AECOM
1001 Highlands Plaza Drive West
Suite 300
St. Louis, MO 63110-1337
www.aecom.com

314 429 0100 tel
314 429 0462 fax

February 9, 2015

Illinois Department of Transportation
Kirk H. Brown, PE
Project Support Engineer
Division of Highways/Region 5/District 8
1102 Eastport Plaza Drive
Collinsville, Illinois 62234-6198

Subject: **Analytical Data for Soil and Soil Vapor Sampling according to Illinois Department of Transportation (IDOT) Permits No. 8-28548 and No. 8-28875**

Dear Mr. Brown,

AECOM (formerly URS Corporation), on behalf of Shell Oil Products US (SOPUS), is submitting analytical results for soil and soil vapor sampling conducted according to IDOT Permits No. 8-28548 and No. 8-28875. Enclosed are the analytical results for the following sampling activities recently conducted:

- VMP-15 (Soil Vapor Samples)
- VMP-55 (Soil Vapor Samples)

If you have any questions or require further information please contact Nick Eldred at nicholas.eldred@urs.com (314/743-7753).

Sincerely,
AECOM, on behalf of Shell Oil Products US

Michael Currier
Environmental Scientist

Nick Eldred
Senior Project Manager

Attachments

cc: Kevin Dyer, SOPUS
Repositories – Roxana Public Works, Roxana Public Library, website
Project File

eurofins | Air Toxics

11/19/2014
Ms. Elizabeth Kunkel
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis MO 63110

Project Name: Roxana Soil Vapor
Project #: 21562973.04004
Workorder #: 1411074A

Dear Ms. Elizabeth Kunkel

The following report includes the data for the above referenced project for sample(s) received on 11/5/2014 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1411074A

Work Order Summary

CLIENT:	Ms. Elizabeth Kunkel URS Corporation 1001 Highlands Plaza Dr. West Suite 300 St. Louis, MO 63110	**BILL TO:**	Accounts Payable Austin URS Corporation P.O. BOX 203970 Austin, TX 78720-1088
PHONE:	314-743-4179	**P.O. #**	282676
FAX:		**PROJECT #**	21562973.04004 Roxana Soil Vapor
DATE RECEIVED:	11/05/2014	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	11/19/2014		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
10A	VMP-55-5-110414	TO-15	8.6 "Hg	15.3 psi
11A	VMP-55-5-110414-Dup	TO-15	3.3 "Hg	15 psi
12A	Lab Blank	TO-15	NA	NA
12B	Lab Blank	TO-15	NA	NA
13A	CCV	TO-15	NA	NA
13B	CCV	TO-15	NA	NA
14A	LCS	TO-15	NA	NA
14AA	LCSD	TO-15	NA	NA
14B	LCS	TO-15	NA	NA
14BB	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Mayo DATE: 11/19/14

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
URS Corporation
Workorder# 1411074A

Eleven 1 Liter Summa Canister samples were received on November 05, 2014. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per client project requirements, the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified (0.2 ppbv for compounds reported at 0.5 ppbv and 0.8 ppbv for compounds reported at 2.0 ppbv) may be false positives.

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP-55-5-110414

Lab ID#: 1411074A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.4	0.66 J	7.1	3.2 J
Ethanol	5.7	6.6	11	12
Acetone	14	4.5 J	34	11 J
2-Propanol	5.7	5.1 J	14	12 J
Chloroform	1.4	0.46 J	7.0	2.2 J
Cyclohexane	1.4	0.68 J	4.9	2.3 J
2,2,4-Trimethylpentane	1.4	6.1	6.7	29
1,2-Dichloroethane	1.4	0.21 J	5.8	0.83 J
Heptane	1.4	0.93 J	5.9	3.8 J
Toluene	1.4	0.84 J	5.4	3.2 J
m,p-Xylene	1.4	0.26 J	6.2	1.1 J
Isopentane	5.7	2.8 J	17	8.2 J

Client Sample ID: VMP-55-5-110414-Dup

Lab ID#: 1411074A-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	0.55 J	5.6	2.7 J
Ethanol	4.5	3.1 J	8.6	5.8 J
Acetone	11	3.8 J	27	9.1 J
2-Propanol	4.5	2.7 J	11	6.6 J
Hexane	1.1	0.31 J	4.0	1.1 J
2-Butanone (Methyl Ethyl Ketone)	4.5	1.1 J	13	3.1 J
Chloroform	1.1	0.46 J	5.5	2.2 J
Cyclohexane	1.1	0.47 J	3.9	1.6 J
2,2,4-Trimethylpentane	1.1	5.3	5.3	24
Benzene	1.1	0.32 J	3.6	1.0 J
1,2-Dichloroethane	1.1	0.16 J	4.6	0.64 J
Toluene	1.1	0.21 J	4.3	0.81 J
m,p-Xylene	1.1	0.16 J	4.9	0.70 J
Isopentane	4.5	1.1 J	13	3.3 J

eurofins | Air Toxics

Client Sample ID: VMP-55-5-110414

Lab ID#: 1411074A-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3111320**	**Date of Collection:**	**11/4/14 3:08:00 PM**
Dil. Factor:	**2.86**	**Date of Analysis:**	**11/13/14 10:28 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.4	0.66 J	7.1	3.2 J
Freon 114	1.4	Not Detected	10	Not Detected
Chloromethane	14	Not Detected	30	Not Detected
Vinyl Chloride	1.4	Not Detected	3.6	Not Detected
1,3-Butadiene	1.4	Not Detected	3.2	Not Detected
Bromomethane	14	Not Detected	56	Not Detected
Chloroethane	5.7	Not Detected	15	Not Detected
Freon 11	1.4	Not Detected	8.0	Not Detected
Ethanol	5.7	6.6	11	12
Freon 113	1.4	Not Detected	11	Not Detected
1,1-Dichloroethene	1.4	Not Detected	5.7	Not Detected
Acetone	14	4.5 J	34	11 J
2-Propanol	5.7	5.1 J	14	12 J
Carbon Disulfide	5.7	Not Detected	18	Not Detected
3-Chloropropene	5.7	Not Detected	18	Not Detected
Methylene Chloride	14	Not Detected	50	Not Detected
Methyl tert-butyl ether	1.4	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	1.4	Not Detected	5.7	Not Detected
Hexane	1.4	Not Detected	5.0	Not Detected
1,1-Dichloroethane	1.4	Not Detected	5.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.7	Not Detected	17	Not Detected
cis-1,2-Dichloroethene	1.4	Not Detected	5.7	Not Detected
Tetrahydrofuran	1.4	Not Detected	4.2	Not Detected
Chloroform	1.4	0.46 J	7.0	2.2 J
1,1,1-Trichloroethane	1.4	Not Detected	7.8	Not Detected
Cyclohexane	1.4	0.68 J	4.9	2.3 J
Carbon Tetrachloride	1.4	Not Detected	9.0	Not Detected
2,2,4-Trimethylpentane	1.4	6.1	6.7	29
Benzene	1.4	Not Detected	4.6	Not Detected
1,2-Dichloroethane	1.4	0.21 J	5.8	0.83 J
Heptane	1.4	0.93 J	5.9	3.8 J
Trichloroethene	1.4	Not Detected	7.7	Not Detected
1,2-Dichloropropane	1.4	Not Detected	6.6	Not Detected
1,4-Dioxane	5.7	Not Detected	21	Not Detected
Bromodichloromethane	1.4	Not Detected	9.6	Not Detected
cis-1,3-Dichloropropene	1.4	Not Detected	6.5	Not Detected
4-Methyl-2-pentanone	1.4	Not Detected	5.8	Not Detected
Toluene	1.4	0.84 J	5.4	3.2 J
trans-1,3-Dichloropropene	1.4	Not Detected	6.5	Not Detected
1,1,2-Trichloroethane	1.4	Not Detected	7.8	Not Detected
Tetrachloroethene	1.4	Not Detected	9.7	Not Detected
2-Hexanone	5.7	Not Detected	23	Not Detected

eurofins | Air Toxics

Client Sample ID: VMP-55-5-110414

Lab ID#: 1411074A-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3111320**	**Date of Collection: 11/4/14 3:08:00 PM**	
Dil. Factor:	**2.86**	**Date of Analysis: 11/13/14 10:28 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.4	Not Detected	12	Not Detected
1,2-Dibromoethane (EDB)	1.4	Not Detected	11	Not Detected
Chlorobenzene	1.4	Not Detected	6.6	Not Detected
Ethyl Benzene	1.4	Not Detected	6.2	Not Detected
m,p-Xylene	1.4	0.26 J	6.2	1.1 J
o-Xylene	1.4	Not Detected	6.2	Not Detected
Styrene	1.4	Not Detected	6.1	Not Detected
Bromoform	1.4	Not Detected	15	Not Detected
Cumene	1.4	Not Detected	7.0	Not Detected
1,1,2,2-Tetrachloroethane	1.4	Not Detected	9.8	Not Detected
Propylbenzene	1.4	Not Detected	7.0	Not Detected
4-Ethyltoluene	1.4	Not Detected	7.0	Not Detected
1,3,5-Trimethylbenzene	1.4	Not Detected	7.0	Not Detected
1,2,4-Trimethylbenzene	1.4	Not Detected	7.0	Not Detected
1,3-Dichlorobenzene	1.4	Not Detected	8.6	Not Detected
1,4-Dichlorobenzene	1.4	Not Detected	8.6	Not Detected
alpha-Chlorotoluene	1.4	Not Detected	7.4	Not Detected
1,2-Dichlorobenzene	1.4	Not Detected	8.6	Not Detected
1,2,4-Trichlorobenzene	5.7	Not Detected	42	Not Detected
Hexachlorobutadiene	5.7	Not Detected	61	Not Detected
Butane	5.7	Not Detected	14	Not Detected
Isopentane	5.7	2.8 J	17	8.2 J

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	99	70-130

eurofins | Air Toxics

Client Sample ID: VMP-55-5-110414-Dup

Lab ID#: 1411074A-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3111319**	**Date of Collection:**	**11/4/14 3:08:00 PM**
Dil. Factor:	**2.27**	**Date of Analysis:**	**11/13/14 10:02 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	0.55 J	5.6	2.7 J
Freon 114	1.1	Not Detected	7.9	Not Detected
Chloromethane	11	Not Detected	23	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
1,3-Butadiene	1.1	Not Detected	2.5	Not Detected
Bromomethane	11	Not Detected	44	Not Detected
Chloroethane	4.5	Not Detected	12	Not Detected
Freon 11	1.1	Not Detected	6.4	Not Detected
Ethanol	4.5	3.1 J	8.6	5.8 J
Freon 113	1.1	Not Detected	8.7	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Acetone	11	3.8 J	27	9.1 J
2-Propanol	4.5	2.7 J	11	6.6 J
Carbon Disulfide	4.5	Not Detected	14	Not Detected
3-Chloropropene	4.5	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	39	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	4.1	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Hexane	1.1	0.31 J	4.0	1.1 J
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.5	1.1 J	13	3.1 J
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Tetrahydrofuran	1.1	Not Detected	3.3	Not Detected
Chloroform	1.1	0.46 J	5.5	2.2 J
1,1,1-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Cyclohexane	1.1	0.47 J	3.9	1.6 J
Carbon Tetrachloride	1.1	Not Detected	7.1	Not Detected
2,2,4-Trimethylpentane	1.1	5.3	5.3	24
Benzene	1.1	0.32 J	3.6	1.0 J
1,2-Dichloroethane	1.1	0.16 J	4.6	0.64 J
Heptane	1.1	Not Detected	4.6	Not Detected
Trichloroethene	1.1	Not Detected	6.1	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.2	Not Detected
1,4-Dioxane	4.5	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.6	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.6	Not Detected
Toluene	1.1	0.21 J	4.3	0.81 J
trans-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Tetrachloroethene	1.1	Not Detected	7.7	Not Detected
2-Hexanone	4.5	Not Detected	18	Not Detected

eurofins | Air Toxics

Client Sample ID: VMP-55-5-110414-Dup

Lab ID#: 1411074A-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3111319**	**Date of Collection:**	**11/4/14 3:08:00 PM**
Dil. Factor:	**2.27**	**Date of Analysis:**	**11/13/14 10:02 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.1	Not Detected	9.7	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.7	Not Detected
Chlorobenzene	1.1	Not Detected	5.2	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	0.16 J	4.9	0.70 J
o-Xylene	1.1	Not Detected	4.9	Not Detected
Styrene	1.1	Not Detected	4.8	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
Cumene	1.1	Not Detected	5.6	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.8	Not Detected
Propylbenzene	1.1	Not Detected	5.6	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.9	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,2,4-Trichlorobenzene	4.5	Not Detected	34	Not Detected
Hexachlorobutadiene	4.5	Not Detected	48	Not Detected
Butane	4.5	Not Detected	11	Not Detected
Isopentane	4.5	1.1 J	13	3.3 J

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	107	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411074A-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3111205c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/12/14 11:29 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	0.13 J	3.5	0.89 J
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	0.11 J	2.8	0.61 J
Ethanol	2.0	0.80 J	3.8	1.5 J
Freon 113	0.50	0.11 J	3.8	0.85 J
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	0.47 J	6.2	1.5 J
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	0.22 J	2.0	0.86 J
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	0.18 J	2.0	0.73 J
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	0.13 J	2.4	0.64 J
1,1,1-Trichloroethane	0.50	0.097 J	2.7	0.53 J
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	0.12 J	3.1	0.73 J
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	0.17 J	2.0	0.70 J
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	0.11 J	3.4	0.72 J
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411074A-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3111205c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/12/14 11:29 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	0.067 J	2.2	0.29 J
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	0.089 J	2.4	0.44 J
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	0.10 J	2.4	0.49 J
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	0.47 J	2.4	2.3 J
1,2,4-Trimethylbenzene	0.50	0.28 J	2.4	1.4 J
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	0.068 J	3.0	0.41 J
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Butane	2.0	Not Detected	4.8	Not Detected
Isopentane	2.0	Not Detected	5.9	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411074A-12B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3111306a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 12:30 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	0.059 J	2.5	0.29 J
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	0.069 J	2.0	0.28 J
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	0.10 J	2.0	0.41 J
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411074A-12B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3111306a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 12:30 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	0.15 J	2.4	0.74 J
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Butane	2.0	Not Detected	4.8	Not Detected
Isopentane	2.0	Not Detected	5.9	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1411074A-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3111202**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/12/14 09:55 AM**	

Compound	%Recovery
Freon 12	100
Freon 114	99
Chloromethane	98
Vinyl Chloride	92
1,3-Butadiene	100
Bromomethane	100
Chloroethane	102
Freon 11	98
Ethanol	97
Freon 113	96
1,1-Dichloroethene	93
Acetone	97
2-Propanol	98
Carbon Disulfide	97
3-Chloropropene	99
Methylene Chloride	100
Methyl tert-butyl ether	97
trans-1,2-Dichloroethene	98
Hexane	99
1,1-Dichloroethane	97
2-Butanone (Methyl Ethyl Ketone)	100
cis-1,2-Dichloroethene	98
Tetrahydrofuran	100
Chloroform	98
1,1,1-Trichloroethane	98
Cyclohexane	100
Carbon Tetrachloride	96
2,2,4-Trimethylpentane	102
Benzene	100
1,2-Dichloroethane	97
Heptane	104
Trichloroethene	99
1,2-Dichloropropane	94
1,4-Dioxane	99
Bromodichloromethane	95
cis-1,3-Dichloropropene	101
4-Methyl-2-pentanone	98
Toluene	101
trans-1,3-Dichloropropene	101
1,1,2-Trichloroethane	99
Tetrachloroethene	101
2-Hexanone	103

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1411074A-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3111202**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/12/14 09:55 AM**	

Compound	%Recovery
Dibromochloromethane	102
1,2-Dibromoethane (EDB)	100
Chlorobenzene	100
Ethyl Benzene	103
m,p-Xylene	108
o-Xylene	106
Styrene	108
Bromoform	101
Cumene	108
1,1,2,2-Tetrachloroethane	100
Propylbenzene	104
4-Ethyltoluene	103
1,3,5-Trimethylbenzene	103
1,2,4-Trimethylbenzene	99
1,3-Dichlorobenzene	99
1,4-Dichlorobenzene	102
alpha-Chlorotoluene	101
1,2-Dichlorobenzene	99
1,2,4-Trichlorobenzene	96
Hexachlorobutadiene	97
Butane	98
Isopentane	96

