



**Air Toxics**

**Sample Transportation Notice**  
 Relinquishing signature on this document indicates that sample is being shipped in compliance with applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

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

Page 1 of 1

Project Manager Michael Paris

Collected by: (Print and Sign) Cedric Cumigan

Company MO DNR Email Michael.parris@dnr.mo.gov

Address PO Box 176 City Jefferson State MO Zip 65102

Phone (573)-526-3918 Fax \_\_\_\_\_

<b>Project Info:</b>	<b>Turn Around Time:</b>	<b>Lab Use Only</b>
P.O. # _____	<input checked="" type="checkbox"/> Normal	Pressurized by: _____
Project # _____	<input type="checkbox"/> Rush	Date: _____
Project Name _____	specify _____	Pressurization Gas: _____
		N <sub>2</sub> _____ He _____

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum		Receipt	Final (psi)
						Initial	Final		
	D1 (140067)	4220	1/29/14	1009-1518	TO-15	-30	-55		
	D2 (140066)	12676	1/29/14	1017-1459	TO-15	-30	-5.5		
	U1 (135079)	34269	1/29/14	1032-1536	TO-15	-30	-5.5		
	U2 (135080)	620048	1/29/14	1052-1537	TO-15	-30	-6		

**Notes:**  
 Shipped via UPS  
 Tracking#: 1E0127880344860637

Relinquished by: (signature) _____	Date/Time <u>1/30/14 1035</u>	Received by: (signature) _____	Date/Time <u>1/30/14 1035</u>
Relinquished by: (signature) _____	Date/Time <u>1/31/14 1257</u>	Received by: (signature) _____	Date/Time _____
Relinquished by: (signature) _____	Date/Time _____	Received by: (signature) _____	Date/Time _____
Lab Use Only	Shipper Name	Air Bill #	Temp (°C)
	Condition	Custody Seals Intact?	Work Order #
		Yes No None	

2/13/2014  
Mr. Dennis Schroeder  
Missouri Dept. of Natural Resources  
2710 West Main

Jefferson City MO 65109

Project Name:  
Project #:  
Workorder #: 1402051

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 2/5/2014 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: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner  
Project Manager

**WORK ORDER #: 1402051**

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>	3ESP1301039
<b>FAX:</b>	573-526-3350	<b>PROJECT #</b>	
<b>DATE RECEIVED:</b>	02/05/2014	<b>CONTACT:</b>	Kelly Buettner
<b>DATE COMPLETED:</b>	02/13/2014		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (140067)	Modified TO-15	2.8 "Hg	5 psi
02A	D2 (140066)	Modified TO-15	3.1 "Hg	5.2 psi
03A	U1 (135079)	Modified TO-15	3.1 "Hg	5.1 psi
04A	U2 (135080)	Modified TO-15	3.3 "Hg	4.8 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: 02/13/14

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NJ NELAP - CA016, NY NELAP - 11291,  
 TX NELAP - T104704434-13-6, UT NELAP CA009332013-4, VA NELAP - 460197, WA NELAP - C935  
 Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)  
 Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.  
 180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563  
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



**LABORATORY NARRATIVE**  
**Modified TO-15**  
**Missouri Dept. of Natural Resources**  
**Workorder# 1402051**

Four 6 Liter Summa Canister (100% Certified) samples were received on February 05, 2014. 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	$\leq 30\%$ RSD with 2 compounds allowed out to $< 40\%$ RSD	$\leq 30\%$ 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. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

Ethanol was detected at concentrations less than 5 times the reporting limit in sample D2 (140066). Because the preceding sample contained concentrations of Ethanol exceeding the calibration range, the result for this compound in sample D2 (140066) may be biased high.

