



Air Toxics

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180 BLUE RAVINE ROAD, SUITE B  
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Project Manager Michael Penn

Collected by: (Print and Sign) Teresa Trevino

Company MO DNR

Address PO Box 1746

Phone (573) 526-3418

City Jefferson City State MO Zip 65102

Email michelpenn@mo.gov

Project Info:

P.O. # 3E5P400007

Project #

Project Name Bridgeth Landfill

Turn Around Time:

Normal

Rush

Lab Use Only

Pressurized by:

Date:

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

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum	
						Initial Final Receipt Final (psi)	
01A	D1 (154104)	5666	10/6/15	08:45	TO-15	-30 -55	
02A	D2 (154105)	61290	10/6/15	09:00	TO-15	-30 -5	
03A	V1 (154106)	33868	10/6/15	09:25	TO-15	-30 -5	
04A	V2 (154107)	661236	10/6/15	10:00	TO-15	-29 -5	

Relinquished by: (signature) [Signature] Date/Time 10/6/15 1550

Relinquished by: (signature) [Signature] Date/Time

Received by: (signature) [Signature] Date/Time 10/6/15 1805

Received by: (signature) [Signature] Date/Time 10/6/15 1805

Notes: Shipped via VPS Tracking # 1ZRO40W6039653221L

Relinquished by: (signature) Date/Time

Received by: (signature) Date/Time

Lab Use Only

Shipper Name VPS Air Bill # 1011215 Temp (°C) N/A Condition Good Custody Seals Intact? Yes No None Work Order # 1510239

10/23/2015

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

Jefferson City MO 65109

Project Name: Bridgeton Landfill

Project #:

Workorder #: 1510239

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 10/12/2015 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 Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free 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 #: 1510239**

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 Landfill
<b>DATE RECEIVED:</b>	10/12/2015	<b>CONTACT:</b>	Brian Whittaker
<b>DATE COMPLETED:</b>	10/23/2015		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1(154104)	Modified TO-15	4.9 "Hg	4.9 psi
02A	D2(154105)	Modified TO-15	4.7 "Hg	5 psi
03A	V1(154106)	Modified TO-15	4.9 "Hg	5.2 psi
04A	V2(154107)	Modified TO-15	5.9 "Hg	4.9 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: 10/23/15

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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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563  
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**LABORATORY NARRATIVE**  
**Modified TO-15**  
**Missouri Dept. of Natural Resources**  
**Workorder# 1510239**

Four 6 Liter Summa Canister (100% Certified) samples were received on October 12, 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**

Due to poor peak quality at the RL, the reporting limit for Freon 12 and alpha-Chlorotoluene was raised from 0.1ppbv to 0.5ppbv.

**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

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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(154104)**

**Lab ID#: 1510239-01A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.16	0.21	0.89	1.2
Ethanol	0.80	6.5	1.5	12
Acetone	0.80	5.0	1.9	12
Hexane	0.16	0.20	0.56	0.70
2-Butanone (Methyl Ethyl Ketone)	0.80	0.88	2.3	2.6
Toluene	0.16	0.18	0.60	0.67

**Client Sample ID: D2(154105)**

**Lab ID#: 1510239-02A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.16	0.22	0.89	1.2
Ethanol	0.80	28	1.5	52
Acetone	0.80	11	1.9	26
2-Propanol	0.80	1.9	2.0	4.8
Methylene Chloride	0.32	0.43	1.1	1.5
Hexane	0.16	0.20	0.56	0.71
2-Butanone (Methyl Ethyl Ketone)	0.80	1.9	2.3	5.7
Toluene	0.16	0.20	0.60	0.74

**Client Sample ID: V1(154106)**

**Lab ID#: 1510239-03A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.16	0.22	0.91	1.2
Ethanol	0.81	7.8	1.5	15
Acetone	0.81	5.8	1.9	14
Methylene Chloride	0.32	0.74	1.1	2.6
Hexane	0.16	0.26	0.57	0.90
2-Butanone (Methyl Ethyl Ketone)	0.81	0.97	2.4	2.8
Toluene	0.16	0.78	0.61	2.9
m,p-Xylene	0.16	0.24	0.70	1.0

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

**Client Sample ID: V2(154107)**

**Lab ID#: 1510239-04A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 11	0.17	0.24	0.93	1.3
Ethanol	0.83	9.6	1.6	18
Acetone	0.83	7.7	2.0	18
Hexane	0.17	0.27	0.58	0.96
2-Butanone (Methyl Ethyl Ketone)	0.83	0.83	2.4	2.4
Toluene	0.17	0.19	0.62	0.73



