



Air Toxics

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180 BLUE RAVINE ROAD, SUITE B  
FOLSOM, CA 95630-4719  
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager

Collected by: (Print and Sign)

Company

Address

Phone

Michael Paris

Michael Paris

MO DNR

PO Box 176

679 526 3918

Michael Paris

Mo DNR

PO Box 176

City

State

MO Zip

65102

Project Info:

P.O. # 35SP400007

Project #

Project Name Bridgton LF

Turn Around Time:

Normal

Rush

Lab Use Only

Pressurized by:

Date:

Pressurization Gas:

N<sub>2</sub> He

Lab I.D.

Can #

Date of Collection

Time of Collection

Analyses Requested

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum
OVA	D1 (1412760)	33924	1/19/15	1130-1630	To-15	-90 -7
OVA	U1 (1412761)	34447	1/19/15	1145-1640	To-15	-30 -7

Relinquished by: (signature)

Date/Time

Received by: (signature)

Date/Time

Notes:

Relinquished by: (signature)

Date/Time

Received by: (signature)

Date/Time

Skipped via UPS  
Tracking # 1Z-6727880245229125

Relinquished by: (signature)

Date/Time

Received by: (signature)

Date/Time

Lab Use Only

Air Bill #

Temp (°C)

Condition

Custody Seals Intact?

Work Order #

UPS

14

Good

Yes

1501298

2/2/2015

Mr. Dennis Schroeder  
Missouri Dept. of Natural Resources  
2710 West Main

Jefferson City MO 65109

Project Name: Bridgeton LF

Project #:

Workorder #: 1501256

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 1/21/2015 at Air Toxics Ltd.

The data and associated QC analyzed by Modified 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: Brian Whittaker at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Brian Whittaker  
Project Manager

**WORK ORDER #: 1501256**

Work Order Summary

<b>CLIENT:</b>	Mr. Dennis Schroeder Missouri Dept. of Natural Resources 2710 West Main Jefferson City, MO 65109	<b>BILL TO:</b>	Accounts Payable Missouri Dept. of Natural Resources P.O Box 176 Jefferson City, MO 65102
<b>PHONE:</b>	573-526-4428	<b>P.O. #</b>	3ESP4000007
<b>FAX:</b>	573-526-3350	<b>PROJECT #</b>	Bridgeton LF
<b>DATE RECEIVED:</b>	01/21/2015	<b>CONTACT:</b>	Brian Whittaker
<b>DATE COMPLETED:</b>	02/02/2015		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	b1 (1412746)	Modified TO-15	3.5 "Hg	5.1 psi
02A	b2 (1412747)	Modified TO-15	3.9 "Hg	5 psi
03A	b3 (1412748)	Modified TO-15	3.1 "Hg	5.3 psi
04A	u1 (1412749)	Modified TO-15	2.8 "Hg	5.1 psi
05A	Lab Blank	Modified TO-15	NA	NA
06A	CCV	Modified TO-15	NA	NA
07A	LCS	Modified TO-15	NA	NA
07AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:   
 \_\_\_\_\_  
 Technical Director

DATE: 02/02/15

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

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**LABORATORY NARRATIVE**  
**Modified TO-15**  
**Missouri Dept. of Natural Resources**  
**Workorder# 1501256**

Four 6 Liter Summa Canister (100% Certified) samples were received on January 21, 2015. The laboratory performed analysis via modified 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.

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

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
Initial Calibration	</=30% RSD with 2 compounds allowed out to < 40% RSD	</=30% RSD with 4 compounds allowed out to < 40% RSD
Blank and standards	Zero Air	UHP Nitrogen provides a higher purity gas matrix than zero air

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

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

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

**Client Sample ID: b1 (1412746)**

**Lab ID#: 1501256-01A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	0.15	0.42	0.75	2.1
Freon 11	0.15	0.23	0.85	1.3
Ethanol	0.76	2.2	1.4	4.2
Acetone	0.76	1.8	1.8	4.2
Benzene	0.15	0.16	0.48	0.51
Toluene	0.15	0.17	0.57	0.65

**Client Sample ID: b2 (1412747)**

**Lab ID#: 1501256-02A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	0.15	0.44	0.76	2.2
Freon 11	0.15	0.24	0.86	1.3
Ethanol	0.77	2.4	1.4	4.5
Acetone	0.77	1.5	1.8	3.6
Benzene	0.15	0.19	0.49	0.62
Toluene	0.15	0.24	0.58	0.91