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1411074A-13B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3111302**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 09:23 AM**	

Compound	%Recovery
Freon 12	104
Freon 114	103
Chloromethane	105
Vinyl Chloride	94
1,3-Butadiene	102
Bromomethane	103
Chloroethane	107
Freon 11	102
Ethanol	99
Freon 113	99
1,1-Dichloroethene	96
Acetone	98
2-Propanol	100
Carbon Disulfide	99
3-Chloropropene	101
Methylene Chloride	103
Methyl tert-butyl ether	98
trans-1,2-Dichloroethene	100
Hexane	100
1,1-Dichloroethane	100
2-Butanone (Methyl Ethyl Ketone)	102
cis-1,2-Dichloroethene	100
Tetrahydrofuran	102
Chloroform	102
1,1,1-Trichloroethane	100
Cyclohexane	102
Carbon Tetrachloride	100
2,2,4-Trimethylpentane	107
Benzene	102
1,2-Dichloroethane	101
Heptane	106
Trichloroethene	101
1,2-Dichloropropane	97
1,4-Dioxane	100
Bromodichloromethane	98
cis-1,3-Dichloropropene	101
4-Methyl-2-pentanone	100
Toluene	104
trans-1,3-Dichloropropene	102
1,1,2-Trichloroethane	100
Tetrachloroethene	102
2-Hexanone	102

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1411074A-13B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3111302**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 09:23 AM**	

Compound	%Recovery
Dibromochloromethane	102
1,2-Dibromoethane (EDB)	102
Chlorobenzene	101
Ethyl Benzene	104
m,p-Xylene	108
o-Xylene	107
Styrene	109
Bromoform	102
Cumene	108
1,1,2,2-Tetrachloroethane	102
Propylbenzene	105
4-Ethyltoluene	104
1,3,5-Trimethylbenzene	106
1,2,4-Trimethylbenzene	100
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	102
alpha-Chlorotoluene	101
1,2-Dichlorobenzene	100
1,2,4-Trichlorobenzene	99
Hexachlorobutadiene	98
Butane	104
Isopentane	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1411074A-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3111203**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/12/14 10:24 AM**	

Compound	%Recovery	Method Limits
Freon 12	100	70-130
Freon 114	97	70-130
Chloromethane	102	70-130
Vinyl Chloride	93	70-130
1,3-Butadiene	93	70-130
Bromomethane	95	70-130
Chloroethane	101	70-130
Freon 11	96	70-130
Ethanol	116	70-130
Freon 113	98	70-130
1,1-Dichloroethene	97	70-130
Acetone	94	70-130
2-Propanol	104	70-130
Carbon Disulfide	88	70-130
3-Chloropropene	94	70-130
Methylene Chloride	103	70-130
Methyl tert-butyl ether	91	70-130
trans-1,2-Dichloroethene	90	70-130
Hexane	97	70-130
1,1-Dichloroethane	96	70-130
2-Butanone (Methyl Ethyl Ketone)	97	70-130
cis-1,2-Dichloroethene	96	70-130
Tetrahydrofuran	96	70-130
Chloroform	96	70-130
1,1,1-Trichloroethane	96	70-130
Cyclohexane	97	70-130
Carbon Tetrachloride	95	70-130
2,2,4-Trimethylpentane	103	70-130
Benzene	96	70-130
1,2-Dichloroethane	94	70-130
Heptane	99	70-130
Trichloroethene	95	70-130
1,2-Dichloropropane	90	70-130
1,4-Dioxane	98	70-130
Bromodichloromethane	91	70-130
cis-1,3-Dichloropropene	100	70-130
4-Methyl-2-pentanone	98	70-130
Toluene	98	70-130
trans-1,3-Dichloropropene	92	70-130
1,1,2-Trichloroethane	93	70-130
Tetrachloroethene	96	70-130
2-Hexanone	104	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1411074A-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3111203**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/12/14 10:24 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	96	70-130
1,2-Dibromoethane (EDB)	95	70-130
Chlorobenzene	94	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	104	70-130
o-Xylene	102	70-130
Styrene	107	70-130
Bromoform	98	70-130
Cumene	105	70-130
1,1,2,2-Tetrachloroethane	97	70-130
Propylbenzene	102	70-130
4-Ethyltoluene	104	70-130
1,3,5-Trimethylbenzene	118	70-130
1,2,4-Trimethylbenzene	108	70-130
1,3-Dichlorobenzene	103	70-130
1,4-Dichlorobenzene	105	70-130
alpha-Chlorotoluene	166 Q	70-130
1,2-Dichlorobenzene	107	70-130
1,2,4-Trichlorobenzene	132 Q	70-130
Hexachlorobutadiene	128	70-130
Butane	99	60-140
Isopentane	93	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	103	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1411074A-14AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3111204**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/12/14 10:51 AM**	

Compound	%Recovery	Method Limits
Freon 12	97	70-130
Freon 114	95	70-130
Chloromethane	98	70-130
Vinyl Chloride	92	70-130
1,3-Butadiene	93	70-130
Bromomethane	94	70-130
Chloroethane	102	70-130
Freon 11	95	70-130
Ethanol	114	70-130
Freon 113	98	70-130
1,1-Dichloroethene	94	70-130
Acetone	92	70-130
2-Propanol	105	70-130
Carbon Disulfide	86	70-130
3-Chloropropene	96	70-130
Methylene Chloride	100	70-130
Methyl tert-butyl ether	91	70-130
trans-1,2-Dichloroethene	90	70-130
Hexane	96	70-130
1,1-Dichloroethane	95	70-130
2-Butanone (Methyl Ethyl Ketone)	94	70-130
cis-1,2-Dichloroethene	94	70-130
Tetrahydrofuran	97	70-130
Chloroform	96	70-130
1,1,1-Trichloroethane	94	70-130
Cyclohexane	98	70-130
Carbon Tetrachloride	95	70-130
2,2,4-Trimethylpentane	101	70-130
Benzene	96	70-130
1,2-Dichloroethane	93	70-130
Heptane	98	70-130
Trichloroethene	95	70-130
1,2-Dichloropropane	91	70-130
1,4-Dioxane	98	70-130
Bromodichloromethane	90	70-130
cis-1,3-Dichloropropene	100	70-130
4-Methyl-2-pentanone	97	70-130
Toluene	96	70-130
trans-1,3-Dichloropropene	93	70-130
1,1,2-Trichloroethane	91	70-130
Tetrachloroethene	96	70-130
2-Hexanone	103	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1411074A-14AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3111204**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/12/14 10:51 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	95	70-130
1,2-Dibromoethane (EDB)	94	70-130
Chlorobenzene	94	70-130
Ethyl Benzene	97	70-130
m,p-Xylene	104	70-130
o-Xylene	101	70-130
Styrene	107	70-130
Bromoform	98	70-130
Cumene	104	70-130
1,1,2,2-Tetrachloroethane	97	70-130
Propylbenzene	103	70-130
4-Ethyltoluene	102	70-130
1,3,5-Trimethylbenzene	116	70-130
1,2,4-Trimethylbenzene	106	70-130
1,3-Dichlorobenzene	101	70-130
1,4-Dichlorobenzene	104	70-130
alpha-Chlorotoluene	164 Q	70-130
1,2-Dichlorobenzene	105	70-130
1,2,4-Trichlorobenzene	132 Q	70-130
Hexachlorobutadiene	129	70-130
Butane	98	60-140
Isopentane	94	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	101	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1411074A-14B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3111303**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 09:51 AM**	

Compound	%Recovery	Method Limits
Freon 12	101	70-130
Freon 114	98	70-130
Chloromethane	106	70-130
Vinyl Chloride	94	70-130
1,3-Butadiene	96	70-130
Bromomethane	96	70-130
Chloroethane	101	70-130
Freon 11	97	70-130
Ethanol	114	70-130
Freon 113	100	70-130
1,1-Dichloroethene	97	70-130
Acetone	92	70-130
2-Propanol	104	70-130
Carbon Disulfide	88	70-130
3-Chloropropene	95	70-130
Methylene Chloride	103	70-130
Methyl tert-butyl ether	92	70-130
trans-1,2-Dichloroethene	93	70-130
Hexane	97	70-130
1,1-Dichloroethane	97	70-130
2-Butanone (Methyl Ethyl Ketone)	98	70-130
cis-1,2-Dichloroethene	98	70-130
Tetrahydrofuran	97	70-130
Chloroform	98	70-130
1,1,1-Trichloroethane	97	70-130
Cyclohexane	100	70-130
Carbon Tetrachloride	97	70-130
2,2,4-Trimethylpentane	103	70-130
Benzene	94	70-130
1,2-Dichloroethane	91	70-130
Heptane	96	70-130
Trichloroethene	94	70-130
1,2-Dichloropropane	89	70-130
1,4-Dioxane	96	70-130
Bromodichloromethane	90	70-130
cis-1,3-Dichloropropene	97	70-130
4-Methyl-2-pentanone	95	70-130
Toluene	95	70-130
trans-1,3-Dichloropropene	90	70-130
1,1,2-Trichloroethane	92	70-130
Tetrachloroethene	95	70-130
2-Hexanone	101	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1411074A-14B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3111303**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 09:51 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	95	70-130
1,2-Dibromoethane (EDB)	93	70-130
Chlorobenzene	94	70-130
Ethyl Benzene	98	70-130
m,p-Xylene	103	70-130
o-Xylene	101	70-130
Styrene	106	70-130
Bromoform	97	70-130
Cumene	103	70-130
1,1,2,2-Tetrachloroethane	96	70-130
Propylbenzene	101	70-130
4-Ethyltoluene	103	70-130
1,3,5-Trimethylbenzene	115	70-130
1,2,4-Trimethylbenzene	106	70-130
1,3-Dichlorobenzene	101	70-130
1,4-Dichlorobenzene	104	70-130
alpha-Chlorotoluene	163 Q	70-130
1,2-Dichlorobenzene	105	70-130
1,2,4-Trichlorobenzene	130	70-130
Hexachlorobutadiene	128	70-130
Butane	101	60-140
Isopentane	93	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1411074A-14BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3111304**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 10:18 AM**	

Compound	%Recovery	Method Limits
Freon 12	98	70-130
Freon 114	96	70-130
Chloromethane	100	70-130
Vinyl Chloride	92	70-130
1,3-Butadiene	93	70-130
Bromomethane	92	70-130
Chloroethane	102	70-130
Freon 11	96	70-130
Ethanol	113	70-130
Freon 113	99	70-130
1,1-Dichloroethene	94	70-130
Acetone	93	70-130
2-Propanol	103	70-130
Carbon Disulfide	87	70-130
3-Chloropropene	96	70-130
Methylene Chloride	100	70-130
Methyl tert-butyl ether	91	70-130
trans-1,2-Dichloroethene	90	70-130
Hexane	96	70-130
1,1-Dichloroethane	95	70-130
2-Butanone (Methyl Ethyl Ketone)	97	70-130
cis-1,2-Dichloroethene	95	70-130
Tetrahydrofuran	97	70-130
Chloroform	96	70-130
1,1,1-Trichloroethane	96	70-130
Cyclohexane	98	70-130
Carbon Tetrachloride	96	70-130
2,2,4-Trimethylpentane	100	70-130
Benzene	96	70-130
1,2-Dichloroethane	93	70-130
Heptane	98	70-130
Trichloroethene	93	70-130
1,2-Dichloropropane	90	70-130
1,4-Dioxane	109	70-130
Bromodichloromethane	90	70-130
cis-1,3-Dichloropropene	99	70-130
4-Methyl-2-pentanone	96	70-130
Toluene	96	70-130
trans-1,3-Dichloropropene	92	70-130
1,1,2-Trichloroethane	92	70-130
Tetrachloroethene	97	70-130
2-Hexanone	104	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1411074A-14BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3111304**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 10:18 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	97	70-130
1,2-Dibromoethane (EDB)	95	70-130
Chlorobenzene	96	70-130
Ethyl Benzene	99	70-130
m,p-Xylene	105	70-130
o-Xylene	102	70-130
Styrene	108	70-130
Bromoform	99	70-130
Cumene	104	70-130
1,1,2,2-Tetrachloroethane	97	70-130
Propylbenzene	103	70-130
4-Ethyltoluene	103	70-130
1,3,5-Trimethylbenzene	117	70-130
1,2,4-Trimethylbenzene	108	70-130
1,3-Dichlorobenzene	102	70-130
1,4-Dichlorobenzene	105	70-130
alpha-Chlorotoluene	165 Q	70-130
1,2-Dichlorobenzene	106	70-130
1,2,4-Trichlorobenzene	134 Q	70-130
Hexachlorobutadiene	130	70-130
Butane	100	60-140
Isopentane	93	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

11/19/2014
Ms. Elizabeth Kunkel
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis MO 63110

Project Name: Roxana Soil Vapor
Project #: 21562973.04004
Workorder #: 1411074B

Dear Ms. Elizabeth Kunkel

The following report includes the data for the above referenced project for sample(s) received on 11/5/2014 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1411074B

Work Order Summary

CLIENT:	Ms. Elizabeth Kunkel URS Corporation 1001 Highlands Plaza Dr. West Suite 300 St. Louis, MO 63110	**BILL TO:**	Accounts Payable Austin URS Corporation P.O. BOX 203970 Austin, TX 78720-1088
PHONE:	314-743-4179	**P.O. #**	282676
FAX:		**PROJECT #**	21562973.04004 Roxana Soil Vapor
DATE RECEIVED:	11/05/2014	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	11/19/2014		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
10A	VMP-55-5-110414	Modified ASTM D-1946	8.6 "Hg	15.3 psi
11A	VMP-55-5-110414-Dup	Modified ASTM D-1946	3.3 "Hg	15 psi
12A	Lab Blank	Modified ASTM D-1946	NA	NA
12B	Lab Blank	Modified ASTM D-1946	NA	NA
13A	LCS	Modified ASTM D-1946	NA	NA
13AA	LCSD	Modified ASTM D-1946	NA	NA

CERTIFIED BY: Heidi Mayo DATE: 11/19/14

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified ASTM D-1946
URS Corporation
Workorder# 1411074B

Eleven 1 Liter Summa Canister samples were received on November 05, 2014. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***ASTM D-1946***	***ATL Modifications***
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A minimum of 5-point calibration curve is performed. Quantitation is based on average Response Factor.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a >/= 95% accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections > 5 X's the RL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:
B - Compound present in laboratory blank greater than reporting limit.
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.
File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

eurofins | Air Toxics

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP-55-5-110414

Lab ID#: 1411074B-10A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.29	3.6
Nitrogen	0.29	79
Methane	0.00029	0.0013
Carbon Dioxide	0.029	17
Helium	0.14	0.056 J

Client Sample ID: VMP-55-5-110414-Dup

Lab ID#: 1411074B-11A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	2.9
Nitrogen	0.23	79
Methane	0.00023	0.0013
Carbon Dioxide	0.023	18
Helium	0.11	0.047 J

eurofins | Air Toxics

Client Sample ID: VMP-55-5-110414

Lab ID#: 1411074B-10A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111222**	**Date of Collection: 11/4/14 3:08:00 PM**	
Dil. Factor:	**2.86**	**Date of Analysis: 11/12/14 09:23 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.29	3.6
Nitrogen	0.29	79
Carbon Monoxide	0.029	Not Detected
Methane	0.00029	0.0013
Carbon Dioxide	0.029	17
Ethane	0.0029	Not Detected
Ethene	0.0029	Not Detected
Helium	0.14	0.056 J

J = Estimated value.

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: VMP-55-5-110414-Dup

Lab ID#: 1411074B-11A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111221**	**Date of Collection: 11/4/14 3:08:00 PM**	
Dil. Factor:	**2.27**	**Date of Analysis: 11/12/14 08:55 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	2.9
Nitrogen	0.23	79
Carbon Monoxide	0.023	Not Detected
Methane	0.00023	0.0013
Carbon Dioxide	0.023	18
Ethane	0.0023	Not Detected
Ethene	0.0023	Not Detected
Helium	0.11	0.047 J

J = Estimated value.