Air Toxics

Client Sample ID: D1(154104)

Lab ID#: 1510239-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v101907	Date of Collection:	10/6/15 2:43:00 PM
Dil. Factor:	1.59	Date of Analysis:	10/19/15 10:07 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.80	Not Detected	3.9	Not Detected
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.80	Not Detected	1.6	Not Detected
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
1,3-Butadiene	0.16	Not Detected	0.35	Not Detected
Bromomethane	0.80	Not Detected	3.1	Not Detected
Chloroethane	0.80	Not Detected	2.1	Not Detected
Freon 11	0.16	0.21	0.89	1.2
Ethanol	0.80	6.5	1.5	12
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.80	5.0	1.9	12
2-Propanol	0.80	Not Detected	2.0	Not Detected
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
3-Chloropropene	0.80	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.57	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Hexane	0.16	0.20	0.56	0.70
1,1-Dichloroethane	0.16	Not Detected	0.64	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	0.88	2.3	2.6
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.3	Not Detected
Chloroform	0.16	Not Detected	0.78	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.87	Not Detected
Cyclohexane	0.16	Not Detected	0.55	Not Detected
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.80	Not Detected	3.7	Not Detected
Benzene	0.16	Not Detected	0.51	Not Detected
1,2-Dichloroethane	0.16	Not Detected	0.64	Not Detected
Heptane	0.16	Not Detected	0.65	Not Detected
Trichloroethene	0.16	Not Detected	0.85	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.73	Not Detected
1,4-Dioxane	0.16	Not Detected	0.57	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.65	Not Detected
Toluene	0.16	0.18	0.60	0.67
trans-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.87	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.80	Not Detected	3.2	Not Detected





Client Sample ID: D1(154104)

Lab ID#: 1510239-01A

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

<b>File Name:</b>	<b>v101907</b>	<b>Date of Collection:</b>	<b>10/6/15 2:43:00 PM</b>
<b>Dil. Factor:</b>	<b>1.59</b>	<b>Date of Analysis:</b>	<b>10/19/15 10:07 AM</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	0.16	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.73	Not Detected
Ethyl Benzene	0.16	Not Detected	0.69	Not Detected
m,p-Xylene	0.16	Not Detected	0.69	Not Detected
o-Xylene	0.16	Not Detected	0.69	Not Detected
Styrene	0.16	Not Detected	0.68	Not Detected
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.78	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.78	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.78	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.78	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.78	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
alpha-Chlorotoluene	0.80	Not Detected	4.1	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	5.9	Not Detected
Hexachlorobutadiene	0.80	Not Detected	8.5	Not Detected

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

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	90	70-130



Air Toxics

Client Sample ID: D2(154105)

Lab ID#: 1510239-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v101908	Date of Collection:	10/6/15 2:00:00 PM
Dil. Factor:	1.59	Date of Analysis:	10/19/15 10:47 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.80	Not Detected	3.9	Not Detected
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.80	Not Detected	1.6	Not Detected
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
1,3-Butadiene	0.16	Not Detected	0.35	Not Detected
Bromomethane	0.80	Not Detected	3.1	Not Detected
Chloroethane	0.80	Not Detected	2.1	Not Detected
Freon 11	0.16	0.22	0.89	1.2
Ethanol	0.80	28	1.5	52
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.80	11	1.9	26
2-Propanol	0.80	1.9	2.0	4.8
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
3-Chloropropene	0.80	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	0.43	1.1	1.5
Methyl tert-butyl ether	0.16	Not Detected	0.57	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Hexane	0.16	0.20	0.56	0.71
1,1-Dichloroethane	0.16	Not Detected	0.64	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	1.9	2.3	5.7
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.3	Not Detected
Chloroform	0.16	Not Detected	0.78	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.87	Not Detected
Cyclohexane	0.16	Not Detected	0.55	Not Detected
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.80	Not Detected	3.7	Not Detected
Benzene	0.16	Not Detected	0.51	Not Detected
1,2-Dichloroethane	0.16	Not Detected	0.64	Not Detected
Heptane	0.16	Not Detected	0.65	Not Detected
Trichloroethene	0.16	Not Detected	0.85	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.73	Not Detected
1,4-Dioxane	0.16	Not Detected	0.57	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.65	Not Detected
Toluene	0.16	0.20	0.60	0.74
trans-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.87	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.80	Not Detected	3.2	Not Detected

Client Sample ID: D2(154105)

