



Air Toxics

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Page 1 of 1

Project Manager Michael Penn

Collected by: (Print and Sign) Kirk Mitchell

Company MDDAR Email Michael.penn@airtoxics.com

Address PO Box 176 City Folsom CA State MD Zip 95762

Phone 573 526 3918 Fax

Project Info:
P.O. # 955400007
Project #
Project Name: Risheter Landfill

Turn Around Time:
Normal
Rush
Lab Use Only:
Pressurized by:
Date:
Pressurization Gas: N2 He

Table with columns: Lab I.D., Field Sample I.D. (Location), Can #, Date of Collection, Time of Collection, Analyses Requested, Canister Pressure/Vacuum (Initial, Final, Receipt, Final (psf)). Includes handwritten entries for samples O1A, O2A, O3A, O4A and their respective collection details.

Relinquished by: (signature) Date/Time 7-16-15
Received by: (signature) Date/Time 7-16-15 1400 hrs
Notes: Shipped via UPS Tracking # 95075880343229714

Lab Use Only: Shipper Name UPS, Air Bill #, Temp (C) 10, Condition Good, Custody Seals Intact? Yes, Work Order # 1507360

7/24/2015

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

Jefferson City MO 65109

Project Name: Bridgeton LF

Project #:

Workorder #: 1507215

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 7/14/2015 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 #: 1507215**

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>	07/14/2015	<b>CONTACT:</b>	Brian Whittaker
<b>DATE COMPLETED:</b>	07/24/2015		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 152951	Modified TO-15	5.9 "Hg	5 psi
02A	D2 152950	Modified TO-15	6.3 "Hg	5.2 psi
03A	U1 152949	Modified TO-15	6.7 "Hg	5.1 psi
04A	U2 152948	Modified TO-15	6.1 "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: 07/24/15

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# 1507215**

Four 6 Liter Summa Canister (100% Certified) samples were received on July 14, 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: D1 152951**

**Lab ID#: 1507215-01A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.56	0.82	2.8
Freon 11	0.17	0.25	0.94	1.4
Ethanol	0.84	3.3	1.6	6.2
Acetone	0.84	6.8	2.0	16
1,4-Dioxane	0.17	0.26	0.60	0.94

**Client Sample ID: D2 152950**

**Lab ID#: 1507215-02A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.57	0.85	2.8
Freon 11	0.17	0.27	0.97	1.5
Ethanol	0.86	7.4	1.6	14
Acetone	0.86	7.7	2.0	18
4-Methyl-2-pentanone	0.17	6.7	0.70	27
Toluene	0.17	0.29	0.65	1.1
m,p-Xylene	0.17	0.43	0.75	1.8
o-Xylene	0.17	0.22	0.75	0.98
Propylbenzene	0.17	0.24	0.84	1.2
1,3,5-Trimethylbenzene	0.17	0.41	0.84	2.0
1,2,4-Trimethylbenzene	0.17	1.1	0.84	5.4

**Client Sample ID: U1 152949**

**Lab ID#: 1507215-03A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.57	0.86	2.8
Chloromethane	0.87	1.9	1.8	3.9
Freon 11	0.17	0.28	0.98	1.6
Ethanol	0.87	3.1	1.6	5.8
Acetone	0.87	6.7	2.1	16
Carbon Disulfide	0.87	7.2	2.7	22

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

**Client Sample ID: U2 152948**

**Lab ID#: 1507215-04A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.57	0.84	2.8
Freon 11	0.17	0.36	0.95	2.0
Ethanol	0.84	2.8	1.6	5.4
Acetone	0.84	8.6	2.0	20
2-Butanone (Methyl Ethyl Ketone)	0.84	0.99	2.5	2.9



