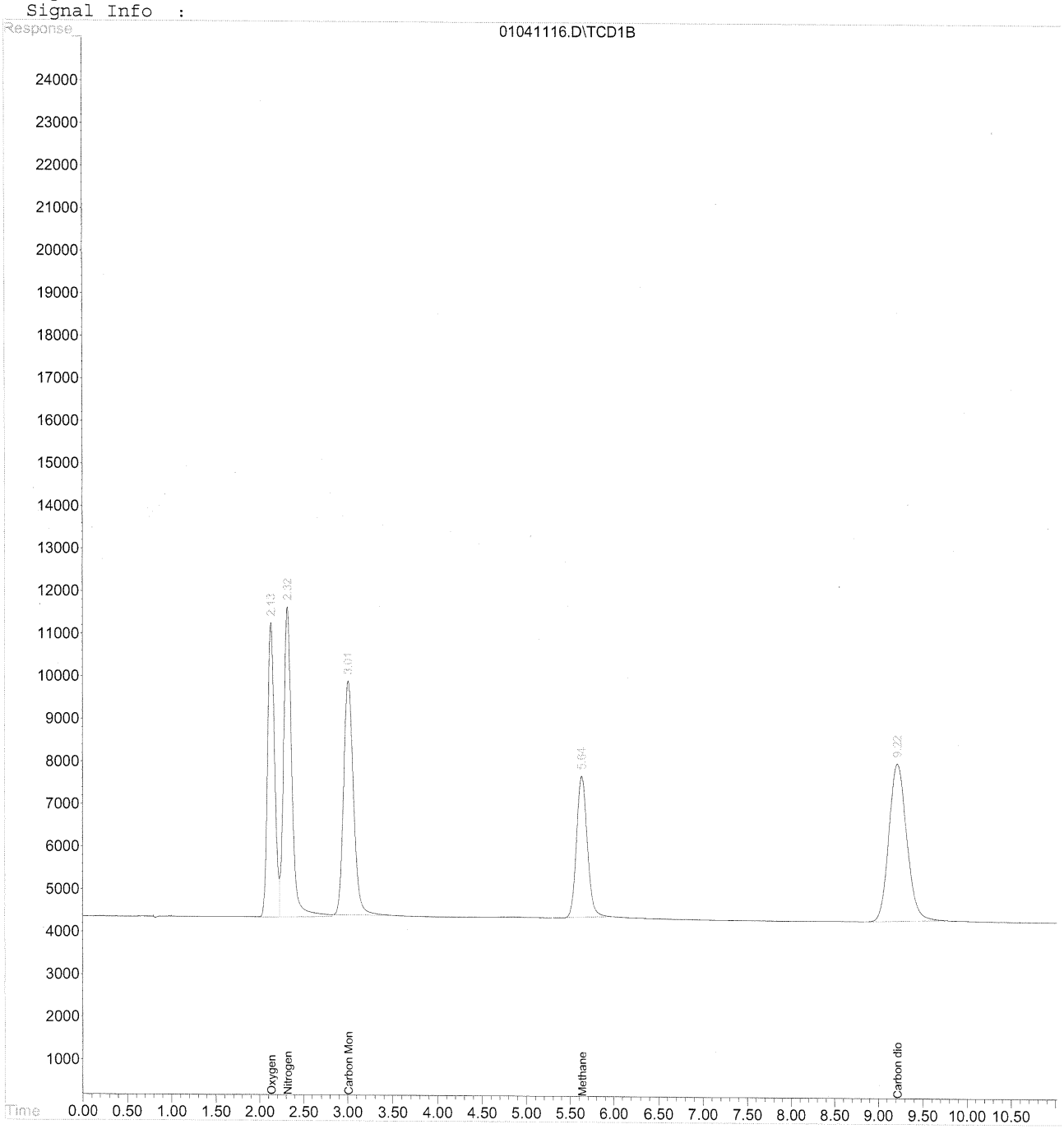
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	380769	2.458 %
2)	Nitrogen	2.32	471669	2.687 %
3)	Carbon Monoxide	3.01	429606	2.665 %
4)	Methane	5.64	280444	2.076 %
5)	Carbon dioxide	9.22	519220	2.528 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010412\01041116.D Vial: 1
Acq On : 4 Jan 2012 3:02 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jan 6 13:09 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 04 17:34:10 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\010412\01041124.D Vial: 1
Acq On : 4 Jan 2012 5:06 pm Operator:
Sample : ccv std 1-2 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 : 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	2.460	1.6	0	0.04
2	Nitrogen	2.500	2.695	-7.8	0	0.02
3	Carbon Monoxide	2.500	2.671	-6.8	0	0.00