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411074B-12A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111204a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/12/14 09:28 AM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	0.012 J
Nitrogen	0.10	0.059 J
Carbon Monoxide	0.010	Not Detected
Methane	0.00010	Not Detected
Carbon Dioxide	0.010	Not Detected
Ethane	0.0010	Not Detected
Ethene	0.0010	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411074B-12B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111203c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/12/14 09:01 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Helium	0.050	Not Detected

Container Type: NA - Not Applicable

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1411074B-13A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111202**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/12/14 08:24 AM**	

Compound	%Recovery	Method Limits
Oxygen	102	85-115
Nitrogen	92	85-115
Carbon Monoxide	100	85-115
Methane	102	85-115
Carbon Dioxide	100	85-115
Ethane	97	85-115
Ethene	99	85-115
Helium	98	85-115

Container Type: NA - Not Applicable

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1411074B-13AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111223**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/12/14 09:51 PM**	

Compound	%Recovery	Method Limits
Oxygen	102	85-115
Nitrogen	92	85-115
Carbon Monoxide	99	85-115
Methane	102	85-115
Carbon Dioxide	100	85-115
Ethane	97	85-115
Ethene	99	85-115
Helium	98	85-115

Container Type: NA - Not Applicable

eurofins | Air Toxics

11/21/2014
Ms. Elizabeth Kunkel
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis MO 63110

Project Name: Roxana Soil Vapor
Project #: 21562973.04004
Workorder #: 1411128A

Dear Ms. Elizabeth Kunkel

The following report includes the data for the above referenced project for sample(s) received on 11/7/2014 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1411128A

Work Order Summary

CLIENT:	Ms. Elizabeth Kunkel URS Corporation 1001 Highlands Plaza Dr. West Suite 300 St. Louis, MO 63110	**BILL TO:**	Accounts Payable Austin URS Corporation P.O. BOX 203970 Austin, TX 78720-1088
PHONE:	314-743-4179	**P.O. #**	282676
FAX:		**PROJECT #**	21562973.04004 Roxana Soil Vapor
DATE RECEIVED:	11/07/2014	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	11/21/2014		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
03A	VMP-15-5-110614	TO-15	6.5 "Hg	15 psi
09A	Lab Blank	TO-15	NA	NA
10A	CCV	TO-15	NA	NA
11A	LCS	TO-15	NA	NA
11AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 11/21/14

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
URS Corporation
Workorder# 1411128A

Eight 1 Liter Summa Canister samples were received on November 07, 2014. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per client project requirements, the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified (0.2 ppbv for compounds reported at 0.5 ppbv and 0.8 ppbv for compounds reported at 2.0 ppbv) may be false positives.

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP-15-5-110614

Lab ID#: 1411128A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.41 J	6.4	2.0 J
Ethanol	5.2	2.9 J	9.7	5.5 J
Acetone	13	6.2 J	31	15 J
Chloroform	1.3	0.51 J	6.3	2.5 J
Toluene	1.3	0.22 J	4.9	0.84 J

eurofins | Air Toxics

Client Sample ID: VMP-15-5-110614

Lab ID#: 1411128A-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111812**	**Date of Collection:**	**11/6/14 1:39:00 PM**
Dil. Factor:	**2.58**	**Date of Analysis:**	**11/18/14 05:48 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.41 J	6.4	2.0 J
Freon 114	1.3	Not Detected	9.0	Not Detected
Chloromethane	13	Not Detected	27	Not Detected
Vinyl Chloride	1.3	Not Detected	3.3	Not Detected
1,3-Butadiene	1.3	Not Detected	2.8	Not Detected
Bromomethane	13	Not Detected	50	Not Detected
Chloroethane	5.2	Not Detected	14	Not Detected
Freon 11	1.3	Not Detected	7.2	Not Detected
Ethanol	5.2	2.9 J	9.7	5.5 J
Freon 113	1.3	Not Detected	9.9	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Acetone	13	6.2 J	31	15 J
2-Propanol	5.2	Not Detected	13	Not Detected
Carbon Disulfide	5.2	Not Detected	16	Not Detected
3-Chloropropene	5.2	Not Detected	16	Not Detected
Methylene Chloride	13	Not Detected	45	Not Detected
Methyl tert-butyl ether	1.3	Not Detected	4.6	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Hexane	1.3	Not Detected	4.5	Not Detected
1,1-Dichloroethane	1.3	Not Detected	5.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.2	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Tetrahydrofuran	1.3	Not Detected	3.8	Not Detected
Chloroform	1.3	0.51 J	6.3	2.5 J
1,1,1-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Cyclohexane	1.3	Not Detected	4.4	Not Detected
Carbon Tetrachloride	1.3	Not Detected	8.1	Not Detected
2,2,4-Trimethylpentane	1.3	Not Detected	6.0	Not Detected
Benzene	1.3	Not Detected	4.1	Not Detected
1,2-Dichloroethane	1.3	Not Detected	5.2	Not Detected
Heptane	1.3	Not Detected	5.3	Not Detected
Trichloroethene	1.3	Not Detected	6.9	Not Detected
1,2-Dichloropropane	1.3	Not Detected	6.0	Not Detected
1,4-Dioxane	5.2	Not Detected	18	Not Detected
Bromodichloromethane	1.3	Not Detected	8.6	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.3	Not Detected
Toluene	1.3	0.22 J	4.9	0.84 J
trans-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Tetrachloroethene	1.3	Not Detected	8.8	Not Detected
2-Hexanone	5.2	Not Detected	21	Not Detected

eurofins | Air Toxics

Client Sample ID: VMP-15-5-110614

Lab ID#: 1411128A-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111812**	**Date of Collection:**	**11/6/14 1:39:00 PM**
Dil. Factor:	**2.58**	**Date of Analysis:**	**11/18/14 05:48 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.9	Not Detected
Chlorobenzene	1.3	Not Detected	5.9	Not Detected
Ethyl Benzene	1.3	Not Detected	5.6	Not Detected
m,p-Xylene	1.3	Not Detected	5.6	Not Detected
o-Xylene	1.3	Not Detected	5.6	Not Detected
Styrene	1.3	Not Detected	5.5	Not Detected
Bromoform	1.3	Not Detected	13	Not Detected
Cumene	1.3	Not Detected	6.3	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	8.8	Not Detected
Propylbenzene	1.3	Not Detected	6.3	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.3	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	7.8	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.8	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.7	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.8	Not Detected
1,2,4-Trichlorobenzene	5.2	Not Detected	38	Not Detected
Hexachlorobutadiene	5.2	Not Detected	55	Not Detected
Butane	5.2	Not Detected	12	Not Detected
Isopentane	5.2	Not Detected	15	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411128A-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111806a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 11:23 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected UJ	3.8	Not Detected UJ
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411128A-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111806a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 11:23 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Butane	2.0	Not Detected	4.8	Not Detected
Isopentane	2.0	Not Detected	5.9	Not Detected

UJ = Analyte associated with low bias in the CCV and/or LCS.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	94	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1411128A-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111802**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 07:38 AM**	

Compound	%Recovery
Freon 12	80
Freon 114	85
Chloromethane	74
Vinyl Chloride	77
1,3-Butadiene	76
Bromomethane	88
Chloroethane	88
Freon 11	84
Ethanol	63 Q
Freon 113	88
1,1-Dichloroethene	86
Acetone	84
2-Propanol	70
Carbon Disulfide	73
3-Chloropropene	76
Methylene Chloride	83
Methyl tert-butyl ether	88
trans-1,2-Dichloroethene	84
Hexane	84
1,1-Dichloroethane	84
2-Butanone (Methyl Ethyl Ketone)	88
cis-1,2-Dichloroethene	85
Tetrahydrofuran	76
Chloroform	85
1,1,1-Trichloroethane	84
Cyclohexane	88
Carbon Tetrachloride	84
2,2,4-Trimethylpentane	80
Benzene	86
1,2-Dichloroethane	80
Heptane	83
Trichloroethene	84
1,2-Dichloropropane	84
1,4-Dioxane	86
Bromodichloromethane	85
cis-1,3-Dichloropropene	92
4-Methyl-2-pentanone	77
Toluene	89
trans-1,3-Dichloropropene	92
1,1,2-Trichloroethane	90
Tetrachloroethene	87
2-Hexanone	83

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1411128A-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111802**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 07:38 AM**	

Compound	%Recovery
Dibromochloromethane	91
1,2-Dibromoethane (EDB)	91
Chlorobenzene	86
Ethyl Benzene	91
m,p-Xylene	93
o-Xylene	92
Styrene	93
Bromoform	89
Cumene	91
1,1,2,2-Tetrachloroethane	87
Propylbenzene	92
4-Ethyltoluene	94
1,3,5-Trimethylbenzene	88
1,2,4-Trimethylbenzene	91
1,3-Dichlorobenzene	90
1,4-Dichlorobenzene	84
alpha-Chlorotoluene	81
1,2-Dichlorobenzene	87
1,2,4-Trichlorobenzene	77
Hexachlorobutadiene	86
Butane	83
Isopentane	86

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1411128A-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111803**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 08:33 AM**	

Compound	%Recovery	Method Limits
Freon 12	80	70-130
Freon 114	84	70-130
Chloromethane	73	70-130
Vinyl Chloride	78	70-130
1,3-Butadiene	73	70-130
Bromomethane	88	70-130
Chloroethane	85	70-130
Freon 11	82	70-130
Ethanol	74	70-130
Freon 113	91	70-130
1,1-Dichloroethene	88	70-130
Acetone	80	70-130
2-Propanol	77	70-130
Carbon Disulfide	67 Q	70-130
3-Chloropropene	71	70-130
Methylene Chloride	85	70-130
Methyl tert-butyl ether	86	70-130
trans-1,2-Dichloroethene	79	70-130
Hexane	80	70-130
1,1-Dichloroethane	82	70-130
2-Butanone (Methyl Ethyl Ketone)	86	70-130
cis-1,2-Dichloroethene	86	70-130
Tetrahydrofuran	73	70-130
Chloroform	83	70-130
1,1,1-Trichloroethane	82	70-130
Cyclohexane	87	70-130
Carbon Tetrachloride	82	70-130
2,2,4-Trimethylpentane	78	70-130
Benzene	83	70-130
1,2-Dichloroethane	77	70-130
Heptane	80	70-130
Trichloroethene	80	70-130
1,2-Dichloropropane	80	70-130
1,4-Dioxane	85	70-130
Bromodichloromethane	81	70-130
cis-1,3-Dichloropropene	94	70-130
4-Methyl-2-pentanone	75	70-130
Toluene	84	70-130
trans-1,3-Dichloropropene	87	70-130
1,1,2-Trichloroethane	86	70-130
Tetrachloroethene	84	70-130
2-Hexanone	87	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1411128A-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111803**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 08:33 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	87	70-130
1,2-Dibromoethane (EDB)	89	70-130
Chlorobenzene	82	70-130
Ethyl Benzene	86	70-130
m,p-Xylene	91	70-130
o-Xylene	87	70-130
Styrene	98	70-130
Bromoform	88	70-130
Cumene	87	70-130
1,1,2,2-Tetrachloroethane	84	70-130
Propylbenzene	91	70-130
4-Ethyltoluene	92	70-130
1,3,5-Trimethylbenzene	96	70-130
1,2,4-Trimethylbenzene	95	70-130
1,3-Dichlorobenzene	86	70-130
1,4-Dichlorobenzene	82	70-130
alpha-Chlorotoluene	154 Q	70-130
1,2-Dichlorobenzene	86	70-130
1,2,4-Trichlorobenzene	100	70-130
Hexachlorobutadiene	97	70-130
Butane	83	60-140
Isopentane	81	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1411128A-11AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 09:14 AM**	

Compound	%Recovery	Method Limits
Freon 12	78	70-130
Freon 114	82	70-130
Chloromethane	71	70-130
Vinyl Chloride	76	70-130
1,3-Butadiene	70	70-130
Bromomethane	86	70-130
Chloroethane	84	70-130
Freon 11	80	70-130
Ethanol	84	70-130
Freon 113	89	70-130
1,1-Dichloroethene	86	70-130
Acetone	79	70-130
2-Propanol	76	70-130
Carbon Disulfide	65 Q	70-130
3-Chloropropene	70	70-130
Methylene Chloride	84	70-130
Methyl tert-butyl ether	84	70-130
trans-1,2-Dichloroethene	77	70-130
Hexane	79	70-130
1,1-Dichloroethane	81	70-130
2-Butanone (Methyl Ethyl Ketone)	85	70-130
cis-1,2-Dichloroethene	85	70-130
Tetrahydrofuran	72	70-130
Chloroform	82	70-130
1,1,1-Trichloroethane	81	70-130
Cyclohexane	83	70-130
Carbon Tetrachloride	80	70-130
2,2,4-Trimethylpentane	77	70-130
Benzene	83	70-130
1,2-Dichloroethane	76	70-130
Heptane	79	70-130
Trichloroethene	80	70-130
1,2-Dichloropropane	79	70-130
1,4-Dioxane	85	70-130
Bromodichloromethane	80	70-130
cis-1,3-Dichloropropene	94	70-130
4-Methyl-2-pentanone	75	70-130
Toluene	84	70-130
trans-1,3-Dichloropropene	86	70-130
1,1,2-Trichloroethane	84	70-130
Tetrachloroethene	84	70-130
2-Hexanone	86	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1411128A-11AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 09:14 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	88	70-130
1,2-Dibromoethane (EDB)	88	70-130
Chlorobenzene	81	70-130
Ethyl Benzene	86	70-130
m,p-Xylene	90	70-130
o-Xylene	87	70-130
Styrene	98	70-130
Bromoform	87	70-130
Cumene	87	70-130
1,1,2,2-Tetrachloroethane	83	70-130
Propylbenzene	89	70-130
4-Ethyltoluene	92	70-130
1,3,5-Trimethylbenzene	94	70-130
1,2,4-Trimethylbenzene	94	70-130
1,3-Dichlorobenzene	87	70-130
1,4-Dichlorobenzene	81	70-130
alpha-Chlorotoluene	157 Q	70-130
1,2-Dichlorobenzene	85	70-130
1,2,4-Trichlorobenzene	97	70-130
Hexachlorobutadiene	97	70-130
Butane	80	60-140
Isopentane	81	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	99	70-130

eurofins | Air Toxics

11/21/2014
Ms. Elizabeth Kunkel
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis MO 63110

Project Name: Roxana Soil Vapor
Project #: 21562973.04004
Workorder #: 1411128B

Dear Ms. Elizabeth Kunkel

The following report includes the data for the above referenced project for sample(s) received on 11/7/2014 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1411128B

Work Order Summary

CLIENT:	Ms. Elizabeth Kunkel URS Corporation 1001 Highlands Plaza Dr. West Suite 300 St. Louis, MO 63110	**BILL TO:**	Accounts Payable Austin URS Corporation P.O. BOX 203970 Austin, TX 78720-1088
PHONE:	314-743-4179	**P.O. #**	282676
FAX:		**PROJECT #**	21562973.04004 Roxana Soil Vapor
DATE RECEIVED:	11/07/2014	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	11/21/2014		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
03A	VMP-15-5-110614	Modified ASTM D-1946	6.5 "Hg	15 psi
09A	Lab Blank	Modified ASTM D-1946	NA	NA
09B	Lab Blank	Modified ASTM D-1946	NA	NA
10A	LCS	Modified ASTM D-1946	NA	NA
10AA	LCSD	Modified ASTM D-1946	NA	NA

CERTIFIED BY: Heidi Mayo DATE: 11/21/14

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified ASTM D-1946
URS Corporation
Workorder# 1411128B

Eight 1 Liter Summa Canister samples were received on November 07, 2014. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***ASTM D-1946***	***ATL Modifications***
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A minimum of 5-point calibration curve is performed. Quantitation is based on average Response Factor.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a >/= 95% accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections > 5 X's the RL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:
B - Compound present in laboratory blank greater than reporting limit.
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.
File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

eurofins | Air Toxics

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP-15-5-110614

Lab ID#: 1411128B-03A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	12
Nitrogen	0.26	84
Carbon Dioxide	0.026	3.8

eurofins | Air Toxics

Client Sample ID: VMP-15-5-110614

Lab ID#: 1411128B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111314**	**Date of Collection: 11/6/14 1:39:00 PM**	
Dil. Factor:	**2.58**	**Date of Analysis: 11/13/14 02:24 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	12
Nitrogen	0.26	84
Carbon Monoxide	0.026	Not Detected
Methane	0.00026	Not Detected
Carbon Dioxide	0.026	3.8
Ethane	0.0026	Not Detected
Ethene	0.0026	Not Detected
Helium	0.13	Not Detected