Lab ID#: 1510239-02A

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

<b>File Name:</b>	<b>v101908</b>	<b>Date of Collection:</b>	<b>10/6/15 2:00:00 PM</b>
<b>Dil. Factor:</b>	<b>1.59</b>	<b>Date of Analysis:</b>	<b>10/19/15 10:47 AM</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	0.16	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.73	Not Detected
Ethyl Benzene	0.16	Not Detected	0.69	Not Detected
m,p-Xylene	0.16	Not Detected	0.69	Not Detected
o-Xylene	0.16	Not Detected	0.69	Not Detected
Styrene	0.16	Not Detected	0.68	Not Detected
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.78	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.78	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.78	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.78	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.78	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
alpha-Chlorotoluene	0.80	Not Detected	4.1	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	5.9	Not Detected
Hexachlorobutadiene	0.80	Not Detected	8.5	Not Detected

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

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	89	70-130



Air Toxics

Client Sample ID: V1(154106)

Lab ID#: 1510239-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v101909	Date of Collection:	10/6/15 3:10:00 PM
Dil. Factor:	1.62	Date of Analysis:	10/19/15 11:29 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.81	Not Detected	4.0	Not Detected
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.81	Not Detected	1.7	Not Detected
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
1,3-Butadiene	0.16	Not Detected	0.36	Not Detected
Bromomethane	0.81	Not Detected	3.1	Not Detected
Chloroethane	0.81	Not Detected	2.1	Not Detected
Freon 11	0.16	0.22	0.91	1.2
Ethanol	0.81	7.8	1.5	15
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.81	5.8	1.9	14
2-Propanol	0.81	Not Detected	2.0	Not Detected
Carbon Disulfide	0.81	Not Detected	2.5	Not Detected
3-Chloropropene	0.81	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	0.74	1.1	2.6
Methyl tert-butyl ether	0.16	Not Detected	0.58	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Hexane	0.16	0.26	0.57	0.90
1,1-Dichloroethane	0.16	Not Detected	0.66	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.81	0.97	2.4	2.8
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Tetrahydrofuran	0.81	Not Detected	2.4	Not Detected
Chloroform	0.16	Not Detected	0.79	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Cyclohexane	0.16	Not Detected	0.56	Not Detected
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.81	Not Detected	3.8	Not Detected
Benzene	0.16	Not Detected	0.52	Not Detected
1,2-Dichloroethane	0.16	Not Detected	0.66	Not Detected
Heptane	0.16	Not Detected	0.66	Not Detected
Trichloroethene	0.16	Not Detected	0.87	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.75	Not Detected
1,4-Dioxane	0.16	Not Detected	0.58	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.66	Not Detected
Toluene	0.16	0.78	0.61	2.9
trans-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.81	Not Detected	3.3	Not Detected



Client Sample ID: V1(154106)

Lab ID#: 1510239-03A

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

<b>File Name:</b>	<b>v101909</b>	<b>Date of Collection:</b>	<b>10/6/15 3:10:00 PM</b>
<b>Dil. Factor:</b>	<b>1.62</b>	<b>Date of Analysis:</b>	<b>10/19/15 11:29 AM</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	0.16	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.70	Not Detected
m,p-Xylene	0.16	0.24	0.70	1.0
o-Xylene	0.16	Not Detected	0.70	Not Detected
Styrene	0.16	Not Detected	0.69	Not Detected
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	Not Detected	0.80	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.80	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.80	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.80	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.80	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
alpha-Chlorotoluene	0.81	Not Detected	4.2	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.81	Not Detected	6.0	Not Detected
Hexachlorobutadiene	0.81	Not Detected	8.6	Not Detected

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

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	89	70-130



Air Toxics

Client Sample ID: V2(154107)

Lab ID#: 1510239-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v101910	Date of Collection:	10/6/15 12:40:00 PM
Dil. Factor:	1.66	Date of Analysis:	10/19/15 12:21 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.83	Not Detected	4.1	Not Detected
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.83	Not Detected	1.7	Not Detected
Vinyl Chloride	0.17	Not Detected	0.42	Not Detected
1,3-Butadiene	0.17	Not Detected	0.37	Not Detected
Bromomethane	0.83	Not Detected	3.2	Not Detected
Chloroethane	0.83	Not Detected	2.2	Not Detected
Freon 11	0.17	0.24	0.93	1.3
Ethanol	0.83	9.6	1.6	18
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Acetone	0.83	7.7	2.0	18
2-Propanol	0.83	Not Detected	2.0	Not Detected
Carbon Disulfide	0.83	Not Detected	2.6	Not Detected
3-Chloropropene	0.83	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	0.27	0.58	0.96
1,1-Dichloroethane	0.17	Not Detected	0.67	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.83	0.83	2.4	2.4
cis-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Tetrahydrofuran	0.83	Not Detected	2.4	Not Detected
Chloroform	0.17	Not Detected	0.81	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.90	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	0.83	Not Detected	3.9	Not Detected
Benzene	0.17	Not Detected	0.53	Not Detected
1,2-Dichloroethane	0.17	Not Detected	0.67	Not Detected
Heptane	0.17	Not Detected	0.68	Not Detected
Trichloroethene	0.17	Not Detected	0.89	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.77	Not Detected
1,4-Dioxane	0.17	Not Detected	0.60	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.75	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.68	Not Detected
Toluene	0.17	0.19	0.62	0.73
trans-1,3-Dichloropropene	0.17	Not Detected	0.75	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.90	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
2-Hexanone	0.83	Not Detected	3.4	Not Detected