**Client Sample ID: b3 (1412748)**

**Lab ID#: 1501256-03A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	0.15	0.42	0.75	2.1
Freon 11	0.15	0.26	0.85	1.5
Ethanol	0.76	2.0	1.4	3.7
Acetone	0.76	1.2	1.8	2.8
Benzene	0.15	0.16	0.48	0.52
Toluene	0.15	0.22	0.57	0.84

**Client Sample ID: u1 (1412749)**

**Lab ID#: 1501256-04A**

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

**Client Sample ID: u1 (1412749)**

**Lab ID#: 1501256-04A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.44	0.74	2.2
Freon 11	0.15	0.23	0.84	1.3
Ethanol	0.74	9.7	1.4	18
Acetone	0.74	1.4	1.8	3.2
2-Propanol	0.74	0.92	1.8	2.3
Benzene	0.15	0.16	0.48	0.52
Toluene	0.15	0.37	0.56	1.4



Air Toxics

Client Sample ID: b1 (1412746)

Lab ID#: 1501256-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e012307	Date of Collection:	1/14/15 3:40:00 PM
Dil. Factor:	1.52	Date of Analysis:	1/23/15 12:30 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.42	0.75	2.1
Freon 114	0.15	Not Detected	1.1	Not Detected
Chloromethane	0.76	Not Detected	1.6	Not Detected
Vinyl Chloride	0.15	Not Detected	0.39	Not Detected
1,3-Butadiene	0.15	Not Detected	0.34	Not Detected
Bromomethane	0.76	Not Detected	3.0	Not Detected
Chloroethane	0.76	Not Detected	2.0	Not Detected
Freon 11	0.15	0.23	0.85	1.3
Ethanol	0.76	2.2	1.4	4.2
Freon 113	0.15	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Acetone	0.76	1.8	1.8	4.2
2-Propanol	0.76	Not Detected	1.9	Not Detected
Carbon Disulfide	0.76	Not Detected	2.4	Not Detected
3-Chloropropene	0.76	Not Detected	2.4	Not Detected
Methylene Chloride	0.30	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.55	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Hexane	0.15	Not Detected	0.54	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.62	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.76	Not Detected	2.2	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Tetrahydrofuran	0.76	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.74	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Cyclohexane	0.15	Not Detected	0.52	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.96	Not Detected
2,2,4-Trimethylpentane	0.76	Not Detected	3.6	Not Detected
Benzene	0.15	0.16	0.48	0.51
1,2-Dichloroethane	0.15	Not Detected	0.62	Not Detected
Heptane	0.15	Not Detected	0.62	Not Detected
Trichloroethene	0.15	Not Detected	0.82	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.70	Not Detected
1,4-Dioxane	0.15	Not Detected	0.55	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.62	Not Detected
Toluene	0.15	0.17	0.57	0.65
trans-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
2-Hexanone	0.76	Not Detected	3.1	Not Detected



Client Sample ID: b1 (1412746)

Lab ID#: 1501256-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e012307	Date of Collection:	1/14/15 3:40:00 PM
Dil. Factor:	1.52	Date of Analysis:	1/23/15 12:30 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.2	Not Detected
Chlorobenzene	0.15	Not Detected	0.70	Not Detected
Ethyl Benzene	0.15	Not Detected	0.66	Not Detected
m,p-Xylene	0.15	Not Detected	0.66	Not Detected
o-Xylene	0.15	Not Detected	0.66	Not Detected
Styrene	0.15	Not Detected	0.65	Not Detected
Bromoform	0.15	Not Detected	1.6	Not Detected
Cumene	0.15	Not Detected	0.75	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	Not Detected	0.75	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.75	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.75	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.75	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.79	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,2,4-Trichlorobenzene	0.76	Not Detected	5.6	Not Detected
Hexachlorobutadiene	0.76	Not Detected	8.1	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	89	70-130





Air Toxics

Client Sample ID: b2 (1412747)