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411128B-09A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111305a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 09:21 AM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	0.012 J
Nitrogen	0.10	0.052 J
Carbon Monoxide	0.010	Not Detected
Methane	0.00010	Not Detected
Carbon Dioxide	0.010	Not Detected
Ethane	0.0010	Not Detected
Ethene	0.0010	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411128B-09B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111304c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 08:48 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Helium	0.050	Not Detected

Container Type: NA - Not Applicable

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1411128B-10A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111302**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 07:47 AM**	

Compound	%Recovery	Method Limits
Oxygen	102	85-115
Nitrogen	92	85-115
Carbon Monoxide	99	85-115
Methane	105	85-115
Carbon Dioxide	99	85-115
Ethane	100	85-115
Ethene	102	85-115
Helium	98	85-115

Container Type: NA - Not Applicable

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1411128B-10AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111325**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 09:50 PM**	

Compound	%Recovery	Method Limits
Oxygen	103	85-115
Nitrogen	92	85-115
Carbon Monoxide	99	85-115
Methane	103	85-115
Carbon Dioxide	100	85-115
Ethane	98	85-115
Ethene	100	85-115
Helium	98	85-115

Container Type: NA - Not Applicable

eurofins | Air Toxics

11/25/2014
Ms. Elizabeth Kunkel
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis MO 63110

Project Name: Roxana Soil Vapor
Project #: 21562973.04004
Workorder #: 1411170A

Dear Ms. Elizabeth Kunkel

The following report includes the data for the above referenced project for sample(s) received on 11/11/2014 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1411170A

Work Order Summary

CLIENT:	Ms. Elizabeth Kunkel URS Corporation 1001 Highlands Plaza Dr. West Suite 300 St. Louis, MO 63110	**BILL TO:**	Accounts Payable Austin URS Corporation P.O. BOX 203970 Austin, TX 78720-1088
PHONE:	314-743-4179	**P.O. #**	282676
FAX:		**PROJECT #**	21562973.04004 Roxana Soil Vapor
DATE RECEIVED:	11/11/2014	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	11/25/2014		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
02A	VMP-15-21.5-110614	TO-15	5.1 "Hg	14.8 psi
03A	VMP-15-25.5-110614	TO-15	4.7 "Hg	14.9 psi
04A	VMP-15-25.5-110614-Dup	TO-15	6.3 "Hg	14.7 psi
05A	VMP-15-29-110614	TO-15	8.4 "Hg	14.5 psi
14A	VMP-55-20-110414	TO-15	4.7 "Hg	14.6 psi
17A	Lab Blank	TO-15	NA	NA
17B	Lab Blank	TO-15	NA	NA

Continued on next page

eurofins | Air Toxics

WORK ORDER #: 1411170A

Work Order Summary

CLIENT:	Ms. Elizabeth Kunkel URS Corporation 1001 Highlands Plaza Dr. West Suite 300 St. Louis, MO 63110	**BILL TO:**	Accounts Payable Austin URS Corporation P.O. BOX 203970 Austin, TX 78720-1088
PHONE:	314-743-4179	**P.O. #**	282676
FAX:		**PROJECT #**	21562973.04004 Roxana Soil Vapor
DATE RECEIVED:	11/11/2014	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	11/25/2014		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
17C	Lab Blank	TO-15	NA	NA
17D	Lab Blank	TO-15	NA	NA
17E	Lab Blank	TO-15	NA	NA
18A	CCV	TO-15	NA	NA
18B	CCV	TO-15	NA	NA
18C	CCV	TO-15	NA	NA
18D	CCV	TO-15	NA	NA
18E	CCV	TO-15	NA	NA
19A	LCS	TO-15	NA	NA
19AA	LCSD	TO-15	NA	NA
19B	LCS	TO-15	NA	NA
19BB	LCSD	TO-15	NA	NA
19C	LCS	TO-15	NA	NA
19CC	LCSD	TO-15	NA	NA
19D	LCS	TO-15	NA	NA
19DD	LCSD	TO-15	NA	NA
19E	LCS	TO-15	NA	NA
19EE	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Mayo DATE: 11/25/14

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
URS Corporation
Workorder# 1411170A

Sixteen 1 Liter Summa Canister samples were received on November 11, 2014. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per client project requirements, the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives.

Dilution was performed on all of the samples due to the presence of high level target species.

Due to the linear calibration range of the instrument, the reporting limit for Hexane, Heptane, and 2,2,4-Trimethylpentane on instrument MSD-14 was raised from 5.0 ppbv to 20 ppbv.

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: VMP-15-21.5-110614

Lab ID#: 1411170A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	40	24 J	96	58 J
2,2,4-Trimethylpentane	4.0	820	19	3800
Benzene	4.0	0.81 J	13	2.6 J
Toluene	4.0	0.96 J	15	3.6 J
Butane	16	13 J	38	31 J
Isopentane	16	46	48	140

Client Sample ID: VMP-15-25.5-110614

Lab ID#: 1411170A-03A

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP-15-25.5-110614

Lab ID#: 1411170A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	48	98	110	230
Carbon Disulfide	19	15 J	59	46 J
Hexane	4.8	3.5 J	17	12 J
Cyclohexane	4.8	110	16	380
2,2,4-Trimethylpentane	4.8	1300	22	6300
Benzene	4.8	1.1 J	15	3.4 J
Toluene	4.8	1.2 J	18	4.6 J
m,p-Xylene	4.8	1.6 J	21	7.2 J
o-Xylene	4.8	0.91 J	21	4.0 J
Butane	19	47	45	110
Isopentane	19	1400	56	4000

Client Sample ID: VMP-15-25.5-110614-Dup

Lab ID#: 1411170A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	42	99	100	230
Carbon Disulfide	17	14 J	52	45 J
Hexane	4.2	3.6 J	15	13 J
Cyclohexane	4.2	110	14	390
2,2,4-Trimethylpentane	4.2	1400	20	6400
Benzene	4.2	1.3 J	13	4.1 J
Toluene	4.2	1.2 J	16	4.3 J
m,p-Xylene	4.2	1.6 J	18	7.1 J
o-Xylene	4.2	1.1 J	18	4.6 J
Butane	17	48	40	110
Isopentane	17	1400	50	4100

Client Sample ID: VMP-15-29-110614

Lab ID#: 1411170A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.5	0.60 J	27	3.0 J

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP-15-29-110614

Lab ID#: 1411170A-05A

Acetone	55	73	130	170
Carbon Disulfide	22	16 J	68	51 J
Hexane	5.5	3.0 J	19	11 J
Cyclohexane	5.5	77	19	260
2,2,4-Trimethylpentane	5.5	1000	26	4900
Benzene	5.5	1.1 J	18	3.6 J
Toluene	5.5	1.4 J	21	5.2 J
Butane	22	39	52	92
Isopentane	22	950	65	2800

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: VMP-55-20-110414

Lab ID#: 1411170A-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2,2,4-Trimethylpentane	470	77000	2200	360000
Benzene	120	55 J	380	180 J
Toluene	120	60 J	440	230 J
m,p-Xylene	120	44 J	510	190 J
Butane	470	510	1100	1200
Isopentane	470	8200	1400	24000

eurofins | Air Toxics

Client Sample ID: VMP-15-21.5-110614

Lab ID#: 1411170A-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111815**	**Date of Collection:**	**11/6/14 2:00:00 PM**
Dil. Factor:	**8.07**	**Date of Analysis:**	**11/18/14 08:58 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	4.0	Not Detected	20	Not Detected
Freon 114	4.0	Not Detected	28	Not Detected
Chloromethane	40	Not Detected	83	Not Detected
Vinyl Chloride	4.0	Not Detected	10	Not Detected
1,3-Butadiene	4.0	Not Detected	8.9	Not Detected
Bromomethane	40	Not Detected	160	Not Detected
Chloroethane	16	Not Detected	42	Not Detected
Freon 11	4.0	Not Detected	23	Not Detected
Ethanol	16	Not Detected UJ	30	Not Detected UJ
Freon 113	4.0	Not Detected	31	Not Detected
1,1-Dichloroethene	4.0	Not Detected	16	Not Detected
Acetone	40	24 J	96	58 J
2-Propanol	16	Not Detected	40	Not Detected
Carbon Disulfide	16	Not Detected	50	Not Detected
3-Chloropropene	16	Not Detected	50	Not Detected
Methylene Chloride	40	Not Detected	140	Not Detected
Methyl tert-butyl ether	4.0	Not Detected	14	Not Detected
trans-1,2-Dichloroethene	4.0	Not Detected	16	Not Detected
Hexane	4.0	Not Detected	14	Not Detected
1,1-Dichloroethane	4.0	Not Detected	16	Not Detected
2-Butanone (Methyl Ethyl Ketone)	16	Not Detected	48	Not Detected
cis-1,2-Dichloroethene	4.0	Not Detected	16	Not Detected
Tetrahydrofuran	4.0	Not Detected	12	Not Detected
Chloroform	4.0	Not Detected	20	Not Detected
1,1,1-Trichloroethane	4.0	Not Detected	22	Not Detected
Cyclohexane	4.0	Not Detected	14	Not Detected
Carbon Tetrachloride	4.0	Not Detected	25	Not Detected
2,2,4-Trimethylpentane	4.0	820	19	3800
Benzene	4.0	0.81 J	13	2.6 J
1,2-Dichloroethane	4.0	Not Detected	16	Not Detected
Heptane	4.0	Not Detected	16	Not Detected
Trichloroethene	4.0	Not Detected	22	Not Detected
1,2-Dichloropropane	4.0	Not Detected	19	Not Detected
1,4-Dioxane	16	Not Detected	58	Not Detected
Bromodichloromethane	4.0	Not Detected	27	Not Detected
cis-1,3-Dichloropropene	4.0	Not Detected	18	Not Detected
4-Methyl-2-pentanone	4.0	Not Detected	16	Not Detected
Toluene	4.0	0.96 J	15	3.6 J
trans-1,3-Dichloropropene	4.0	Not Detected	18	Not Detected
1,1,2-Trichloroethane	4.0	Not Detected	22	Not Detected
Tetrachloroethene	4.0	Not Detected	27	Not Detected
2-Hexanone	16	Not Detected	66	Not Detected

eurofins | Air Toxics

Client Sample ID: VMP-15-21.5-110614

Lab ID#: 1411170A-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111815**	**Date of Collection: 11/6/14 2:00:00 PM**	
Dil. Factor:	**8.07**	**Date of Analysis: 11/18/14 08:58 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	4.0	Not Detected	34	Not Detected
1,2-Dibromoethane (EDB)	4.0	Not Detected	31	Not Detected
Chlorobenzene	4.0	Not Detected	18	Not Detected
Ethyl Benzene	4.0	Not Detected	18	Not Detected
m,p-Xylene	4.0	Not Detected	18	Not Detected
o-Xylene	4.0	Not Detected	18	Not Detected
Styrene	4.0	Not Detected	17	Not Detected
Bromoform	4.0	Not Detected	42	Not Detected
Cumene	4.0	Not Detected	20	Not Detected
1,1,2,2-Tetrachloroethane	4.0	Not Detected	28	Not Detected
Propylbenzene	4.0	Not Detected	20	Not Detected
4-Ethyltoluene	4.0	Not Detected	20	Not Detected
1,3,5-Trimethylbenzene	4.0	Not Detected	20	Not Detected
1,2,4-Trimethylbenzene	4.0	Not Detected	20	Not Detected
1,3-Dichlorobenzene	4.0	Not Detected	24	Not Detected
1,4-Dichlorobenzene	4.0	Not Detected	24	Not Detected
alpha-Chlorotoluene	4.0	Not Detected	21	Not Detected
1,2-Dichlorobenzene	4.0	Not Detected	24	Not Detected
1,2,4-Trichlorobenzene	16	Not Detected	120	Not Detected
Hexachlorobutadiene	16	Not Detected	170	Not Detected
Butane	16	13 J	38	31 J
Isopentane	16	46	48	140

UJ = Analyte associated with low bias in the CCV and/or LCS.
J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: VMP-15-25.5-110614

Lab ID#: 1411170A-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111816**	**Date of Collection:**	**11/6/14 2:27:00 PM**
Dil. Factor:	**9.55**	**Date of Analysis:**	**11/18/14 09:46 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	4.8	Not Detected	24	Not Detected
Freon 114	4.8	Not Detected	33	Not Detected
Chloromethane	48	Not Detected	99	Not Detected
Vinyl Chloride	4.8	Not Detected	12	Not Detected
1,3-Butadiene	4.8	Not Detected	10	Not Detected
Bromomethane	48	Not Detected	180	Not Detected
Chloroethane	19	Not Detected	50	Not Detected
Freon 11	4.8	Not Detected	27	Not Detected
Ethanol	19	Not Detected UJ	36	Not Detected UJ
Freon 113	4.8	Not Detected	36	Not Detected
1,1-Dichloroethene	4.8	Not Detected	19	Not Detected
Acetone	48	98	110	230
2-Propanol	19	Not Detected	47	Not Detected
Carbon Disulfide	19	15 J	59	46 J
3-Chloropropene	19	Not Detected	60	Not Detected
Methylene Chloride	48	Not Detected	160	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	4.8	Not Detected	19	Not Detected
Hexane	4.8	3.5 J	17	12 J
1,1-Dichloroethane	4.8	Not Detected	19	Not Detected
2-Butanone (Methyl Ethyl Ketone)	19	Not Detected	56	Not Detected
cis-1,2-Dichloroethene	4.8	Not Detected	19	Not Detected
Tetrahydrofuran	4.8	Not Detected	14	Not Detected
Chloroform	4.8	Not Detected	23	Not Detected
1,1,1-Trichloroethane	4.8	Not Detected	26	Not Detected
Cyclohexane	4.8	110	16	380
Carbon Tetrachloride	4.8	Not Detected	30	Not Detected
2,2,4-Trimethylpentane	4.8	1300	22	6300
Benzene	4.8	1.1 J	15	3.4 J
1,2-Dichloroethane	4.8	Not Detected	19	Not Detected
Heptane	4.8	Not Detected	20	Not Detected
Trichloroethene	4.8	Not Detected	26	Not Detected
1,2-Dichloropropane	4.8	Not Detected	22	Not Detected
1,4-Dioxane	19	Not Detected	69	Not Detected
Bromodichloromethane	4.8	Not Detected	32	Not Detected
cis-1,3-Dichloropropene	4.8	Not Detected	22	Not Detected
4-Methyl-2-pentanone	4.8	Not Detected	20	Not Detected
Toluene	4.8	1.2 J	18	4.6 J
trans-1,3-Dichloropropene	4.8	Not Detected	22	Not Detected
1,1,2-Trichloroethane	4.8	Not Detected	26	Not Detected
Tetrachloroethene	4.8	Not Detected	32	Not Detected
2-Hexanone	19	Not Detected	78	Not Detected

eurofins | Air Toxics

Client Sample ID: VMP-15-25.5-110614

Lab ID#: 1411170A-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111816**	**Date of Collection: 11/6/14 2:27:00 PM**	
Dil. Factor:	**9.55**	**Date of Analysis: 11/18/14 09:46 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	4.8	Not Detected	41	Not Detected
1,2-Dibromoethane (EDB)	4.8	Not Detected	37	Not Detected
Chlorobenzene	4.8	Not Detected	22	Not Detected
Ethyl Benzene	4.8	Not Detected	21	Not Detected
m,p-Xylene	4.8	1.6 J	21	7.2 J
o-Xylene	4.8	0.91 J	21	4.0 J
Styrene	4.8	Not Detected	20	Not Detected
Bromoform	4.8	Not Detected	49	Not Detected
Cumene	4.8	Not Detected	23	Not Detected
1,1,2,2-Tetrachloroethane	4.8	Not Detected	33	Not Detected
Propylbenzene	4.8	Not Detected	23	Not Detected
4-Ethyltoluene	4.8	Not Detected	23	Not Detected
1,3,5-Trimethylbenzene	4.8	Not Detected	23	Not Detected
1,2,4-Trimethylbenzene	4.8	Not Detected	23	Not Detected
1,3-Dichlorobenzene	4.8	Not Detected	29	Not Detected
1,4-Dichlorobenzene	4.8	Not Detected	29	Not Detected
alpha-Chlorotoluene	4.8	Not Detected	25	Not Detected
1,2-Dichlorobenzene	4.8	Not Detected	29	Not Detected
1,2,4-Trichlorobenzene	19	Not Detected	140	Not Detected
Hexachlorobutadiene	19	Not Detected	200	Not Detected
Butane	19	47	45	110
Isopentane	19	1400	56	4000