### **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: D1 (140067)**

**Lab ID#: 1402051-01A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.53	0.73	2.6
Freon 11	0.15	0.26	0.83	1.4
Ethanol	0.74	1.1	1.4	2.1
Acetone	0.74	1.4	1.8	3.3
Benzene	0.15	0.41	0.47	1.3
Toluene	0.15	0.22	0.56	0.81

**Client Sample ID: D2 (140066)**

**Lab ID#: 1402051-02A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.53	0.75	2.6
Freon 11	0.15	0.29	0.85	1.6
Ethanol	0.76	1.9	1.4	3.6
Acetone	0.76	0.92	1.8	2.2
Benzene	0.15	0.29	0.48	0.92

**Client Sample ID: U1 (135079)**

**Lab ID#: 1402051-03A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.53	0.74	2.6
Freon 11	0.15	0.24	0.84	1.3
Ethanol	0.75	1.1	1.4	2.1
Acetone	0.75	1.4	1.8	3.3

**Client Sample ID: U2 (135080)**

**Lab ID#: 1402051-04A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.54	0.74	2.7
Freon 11	0.15	0.25	0.84	1.4

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

**Client Sample ID: U2 (135080)**

**Lab ID#: 1402051-04A**

Ethanol	0.74	2.0	1.4	3.7
Acetone	0.74	1.1	1.8	2.6
Benzene	0.15	0.16	0.48	0.52
Toluene	0.15	0.15	0.56	0.58



Air Toxics

Client Sample ID: D1 (140067)

Lab ID#: 1402051-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c021020	Date of Collection:	1/29/14 3:18:00 PM
Dil. Factor:	1.48	Date of Analysis:	2/10/14 10:09 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.53	0.73	2.6
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	0.26	0.83	1.4
Ethanol	0.74	1.1	1.4	2.1
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	3.3
2-Propanol	0.74	Not Detected	1.8	Not Detected
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	0.53	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	0.72	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	0.93	Not Detected
2,2,4-Trimethylpentane	0.74	Not Detected	3.4	Not Detected
Benzene	0.15	0.41	0.47	1.3
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	0.68	Not Detected
1,4-Dioxane	0.15	Not Detected	0.53	Not Detected
Bromodichloromethane	0.15	Not Detected	0.99	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.67	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.61	Not Detected
Toluene	0.15	0.22	0.56	0.81
trans-1,3-Dichloropropene	0.15	Not Detected	0.67	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





Air Toxics

Client Sample ID: D1 (140067)

Lab ID#: 1402051-01A

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

<b>File Name:</b>	<b>c021020</b>	<b>Date of Collection:</b> 1/29/14 3:18:00 PM
<b>Dil. Factor:</b>	<b>1.48</b>	<b>Date of Analysis:</b> 2/10/14 10:09 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
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	0.64	Not Detected
m,p-Xylene	0.15	Not Detected	0.64	Not Detected
o-Xylene	0.15	Not Detected	0.64	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	0.89	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.89	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.77	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.89	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)**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: D2 (140066)

Lab ID#: 1402051-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c021018	Date of Collection:	1/29/14 2:59:00 PM
Dil. Factor:	1.51	Date of Analysis:	2/10/14 08:53 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.53	0.75	2.6
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.76	Not Detected	1.6	Not Detected
Vinyl Chloride	0.15	Not Detected	0.38	Not Detected
1,3-Butadiene	0.15	Not Detected	0.33	Not Detected
Bromomethane	0.76	Not Detected	2.9	Not Detected
Chloroethane	0.76	Not Detected	2.0	Not Detected
Freon 11	0.15	0.29	0.85	1.6
Ethanol	0.76	1.9	1.4	3.6
Freon 113	0.15	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Acetone	0.76	0.92	1.8	2.2
2-Propanol	0.76	Not Detected	1.8	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	0.54	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Hexane	0.15	Not Detected	0.53	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.61	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	0.82	Not Detected
Cyclohexane	0.15	Not Detected	0.52	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.95	Not Detected
2,2,4-Trimethylpentane	0.76	Not Detected	3.5	Not Detected
Benzene	0.15	0.29	0.48	0.92
1,2-Dichloroethane	0.15	Not Detected	0.61	Not Detected
Heptane	0.15	Not Detected	0.62	Not Detected
Trichloroethene	0.15	Not Detected	0.81	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.70	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	0.62	Not Detected
Toluene	0.15	Not Detected	0.57	Not Detected
trans-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.82	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
2-Hexanone	0.76	Not Detected	3.1	Not Detected