4	Methane	2.000	2.067	-3.4	0	0.02
5	Carbon dioxide	2.500	2.625	-5.0	0	0.00

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\010412\01041124.D Vial: 1
Acq On : 4 Jan 2012 5:06 pm Operator:
Sample : ccv std 1-2 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 : 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 Mon Jan 09 11:58:59 2012 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010412\01041124.D Vial: 1
Acq On : 4 Jan 2012 5:06 pm Operator:
Sample : ccv std 1-2 c Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 6 13:23 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 04 17:34:10 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

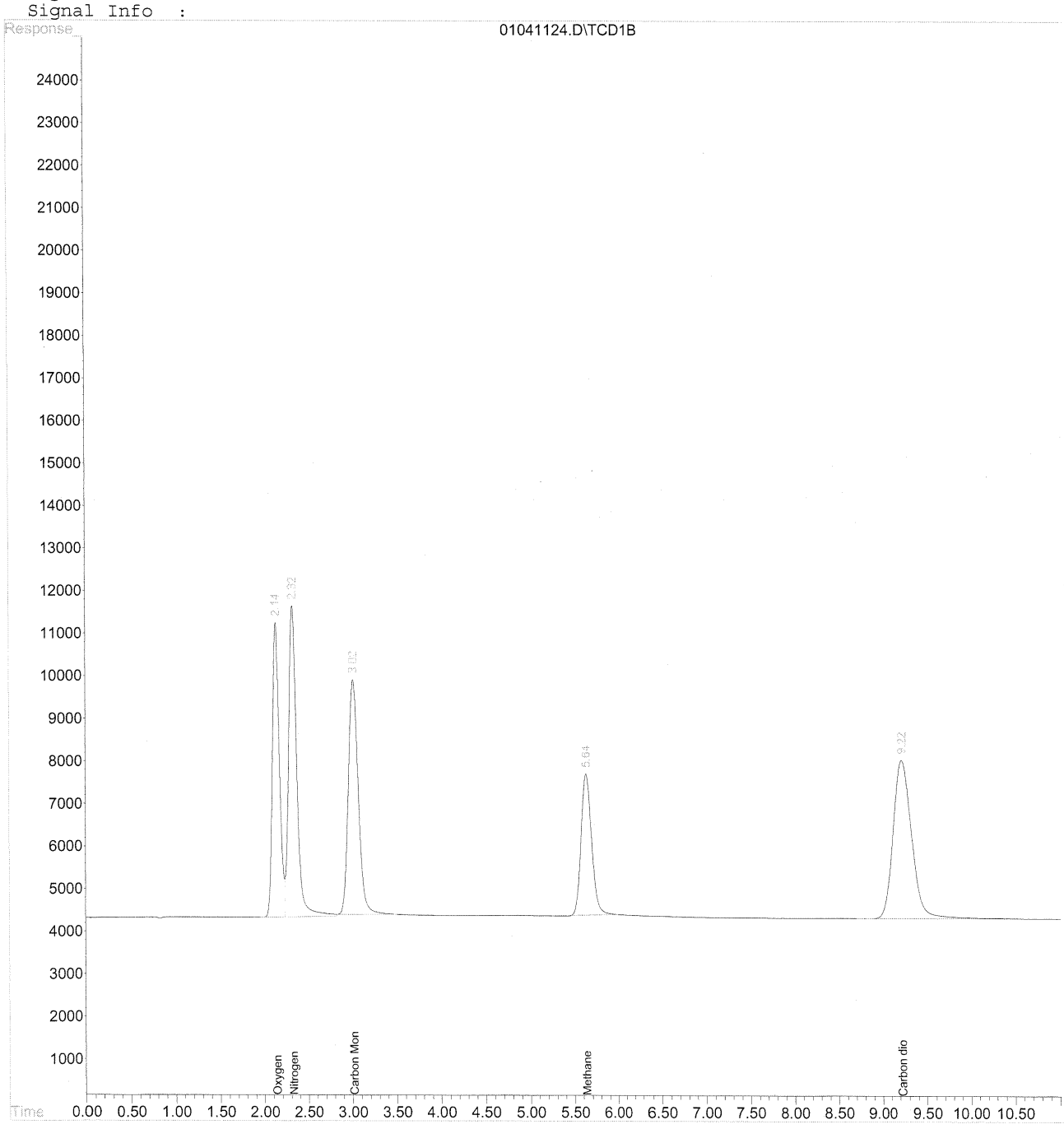
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	381159	2.460 %
2)	Nitrogen	2.32	472997	2.695 %
3)	Carbon Monoxide	3.02	430596	2.671 %