UJ = Analyte associated with low bias in the CCV and/or LCS.
J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	98	70-130

eurofins | Air Toxics

Client Sample ID: VMP-15-25.5-110614-Dup

Lab ID#: 1411170A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111817**	**Date of Collection:**	**11/6/14 2:27:00 PM**
Dil. Factor:	**8.43**	**Date of Analysis:**	**11/18/14 10:32 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	4.2	Not Detected	21	Not Detected
Freon 114	4.2	Not Detected	29	Not Detected
Chloromethane	42	Not Detected	87	Not Detected
Vinyl Chloride	4.2	Not Detected	11	Not Detected
1,3-Butadiene	4.2	Not Detected	9.3	Not Detected
Bromomethane	42	Not Detected	160	Not Detected
Chloroethane	17	Not Detected	44	Not Detected
Freon 11	4.2	Not Detected	24	Not Detected
Ethanol	17	Not Detected UJ	32	Not Detected UJ
Freon 113	4.2	Not Detected	32	Not Detected
1,1-Dichloroethene	4.2	Not Detected	17	Not Detected
Acetone	42	99	100	230
2-Propanol	17	Not Detected	41	Not Detected
Carbon Disulfide	17	14 J	52	45 J
3-Chloropropene	17	Not Detected	53	Not Detected
Methylene Chloride	42	Not Detected	150	Not Detected
Methyl tert-butyl ether	4.2	Not Detected	15	Not Detected
trans-1,2-Dichloroethene	4.2	Not Detected	17	Not Detected
Hexane	4.2	3.6 J	15	13 J
1,1-Dichloroethane	4.2	Not Detected	17	Not Detected
2-Butanone (Methyl Ethyl Ketone)	17	Not Detected	50	Not Detected
cis-1,2-Dichloroethene	4.2	Not Detected	17	Not Detected
Tetrahydrofuran	4.2	Not Detected	12	Not Detected
Chloroform	4.2	Not Detected	20	Not Detected
1,1,1-Trichloroethane	4.2	Not Detected	23	Not Detected
Cyclohexane	4.2	110	14	390
Carbon Tetrachloride	4.2	Not Detected	26	Not Detected
2,2,4-Trimethylpentane	4.2	1400	20	6400
Benzene	4.2	1.3 J	13	4.1 J
1,2-Dichloroethane	4.2	Not Detected	17	Not Detected
Heptane	4.2	Not Detected	17	Not Detected
Trichloroethene	4.2	Not Detected	23	Not Detected
1,2-Dichloropropane	4.2	Not Detected	19	Not Detected
1,4-Dioxane	17	Not Detected	61	Not Detected
Bromodichloromethane	4.2	Not Detected	28	Not Detected
cis-1,3-Dichloropropene	4.2	Not Detected	19	Not Detected
4-Methyl-2-pentanone	4.2	Not Detected	17	Not Detected
Toluene	4.2	1.2 J	16	4.3 J
trans-1,3-Dichloropropene	4.2	Not Detected	19	Not Detected
1,1,2-Trichloroethane	4.2	Not Detected	23	Not Detected
Tetrachloroethene	4.2	Not Detected	28	Not Detected
2-Hexanone	17	Not Detected	69	Not Detected

eurofins | Air Toxics

Client Sample ID: VMP-15-25.5-110614-Dup

Lab ID#: 1411170A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111817**	**Date of Collection: 11/6/14 2:27:00 PM**	
Dil. Factor:	**8.43**	**Date of Analysis: 11/18/14 10:32 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	4.2	Not Detected	36	Not Detected
1,2-Dibromoethane (EDB)	4.2	Not Detected	32	Not Detected
Chlorobenzene	4.2	Not Detected	19	Not Detected
Ethyl Benzene	4.2	Not Detected	18	Not Detected
m,p-Xylene	4.2	1.6 J	18	7.1 J
o-Xylene	4.2	1.1 J	18	4.6 J
Styrene	4.2	Not Detected	18	Not Detected
Bromoform	4.2	Not Detected	44	Not Detected
Cumene	4.2	Not Detected	21	Not Detected
1,1,2,2-Tetrachloroethane	4.2	Not Detected	29	Not Detected
Propylbenzene	4.2	Not Detected	21	Not Detected
4-Ethyltoluene	4.2	Not Detected	21	Not Detected
1,3,5-Trimethylbenzene	4.2	Not Detected	21	Not Detected
1,2,4-Trimethylbenzene	4.2	Not Detected	21	Not Detected
1,3-Dichlorobenzene	4.2	Not Detected	25	Not Detected
1,4-Dichlorobenzene	4.2	Not Detected	25	Not Detected
alpha-Chlorotoluene	4.2	Not Detected	22	Not Detected
1,2-Dichlorobenzene	4.2	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	17	Not Detected	120	Not Detected
Hexachlorobutadiene	17	Not Detected	180	Not Detected
Butane	17	48	40	110
Isopentane	17	1400	50	4100

UJ = Analyte associated with low bias in the CCV and/or LCS.
J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: VMP-15-29-110614

Lab ID#: 1411170A-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111916**	**Date of Collection:**	**11/6/14 2:50:00 PM**
Dil. Factor:	**11.0**	**Date of Analysis:**	**11/19/14 11:27 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.5	0.60 J	27	3.0 J
Freon 114	5.5	Not Detected	38	Not Detected
Chloromethane	55	Not Detected	110	Not Detected
Vinyl Chloride	5.5	Not Detected	14	Not Detected
1,3-Butadiene	5.5	Not Detected	12	Not Detected
Bromomethane	55	Not Detected	210	Not Detected
Chloroethane	22	Not Detected	58	Not Detected
Freon 11	5.5	Not Detected	31	Not Detected
Ethanol	22	Not Detected UJ	41	Not Detected UJ
Freon 113	5.5	Not Detected	42	Not Detected
1,1-Dichloroethene	5.5	Not Detected	22	Not Detected
Acetone	55	73	130	170
2-Propanol	22	Not Detected	54	Not Detected
Carbon Disulfide	22	16 J	68	51 J
3-Chloropropene	22	Not Detected	69	Not Detected
Methylene Chloride	55	Not Detected	190	Not Detected
Methyl tert-butyl ether	5.5	Not Detected	20	Not Detected
trans-1,2-Dichloroethene	5.5	Not Detected	22	Not Detected
Hexane	5.5	3.0 J	19	11 J
1,1-Dichloroethane	5.5	Not Detected	22	Not Detected
2-Butanone (Methyl Ethyl Ketone)	22	Not Detected	65	Not Detected
cis-1,2-Dichloroethene	5.5	Not Detected	22	Not Detected
Tetrahydrofuran	5.5	Not Detected	16	Not Detected
Chloroform	5.5	Not Detected	27	Not Detected
1,1,1-Trichloroethane	5.5	Not Detected	30	Not Detected
Cyclohexane	5.5	77	19	260
Carbon Tetrachloride	5.5	Not Detected	35	Not Detected
2,2,4-Trimethylpentane	5.5	1000	26	4900
Benzene	5.5	1.1 J	18	3.6 J
1,2-Dichloroethane	5.5	Not Detected	22	Not Detected
Heptane	5.5	Not Detected	22	Not Detected
Trichloroethene	5.5	Not Detected	30	Not Detected
1,2-Dichloropropane	5.5	Not Detected	25	Not Detected
1,4-Dioxane	22	Not Detected	79	Not Detected
Bromodichloromethane	5.5	Not Detected	37	Not Detected
cis-1,3-Dichloropropene	5.5	Not Detected	25	Not Detected
4-Methyl-2-pentanone	5.5	Not Detected	22	Not Detected
Toluene	5.5	1.4 J	21	5.2 J
trans-1,3-Dichloropropene	5.5	Not Detected	25	Not Detected
1,1,2-Trichloroethane	5.5	Not Detected	30	Not Detected
Tetrachloroethene	5.5	Not Detected	37	Not Detected
2-Hexanone	22	Not Detected	90	Not Detected

eurofins | Air Toxics

Client Sample ID: VMP-15-29-110614

Lab ID#: 1411170A-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111916**	**Date of Collection: 11/6/14 2:50:00 PM**	
Dil. Factor:	**11.0**	**Date of Analysis: 11/19/14 11:27 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	5.5	Not Detected	47	Not Detected
1,2-Dibromoethane (EDB)	5.5	Not Detected	42	Not Detected
Chlorobenzene	5.5	Not Detected	25	Not Detected
Ethyl Benzene	5.5	Not Detected	24	Not Detected
m,p-Xylene	5.5	Not Detected	24	Not Detected
o-Xylene	5.5	Not Detected	24	Not Detected
Styrene	5.5	Not Detected	23	Not Detected
Bromoform	5.5	Not Detected	57	Not Detected
Cumene	5.5	Not Detected	27	Not Detected
1,1,2,2-Tetrachloroethane	5.5	Not Detected	38	Not Detected
Propylbenzene	5.5	Not Detected	27	Not Detected
4-Ethyltoluene	5.5	Not Detected	27	Not Detected
1,3,5-Trimethylbenzene	5.5	Not Detected	27	Not Detected
1,2,4-Trimethylbenzene	5.5	Not Detected	27	Not Detected
1,3-Dichlorobenzene	5.5	Not Detected	33	Not Detected
1,4-Dichlorobenzene	5.5	Not Detected	33	Not Detected
alpha-Chlorotoluene	5.5	Not Detected	28	Not Detected
1,2-Dichlorobenzene	5.5	Not Detected	33	Not Detected
1,2,4-Trichlorobenzene	22	Not Detected	160	Not Detected
Hexachlorobutadiene	22	Not Detected	230	Not Detected
Butane	22	39	52	92
Isopentane	22	950	65	2800

J = Estimated value.
UJ = Analyte associated with low bias in the CCV and/or LCS.
Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	99	70-130

eurofins | Air Toxics

Client Sample ID: VMP-55-20-110414

Lab ID#: 1411170A-14A

EPA METHOD TO-15 GC/MS

File Name:	**14111810**	**Date of Collection:**	**11/4/14 3:28:00 PM**
Dil. Factor:	**23.6**	**Date of Analysis:**	**11/18/14 01:09 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	120	Not Detected	580	Not Detected
Freon 114	120	Not Detected	820	Not Detected
Chloromethane	470	Not Detected	970	Not Detected
Vinyl Chloride	120	Not Detected	300	Not Detected
1,3-Butadiene	120	Not Detected	260	Not Detected
Bromomethane	120	Not Detected	460	Not Detected
Chloroethane	470	Not Detected	1200	Not Detected
Freon 11	120	Not Detected	660	Not Detected
Ethanol	470	Not Detected	890	Not Detected
Freon 113	120	Not Detected	900	Not Detected
1,1-Dichloroethene	120	Not Detected	470	Not Detected
Acetone	470	Not Detected	1100	Not Detected
2-Propanol	470	Not Detected	1200	Not Detected
Carbon Disulfide	120	Not Detected	370	Not Detected
3-Chloropropene	470	Not Detected	1500	Not Detected
Methylene Chloride	120	Not Detected	410	Not Detected
Methyl tert-butyl ether	120	Not Detected	420	Not Detected
trans-1,2-Dichloroethene	120	Not Detected	470	Not Detected
Hexane	470	Not Detected	1700	Not Detected
1,1-Dichloroethane	120	Not Detected	480	Not Detected
2-Butanone (Methyl Ethyl Ketone)	470	Not Detected	1400	Not Detected
cis-1,2-Dichloroethene	120	Not Detected	470	Not Detected
Tetrahydrofuran	120	Not Detected	350	Not Detected
Chloroform	120	Not Detected	580	Not Detected
1,1,1-Trichloroethane	120	Not Detected	640	Not Detected
Cyclohexane	120	Not Detected	410	Not Detected
Carbon Tetrachloride	120	Not Detected	740	Not Detected
2,2,4-Trimethylpentane	470	77000	2200	360000
Benzene	120	55 J	380	180 J
1,2-Dichloroethane	120	Not Detected	480	Not Detected
Heptane	470	Not Detected	1900	Not Detected
Trichloroethene	120	Not Detected	630	Not Detected
1,2-Dichloropropane	120	Not Detected	540	Not Detected
1,4-Dioxane	470	Not Detected	1700	Not Detected
Bromodichloromethane	120	Not Detected	790	Not Detected
cis-1,3-Dichloropropene	120	Not Detected	540	Not Detected
4-Methyl-2-pentanone	120	Not Detected	480	Not Detected
Toluene	120	60 J	440	230 J
trans-1,3-Dichloropropene	120	Not Detected	540	Not Detected
1,1,2-Trichloroethane	120	Not Detected	640	Not Detected
Tetrachloroethene	120	Not Detected	800	Not Detected
2-Hexanone	470	Not Detected	1900	Not Detected

eurofins | Air Toxics

Client Sample ID: VMP-55-20-110414

Lab ID#: 1411170A-14A

EPA METHOD TO-15 GC/MS

File Name:	**14111810**	**Date of Collection: 11/4/14 3:28:00 PM**	
Dil. Factor:	**23.6**	**Date of Analysis: 11/18/14 01:09 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	120	Not Detected	1000	Not Detected
1,2-Dibromoethane (EDB)	120	Not Detected	910	Not Detected
Chlorobenzene	120	Not Detected	540	Not Detected
Ethyl Benzene	120	Not Detected	510	Not Detected
m,p-Xylene	120	44 J	510	190 J
o-Xylene	120	Not Detected	510	Not Detected
Styrene	120	Not Detected	500	Not Detected
Bromoform	120	Not Detected	1200	Not Detected
Cumene	120	Not Detected	580	Not Detected
1,1,2,2-Tetrachloroethane	120	Not Detected	810	Not Detected
Propylbenzene	120	Not Detected	580	Not Detected
4-Ethyltoluene	120	Not Detected	580	Not Detected
1,3,5-Trimethylbenzene	120	Not Detected	580	Not Detected
1,2,4-Trimethylbenzene	120	Not Detected	580	Not Detected
1,3-Dichlorobenzene	120	Not Detected	710	Not Detected
1,4-Dichlorobenzene	120	Not Detected	710	Not Detected
alpha-Chlorotoluene	120	Not Detected	610	Not Detected
1,2-Dichlorobenzene	120	Not Detected	710	Not Detected
1,2,4-Trichlorobenzene	470	Not Detected	3500	Not Detected
Hexachlorobutadiene	470	Not Detected	5000	Not Detected
Butane	470	510	1100	1200
Isopentane	470	8200	1400	24000

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411170A-17A

EPA METHOD TO-15 GC/MS

File Name:	**14111305a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 12:10 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	20	Not Detected	53	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	Not Detected	38	Not Detected
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	20	Not Detected	70	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	20	Not Detected	59	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	20	Not Detected	93	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	20	Not Detected	82	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected
2-Hexanone	20	Not Detected	82	Not Detected

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411170A-17A

EPA METHOD TO-15 GC/MS

File Name:	**14111305a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 12:10 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	1.8 J	26	9.1 J
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	11 J	150	80 J
Hexachlorobutadiene	20	Not Detected	210	Not Detected
Butane	20	Not Detected	48	Not Detected
Isopentane	20	Not Detected	59	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	97	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411170A-17B

EPA METHOD TO-15 GC/MS

File Name:	**14111809a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 12:36 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	20	Not Detected	53	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	Not Detected	38	Not Detected
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	20	Not Detected	70	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	20	Not Detected	59	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	20	Not Detected	93	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	20	Not Detected	82	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	1.0 J	19	3.8 J
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected
2-Hexanone	20	Not Detected	82	Not Detected

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411170A-17B

EPA METHOD TO-15 GC/MS

File Name:	**14111809a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 12:36 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	1.5 J	22	6.7 J
o-Xylene	5.0	Not Detected	22	Not Detected
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	Not Detected	26	Not Detected
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	Not Detected	150	Not Detected
Hexachlorobutadiene	20	Not Detected	210	Not Detected
Butane	20	Not Detected	48	Not Detected
Isopentane	20	Not Detected	59	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	95	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411170A-17C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111806a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 11:23 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected UJ	3.8	Not Detected UJ
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411170A-17C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111806a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 11:23 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Butane	2.0	Not Detected	4.8	Not Detected
Isopentane	2.0	Not Detected	5.9	Not Detected

UJ = Analyte associated with low bias in the CCV and/or LCS.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	94	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411170A-17D

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111906a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/14 01:59 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	0.094 J	2.5	0.46 J
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected UJ	3.8	Not Detected UJ
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	0.079 J	2.0	0.32 J
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411170A-17D