Client Sample ID: D2 (140066)

Lab ID#: 1402051-02A

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

File Name:	c021018	Date of Collection:	1/29/14 2:59:00 PM
Dil. Factor:	1.51	Date of Analysis:	2/10/14 08:53 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	0.64	Not Detected
Bromoform	0.15	Not Detected	1.6	Not Detected
Cumene	0.15	Not Detected	0.74	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	Not Detected	0.74	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.74	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.74	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.74	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	0.78	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	8.0	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: U1 (135079)

Lab ID#: 1402051-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c021019	Date of Collection:	1/29/14 3:30:00 PM
Dil. Factor:	1.50	Date of Analysis:	2/10/14 09:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.53	0.74	2.6
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.75	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	0.75	Not Detected	2.9	Not Detected
Chloroethane	0.75	Not Detected	2.0	Not Detected
Freon 11	0.15	0.24	0.84	1.3
Ethanol	0.75	1.1	1.4	2.1
Freon 113	0.15	Not Detected	1.1	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Acetone	0.75	1.4	1.8	3.3
2-Propanol	0.75	Not Detected	1.8	Not Detected
Carbon Disulfide	0.75	Not Detected	2.3	Not Detected
3-Chloropropene	0.75	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	0.53	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.61	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.75	Not Detected	2.2	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Tetrahydrofuran	0.75	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.73	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.82	Not Detected
Cyclohexane	0.15	Not Detected	0.52	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.94	Not Detected
2,2,4-Trimethylpentane	0.75	Not Detected	3.5	Not Detected
Benzene	0.15	Not Detected	0.48	Not Detected
1,2-Dichloroethane	0.15	Not Detected	0.61	Not Detected
Heptane	0.15	Not Detected	0.61	Not Detected
Trichloroethene	0.15	Not Detected	0.81	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	Not Detected	0.56	Not Detected
trans-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.82	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
2-Hexanone	0.75	Not Detected	3.1	Not Detected



Air Toxics

Client Sample ID: U1 (135079)

Lab ID#: 1402051-03A

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

File Name:	c021019	Date of Collection:	1/29/14 3:30:00 PM
Dil. Factor:	1.50	Date of Analysis:	2/10/14 09:32 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	0.69	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	0.64	Not Detected
Bromoform	0.15	Not Detected	1.6	Not Detected
Cumene	0.15	Not Detected	0.74	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	Not Detected	0.74	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.74	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.74	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.74	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	0.78	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,2,4-Trichlorobenzene	0.75	Not Detected	5.6	Not Detected
Hexachlorobutadiene	0.75	Not Detected	8.0	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: U2 (135080)

Lab ID#: 1402051-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c021021	Date of Collection:	1/29/14 3:37:00 PM
Dil. Factor:	1.49	Date of Analysis:	2/10/14 10:46 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.54	0.74	2.7
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	0.25	0.84	1.4
Ethanol	0.74	2.0	1.4	3.7
Freon 113	0.15	Not Detected	1.1	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Acetone	0.74	1.1	1.8	2.6
2-Propanol	0.74	Not Detected	1.8	Not Detected
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	0.15	0.56	0.58
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: U2 (135080)

Lab ID#: 1402051-04A

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

<b>File Name:</b>	<b>c021021</b>	<b>Date of Collection:</b> 1/29/14 3:37:00 PM
<b>Dil. Factor:</b>	<b>1.49</b>	<b>Date of Analysis:</b> 2/10/14 10:46 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
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)**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1402051-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c021006	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/10/14 12:46 PM

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#: 1402051-05A

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

File Name:	c021006	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/10/14 12:46 PM

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	109	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: CCV