4)	Methane	5.64	279221	2.067 %
5)	Carbon dioxide	9.22	539016	2.625 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010412\01041124.D Vial: 1
Acq On : 4 Jan 2012 5:06 pm Operator:
Sample : ccv std 1-2 c Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jan 6 13:23 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 04 17:34:10 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 Mon Jan 09 11:49:54 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 Mon Jan 09 11:49:40 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 Mon Jan 09 11:49:02 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

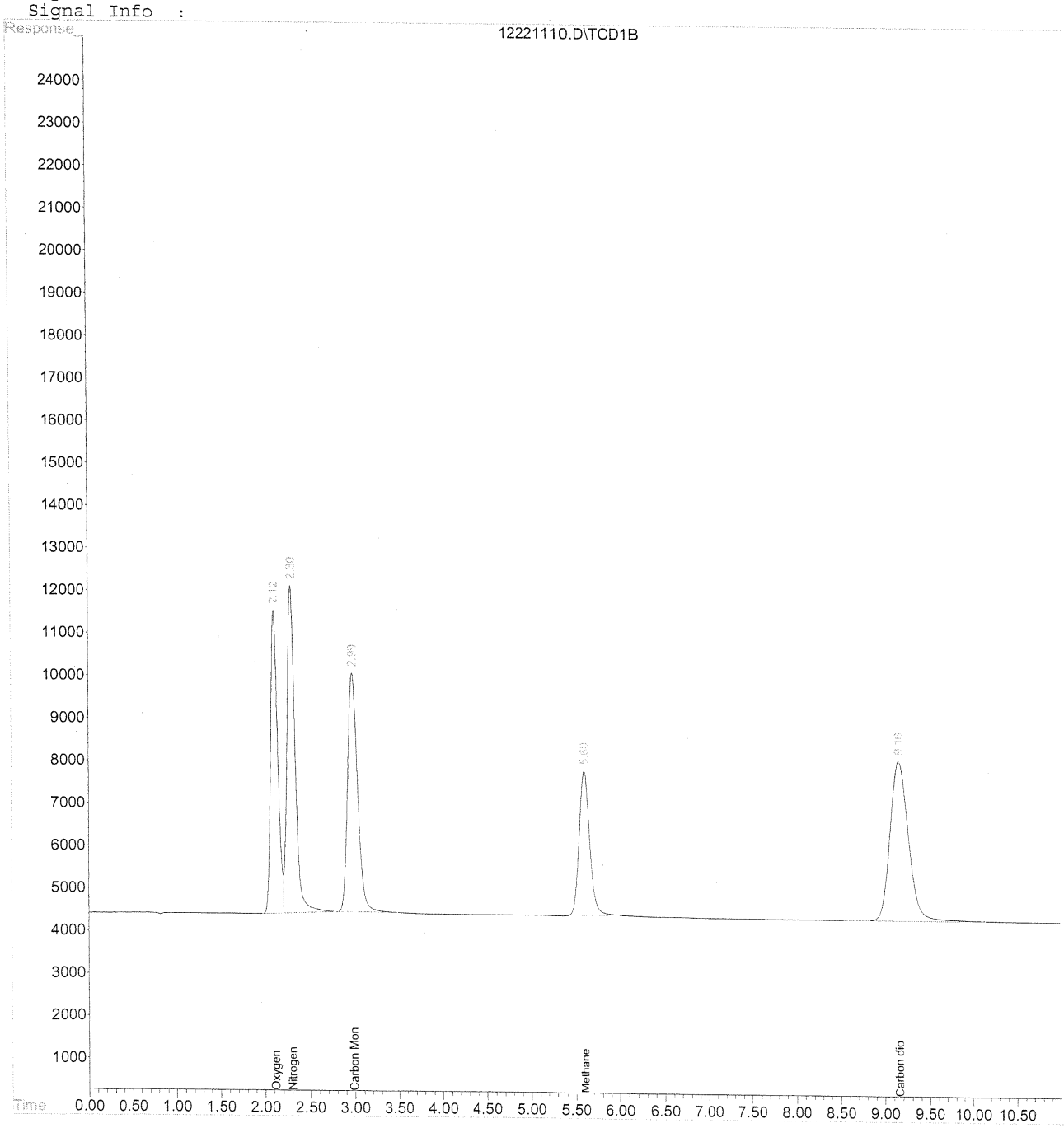
Volume Inj. :
Signal Phase :
Signal Info :

	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 Mon Jan 09 11:49:34 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 :