Client Sample ID: V2(154107)

Lab ID#: 1510239-04A

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

<b>File Name:</b>	v101910	<b>Date of Collection:</b> 10/6/15 12:40:00 PM
<b>Dil. Factor:</b>	1.66	<b>Date of Analysis:</b> 10/19/15 12:21 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	0.76	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	0.83	Not Detected	4.3	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.83	Not Detected	6.2	Not Detected
Hexachlorobutadiene	0.83	Not Detected	8.8	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	87	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1510239-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v101906	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/19/15 08:59 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.10	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#: 1510239-05A

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

<b>File Name:</b>	<b>v101906</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 10/19/15 08:59 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	0.50	Not Detected	2.6	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	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	86	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1510239-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v101903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/19/15 07:01 AM

Compound	%Recovery
Freon 12	101
Freon 114	103
Chloromethane	101
Vinyl Chloride	106
1,3-Butadiene	96
Bromomethane	115
Chloroethane	104
Freon 11	99
Ethanol	93
Freon 113	100
1,1-Dichloroethene	97
Acetone	102
2-Propanol	96
Carbon Disulfide	103
3-Chloropropene	103
Methylene Chloride	93
Methyl tert-butyl ether	99
trans-1,2-Dichloroethene	99
Hexane	90
1,1-Dichloroethane	100
2-Butanone (Methyl Ethyl Ketone)	103
cis-1,2-Dichloroethene	98
Tetrahydrofuran	100
Chloroform	99
1,1,1-Trichloroethane	97
Cyclohexane	107
Carbon Tetrachloride	100
2,2,4-Trimethylpentane	98
Benzene	108
1,2-Dichloroethane	107
Heptane	104
Trichloroethene	100
1,2-Dichloropropane	109
1,4-Dioxane	106
Bromodichloromethane	109
cis-1,3-Dichloropropene	110
4-Methyl-2-pentanone	106
Toluene	108
trans-1,3-Dichloropropene	108
1,1,2-Trichloroethane	112
Tetrachloroethene	108
2-Hexanone	111



Air Toxics

Client Sample ID: CCV

Lab ID#: 1510239-06A

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

File Name:	v101903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/19/15 07:01 AM

Compound	%Recovery
Dibromochloromethane	112
1,2-Dibromoethane (EDB)	112
Chlorobenzene	107
Ethyl Benzene	104
m,p-Xylene	107
o-Xylene	111
Styrene	102
Bromoform	106
Cumene	112
1,1,2,2-Tetrachloroethane	109
Propylbenzene	101
4-Ethyltoluene	94
1,3,5-Trimethylbenzene	96
1,2,4-Trimethylbenzene	95
1,3-Dichlorobenzene	98
1,4-Dichlorobenzene	94
alpha-Chlorotoluene	102
1,2-Dichlorobenzene	94
1,2,4-Trichlorobenzene	70
Hexachlorobutadiene	70

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	85	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: LCS

Lab ID#: 1510239-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v101904	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/19/15 07:44 AM