Air Toxics

Client Sample ID: D1 152951

Lab ID#: 1507215-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20071618	Date of Collection:	7/6/15 1:55:00 PM
Dil. Factor:	1.67	Date of Analysis:	7/16/15 06:36 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.56	0.82	2.8
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.84	Not Detected	1.7	Not Detected
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
1,3-Butadiene	0.17	Not Detected	0.37	Not Detected
Bromomethane	0.84	Not Detected	3.2	Not Detected
Chloroethane	0.84	Not Detected	2.2	Not Detected
Freon 11	0.17	0.25	0.94	1.4
Ethanol	0.84	3.3	1.6	6.2
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Acetone	0.84	6.8	2.0	16
2-Propanol	0.84	Not Detected	2.0	Not Detected
Carbon Disulfide	0.84	Not Detected	2.6	Not Detected
3-Chloropropene	0.84	Not Detected	2.6	Not Detected
Methylene Chloride	0.33	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Hexane	0.17	Not Detected	0.59	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.84	Not Detected	2.5	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Tetrahydrofuran	0.84	Not Detected	2.5	Not Detected
Chloroform	0.17	Not Detected	0.82	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.91	Not Detected
Cyclohexane	0.17	Not Detected	0.57	Not Detected
Carbon Tetrachloride	0.17	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.84	Not Detected	3.9	Not Detected
Benzene	0.17	Not Detected	0.53	Not Detected
1,2-Dichloroethane	0.17	Not Detected	0.68	Not Detected
Heptane	0.17	Not Detected	0.68	Not Detected
Trichloroethene	0.17	Not Detected	0.90	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.77	Not Detected
1,4-Dioxane	0.17	0.26	0.60	0.94
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.68	Not Detected
Toluene	0.17	Not Detected	0.63	Not Detected
trans-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.91	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
2-Hexanone	0.84	Not Detected	3.4	Not Detected



Client Sample ID: D1 152951

Lab ID#: 1507215-01A

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

<b>File Name:</b>	<b>20071618</b>	<b>Date of Collection:</b>	<b>7/6/15 1:55:00 PM</b>
<b>Dil. Factor:</b>	<b>1.67</b>	<b>Date of Analysis:</b>	<b>7/16/15 06:36 PM</b>

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	Not Detected	0.72	Not Detected
m,p-Xylene	0.17	Not Detected	0.72	Not Detected
o-Xylene	0.17	Not Detected	0.72	Not Detected
Styrene	0.17	Not Detected	0.71	Not Detected
Bromoform	0.17	Not Detected	1.7	Not Detected
Cumene	0.17	Not Detected	0.82	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.1	Not Detected
Propylbenzene	0.17	Not Detected	0.82	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.82	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.82	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.82	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.86	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected
Hexachlorobutadiene	0.84	Not Detected	8.9	Not Detected

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

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130





Air Toxics

Client Sample ID: D2 152950

Lab ID#: 1507215-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20071619	Date of Collection:	7/6/15 2:05:00 PM
Dil. Factor:	1.72	Date of Analysis:	7/16/15 07:18 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.57	0.85	2.8
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.86	Not Detected	1.8	Not Detected
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
1,3-Butadiene	0.17	Not Detected	0.38	Not Detected
Bromomethane	0.86	Not Detected	3.3	Not Detected
Chloroethane	0.86	Not Detected	2.3	Not Detected
Freon 11	0.17	0.27	0.97	1.5
Ethanol	0.86	7.4	1.6	14
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	7.7	2.0	18
2-Propanol	0.86	Not Detected	2.1	Not Detected
Carbon Disulfide	0.86	Not Detected	2.7	Not Detected
3-Chloropropene	0.86	Not Detected	2.7	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.62	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Hexane	0.17	Not Detected	0.61	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.70	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.86	Not Detected	2.5	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Tetrahydrofuran	0.86	Not Detected	2.5	Not Detected
Chloroform	0.17	Not Detected	0.84	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.94	Not Detected
Cyclohexane	0.17	Not Detected	0.59	Not Detected
Carbon Tetrachloride	0.17	Not Detected	1.1	Not Detected
2,2,4-Trimethylpentane	0.86	Not Detected	4.0	Not Detected
Benzene	0.17	Not Detected	0.55	Not Detected
1,2-Dichloroethane	0.17	Not Detected	0.70	Not Detected
Heptane	0.17	Not Detected	0.70	Not Detected
Trichloroethene	0.17	Not Detected	0.92	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.79	Not Detected
1,4-Dioxane	0.17	Not Detected	0.62	Not Detected
Bromodichloromethane	0.17	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
4-Methyl-2-pentanone	0.17	6.7	0.70	27
Toluene	0.17	0.29	0.65	1.1
trans-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.94	Not Detected
Tetrachloroethene	0.17	Not Detected	1.2	Not Detected
2-Hexanone	0.86	Not Detected	3.5	Not Detected