Lab ID#: 1501256-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e012308	Date of Collection:	1/14/15 3:50:00 PM
Dil. Factor:	1.54	Date of Analysis:	1/23/15 01:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.44	0.76	2.2
Freon 114	0.15	Not Detected	1.1	Not Detected
Chloromethane	0.77	Not Detected	1.6	Not Detected
Vinyl Chloride	0.15	Not Detected	0.39	Not Detected
1,3-Butadiene	0.15	Not Detected	0.34	Not Detected
Bromomethane	0.77	Not Detected	3.0	Not Detected
Chloroethane	0.77	Not Detected	2.0	Not Detected
Freon 11	0.15	0.24	0.86	1.3
Ethanol	0.77	2.4	1.4	4.5
Freon 113	0.15	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.61	Not Detected
Acetone	0.77	1.5	1.8	3.6
2-Propanol	0.77	Not Detected	1.9	Not Detected
Carbon Disulfide	0.77	Not Detected	2.4	Not Detected
3-Chloropropene	0.77	Not Detected	2.4	Not Detected
Methylene Chloride	0.31	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.56	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.61	Not Detected
Hexane	0.15	Not Detected	0.54	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.62	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.77	Not Detected	2.3	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.61	Not Detected
Tetrahydrofuran	0.77	Not Detected	2.3	Not Detected
Chloroform	0.15	Not Detected	0.75	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.84	Not Detected
Cyclohexane	0.15	Not Detected	0.53	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.97	Not Detected
2,2,4-Trimethylpentane	0.77	Not Detected	3.6	Not Detected
Benzene	0.15	0.19	0.49	0.62
1,2-Dichloroethane	0.15	Not Detected	0.62	Not Detected
Heptane	0.15	Not Detected	0.63	Not Detected
Trichloroethene	0.15	Not Detected	0.83	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.71	Not Detected
1,4-Dioxane	0.15	Not Detected	0.55	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.70	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.63	Not Detected
Toluene	0.15	0.24	0.58	0.91
trans-1,3-Dichloropropene	0.15	Not Detected	0.70	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.84	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
2-Hexanone	0.77	Not Detected	3.2	Not Detected



Client Sample ID: b2 (1412747)

Lab ID#: 1501256-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e012308	Date of Collection:	1/14/15 3:50:00 PM
Dil. Factor:	1.54	Date of Analysis:	1/23/15 01:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.2	Not Detected
Chlorobenzene	0.15	Not Detected	0.71	Not Detected
Ethyl Benzene	0.15	Not Detected	0.67	Not Detected
m,p-Xylene	0.15	Not Detected	0.67	Not Detected
o-Xylene	0.15	Not Detected	0.67	Not Detected
Styrene	0.15	Not Detected	0.66	Not Detected
Bromoform	0.15	Not Detected	1.6	Not Detected
Cumene	0.15	Not Detected	0.76	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	Not Detected	0.76	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.76	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.76	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.76	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.92	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.92	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.80	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.92	Not Detected
1,2,4-Trichlorobenzene	0.77	Not Detected	5.7	Not Detected
Hexachlorobutadiene	0.77	Not Detected	8.2	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	91	70-130



Air Toxics

Client Sample ID: b3 (1412748)

Lab ID#: 1501256-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e012309	Date of Collection:	1/14/15 4:15:00 PM
Dil. Factor:	1.52	Date of Analysis:	1/23/15 02:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.42	0.75	2.1
Freon 114	0.15	Not Detected	1.1	Not Detected
Chloromethane	0.76	Not Detected	1.6	Not Detected
Vinyl Chloride	0.15	Not Detected	0.39	Not Detected
1,3-Butadiene	0.15	Not Detected	0.34	Not Detected
Bromomethane	0.76	Not Detected	3.0	Not Detected
Chloroethane	0.76	Not Detected	2.0	Not Detected
Freon 11	0.15	0.26	0.85	1.5
Ethanol	0.76	2.0	1.4	3.7
Freon 113	0.15	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Acetone	0.76	1.2	1.8	2.8
2-Propanol	0.76	Not Detected	1.9	Not Detected
Carbon Disulfide	0.76	Not Detected	2.4	Not Detected
3-Chloropropene	0.76	Not Detected	2.4	Not Detected
Methylene Chloride	0.30	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.55	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Hexane	0.15	Not Detected	0.54	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.62	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.76	Not Detected	2.2	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Tetrahydrofuran	0.76	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.74	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Cyclohexane	0.15	Not Detected	0.52	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.96	Not Detected
2,2,4-Trimethylpentane	0.76	Not Detected	3.6	Not Detected
Benzene	0.15	0.16	0.48	0.52
1,2-Dichloroethane	0.15	Not Detected	0.62	Not Detected
Heptane	0.15	Not Detected	0.62	Not Detected
Trichloroethene	0.15	Not Detected	0.82	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.70	Not Detected
1,4-Dioxane	0.15	Not Detected	0.55	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.62	Not Detected
Toluene	0.15	0.22	0.57	0.84
trans-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
2-Hexanone	0.76	Not Detected	3.1	Not Detected