Compound	%Recovery	Method Limits
Freon 12	109	70-130
Freon 114	119	70-130
Chloromethane	110	70-130
Vinyl Chloride	118	70-130
1,3-Butadiene	109	70-130
Bromomethane	127	70-130
Chloroethane	116	70-130
Freon 11	113	70-130
Ethanol	117	70-130
Freon 113	105	70-130
1,1-Dichloroethene	108	70-130
Acetone	108	70-130
2-Propanol	111	70-130
Carbon Disulfide	101	70-130
3-Chloropropene	104	70-130
Methylene Chloride	105	70-130
Methyl tert-butyl ether	108	70-130
trans-1,2-Dichloroethene	97	70-130
Hexane	97	70-130
1,1-Dichloroethane	110	70-130
2-Butanone (Methyl Ethyl Ketone)	106	70-130
cis-1,2-Dichloroethene	118	70-130
Tetrahydrofuran	110	70-130
Chloroform	109	70-130
1,1,1-Trichloroethane	104	70-130
Cyclohexane	114	70-130
Carbon Tetrachloride	98	70-130
2,2,4-Trimethylpentane	106	70-130
Benzene	115	70-130
1,2-Dichloroethane	109	70-130
Heptane	110	70-130
Trichloroethene	103	70-130
1,2-Dichloropropane	111	70-130
1,4-Dioxane	108	70-130
Bromodichloromethane	120	70-130
cis-1,3-Dichloropropene	107	70-130
4-Methyl-2-pentanone	111	70-130
Toluene	109	70-130
trans-1,3-Dichloropropene	120	70-130
1,1,2-Trichloroethane	124	70-130
Tetrachloroethene	119	70-130
2-Hexanone	122	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1510239-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v101904	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/19/15 07:44 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	125	70-130
1,2-Dibromoethane (EDB)	120	70-130
Chlorobenzene	117	70-130
Ethyl Benzene	112	70-130
m,p-Xylene	116	70-130
o-Xylene	116	70-130
Styrene	108	70-130
Bromoform	113	70-130
Cumene	116	70-130
1,1,2,2-Tetrachloroethane	122	70-130
Propylbenzene	114	70-130
4-Ethyltoluene	103	70-130
1,3,5-Trimethylbenzene	103	70-130
1,2,4-Trimethylbenzene	102	70-130
1,3-Dichlorobenzene	106	70-130
1,4-Dichlorobenzene	107	70-130
alpha-Chlorotoluene	117	70-130
1,2-Dichlorobenzene	103	70-130
1,2,4-Trichlorobenzene	90	70-130
Hexachlorobutadiene	90	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1510239-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v101905	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/19/15 08:21 AM

Compound	%Recovery	Method Limits
Freon 12	120	70-130
Freon 114	121	70-130
Chloromethane	117	70-130
Vinyl Chloride	124	70-130
1,3-Butadiene	112	70-130
Bromomethane	131 Q	70-130
Chloroethane	120	70-130
Freon 11	117	70-130
Ethanol	125	70-130
Freon 113	110	70-130
1,1-Dichloroethene	110	70-130
Acetone	113	70-130
2-Propanol	118	70-130
Carbon Disulfide	108	70-130
3-Chloropropene	106	70-130
Methylene Chloride	109	70-130
Methyl tert-butyl ether	110	70-130
trans-1,2-Dichloroethene	103	70-130
Hexane	107	70-130
1,1-Dichloroethane	114	70-130
2-Butanone (Methyl Ethyl Ketone)	128	70-130
cis-1,2-Dichloroethene	124	70-130
Tetrahydrofuran	115	70-130
Chloroform	113	70-130
1,1,1-Trichloroethane	112	70-130
Cyclohexane	126	70-130
Carbon Tetrachloride	100	70-130
2,2,4-Trimethylpentane	112	70-130
Benzene	113	70-130
1,2-Dichloroethane	111	70-130
Heptane	107	70-130
Trichloroethene	103	70-130
1,2-Dichloropropane	110	70-130
1,4-Dioxane	102	70-130
Bromodichloromethane	116	70-130
cis-1,3-Dichloropropene	105	70-130
4-Methyl-2-pentanone	110	70-130
Toluene	110	70-130
trans-1,3-Dichloropropene	119	70-130
1,1,2-Trichloroethane	120	70-130
Tetrachloroethene	122	70-130
2-Hexanone	121	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1510239-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v101905	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/19/15 08:21 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	123	70-130
1,2-Dibromoethane (EDB)	124	70-130
Chlorobenzene	122	70-130
Ethyl Benzene	115	70-130
m,p-Xylene	111	70-130
o-Xylene	118	70-130
Styrene	112	70-130
Bromoform	119	70-130
Cumene	115	70-130
1,1,2,2-Tetrachloroethane	123	70-130
Propylbenzene	112	70-130
4-Ethyltoluene	102	70-130
1,3,5-Trimethylbenzene	106	70-130
1,2,4-Trimethylbenzene	98	70-130
1,3-Dichlorobenzene	107	70-130
1,4-Dichlorobenzene	107	70-130
alpha-Chlorotoluene	119	70-130
1,2-Dichlorobenzene	108	70-130
1,2,4-Trichlorobenzene	92	70-130
Hexachlorobutadiene	90	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	90	70-130