Client Sample ID: D2 152950

Lab ID#: 1507215-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20071619	Date of Collection:	7/6/15 2:05:00 PM
Dil. Factor:	1.72	Date of Analysis:	7/16/15 07:18 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.5	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.79	Not Detected
Ethyl Benzene	0.17	Not Detected	0.75	Not Detected
m,p-Xylene	0.17	0.43	0.75	1.8
o-Xylene	0.17	0.22	0.75	0.98
Styrene	0.17	Not Detected	0.73	Not Detected
Bromoform	0.17	Not Detected	1.8	Not Detected
Cumene	0.17	Not Detected	0.84	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	0.24	0.84	1.2
4-Ethyltoluene	0.17	Not Detected	0.84	Not Detected
1,3,5-Trimethylbenzene	0.17	0.41	0.84	2.0
1,2,4-Trimethylbenzene	0.17	1.1	0.84	5.4
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.89	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.86	Not Detected	6.4	Not Detected
Hexachlorobutadiene	0.86	Not Detected	9.2	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	111	70-130
4-Bromofluorobenzene	112	70-130



Air Toxics

Client Sample ID: U1 152949

Lab ID#: 1507215-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20071620	Date of Collection:	7/6/15 2:13:00 PM
Dil. Factor:	1.74	Date of Analysis:	7/16/15 08:00 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.57	0.86	2.8
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.87	1.9	1.8	3.9
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
1,3-Butadiene	0.17	Not Detected	0.38	Not Detected
Bromomethane	0.87	Not Detected	3.4	Not Detected
Chloroethane	0.87	Not Detected	2.3	Not Detected
Freon 11	0.17	0.28	0.98	1.6
Ethanol	0.87	3.1	1.6	5.8
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.69	Not Detected
Acetone	0.87	6.7	2.1	16
2-Propanol	0.87	Not Detected	2.1	Not Detected
Carbon Disulfide	0.87	7.2	2.7	22
3-Chloropropene	0.87	Not Detected	2.7	Not Detected
Methylene Chloride	0.35	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.63	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.69	Not Detected
Hexane	0.17	Not Detected	0.61	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.70	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.87	Not Detected	2.6	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.69	Not Detected
Tetrahydrofuran	0.87	Not Detected	2.6	Not Detected
Chloroform	0.17	Not Detected	0.85	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.95	Not Detected
Cyclohexane	0.17	Not Detected	0.60	Not Detected
Carbon Tetrachloride	0.17	Not Detected	1.1	Not Detected
2,2,4-Trimethylpentane	0.87	Not Detected	4.1	Not Detected
Benzene	0.17	Not Detected	0.56	Not Detected
1,2-Dichloroethane	0.17	Not Detected	0.70	Not Detected
Heptane	0.17	Not Detected	0.71	Not Detected
Trichloroethene	0.17	Not Detected	0.94	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.80	Not Detected
1,4-Dioxane	0.17	Not Detected	0.63	Not Detected
Bromodichloromethane	0.17	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.79	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.71	Not Detected
Toluene	0.17	Not Detected	0.66	Not Detected
trans-1,3-Dichloropropene	0.17	Not Detected	0.79	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.95	Not Detected
Tetrachloroethene	0.17	Not Detected	1.2	Not Detected
2-Hexanone	0.87	Not Detected	3.6	Not Detected