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111906a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/14 01:59 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	0.075 J	3.8	0.57 J
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	0.056 J	3.0	0.34 J
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Butane	2.0	Not Detected	4.8	Not Detected
Isopentane	2.0	Not Detected	5.9	Not Detected

J = Estimated value.
UJ = Analyte associated with low bias in the CCV and/or LCS.
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	97	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411170A-17E

EPA METHOD TO-15 GC/MS

File Name:	**14111906a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/14 11:40 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	20	Not Detected	53	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	9.0 J	38	17 J
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	20	Not Detected	70	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	20	Not Detected	59	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	20	Not Detected	93	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	20	Not Detected	82	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected
2-Hexanone	20	Not Detected	82	Not Detected

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411170A-17E

EPA METHOD TO-15 GC/MS

File Name:	**14111906a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/14 11:40 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	Not Detected	26	Not Detected
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	Not Detected	150	Not Detected
Hexachlorobutadiene	20	Not Detected	210	Not Detected
Butane	20	Not Detected	48	Not Detected
Isopentane	20	Not Detected	59	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	95	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1411170A-18A

EPA METHOD TO-15 GC/MS

File Name:	**14111302**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 10:54 AM**	

Compound	%Recovery
Freon 12	114
Freon 114	110
Chloromethane	125
Vinyl Chloride	116
1,3-Butadiene	111
Bromomethane	84
Chloroethane	115
Freon 11	114
Ethanol	120
Freon 113	114
1,1-Dichloroethene	108
Acetone	115
2-Propanol	112
Carbon Disulfide	111
3-Chloropropene	104
Methylene Chloride	104
Methyl tert-butyl ether	114
trans-1,2-Dichloroethene	110
Hexane	116
1,1-Dichloroethane	110
2-Butanone (Methyl Ethyl Ketone)	121
cis-1,2-Dichloroethene	108
Tetrahydrofuran	109
Chloroform	107
1,1,1-Trichloroethane	114
Cyclohexane	113
Carbon Tetrachloride	106
2,2,4-Trimethylpentane	115
Benzene	101
1,2-Dichloroethane	101
Heptane	113
Trichloroethene	115
1,2-Dichloropropane	108
1,4-Dioxane	114
Bromodichloromethane	104
cis-1,3-Dichloropropene	106
4-Methyl-2-pentanone	116
Toluene	104
trans-1,3-Dichloropropene	108
1,1,2-Trichloroethane	112
Tetrachloroethene	108
2-Hexanone	117

eurofins | Air Toxics

Client Sample ID: CCV
Lab ID#: 1411170A-18A
EPA METHOD TO-15 GC/MS

File Name:	**14111302**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 10:54 AM**	

Compound	%Recovery
Dibromochloromethane	109
1,2-Dibromoethane (EDB)	110
Chlorobenzene	112
Ethyl Benzene	111
m,p-Xylene	114
o-Xylene	118
Styrene	113
Bromoform	110
Cumene	118
1,1,2,2-Tetrachloroethane	98
Propylbenzene	122
4-Ethyltoluene	122
1,3,5-Trimethylbenzene	112
1,2,4-Trimethylbenzene	126
1,3-Dichlorobenzene	122
1,4-Dichlorobenzene	116
alpha-Chlorotoluene	113
1,2-Dichlorobenzene	120
1,2,4-Trichlorobenzene	112
Hexachlorobutadiene	112
Butane	117
Isopentane	114

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	103	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1411170A-18B

EPA METHOD TO-15 GC/MS

File Name:	**14111802**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 09:34 AM**	

Compound	%Recovery
Freon 12	115
Freon 114	110
Chloromethane	140 Q
Vinyl Chloride	129
1,3-Butadiene	126
Bromomethane	71
Chloroethane	126
Freon 11	116
Ethanol	125
Freon 113	111
1,1-Dichloroethene	120
Acetone	123
2-Propanol	121
Carbon Disulfide	121
3-Chloropropene	108
Methylene Chloride	117
Methyl tert-butyl ether	118
trans-1,2-Dichloroethene	114
Hexane	125
1,1-Dichloroethane	119
2-Butanone (Methyl Ethyl Ketone)	118
cis-1,2-Dichloroethene	118
Tetrahydrofuran	119
Chloroform	116
1,1,1-Trichloroethane	115
Cyclohexane	116
Carbon Tetrachloride	113
2,2,4-Trimethylpentane	121
Benzene	104
1,2-Dichloroethane	104
Heptane	114
Trichloroethene	120
1,2-Dichloropropane	113
1,4-Dioxane	116
Bromodichloromethane	107
cis-1,3-Dichloropropene	112
4-Methyl-2-pentanone	107
Toluene	107
trans-1,3-Dichloropropene	108
1,1,2-Trichloroethane	110
Tetrachloroethene	103
2-Hexanone	106

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1411170A-18B

EPA METHOD TO-15 GC/MS

File Name:	**14111802**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 09:34 AM**	

Compound	%Recovery
Dibromochloromethane	106
1,2-Dibromoethane (EDB)	108
Chlorobenzene	110
Ethyl Benzene	108
m,p-Xylene	112
o-Xylene	112
Styrene	112
Bromoform	103
Cumene	116
1,1,2,2-Tetrachloroethane	96
Propylbenzene	120
4-Ethyltoluene	122
1,3,5-Trimethylbenzene	110
1,2,4-Trimethylbenzene	123
1,3-Dichlorobenzene	117
1,4-Dichlorobenzene	113
alpha-Chlorotoluene	106
1,2-Dichlorobenzene	117
1,2,4-Trichlorobenzene	107
Hexachlorobutadiene	116
Butane	127
Isopentane	124

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1411170A-18C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111802**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 07:38 AM**	

Compound	%Recovery
Freon 12	80
Freon 114	85
Chloromethane	74
Vinyl Chloride	77
1,3-Butadiene	76
Bromomethane	88
Chloroethane	88
Freon 11	84
Ethanol	63 Q
Freon 113	88
1,1-Dichloroethene	86
Acetone	84
2-Propanol	70
Carbon Disulfide	73
3-Chloropropene	76
Methylene Chloride	83
Methyl tert-butyl ether	88
trans-1,2-Dichloroethene	84
Hexane	84
1,1-Dichloroethane	84
2-Butanone (Methyl Ethyl Ketone)	88
cis-1,2-Dichloroethene	85
Tetrahydrofuran	76
Chloroform	85
1,1,1-Trichloroethane	84
Cyclohexane	88
Carbon Tetrachloride	84
2,2,4-Trimethylpentane	80
Benzene	86
1,2-Dichloroethane	80
Heptane	83
Trichloroethene	84
1,2-Dichloropropane	84
1,4-Dioxane	86
Bromodichloromethane	85
cis-1,3-Dichloropropene	92
4-Methyl-2-pentanone	77
Toluene	89
trans-1,3-Dichloropropene	92
1,1,2-Trichloroethane	90
Tetrachloroethene	87
2-Hexanone	83

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1411170A-18C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111802**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 07:38 AM**	

Compound	%Recovery
Dibromochloromethane	91
1,2-Dibromoethane (EDB)	91
Chlorobenzene	86
Ethyl Benzene	91
m,p-Xylene	93
o-Xylene	92
Styrene	93
Bromoform	89
Cumene	91
1,1,2,2-Tetrachloroethane	87
Propylbenzene	92
4-Ethyltoluene	94
1,3,5-Trimethylbenzene	88
1,2,4-Trimethylbenzene	91
1,3-Dichlorobenzene	90
1,4-Dichlorobenzene	84
alpha-Chlorotoluene	81
1,2-Dichlorobenzene	87
1,2,4-Trichlorobenzene	77
Hexachlorobutadiene	86
Butane	83
Isopentane	86

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1411170A-18D

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111902**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/14 08:22 AM**	

Compound	%Recovery
Freon 12	82
Freon 114	86
Chloromethane	75
Vinyl Chloride	78
1,3-Butadiene	77
Bromomethane	89
Chloroethane	88
Freon 11	86
Ethanol	62 Q
Freon 113	90
1,1-Dichloroethene	87
Acetone	87
2-Propanol	72
Carbon Disulfide	76
3-Chloropropene	77
Methylene Chloride	83
Methyl tert-butyl ether	89
trans-1,2-Dichloroethene	85
Hexane	86
1,1-Dichloroethane	86
2-Butanone (Methyl Ethyl Ketone)	89
cis-1,2-Dichloroethene	88
Tetrahydrofuran	76
Chloroform	87
1,1,1-Trichloroethane	87
Cyclohexane	90
Carbon Tetrachloride	87
2,2,4-Trimethylpentane	82
Benzene	86
1,2-Dichloroethane	80
Heptane	83
Trichloroethene	84
1,2-Dichloropropane	85
1,4-Dioxane	83
Bromodichloromethane	86
cis-1,3-Dichloropropene	92
4-Methyl-2-pentanone	77
Toluene	88
trans-1,3-Dichloropropene	91
1,1,2-Trichloroethane	90
Tetrachloroethene	88
2-Hexanone	81

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1411170A-18D

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111902**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/14 08:22 AM**	

Compound	%Recovery
Dibromochloromethane	91
1,2-Dibromoethane (EDB)	91
Chlorobenzene	86
Ethyl Benzene	91
m,p-Xylene	94
o-Xylene	92
Styrene	91
Bromoform	91
Cumene	91
1,1,2,2-Tetrachloroethane	88
Propylbenzene	93
4-Ethyltoluene	96
1,3,5-Trimethylbenzene	91
1,2,4-Trimethylbenzene	96
1,3-Dichlorobenzene	92
1,4-Dichlorobenzene	86
alpha-Chlorotoluene	81
1,2-Dichlorobenzene	88
1,2,4-Trichlorobenzene	82
Hexachlorobutadiene	90
Butane	84
Isopentane	87

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	98	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1411170A-18E

EPA METHOD TO-15 GC/MS

File Name:	**14111902**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/14 09:27 AM**	

Compound	%Recovery
Freon 12	111
Freon 114	113
Chloromethane	132 Q
Vinyl Chloride	112
1,3-Butadiene	106
Bromomethane	74
Chloroethane	112
Freon 11	114
Ethanol	118
Freon 113	114
1,1-Dichloroethene	110
Acetone	117
2-Propanol	112
Carbon Disulfide	110
3-Chloropropene	95
Methylene Chloride	107
Methyl tert-butyl ether	98
trans-1,2-Dichloroethene	108
Hexane	113
1,1-Dichloroethane	106
2-Butanone (Methyl Ethyl Ketone)	114
cis-1,2-Dichloroethene	108
Tetrahydrofuran	108
Chloroform	111
1,1,1-Trichloroethane	113
Cyclohexane	111
Carbon Tetrachloride	109
2,2,4-Trimethylpentane	114
Benzene	101
1,2-Dichloroethane	101
Heptane	115
Trichloroethene	118
1,2-Dichloropropane	104
1,4-Dioxane	110
Bromodichloromethane	104
cis-1,3-Dichloropropene	107
4-Methyl-2-pentanone	115
Toluene	105
trans-1,3-Dichloropropene	105
1,1,2-Trichloroethane	109
Tetrachloroethene	106
2-Hexanone	107

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1411170A-18E

EPA METHOD TO-15 GC/MS

File Name:	**14111902**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/14 09:27 AM**	

Compound	%Recovery
Dibromochloromethane	106
1,2-Dibromoethane (EDB)	108
Chlorobenzene	108
Ethyl Benzene	106
m,p-Xylene	111
o-Xylene	115
Styrene	110
Bromoform	109
Cumene	117
1,1,2,2-Tetrachloroethane	94
Propylbenzene	115
4-Ethyltoluene	120
1,3,5-Trimethylbenzene	107
1,2,4-Trimethylbenzene	121
1,3-Dichlorobenzene	119
1,4-Dichlorobenzene	114
alpha-Chlorotoluene	109
1,2-Dichlorobenzene	121
1,2,4-Trichlorobenzene	122
Hexachlorobutadiene	131 Q
Butane	121
Isopentane	126

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1411170A-19A

EPA METHOD TO-15 GC/MS

File Name:	**14111303**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 11:18 AM**	

Compound	%Recovery	Method Limits
Freon 12	102	70-130
Freon 114	100	70-130
Chloromethane	105	70-130
Vinyl Chloride	104	70-130
1,3-Butadiene	91	70-130
Bromomethane	70	70-130
Chloroethane	96	70-130
Freon 11	102	70-130
Ethanol	122	70-130
Freon 113	104	70-130
1,1-Dichloroethene	101	70-130
Acetone	95	70-130
2-Propanol	108	70-130
Carbon Disulfide	90	70-130
3-Chloropropene	85	70-130
Methylene Chloride	96	70-130
Methyl tert-butyl ether	101	70-130
trans-1,2-Dichloroethene	90	70-130
Hexane	101	70-130
1,1-Dichloroethane	95	70-130
2-Butanone (Methyl Ethyl Ketone)	100	70-130
cis-1,2-Dichloroethene	96	70-130
Tetrahydrofuran	97	70-130
Chloroform	96	70-130
1,1,1-Trichloroethane	98	70-130
Cyclohexane	93	70-130
Carbon Tetrachloride	94	70-130
2,2,4-Trimethylpentane	99	70-130
Benzene	87	70-130
1,2-Dichloroethane	92	70-130
Heptane	102	70-130
Trichloroethene	88	70-130
1,2-Dichloropropane	97	70-130
1,4-Dioxane	103	70-130
Bromodichloromethane	91	70-130
cis-1,3-Dichloropropene	102	70-130
4-Methyl-2-pentanone	100	70-130
Toluene	90	70-130
trans-1,3-Dichloropropene	92	70-130
1,1,2-Trichloroethane	96	70-130
Tetrachloroethene	94	70-130
2-Hexanone	103	70-130

eurofins | Air Toxics

Client Sample ID: LCS
Lab ID#: 1411170A-19A
EPA METHOD TO-15 GC/MS

File Name:	**14111303**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 11:18 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	95	70-130
1,2-Dibromoethane (EDB)	100	70-130
Chlorobenzene	96	70-130
Ethyl Benzene	97	70-130
m,p-Xylene	100	70-130
o-Xylene	102	70-130
Styrene	104	70-130
Bromoform	99	70-130
Cumene	103	70-130
1,1,2,2-Tetrachloroethane	102	70-130
Propylbenzene	107	70-130
4-Ethyltoluene	112	70-130
1,3,5-Trimethylbenzene	108	70-130
1,2,4-Trimethylbenzene	121	70-130
1,3-Dichlorobenzene	110	70-130
1,4-Dichlorobenzene	108	70-130
alpha-Chlorotoluene	183 Q	70-130
1,2-Dichlorobenzene	114	70-130
1,2,4-Trichlorobenzene	192 Q	70-130
Hexachlorobutadiene	166 Q	70-130
Butane	100	60-140
Isopentane	103	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	101	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1411170A-19AA

EPA METHOD TO-15 GC/MS

File Name:	**14111304**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 11:42 AM**	