Client Sample ID: b3 (1412748)

Lab ID#: 1501256-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e012309	Date of Collection:	1/14/15 4:15:00 PM
Dil. Factor:	1.52	Date of Analysis:	1/23/15 02:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.2	Not Detected
Chlorobenzene	0.15	Not Detected	0.70	Not Detected
Ethyl Benzene	0.15	Not Detected	0.66	Not Detected
m,p-Xylene	0.15	Not Detected	0.66	Not Detected
o-Xylene	0.15	Not Detected	0.66	Not Detected
Styrene	0.15	Not Detected	0.65	Not Detected
Bromoform	0.15	Not Detected	1.6	Not Detected
Cumene	0.15	Not Detected	0.75	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	Not Detected	0.75	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.75	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.75	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.75	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.79	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,2,4-Trichlorobenzene	0.76	Not Detected	5.6	Not Detected
Hexachlorobutadiene	0.76	Not Detected	8.1	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	89	70-130



Air Toxics

Client Sample ID: u1 (1412749)

Lab ID#: 1501256-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e012310	Date of Collection:	1/14/15 4:25:00 PM
Dil. Factor:	1.49	Date of Analysis:	1/23/15 03:23 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.44	0.74	2.2
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.74	Not Detected	1.5	Not Detected
Vinyl Chloride	0.15	Not Detected	0.38	Not Detected
1,3-Butadiene	0.15	Not Detected	0.33	Not Detected
Bromomethane	0.74	Not Detected	2.9	Not Detected
Chloroethane	0.74	Not Detected	2.0	Not Detected
Freon 11	0.15	0.23	0.84	1.3
Ethanol	0.74	9.7	1.4	18
Freon 113	0.15	Not Detected	1.1	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Acetone	0.74	1.4	1.8	3.2
2-Propanol	0.74	0.92	1.8	2.3
Carbon Disulfide	0.74	Not Detected	2.3	Not Detected
3-Chloropropene	0.74	Not Detected	2.3	Not Detected
Methylene Chloride	0.30	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.54	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Hexane	0.15	Not Detected	0.52	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.60	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.74	Not Detected	2.2	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Tetrahydrofuran	0.74	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.73	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.81	Not Detected
Cyclohexane	0.15	Not Detected	0.51	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.94	Not Detected
2,2,4-Trimethylpentane	0.74	Not Detected	3.5	Not Detected
Benzene	0.15	0.16	0.48	0.52
1,2-Dichloroethane	0.15	Not Detected	0.60	Not Detected
Heptane	0.15	Not Detected	0.61	Not Detected
Trichloroethene	0.15	Not Detected	0.80	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.69	Not Detected
1,4-Dioxane	0.15	Not Detected	0.54	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.61	Not Detected
Toluene	0.15	0.37	0.56	1.4
trans-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.81	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
2-Hexanone	0.74	Not Detected	3.0	Not Detected

Client Sample ID: u1 (1412749)

Lab ID#: 1501256-04A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>e012310</b>	<b>Date of Collection:</b> 1/14/15 4:25:00 PM
<b>Dil. Factor:</b>	<b>1.49</b>	<b>Date of Analysis:</b> 1/23/15 03:23 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
Chlorobenzene	0.15	Not Detected	0.68	Not Detected
Ethyl Benzene	0.15	Not Detected	0.65	Not Detected
m,p-Xylene	0.15	Not Detected	0.65	Not Detected
o-Xylene	0.15	Not Detected	0.65	Not Detected
Styrene	0.15	Not Detected	0.63	Not Detected
Bromoform	0.15	Not Detected	1.5	Not Detected
Cumene	0.15	Not Detected	0.73	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	Not Detected	0.73	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.73	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.73	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.73	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.77	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,2,4-Trichlorobenzene	0.74	Not Detected	5.5	Not Detected
Hexachlorobutadiene	0.74	Not Detected	7.9	Not Detected