Lab ID#: 1402051-06A

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

File Name:	c021002	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/10/14 09:33 AM

Compound	%Recovery
Freon 12	115
Freon 114	106
Chloromethane	92
Vinyl Chloride	101
1,3-Butadiene	100
Bromomethane	103
Chloroethane	100
Freon 11	108
Ethanol	109
Freon 113	101
1,1-Dichloroethene	98
Acetone	98
2-Propanol	108
Carbon Disulfide	100
3-Chloropropene	113
Methylene Chloride	97
Methyl tert-butyl ether	114
trans-1,2-Dichloroethene	100
Hexane	105
1,1-Dichloroethane	101
2-Butanone (Methyl Ethyl Ketone)	100
cis-1,2-Dichloroethene	100
Tetrahydrofuran	102
Chloroform	105
1,1,1-Trichloroethane	110
Cyclohexane	107
Carbon Tetrachloride	115
2,2,4-Trimethylpentane	100
Benzene	105
1,2-Dichloroethane	116
Heptane	113
Trichloroethene	112
1,2-Dichloropropane	106
1,4-Dioxane	121
Bromodichloromethane	116
cis-1,3-Dichloropropene	122
4-Methyl-2-pentanone	131 Q
Toluene	112
trans-1,3-Dichloropropene	118
1,1,2-Trichloroethane	106
Tetrachloroethene	109
2-Hexanone	121

Client Sample ID: CCV

Lab ID#: 1402051-06A

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

File Name:	c021002	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/10/14 09:33 AM

Compound	%Recovery
Dibromochloromethane	122
1,2-Dibromoethane (EDB)	111
Chlorobenzene	107
Ethyl Benzene	118
m,p-Xylene	117
o-Xylene	118
Styrene	123
Bromoform	121
Cumene	121
1,1,2,2-Tetrachloroethane	108
Propylbenzene	118
4-Ethyltoluene	118
1,3,5-Trimethylbenzene	121
1,2,4-Trimethylbenzene	108
1,3-Dichlorobenzene	118
1,4-Dichlorobenzene	108
alpha-Chlorotoluene	116
1,2-Dichlorobenzene	112
1,2,4-Trichlorobenzene	71
Hexachlorobutadiene	75

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	106	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1402051-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c021003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/10/14 10:28 AM

Compound	%Recovery	Method Limits
Freon 12	113	70-130
Freon 114	107	70-130
Chloromethane	92	70-130
Vinyl Chloride	102	70-130
1,3-Butadiene	102	70-130
Bromomethane	108	70-130
Chloroethane	105	70-130
Freon 11	110	70-130
Ethanol	122	70-130
Freon 113	121	70-130
1,1-Dichloroethene	118	70-130
Acetone	101	70-130
2-Propanol	115	70-130
Carbon Disulfide	98	70-130
3-Chloropropene	117	70-130
Methylene Chloride	111	70-130
Methyl tert-butyl ether	116	70-130
trans-1,2-Dichloroethene	90	70-130
Hexane	110	70-130
1,1-Dichloroethane	106	70-130
2-Butanone (Methyl Ethyl Ketone)	108	70-130
cis-1,2-Dichloroethene	122	70-130
Tetrahydrofuran	107	70-130
Chloroform	113	70-130
1,1,1-Trichloroethane	116	70-130
Cyclohexane	119	70-130
Carbon Tetrachloride	116	70-130
2,2,4-Trimethylpentane	105	70-130
Benzene	106	70-130
1,2-Dichloroethane	116	70-130
Heptane	117	70-130
Trichloroethene	114	70-130
1,2-Dichloropropane	111	70-130
1,4-Dioxane	129	70-130
Bromodichloromethane	120	70-130
cis-1,3-Dichloropropene	127	70-130
4-Methyl-2-pentanone	138 Q	70-130
Toluene	112	70-130
trans-1,3-Dichloropropene	113	70-130
1,1,2-Trichloroethane	104	70-130
Tetrachloroethene	109	70-130
2-Hexanone	130	70-130