Client Sample ID: U1 152949

Lab ID#: 1507215-03A

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

<b>File Name:</b>	<b>20071620</b>	<b>Date of Collection: 7/6/15 2:13:00 PM</b>
<b>Dil. Factor:</b>	<b>1.74</b>	<b>Date of Analysis: 7/16/15 08:00 PM</b>

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.5	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.80	Not Detected
Ethyl Benzene	0.17	Not Detected	0.76	Not Detected
m,p-Xylene	0.17	Not Detected	0.76	Not Detected
o-Xylene	0.17	Not Detected	0.76	Not Detected
Styrene	0.17	Not Detected	0.74	Not Detected
Bromoform	0.17	Not Detected	1.8	Not Detected
Cumene	0.17	Not Detected	0.86	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.86	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.86	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.86	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.86	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.90	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.87	Not Detected	6.4	Not Detected
Hexachlorobutadiene	0.87	Not Detected	9.3	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: U2 152948

Lab ID#: 1507215-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20071621	Date of Collection:	7/6/15 2:20:00 PM
Dil. Factor:	1.69	Date of Analysis:	7/16/15 08:42 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.57	0.84	2.8
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.84	Not Detected	1.7	Not Detected
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
1,3-Butadiene	0.17	Not Detected	0.37	Not Detected
Bromomethane	0.84	Not Detected	3.3	Not Detected
Chloroethane	0.84	Not Detected	2.2	Not Detected
Freon 11	0.17	0.36	0.95	2.0
Ethanol	0.84	2.8	1.6	5.4
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	8.6	2.0	20
2-Propanol	0.84	Not Detected	2.1	Not Detected
Carbon Disulfide	0.84	Not Detected	2.6	Not Detected
3-Chloropropene	0.84	Not Detected	2.6	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.61	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Hexane	0.17	Not Detected	0.60	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.84	0.99	2.5	2.9
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Tetrahydrofuran	0.84	Not Detected	2.5	Not Detected
Chloroform	0.17	Not Detected	0.82	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Cyclohexane	0.17	Not Detected	0.58	Not Detected
Carbon Tetrachloride	0.17	Not Detected	1.1	Not Detected
2,2,4-Trimethylpentane	0.84	Not Detected	3.9	Not Detected
Benzene	0.17	Not Detected	0.54	Not Detected
1,2-Dichloroethane	0.17	Not Detected	0.68	Not Detected
Heptane	0.17	Not Detected	0.69	Not Detected
Trichloroethene	0.17	Not Detected	0.91	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.78	Not Detected
1,4-Dioxane	0.17	Not Detected	0.61	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.77	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.69	Not Detected
Toluene	0.17	Not Detected	0.64	Not Detected
trans-1,3-Dichloropropene	0.17	Not Detected	0.77	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
2-Hexanone	0.84	Not Detected	3.5	Not Detected



Client Sample ID: U2 152948

Lab ID#: 1507215-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20071621	Date of Collection:	7/6/15 2:20:00 PM
Dil. Factor:	1.69	Date of Analysis:	7/16/15 08:42 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.78	Not Detected
Ethyl Benzene	0.17	Not Detected	0.73	Not Detected
m,p-Xylene	0.17	Not Detected	0.73	Not Detected
o-Xylene	0.17	Not Detected	0.73	Not Detected
Styrene	0.17	Not Detected	0.72	Not Detected
Bromoform	0.17	Not Detected	1.7	Not Detected
Cumene	0.17	Not Detected	0.83	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.83	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.83	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.83	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.83	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.87	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.3	Not Detected
Hexachlorobutadiene	0.84	Not Detected	9.0	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	114	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1507215-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20071606	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/16/15 09:49 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#: 1507215-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20071606	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/16/15 09:49 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	107	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	94	70-130