**Container Type: 6 Liter Summa Canister (100% Certified)**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	90	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1501256-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e012306	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/23/15 11:41 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Hexane	0.10	Not Detected	0.35	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Heptane	0.10	Not Detected	0.41	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected



Client Sample ID: Lab Blank

Lab ID#: 1501256-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e012306	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/23/15 11:41 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	92	70-130





Air Toxics

Client Sample ID: CCV

Lab ID#: 1501256-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e012302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/23/15 07:25 AM

Compound	%Recovery
Freon 12	76
Freon 114	80
Chloromethane	84
Vinyl Chloride	86
1,3-Butadiene	86
Bromomethane	96
Chloroethane	92
Freon 11	97
Ethanol	81
Freon 113	80
1,1-Dichloroethene	80
Acetone	74
2-Propanol	82
Carbon Disulfide	113
3-Chloropropene	78
Methylene Chloride	83
Methyl tert-butyl ether	85
trans-1,2-Dichloroethene	87
Hexane	87
1,1-Dichloroethane	87
2-Butanone (Methyl Ethyl Ketone)	85
cis-1,2-Dichloroethene	89
Tetrahydrofuran	87
Chloroform	88
1,1,1-Trichloroethane	94
Cyclohexane	88
Carbon Tetrachloride	98
2,2,4-Trimethylpentane	99
Benzene	85
1,2-Dichloroethane	91
Heptane	88
Trichloroethene	83
1,2-Dichloropropane	84
1,4-Dioxane	83
Bromodichloromethane	89
cis-1,3-Dichloropropene	82
4-Methyl-2-pentanone	86
Toluene	85
trans-1,3-Dichloropropene	89
1,1,2-Trichloroethane	84
Tetrachloroethene	85
2-Hexanone	86

Client Sample ID: CCV

Lab ID#: 1501256-06A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>e012302</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 1/23/15 07:25 AM

<b>Compound</b>	<b>%Recovery</b>
Dibromochloromethane	92
1,2-Dibromoethane (EDB)	92
Chlorobenzene	86
Ethyl Benzene	90
m,p-Xylene	92
o-Xylene	90
Styrene	96
Bromoform	89
Cumene	94
1,1,2,2-Tetrachloroethane	86
Propylbenzene	90
4-Ethyltoluene	88
1,3,5-Trimethylbenzene	94
1,2,4-Trimethylbenzene	88
1,3-Dichlorobenzene	81
1,4-Dichlorobenzene	82
alpha-Chlorotoluene	80
1,2-Dichlorobenzene	81
1,2,4-Trichlorobenzene	76
Hexachlorobutadiene	74

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1501256-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e012303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/23/15 08:14 AM

Compound	%Recovery	Method Limits
Freon 12	101	70-130
Freon 114	99	70-130
Chloromethane	92	70-130
Vinyl Chloride	95	70-130
1,3-Butadiene	90	70-130
Bromomethane	105	70-130
Chloroethane	98	70-130
Freon 11	105	70-130
Ethanol	143 Q	70-130
Freon 113	95	70-130
1,1-Dichloroethene	91	70-130
Acetone	73	70-130
2-Propanol	95	70-130
Carbon Disulfide	84	70-130
3-Chloropropene	82	70-130
Methylene Chloride	90	70-130
Methyl tert-butyl ether	83	70-130
trans-1,2-Dichloroethene	94	70-130
Hexane	90	70-130
1,1-Dichloroethane	92	70-130
2-Butanone (Methyl Ethyl Ketone)	91	70-130
cis-1,2-Dichloroethene	94	70-130
Tetrahydrofuran	90	70-130
Chloroform	97	70-130
1,1,1-Trichloroethane	104	70-130
Cyclohexane	96	70-130
Carbon Tetrachloride	102	70-130
2,2,4-Trimethylpentane	99	70-130
Benzene	88	70-130
1,2-Dichloroethane	96	70-130
Heptane	90	70-130
Trichloroethene	90	70-130
1,2-Dichloropropane	88	70-130
1,4-Dioxane	88	70-130
Bromodichloromethane	94	70-130
cis-1,3-Dichloropropene	92	70-130
4-Methyl-2-pentanone	90	70-130
Toluene	88	70-130
trans-1,3-Dichloropropene	89	70-130
1,1,2-Trichloroethane	84	70-130
Tetrachloroethene	90	70-130
2-Hexanone	86	70-130