Compound	%Recovery	Method Limits
Freon 12	106	70-130
Freon 114	101	70-130
Chloromethane	107	70-130
Vinyl Chloride	105	70-130
1,3-Butadiene	93	70-130
Bromomethane	71	70-130
Chloroethane	96	70-130
Freon 11	104	70-130
Ethanol	122	70-130
Freon 113	105	70-130
1,1-Dichloroethene	106	70-130
Acetone	102	70-130
2-Propanol	109	70-130
Carbon Disulfide	93	70-130
3-Chloropropene	86	70-130
Methylene Chloride	103	70-130
Methyl tert-butyl ether	105	70-130
trans-1,2-Dichloroethene	95	70-130
Hexane	104	70-130
1,1-Dichloroethane	98	70-130
2-Butanone (Methyl Ethyl Ketone)	106	70-130
cis-1,2-Dichloroethene	95	70-130
Tetrahydrofuran	97	70-130
Chloroform	99	70-130
1,1,1-Trichloroethane	101	70-130
Cyclohexane	98	70-130
Carbon Tetrachloride	93	70-130
2,2,4-Trimethylpentane	99	70-130
Benzene	88	70-130
1,2-Dichloroethane	90	70-130
Heptane	99	70-130
Trichloroethene	92	70-130
1,2-Dichloropropane	98	70-130
1,4-Dioxane	104	70-130
Bromodichloromethane	94	70-130
cis-1,3-Dichloropropene	104	70-130
4-Methyl-2-pentanone	104	70-130
Toluene	93	70-130
trans-1,3-Dichloropropene	94	70-130
1,1,2-Trichloroethane	96	70-130
Tetrachloroethene	91	70-130
2-Hexanone	101	70-130

eurofins | Air Toxics

Client Sample ID: LCSD
Lab ID#: 1411170A-19AA
EPA METHOD TO-15 GC/MS

File Name:	**14111304**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 11:42 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	99	70-130
1,2-Dibromoethane (EDB)	95	70-130
Chlorobenzene	98	70-130
Ethyl Benzene	95	70-130
m,p-Xylene	99	70-130
o-Xylene	100	70-130
Styrene	103	70-130
Bromoform	98	70-130
Cumene	104	70-130
1,1,2,2-Tetrachloroethane	103	70-130
Propylbenzene	106	70-130
4-Ethyltoluene	109	70-130
1,3,5-Trimethylbenzene	105	70-130
1,2,4-Trimethylbenzene	118	70-130
1,3-Dichlorobenzene	106	70-130
1,4-Dichlorobenzene	106	70-130
alpha-Chlorotoluene	184 Q	70-130
1,2-Dichlorobenzene	111	70-130
1,2,4-Trichlorobenzene	184 Q	70-130
Hexachlorobutadiene	158 Q	70-130
Butane	104	60-140
Isopentane	98	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	99	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1411170A-19B

EPA METHOD TO-15 GC/MS

File Name:	**14111803**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 09:55 AM**	

Compound	%Recovery	Method Limits
Freon 12	109	70-130
Freon 114	100	70-130
Chloromethane	114	70-130
Vinyl Chloride	118	70-130
1,3-Butadiene	105	70-130
Bromomethane	84	70-130
Chloroethane	103	70-130
Freon 11	108	70-130
Ethanol	130	70-130
Freon 113	109	70-130
1,1-Dichloroethene	112	70-130
Acetone	108	70-130
2-Propanol	114	70-130
Carbon Disulfide	99	70-130
3-Chloropropene	88	70-130
Methylene Chloride	105	70-130
Methyl tert-butyl ether	98	70-130
trans-1,2-Dichloroethene	100	70-130
Hexane	108	70-130
1,1-Dichloroethane	105	70-130
2-Butanone (Methyl Ethyl Ketone)	107	70-130
cis-1,2-Dichloroethene	103	70-130
Tetrahydrofuran	99	70-130
Chloroform	105	70-130
1,1,1-Trichloroethane	103	70-130
Cyclohexane	103	70-130
Carbon Tetrachloride	103	70-130
2,2,4-Trimethylpentane	106	70-130
Benzene	96	70-130
1,2-Dichloroethane	99	70-130
Heptane	108	70-130
Trichloroethene	97	70-130
1,2-Dichloropropane	105	70-130
1,4-Dioxane	111	70-130
Bromodichloromethane	102	70-130
cis-1,3-Dichloropropene	108	70-130
4-Methyl-2-pentanone	115	70-130
Toluene	99	70-130
trans-1,3-Dichloropropene	99	70-130
1,1,2-Trichloroethane	103	70-130
Tetrachloroethene	95	70-130
2-Hexanone	112	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1411170A-19B

EPA METHOD TO-15 GC/MS

File Name:	**14111803**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 09:55 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	105	70-130
1,2-Dibromoethane (EDB)	103	70-130
Chlorobenzene	103	70-130
Ethyl Benzene	103	70-130
m,p-Xylene	105	70-130
o-Xylene	108	70-130
Styrene	112	70-130
Bromoform	104	70-130
Cumene	109	70-130
1,1,2,2-Tetrachloroethane	113	70-130
Propylbenzene	116	70-130
4-Ethyltoluene	118	70-130
1,3,5-Trimethylbenzene	114	70-130
1,2,4-Trimethylbenzene	122	70-130
1,3-Dichlorobenzene	114	70-130
1,4-Dichlorobenzene	109	70-130
alpha-Chlorotoluene	189 Q	70-130
1,2-Dichlorobenzene	119	70-130
1,2,4-Trichlorobenzene	194 Q	70-130
Hexachlorobutadiene	175 Q	70-130
Butane	113	60-140
Isopentane	108	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1411170A-19BB

EPA METHOD TO-15 GC/MS

File Name:	**14111804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 10:19 AM**	

Compound	%Recovery	Method Limits
Freon 12	107	70-130
Freon 114	103	70-130
Chloromethane	119	70-130
Vinyl Chloride	116	70-130
1,3-Butadiene	105	70-130
Bromomethane	82	70-130
Chloroethane	107	70-130
Freon 11	107	70-130
Ethanol	131 Q	70-130
Freon 113	108	70-130
1,1-Dichloroethene	108	70-130
Acetone	112	70-130
2-Propanol	112	70-130
Carbon Disulfide	97	70-130
3-Chloropropene	95	70-130
Methylene Chloride	109	70-130
Methyl tert-butyl ether	98	70-130
trans-1,2-Dichloroethene	98	70-130
Hexane	105	70-130
1,1-Dichloroethane	104	70-130
2-Butanone (Methyl Ethyl Ketone)	110	70-130
cis-1,2-Dichloroethene	101	70-130
Tetrahydrofuran	102	70-130
Chloroform	103	70-130
1,1,1-Trichloroethane	104	70-130
Cyclohexane	99	70-130
Carbon Tetrachloride	98	70-130
2,2,4-Trimethylpentane	105	70-130
Benzene	100	70-130
1,2-Dichloroethane	96	70-130
Heptane	108	70-130
Trichloroethene	97	70-130
1,2-Dichloropropane	106	70-130
1,4-Dioxane	116	70-130
Bromodichloromethane	102	70-130
cis-1,3-Dichloropropene	109	70-130
4-Methyl-2-pentanone	103	70-130
Toluene	99	70-130
trans-1,3-Dichloropropene	101	70-130
1,1,2-Trichloroethane	104	70-130
Tetrachloroethene	97	70-130
2-Hexanone	108	70-130

eurofins | Air Toxics

Client Sample ID: LCSD
Lab ID#: 1411170A-19BB
EPA METHOD TO-15 GC/MS

File Name:	**14111804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 10:19 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	103	70-130
1,2-Dibromoethane (EDB)	105	70-130
Chlorobenzene	102	70-130
Ethyl Benzene	97	70-130
m,p-Xylene	107	70-130
o-Xylene	106	70-130
Styrene	112	70-130
Bromoform	106	70-130
Cumene	110	70-130
1,1,2,2-Tetrachloroethane	113	70-130
Propylbenzene	115	70-130
4-Ethyltoluene	119	70-130
1,3,5-Trimethylbenzene	114	70-130
1,2,4-Trimethylbenzene	123	70-130
1,3-Dichlorobenzene	114	70-130
1,4-Dichlorobenzene	114	70-130
alpha-Chlorotoluene	191 Q	70-130
1,2-Dichlorobenzene	117	70-130
1,2,4-Trichlorobenzene	176 Q	70-130
Hexachlorobutadiene	146 Q	70-130
Butane	107	60-140
Isopentane	107	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	103	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1411170A-19C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111803**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 08:33 AM**	

Compound	%Recovery	Method Limits
Freon 12	80	70-130
Freon 114	84	70-130
Chloromethane	73	70-130
Vinyl Chloride	78	70-130
1,3-Butadiene	73	70-130
Bromomethane	88	70-130
Chloroethane	85	70-130
Freon 11	82	70-130
Ethanol	74	70-130
Freon 113	91	70-130
1,1-Dichloroethene	88	70-130
Acetone	80	70-130
2-Propanol	77	70-130
Carbon Disulfide	67 Q	70-130
3-Chloropropene	71	70-130
Methylene Chloride	85	70-130
Methyl tert-butyl ether	86	70-130
trans-1,2-Dichloroethene	79	70-130
Hexane	80	70-130
1,1-Dichloroethane	82	70-130
2-Butanone (Methyl Ethyl Ketone)	86	70-130
cis-1,2-Dichloroethene	86	70-130
Tetrahydrofuran	73	70-130
Chloroform	83	70-130
1,1,1-Trichloroethane	82	70-130
Cyclohexane	87	70-130
Carbon Tetrachloride	82	70-130
2,2,4-Trimethylpentane	78	70-130
Benzene	83	70-130
1,2-Dichloroethane	77	70-130
Heptane	80	70-130
Trichloroethene	80	70-130
1,2-Dichloropropane	80	70-130
1,4-Dioxane	85	70-130
Bromodichloromethane	81	70-130
cis-1,3-Dichloropropene	94	70-130
4-Methyl-2-pentanone	75	70-130
Toluene	84	70-130
trans-1,3-Dichloropropene	87	70-130
1,1,2-Trichloroethane	86	70-130
Tetrachloroethene	84	70-130
2-Hexanone	87	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1411170A-19C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111803**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 08:33 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	87	70-130
1,2-Dibromoethane (EDB)	89	70-130
Chlorobenzene	82	70-130
Ethyl Benzene	86	70-130
m,p-Xylene	91	70-130
o-Xylene	87	70-130
Styrene	98	70-130
Bromoform	88	70-130
Cumene	87	70-130
1,1,2,2-Tetrachloroethane	84	70-130
Propylbenzene	91	70-130
4-Ethyltoluene	92	70-130
1,3,5-Trimethylbenzene	96	70-130
1,2,4-Trimethylbenzene	95	70-130
1,3-Dichlorobenzene	86	70-130
1,4-Dichlorobenzene	82	70-130
alpha-Chlorotoluene	154 Q	70-130
1,2-Dichlorobenzene	86	70-130
1,2,4-Trichlorobenzene	100	70-130
Hexachlorobutadiene	97	70-130
Butane	83	60-140
Isopentane	81	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1411170A-19CC

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 09:14 AM**	

Compound	%Recovery	Method Limits
Freon 12	78	70-130
Freon 114	82	70-130
Chloromethane	71	70-130
Vinyl Chloride	76	70-130
1,3-Butadiene	70	70-130
Bromomethane	86	70-130
Chloroethane	84	70-130
Freon 11	80	70-130
Ethanol	84	70-130
Freon 113	89	70-130
1,1-Dichloroethene	86	70-130
Acetone	79	70-130
2-Propanol	76	70-130
Carbon Disulfide	65 Q	70-130
3-Chloropropene	70	70-130
Methylene Chloride	84	70-130
Methyl tert-butyl ether	84	70-130
trans-1,2-Dichloroethene	77	70-130
Hexane	79	70-130
1,1-Dichloroethane	81	70-130
2-Butanone (Methyl Ethyl Ketone)	85	70-130
cis-1,2-Dichloroethene	85	70-130
Tetrahydrofuran	72	70-130
Chloroform	82	70-130
1,1,1-Trichloroethane	81	70-130
Cyclohexane	83	70-130
Carbon Tetrachloride	80	70-130
2,2,4-Trimethylpentane	77	70-130
Benzene	83	70-130
1,2-Dichloroethane	76	70-130
Heptane	79	70-130
Trichloroethene	80	70-130
1,2-Dichloropropane	79	70-130
1,4-Dioxane	85	70-130
Bromodichloromethane	80	70-130
cis-1,3-Dichloropropene	94	70-130
4-Methyl-2-pentanone	75	70-130
Toluene	84	70-130
trans-1,3-Dichloropropene	86	70-130
1,1,2-Trichloroethane	84	70-130
Tetrachloroethene	84	70-130
2-Hexanone	86	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1411170A-19CC

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/18/14 09:14 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	88	70-130
1,2-Dibromoethane (EDB)	88	70-130
Chlorobenzene	81	70-130
Ethyl Benzene	86	70-130
m,p-Xylene	90	70-130
o-Xylene	87	70-130
Styrene	98	70-130
Bromoform	87	70-130
Cumene	87	70-130
1,1,2,2-Tetrachloroethane	83	70-130
Propylbenzene	89	70-130
4-Ethyltoluene	92	70-130
1,3,5-Trimethylbenzene	94	70-130
1,2,4-Trimethylbenzene	94	70-130
1,3-Dichlorobenzene	87	70-130
1,4-Dichlorobenzene	81	70-130
alpha-Chlorotoluene	157 Q	70-130
1,2-Dichlorobenzene	85	70-130
1,2,4-Trichlorobenzene	97	70-130
Hexachlorobutadiene	97	70-130
Butane	80	60-140
Isopentane	81	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	99	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1411170A-19D

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/14 09:21 AM**	

Compound	%Recovery	Method Limits
Freon 12	79	70-130
Freon 114	83	70-130
Chloromethane	71	70-130
Vinyl Chloride	77	70-130
1,3-Butadiene	72	70-130
Bromomethane	85	70-130
Chloroethane	83	70-130
Freon 11	82	70-130
Ethanol	82	70-130
Freon 113	90	70-130
1,1-Dichloroethene	87	70-130
Acetone	80	70-130
2-Propanol	75	70-130
Carbon Disulfide	66 Q	70-130
3-Chloropropene	69 Q	70-130
Methylene Chloride	83	70-130
Methyl tert-butyl ether	83	70-130
trans-1,2-Dichloroethene	76	70-130
Hexane	79	70-130
1,1-Dichloroethane	81	70-130
2-Butanone (Methyl Ethyl Ketone)	85	70-130
cis-1,2-Dichloroethene	84	70-130
Tetrahydrofuran	72	70-130
Chloroform	82	70-130
1,1,1-Trichloroethane	81	70-130
Cyclohexane	84	70-130
Carbon Tetrachloride	81	70-130
2,2,4-Trimethylpentane	77	70-130
Benzene	82	70-130
1,2-Dichloroethane	77	70-130
Heptane	79	70-130
Trichloroethene	79	70-130
1,2-Dichloropropane	79	70-130
1,4-Dioxane	84	70-130
Bromodichloromethane	80	70-130
cis-1,3-Dichloropropene	92	70-130
4-Methyl-2-pentanone	75	70-130
Toluene	83	70-130
trans-1,3-Dichloropropene	88	70-130
1,1,2-Trichloroethane	85	70-130
Tetrachloroethene	84	70-130
2-Hexanone	88	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1411170A-19D

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/14 09:21 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	88	70-130
1,2-Dibromoethane (EDB)	87	70-130
Chlorobenzene	82	70-130
Ethyl Benzene	86	70-130
m,p-Xylene	90	70-130
o-Xylene	87	70-130
Styrene	97	70-130
Bromoform	88	70-130
Cumene	87	70-130
1,1,2,2-Tetrachloroethane	82	70-130
Propylbenzene	88	70-130
4-Ethyltoluene	92	70-130
1,3,5-Trimethylbenzene	96	70-130
1,2,4-Trimethylbenzene	95	70-130
1,3-Dichlorobenzene	86	70-130
1,4-Dichlorobenzene	81	70-130
alpha-Chlorotoluene	154 Q	70-130
1,2-Dichlorobenzene	86	70-130
1,2,4-Trichlorobenzene	100	70-130
Hexachlorobutadiene	98	70-130
Butane	80	60-140
Isopentane	82	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1411170A-19DD

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111904**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/14 11:44 AM**	

Compound	%Recovery	Method Limits
Freon 12	80	70-130
Freon 114	84	70-130
Chloromethane	74	70-130
Vinyl Chloride	78	70-130
1,3-Butadiene	72	70-130
Bromomethane	85	70-130
Chloroethane	84	70-130
Freon 11	82	70-130
Ethanol	72	70-130
Freon 113	90	70-130
1,1-Dichloroethene	88	70-130
Acetone	79	70-130
2-Propanol	78	70-130
Carbon Disulfide	66 Q	70-130
3-Chloropropene	70	70-130
Methylene Chloride	85	70-130
Methyl tert-butyl ether	85	70-130
trans-1,2-Dichloroethene	78	70-130
Hexane	79	70-130
1,1-Dichloroethane	81	70-130
2-Butanone (Methyl Ethyl Ketone)	85	70-130
cis-1,2-Dichloroethene	86	70-130
Tetrahydrofuran	72	70-130
Chloroform	82	70-130
1,1,1-Trichloroethane	82	70-130
Cyclohexane	84	70-130
Carbon Tetrachloride	82	70-130
2,2,4-Trimethylpentane	76	70-130
Benzene	82	70-130
1,2-Dichloroethane	77	70-130
Heptane	76	70-130
Trichloroethene	79	70-130
1,2-Dichloropropane	79	70-130
1,4-Dioxane	86	70-130
Bromodichloromethane	81	70-130
cis-1,3-Dichloropropene	93	70-130
4-Methyl-2-pentanone	74	70-130
Toluene	82	70-130
trans-1,3-Dichloropropene	90	70-130
1,1,2-Trichloroethane	89	70-130
Tetrachloroethene	87	70-130
2-Hexanone	89	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1411170A-19DD