Air Toxics

Client Sample ID: CCV

Lab ID#: 1507215-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20071602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/16/15 06:31 AM

Compound	%Recovery
Freon 12	102
Freon 114	96
Chloromethane	100
Vinyl Chloride	101
1,3-Butadiene	102
Bromomethane	102
Chloroethane	98
Freon 11	97
Ethanol	96
Freon 113	90
1,1-Dichloroethene	94
Acetone	91
2-Propanol	90
Carbon Disulfide	98
3-Chloropropene	89
Methylene Chloride	94
Methyl tert-butyl ether	93
trans-1,2-Dichloroethene	93
Hexane	99
1,1-Dichloroethane	97
2-Butanone (Methyl Ethyl Ketone)	97
cis-1,2-Dichloroethene	94
Tetrahydrofuran	96
Chloroform	95
1,1,1-Trichloroethane	93
Cyclohexane	94
Carbon Tetrachloride	78
2,2,4-Trimethylpentane	92
Benzene	94
1,2-Dichloroethane	93
Heptane	98
Trichloroethene	95
1,2-Dichloropropane	99
1,4-Dioxane	101
Bromodichloromethane	102
cis-1,3-Dichloropropene	96
4-Methyl-2-pentanone	104
Toluene	97
trans-1,3-Dichloropropene	94
1,1,2-Trichloroethane	99
Tetrachloroethene	95
2-Hexanone	90



Air Toxics

Client Sample ID: CCV

Lab ID#: 1507215-06A

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

File Name:	20071602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/16/15 06:31 AM

Compound	%Recovery
Dibromochloromethane	100
1,2-Dibromoethane (EDB)	99
Chlorobenzene	95
Ethyl Benzene	96
m,p-Xylene	97
o-Xylene	98
Styrene	96
Bromoform	97
Cumene	96
1,1,2,2-Tetrachloroethane	100
Propylbenzene	92
4-Ethyltoluene	91
1,3,5-Trimethylbenzene	92
1,2,4-Trimethylbenzene	88
1,3-Dichlorobenzene	86
1,4-Dichlorobenzene	82
alpha-Chlorotoluene	88
1,2-Dichlorobenzene	84
1,2,4-Trichlorobenzene	73
Hexachlorobutadiene	80

Container Type: NA - Not Applicable

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



Air Toxics

Client Sample ID: LCS

Lab ID#: 1507215-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20071603	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/16/15 07:19 AM

Compound	%Recovery	Method Limits
Freon 12	112	70-130
Freon 114	107	70-130
Chloromethane	108	70-130
Vinyl Chloride	114	70-130
1,3-Butadiene	112	70-130
Bromomethane	110	70-130
Chloroethane	110	70-130
Freon 11	108	70-130
Ethanol	109	70-130
Freon 113	96	70-130
1,1-Dichloroethene	100	70-130
Acetone	100	70-130
2-Propanol	104	70-130
Carbon Disulfide	94	70-130
3-Chloropropene	102	70-130
Methylene Chloride	100	70-130
Methyl tert-butyl ether	98	70-130
trans-1,2-Dichloroethene	86	70-130
Hexane	107	70-130
1,1-Dichloroethane	105	70-130
2-Butanone (Methyl Ethyl Ketone)	102	70-130
cis-1,2-Dichloroethene	111	70-130
Tetrahydrofuran	103	70-130
Chloroform	102	70-130
1,1,1-Trichloroethane	100	70-130
Cyclohexane	102	70-130
Carbon Tetrachloride	138 Q	70-130
2,2,4-Trimethylpentane	126	70-130
Benzene	102	70-130
1,2-Dichloroethane	104	70-130
Heptane	108	70-130
Trichloroethene	103	70-130
1,2-Dichloropropane	110	70-130
1,4-Dioxane	113	70-130
Bromodichloromethane	112	70-130
cis-1,3-Dichloropropene	101	70-130
4-Methyl-2-pentanone	122	70-130
Toluene	107	70-130
trans-1,3-Dichloropropene	103	70-130
1,1,2-Trichloroethane	105	70-130
Tetrachloroethene	101	70-130
2-Hexanone	109	70-130