Client Sample ID: LCS

Lab ID#: 1501256-07A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	e012303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/23/15 08:14 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	95	70-130
1,2-Dibromoethane (EDB)	94	70-130
Chlorobenzene	87	70-130
Ethyl Benzene	91	70-130
m,p-Xylene	98	70-130
o-Xylene	94	70-130
Styrene	106	70-130
Bromoform	92	70-130
Cumene	96	70-130
1,1,2,2-Tetrachloroethane	89	70-130
Propylbenzene	96	70-130
4-Ethyltoluene	98	70-130
1,3,5-Trimethylbenzene	119	70-130
1,2,4-Trimethylbenzene	116	70-130
1,3-Dichlorobenzene	98	70-130
1,4-Dichlorobenzene	106	70-130
alpha-Chlorotoluene	179 Q	70-130
1,2-Dichlorobenzene	111	70-130
1,2,4-Trichlorobenzene	111	70-130
Hexachlorobutadiene	106	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1501256-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e012304	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/23/15 09:06 AM

Compound	%Recovery	Method Limits
Freon 12	101	70-130
Freon 114	100	70-130
Chloromethane	88	70-130
Vinyl Chloride	94	70-130
1,3-Butadiene	88	70-130
Bromomethane	103	70-130
Chloroethane	99	70-130
Freon 11	105	70-130
Ethanol	132 Q	70-130
Freon 113	91	70-130
1,1-Dichloroethene	88	70-130
Acetone	72	70-130
2-Propanol	94	70-130
Carbon Disulfide	81	70-130
3-Chloropropene	83	70-130
Methylene Chloride	91	70-130
Methyl tert-butyl ether	85	70-130
trans-1,2-Dichloroethene	88	70-130
Hexane	88	70-130
1,1-Dichloroethane	91	70-130
2-Butanone (Methyl Ethyl Ketone)	83	70-130
cis-1,2-Dichloroethene	90	70-130
Tetrahydrofuran	84	70-130
Chloroform	95	70-130
1,1,1-Trichloroethane	100	70-130
Cyclohexane	94	70-130
Carbon Tetrachloride	105	70-130
2,2,4-Trimethylpentane	97	70-130
Benzene	88	70-130
1,2-Dichloroethane	97	70-130
Heptane	92	70-130
Trichloroethene	89	70-130
1,2-Dichloropropane	89	70-130
1,4-Dioxane	90	70-130
Bromodichloromethane	93	70-130
cis-1,3-Dichloropropene	91	70-130
4-Methyl-2-pentanone	88	70-130
Toluene	89	70-130
trans-1,3-Dichloropropene	91	70-130
1,1,2-Trichloroethane	86	70-130
Tetrachloroethene	90	70-130
2-Hexanone	87	70-130

Client Sample ID: LCSD

Lab ID#: 1501256-07AA

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>e012304</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 1/23/15 09:06 AM

<b>Compound</b>	<b>%Recovery</b>	<b>Method Limits</b>
Dibromochloromethane	98	70-130
1,2-Dibromoethane (EDB)	93	70-130
Chlorobenzene	89	70-130
Ethyl Benzene	92	70-130
m,p-Xylene	98	70-130
o-Xylene	95	70-130
Styrene	108	70-130
Bromoform	93	70-130
Cumene	98	70-130
1,1,2,2-Tetrachloroethane	90	70-130
Propylbenzene	98	70-130
4-Ethyltoluene	98	70-130
1,3,5-Trimethylbenzene	121	70-130
1,2,4-Trimethylbenzene	117	70-130
1,3-Dichlorobenzene	102	70-130
1,4-Dichlorobenzene	108	70-130
alpha-Chlorotoluene	186 Q	70-130
1,2-Dichlorobenzene	114	70-130
1,2,4-Trichlorobenzene	126	70-130
Hexachlorobutadiene	118	70-130

Q = Exceeds Quality Control limits.

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130