Client Sample ID: LCS

Lab ID#: 1402051-07A

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

<b>File Name:</b>	<b>c021003</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 2/10/14 10:28 AM</b>

<b>Compound</b>	<b>%Recovery</b>	<b>Method Limits</b>
Dibromochloromethane	126	70-130
1,2-Dibromoethane (EDB)	113	70-130
Chlorobenzene	104	70-130
Ethyl Benzene	114	70-130
m,p-Xylene	120	70-130
o-Xylene	114	70-130
Styrene	122	70-130
Bromoform	125	70-130
Cumene	122	70-130
1,1,2,2-Tetrachloroethane	105	70-130
Propylbenzene	122	70-130
4-Ethyltoluene	120	70-130
1,3,5-Trimethylbenzene	118	70-130
1,2,4-Trimethylbenzene	103	70-130
1,3-Dichlorobenzene	115	70-130
1,4-Dichlorobenzene	107	70-130
alpha-Chlorotoluene	127	70-130
1,2-Dichlorobenzene	111	70-130
1,2,4-Trichlorobenzene	72	70-130
Hexachlorobutadiene	72	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	101	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	105	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1402051-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c021004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/10/14 11:10 AM

Compound	%Recovery	Method Limits
Freon 12	104	70-130
Freon 114	97	70-130
Chloromethane	83	70-130
Vinyl Chloride	93	70-130
1,3-Butadiene	92	70-130
Bromomethane	105	70-130
Chloroethane	102	70-130
Freon 11	104	70-130
Ethanol	101	70-130
Freon 113	116	70-130
1,1-Dichloroethene	114	70-130
Acetone	98	70-130
2-Propanol	107	70-130
Carbon Disulfide	94	70-130
3-Chloropropene	116	70-130
Methylene Chloride	108	70-130
Methyl tert-butyl ether	112	70-130
trans-1,2-Dichloroethene	86	70-130
Hexane	107	70-130
1,1-Dichloroethane	103	70-130
2-Butanone (Methyl Ethyl Ketone)	108	70-130
cis-1,2-Dichloroethene	115	70-130
Tetrahydrofuran	103	70-130
Chloroform	108	70-130
1,1,1-Trichloroethane	110	70-130
Cyclohexane	115	70-130
Carbon Tetrachloride	111	70-130
2,2,4-Trimethylpentane	101	70-130
Benzene	103	70-130
1,2-Dichloroethane	110	70-130
Heptane	113	70-130
Trichloroethene	113	70-130
1,2-Dichloropropane	106	70-130
1,4-Dioxane	120	70-130
Bromodichloromethane	112	70-130
cis-1,3-Dichloropropene	122	70-130
4-Methyl-2-pentanone	128	70-130
Toluene	107	70-130
trans-1,3-Dichloropropene	106	70-130
1,1,2-Trichloroethane	96	70-130
Tetrachloroethene	107	70-130
2-Hexanone	123	70-130

Client Sample ID: LCSD

Lab ID#: 1402051-07AA

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

File Name:	c021004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/10/14 11:10 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	119	70-130
1,2-Dibromoethane (EDB)	107	70-130
Chlorobenzene	99	70-130
Ethyl Benzene	106	70-130
m,p-Xylene	113	70-130
o-Xylene	110	70-130
Styrene	118	70-130
Bromoform	117	70-130
Cumene	116	70-130
1,1,2,2-Tetrachloroethane	100	70-130
Propylbenzene	110	70-130
4-Ethyltoluene	109	70-130
1,3,5-Trimethylbenzene	109	70-130
1,2,4-Trimethylbenzene	95	70-130
1,3-Dichlorobenzene	107	70-130
1,4-Dichlorobenzene	99	70-130
alpha-Chlorotoluene	117	70-130
1,2-Dichlorobenzene	103	70-130
1,2,4-Trichlorobenzene	72	70-130
Hexachlorobutadiene	67 Q	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

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