Client Sample ID: LCS

Lab ID#: 1507215-07A

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

<b>File Name:</b>	<b>20071603</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 7/16/15 07:19 AM</b>

<b>Compound</b>	<b>%Recovery</b>	<b>Method Limits</b>
Dibromochloromethane	112	70-130
1,2-Dibromoethane (EDB)	107	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	104	70-130
m,p-Xylene	105	70-130
o-Xylene	107	70-130
Styrene	108	70-130
Bromoform	112	70-130
Cumene	103	70-130
1,1,2,2-Tetrachloroethane	108	70-130
Propylbenzene	102	70-130
4-Ethyltoluene	98	70-130
1,3,5-Trimethylbenzene	99	70-130
1,2,4-Trimethylbenzene	94	70-130
1,3-Dichlorobenzene	95	70-130
1,4-Dichlorobenzene	91	70-130
alpha-Chlorotoluene	109	70-130
1,2-Dichlorobenzene	92	70-130
1,2,4-Trichlorobenzene	84	70-130
Hexachlorobutadiene	89	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	97	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1507215-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20071604	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/16/15 08:00 AM

Compound	%Recovery	Method Limits
Freon 12	108	70-130
Freon 114	109	70-130
Chloromethane	109	70-130
Vinyl Chloride	112	70-130
1,3-Butadiene	108	70-130
Bromomethane	109	70-130
Chloroethane	108	70-130
Freon 11	108	70-130
Ethanol	107	70-130
Freon 113	94	70-130
1,1-Dichloroethene	100	70-130
Acetone	97	70-130
2-Propanol	105	70-130
Carbon Disulfide	92	70-130
3-Chloropropene	101	70-130
Methylene Chloride	98	70-130
Methyl tert-butyl ether	96	70-130
trans-1,2-Dichloroethene	84	70-130
Hexane	105	70-130
1,1-Dichloroethane	104	70-130
2-Butanone (Methyl Ethyl Ketone)	100	70-130
cis-1,2-Dichloroethene	110	70-130
Tetrahydrofuran	104	70-130
Chloroform	100	70-130
1,1,1-Trichloroethane	98	70-130
Cyclohexane	104	70-130
Carbon Tetrachloride	136 Q	70-130
2,2,4-Trimethylpentane	99	70-130
Benzene	101	70-130
1,2-Dichloroethane	102	70-130
Heptane	105	70-130
Trichloroethene	101	70-130
1,2-Dichloropropane	107	70-130
1,4-Dioxane	108	70-130
Bromodichloromethane	114	70-130
cis-1,3-Dichloropropene	98	70-130
4-Methyl-2-pentanone	118	70-130
Toluene	104	70-130
trans-1,3-Dichloropropene	105	70-130
1,1,2-Trichloroethane	106	70-130
Tetrachloroethene	102	70-130
2-Hexanone	111	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1507215-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20071604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/16/15 08:00 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	116	70-130
1,2-Dibromoethane (EDB)	109	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	102	70-130
m,p-Xylene	104	70-130
o-Xylene	105	70-130
Styrene	107	70-130
Bromoform	114	70-130
Cumene	103	70-130
1,1,2,2-Tetrachloroethane	110	70-130
Propylbenzene	100	70-130
4-Ethyltoluene	97	70-130
1,3,5-Trimethylbenzene	98	70-130
1,2,4-Trimethylbenzene	92	70-130
1,3-Dichlorobenzene	93	70-130
1,4-Dichlorobenzene	90	70-130
alpha-Chlorotoluene	108	70-130
1,2-Dichlorobenzene	92	70-130
1,2,4-Trichlorobenzene	87	70-130
Hexachlorobutadiene	89	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	99	70-130