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2111904**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/14 11:44 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	91	70-130
1,2-Dibromoethane (EDB)	91	70-130
Chlorobenzene	82	70-130
Ethyl Benzene	82	70-130
m,p-Xylene	81	70-130
o-Xylene	79	70-130
Styrene	89	70-130
Bromoform	90	70-130
Cumene	81	70-130
1,1,2,2-Tetrachloroethane	84	70-130
Propylbenzene	80	70-130
4-Ethyltoluene	80	70-130
1,3,5-Trimethylbenzene	80	70-130
1,2,4-Trimethylbenzene	79	70-130
1,3-Dichlorobenzene	78	70-130
1,4-Dichlorobenzene	70	70-130
alpha-Chlorotoluene	144 Q	70-130
1,2-Dichlorobenzene	76	70-130
1,2,4-Trichlorobenzene	87	70-130
Hexachlorobutadiene	93	70-130
Butane	81	60-140
Isopentane	81	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1411170A-19E

EPA METHOD TO-15 GC/MS

File Name:	**14111903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/14 09:49 AM**	

Compound	%Recovery	Method Limits
Freon 12	104	70-130
Freon 114	99	70-130
Chloromethane	105	70-130
Vinyl Chloride	101	70-130
1,3-Butadiene	92	70-130
Bromomethane	74	70-130
Chloroethane	101	70-130
Freon 11	100	70-130
Ethanol	126	70-130
Freon 113	108	70-130
1,1-Dichloroethene	102	70-130
Acetone	97	70-130
2-Propanol	104	70-130
Carbon Disulfide	93	70-130
3-Chloropropene	84	70-130
Methylene Chloride	99	70-130
Methyl tert-butyl ether	93	70-130
trans-1,2-Dichloroethene	94	70-130
Hexane	102	70-130
1,1-Dichloroethane	98	70-130
2-Butanone (Methyl Ethyl Ketone)	106	70-130
cis-1,2-Dichloroethene	96	70-130
Tetrahydrofuran	92	70-130
Chloroform	97	70-130
1,1,1-Trichloroethane	101	70-130
Cyclohexane	98	70-130
Carbon Tetrachloride	97	70-130
2,2,4-Trimethylpentane	97	70-130
Benzene	86	70-130
1,2-Dichloroethane	88	70-130
Heptane	99	70-130
Trichloroethene	89	70-130
1,2-Dichloropropane	93	70-130
1,4-Dioxane	99	70-130
Bromodichloromethane	93	70-130
cis-1,3-Dichloropropene	100	70-130
4-Methyl-2-pentanone	100	70-130
Toluene	90	70-130
trans-1,3-Dichloropropene	91	70-130
1,1,2-Trichloroethane	95	70-130
Tetrachloroethene	92	70-130
2-Hexanone	100	70-130

eurofins | Air Toxics

Client Sample ID: LCS
Lab ID#: 1411170A-19E
EPA METHOD TO-15 GC/MS

File Name:	**14111903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/14 09:49 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	96	70-130
1,2-Dibromoethane (EDB)	95	70-130
Chlorobenzene	93	70-130
Ethyl Benzene	92	70-130
m,p-Xylene	97	70-130
o-Xylene	95	70-130
Styrene	102	70-130
Bromoform	100	70-130
Cumene	100	70-130
1,1,2,2-Tetrachloroethane	101	70-130
Propylbenzene	103	70-130
4-Ethyltoluene	107	70-130
1,3,5-Trimethylbenzene	103	70-130
1,2,4-Trimethylbenzene	114	70-130
1,3-Dichlorobenzene	104	70-130
1,4-Dichlorobenzene	105	70-130
alpha-Chlorotoluene	170 Q	70-130
1,2-Dichlorobenzene	110	70-130
1,2,4-Trichlorobenzene	184 Q	70-130
Hexachlorobutadiene	167 Q	70-130
Butane	95	60-140
Isopentane	103	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1411170A-19EE

EPA METHOD TO-15 GC/MS

File Name:	**14111904**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/14 10:27 AM**	

Compound	%Recovery	Method Limits
Freon 12	96	70-130
Freon 114	93	70-130
Chloromethane	106	70-130
Vinyl Chloride	100	70-130
1,3-Butadiene	90	70-130
Bromomethane	70	70-130
Chloroethane	97	70-130
Freon 11	99	70-130
Ethanol	113	70-130
Freon 113	100	70-130
1,1-Dichloroethene	99	70-130
Acetone	96	70-130
2-Propanol	103	70-130
Carbon Disulfide	89	70-130
3-Chloropropene	84	70-130
Methylene Chloride	95	70-130
Methyl tert-butyl ether	89	70-130
trans-1,2-Dichloroethene	90	70-130
Hexane	95	70-130
1,1-Dichloroethane	94	70-130
2-Butanone (Methyl Ethyl Ketone)	99	70-130
cis-1,2-Dichloroethene	90	70-130
Tetrahydrofuran	95	70-130
Chloroform	94	70-130
1,1,1-Trichloroethane	94	70-130
Cyclohexane	93	70-130
Carbon Tetrachloride	91	70-130
2,2,4-Trimethylpentane	95	70-130
Benzene	88	70-130
1,2-Dichloroethane	88	70-130
Heptane	94	70-130
Trichloroethene	90	70-130
1,2-Dichloropropane	97	70-130
1,4-Dioxane	102	70-130
Bromodichloromethane	91	70-130
cis-1,3-Dichloropropene	100	70-130
4-Methyl-2-pentanone	102	70-130
Toluene	91	70-130
trans-1,3-Dichloropropene	92	70-130
1,1,2-Trichloroethane	95	70-130
Tetrachloroethene	94	70-130
2-Hexanone	102	70-130

eurofins | Air Toxics

Client Sample ID: LCSD
Lab ID#: 1411170A-19EE
EPA METHOD TO-15 GC/MS

File Name:	**14111904**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/14 10:27 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	98	70-130
1,2-Dibromoethane (EDB)	97	70-130
Chlorobenzene	97	70-130
Ethyl Benzene	94	70-130
m,p-Xylene	100	70-130
o-Xylene	98	70-130
Styrene	104	70-130
Bromoform	99	70-130
Cumene	102	70-130
1,1,2,2-Tetrachloroethane	102	70-130
Propylbenzene	105	70-130
4-Ethyltoluene	109	70-130
1,3,5-Trimethylbenzene	106	70-130
1,2,4-Trimethylbenzene	117	70-130
1,3-Dichlorobenzene	109	70-130
1,4-Dichlorobenzene	106	70-130
alpha-Chlorotoluene	177 Q	70-130
1,2-Dichlorobenzene	114	70-130
1,2,4-Trichlorobenzene	216 Q	70-130
Hexachlorobutadiene	173 Q	70-130
Butane	98	60-140
Isopentane	102	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

11/25/2014
Ms. Elizabeth Kunkel
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis MO 63110

Project Name: Roxana Soil Vapor
Project #: 21562973.04004
Workorder #: 1411170B

Dear Ms. Elizabeth Kunkel

The following report includes the data for the above referenced project for sample(s) received on 11/11/2014 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1411170B

Work Order Summary

CLIENT:	Ms. Elizabeth Kunkel URS Corporation 1001 Highlands Plaza Dr. West Suite 300 St. Louis, MO 63110	**BILL TO:**	Accounts Payable Austin URS Corporation P.O. BOX 203970 Austin, TX 78720-1088
PHONE:	314-743-4179	**P.O. #**	282676
FAX:		**PROJECT #**	21562973.04004 Roxana Soil Vapor
DATE RECEIVED:	11/11/2014	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	11/25/2014		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
02A	VMP-15-21.5-110614	Modified ASTM D-1946	5.1 "Hg	14.8 psi
03A	VMP-15-25.5-110614	Modified ASTM D-1946	4.7 "Hg	14.9 psi
04A	VMP-15-25.5-110614-Dup	Modified ASTM D-1946	6.3 "Hg	14.7 psi
05A	VMP-15-29-110614	Modified ASTM D-1946	8.4 "Hg	14.5 psi
14A	VMP-55-20-110414	Modified ASTM D-1946	4.7 "Hg	14.6 psi
17A	Lab Blank	Modified ASTM D-1946	NA	NA
17B	Lab Blank	Modified ASTM D-1946	NA	NA
17C	Lab Blank	Modified ASTM D-1946	NA	NA
17D	Lab Blank	Modified ASTM D-1946	NA	NA
18A	LCS	Modified ASTM D-1946	NA	NA
18AA	LCSD	Modified ASTM D-1946	NA	NA
18B	LCS	Modified ASTM D-1946	NA	NA

Continued on next page

eurofins | Air Toxics

WORK ORDER #: 1411170B

Work Order Summary

CLIENT:	Ms. Elizabeth Kunkel URS Corporation 1001 Highlands Plaza Dr. West Suite 300 St. Louis, MO 63110	**BILL TO:**	Accounts Payable Austin URS Corporation P.O. BOX 203970 Austin, TX 78720-1088
PHONE:	314-743-4179	**P.O. #**	282676
FAX:		**PROJECT #**	21562973.04004 Roxana Soil Vapor
DATE RECEIVED:	11/11/2014	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	11/25/2014		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
18BB	LCSD	Modified ASTM D-1946	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 11/25/14

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified ASTM D-1946
URS Corporation
Workorder# 1411170B

Sixteen 1 Liter Summa Canister samples were received on November 11, 2014. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***ASTM D-1946***	***ATL Modifications***
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A minimum of 5-point calibration curve is performed. Quantitation is based on average Response Factor.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a >/= 95% accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections > 5 X's the RL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:
B - Compound present in laboratory blank greater than reporting limit.
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.
File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

eurofins | Air Toxics

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP-15-21.5-110614

Lab ID#: 1411170B-02A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	3.1
Nitrogen	0.24	86
Methane	0.00024	0.042
Carbon Dioxide	0.024	11
Helium	0.12	0.19

Client Sample ID: VMP-15-25.5-110614

Lab ID#: 1411170B-03A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	2.2
Nitrogen	0.24	84
Methane	0.00024	0.048
Carbon Dioxide	0.024	13
Helium	0.12	0.36

Client Sample ID: VMP-15-25.5-110614-Dup

Lab ID#: 1411170B-04A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	2.1
Nitrogen	0.25	84
Methane	0.00025	0.048

eurofins | Air Toxics

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP-15-25.5-110614-Dup

Lab ID#: 1411170B-04A

Carbon Dioxide	0.025	13
Helium	0.13	0.40

Client Sample ID: VMP-15-29-110614

Lab ID#: 1411170B-05A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.28	3.0
Nitrogen	0.28	85
Methane	0.00028	0.035
Carbon Dioxide	0.028	12
Helium	0.14	0.0082 J

eurofins | Air Toxics

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP-55-20-110414

Lab ID#: 1411170B-14A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	4.5
Nitrogen	0.24	76
Methane	0.00024	0.58

eurofins | Air Toxics

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP-55-20-110414

Lab ID#: 1411170B-14A

Carbon Dioxide	0.024	14
Ethane	0.0024	0.0052
Helium	0.12	4.4

eurofins | Air Toxics

Client Sample ID: VMP-15-21.5-110614

Lab ID#: 1411170B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111707**	**Date of Collection: 11/6/14 2:00:00 PM**	
Dil. Factor:	**2.42**	**Date of Analysis: 11/17/14 11:33 AM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	3.1
Nitrogen	0.24	86
Carbon Monoxide	0.024	Not Detected
Methane	0.00024	0.042
Carbon Dioxide	0.024	11
Ethane	0.0024	Not Detected
Ethene	0.0024	Not Detected
Helium	0.12	0.19

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: VMP-15-25.5-110614

Lab ID#: 1411170B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111708**	**Date of Collection: 11/6/14 2:27:00 PM**	
Dil. Factor:	**2.39**	**Date of Analysis: 11/17/14 12:01 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	2.2
Nitrogen	0.24	84
Carbon Monoxide	0.024	Not Detected
Methane	0.00024	0.048
Carbon Dioxide	0.024	13
Ethane	0.0024	Not Detected
Ethene	0.0024	Not Detected
Helium	0.12	0.36

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: VMP-15-25.5-110614-Dup

Lab ID#: 1411170B-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111709**	**Date of Collection: 11/6/14 2:27:00 PM**	
Dil. Factor:	**2.53**	**Date of Analysis: 11/17/14 12:29 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	2.1
Nitrogen	0.25	84
Carbon Monoxide	0.025	Not Detected
Methane	0.00025	0.048
Carbon Dioxide	0.025	13
Ethane	0.0025	Not Detected
Ethene	0.0025	Not Detected
Helium	0.13	0.40

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: VMP-15-29-110614

Lab ID#: 1411170B-05A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111710**	**Date of Collection: 11/6/14 2:50:00 PM**	
Dil. Factor:	**2.75**	**Date of Analysis: 11/17/14 12:55 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.28	3.0
Nitrogen	0.28	85
Carbon Monoxide	0.028	Not Detected
Methane	0.00028	0.035
Carbon Dioxide	0.028	12
Ethane	0.0028	Not Detected
Ethene	0.0028	Not Detected
Helium	0.14	0.0082 J

J = Estimated value.

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: VMP-55-20-110414

Lab ID#: 1411170B-14A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111720**	**Date of Collection: 11/4/14 3:28:00 PM**	
Dil. Factor:	**2.36**	**Date of Analysis: 11/17/14 06:39 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	4.5
Nitrogen	0.24	76
Carbon Monoxide	0.024	Not Detected
Methane	0.00024	0.58
Carbon Dioxide	0.024	14
Ethane	0.0024	0.0052
Ethene	0.0024	Not Detected
Helium	0.12	4.4

Container Type: 1 Liter Summa Canister

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411170B-17A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111305a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 09:21 AM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	0.012 J
Nitrogen	0.10	0.052 J
Carbon Monoxide	0.010	Not Detected
Methane	0.00010	Not Detected
Carbon Dioxide	0.010	Not Detected
Ethane	0.0010	Not Detected
Ethene	0.0010	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411170B-17B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111304c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 08:48 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Helium	0.050	Not Detected

Container Type: NA - Not Applicable

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411170B-17C

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111705a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/17/14 10:24 AM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	Not Detected
Nitrogen	0.10	0.033 J
Carbon Monoxide	0.010	Not Detected
Methane	0.00010	Not Detected
Carbon Dioxide	0.010	Not Detected
Ethane	0.0010	Not Detected
Ethene	0.0010	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411170B-17D

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111704c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/17/14 10:00 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Helium	0.050	Not Detected

Container Type: NA - Not Applicable

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1411170B-18A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111302**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 07:47 AM**	

Compound	%Recovery	Method Limits
Oxygen	101	85-115
Nitrogen	92	85-115
Carbon Monoxide	99	85-115
Methane	105	85-115
Carbon Dioxide	99	85-115
Ethane	100	85-115
Ethene	102	85-115
Helium	98	85-115

Container Type: NA - Not Applicable

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1411170B-18AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111325**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/13/14 09:50 PM**	

Compound	%Recovery	Method Limits
Oxygen	103	85-115
Nitrogen	92	85-115
Carbon Monoxide	99	85-115
Methane	103	85-115
Carbon Dioxide	100	85-115
Ethane	98	85-115
Ethene	100	85-115
Helium	98	85-115

Container Type: NA - Not Applicable

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1411170B-18B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/17/14 08:50 AM**	

Compound	%Recovery	Method Limits
Oxygen	103	85-115
Nitrogen	93	85-115
Carbon Monoxide	100	85-115
Methane	102	85-115
Carbon Dioxide	100	85-115
Ethane	97	85-115
Ethene	99	85-115
Helium	99	85-115

Container Type: NA - Not Applicable

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1411170B-18BB

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10111724**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/17/14 09:34 PM**	

Compound	%Recovery	Method Limits
Oxygen	102	85-115
Nitrogen	92	85-115
Carbon Monoxide	100	85-115
Methane	103	85-115
Carbon Dioxide	100	85-115
Ethane	98	85-115
Ethene	100	85-115
Helium	98	85-115

Container Type: NA - Not Applicable