



Air Toxics

Sample Transportation Notice

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

Page 1 of 1

Project Manager Michael Paris

Collected by: (Print and Sign) Fress Perry

Company McDURE Email michael.paris@eurofins.com

Address PO Box 176 Civdellon City State MD Zip 20602

Phone (533) 526-3918 Fax \_\_\_\_\_

**Project Info:**

P.O. # 3E5M00007

Project # \_\_\_\_\_

Project Name Rapetion Lead 611

**Turn Around Time:**

Normal

Rush

Pressurized by: \_\_\_\_\_

Date: \_\_\_\_\_

Pressurization Gas: \_\_\_\_\_

specify 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		
						Initial	Final	Receipt Final (psi)
O1A	D1 (154207)	21001	10/19/15	0842-1406	TD-15	-30	-55	
O2A	D2 (154205)	661328	10/14/15	0858-1443	TD-15	-30	-55	
O3A	V1 (154206)	342229	10/19/15	0909-0953	TD-15	-30	-55	
	V2 (154207) N/A	34468	10/19/15	0925-0947	Insufficient vacuum - do not analyze	-30	N/A	

Relinquished by: (signature) [Signature] Date/Time 10/19/15 1526

Received by: (signature) [Signature] Date/Time 10/23/15 1058

Notes: Shipped via UPS  
Tracking # 1ZRP040w60397005267

Relinquished by: (signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

Received by: (signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

Temp (°C) 15 Condition Good

Custody Seals Intact?  Yes  No  None

Work Order # 1510467

11/1/2015  
Mr. Dennis Schroeder  
Missouri Dept. of Natural Resources  
2710 West Main

Jefferson City MO 65109

Project Name: Bridgeton Landfill  
Project #:  
Workorder #: 1510467

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 10/23/2015 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 #: 1510467**

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>	10/23/2015	<b>CONTACT:</b>	Brian Whittaker
<b>DATE COMPLETED:</b>	11/01/2015		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (154204)	Modified TO-15	5.1 "Hg	4.8 psi
02A	D2 (154205)	Modified TO-15	4.7 "Hg	5 psi
03A	U1 (154206)	Modified TO-15	4.1 "Hg	5 psi
04A	Lab Blank	Modified TO-15	NA	NA
05A	CCV	Modified TO-15	NA	NA
06A	LCS	Modified TO-15	NA	NA
06AA	LCSD	Modified TO-15	NA	NA

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

DATE: 11/01/15

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# 1510467**

Three 6 Liter Summa Canister (100% Certified) samples were received on October 23, 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 the linear calibration range of the instrument, the reporting limit for Freon 12 and alpha-Chlorotoluene was raised from 0.10ppbv to 0.50ppbv.

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 (154204)**

**Lab ID#: 1510467-01A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.16	0.23	0.90	1.3
Ethanol	0.80	2.5	1.5	4.7
Acetone	0.80	2.4	1.9	5.6
Methylene Chloride	0.32	0.42	1.1	1.4
Hexane	0.16	0.21	0.56	0.74
Toluene	0.16	0.31	0.60	1.2

**Client Sample ID: D2 (154205)**

**Lab ID#: 1510467-02A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.16	0.20	0.89	1.1
Ethanol	0.80	1.4	1.5	2.7
Acetone	0.80	2.6	1.9	6.3

**Client Sample ID: U1 (154206)**

**Lab ID#: 1510467-03A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.16	0.20	0.87	1.1
Ethanol	0.78	18	1.5	34
Acetone	0.78	7.9	1.8	19
2-Propanol	0.78	2.2	1.9	5.4
Methylene Chloride	0.31	0.46	1.1	1.6
Hexane	0.16	0.86	0.55	3.0
2-Butanone (Methyl Ethyl Ketone)	0.78	1.6	2.3	4.7
Cyclohexane	0.16	1.6	0.53	5.5
Benzene	0.16	0.29	0.50	0.93
Heptane	0.16	0.75	0.64	3.1
Toluene	0.16	9.0	0.58	34
Ethyl Benzene	0.16	0.24	0.67	1.0
m,p-Xylene	0.16	0.80	0.67	3.5
o-Xylene	0.16	0.25	0.67	1.1

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

**Client Sample ID: U1 (154206)**

**Lab ID#: 1510467-03A**



Air Toxics

Client Sample ID: D1 (154204)

Lab ID#: 1510467-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v102620	Date of Collection:	10/19/15 2:06:00 PM
Dil. Factor:	1.60	Date of Analysis:	10/26/15 09:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.80	Not Detected	4.0	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	0.23	0.90	1.3
Ethanol	0.80	2.5	1.5	4.7
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.80	2.4	1.9	5.6
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	0.42	1.1	1.4
Methyl tert-butyl ether	0.16	Not Detected	0.58	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Hexane	0.16	0.21	0.56	0.74
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	Not Detected	2.4	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.4	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	0.65	Not Detected
Heptane	0.16	Not Detected	0.66	Not Detected
Trichloroethene	0.16	Not Detected	0.86	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.74	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	0.73	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.66	Not Detected
Toluene	0.16	0.31	0.60	1.2
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	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	3.3	Not Detected





Client Sample ID: D1 (154204)

Lab ID#: 1510467-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v102620	Date of Collection:	10/19/15 2:06:00 PM
Dil. Factor:	1.60	Date of Analysis:	10/26/15 09:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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	0.69	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	0.79	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.79	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.79	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.79	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 UJ	5.9	Not Detected UJ
Hexachlorobutadiene	0.80	Not Detected UJ	8.5	Not Detected UJ

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

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	91	70-130



Air Toxics

Client Sample ID: D2 (154205)

Lab ID#: 1510467-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v102621	Date of Collection:	10/19/15 2:43:00 PM
Dil. Factor:	1.59	Date of Analysis:	10/26/15 10:07 PM

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	0.20	0.89	1.1
Ethanol	0.80	1.4	1.5	2.7
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.80	2.6	1.9	6.3
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	Not Detected	0.56	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.64	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	Not Detected	2.3	Not Detected
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	Not Detected	0.60	Not Detected
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 (154205)

Lab ID#: 1510467-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v102621	Date of Collection:	10/19/15 2:43:00 PM
Dil. Factor:	1.59	Date of Analysis:	10/26/15 10:07 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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 UJ	5.9	Not Detected UJ
Hexachlorobutadiene	0.80	Not Detected UJ	8.5	Not Detected UJ

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

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	86	70-130



Air Toxics

Client Sample ID: U1 (154206)

Lab ID#: 1510467-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v102622	Date of Collection:	10/19/15 2:53:00 PM
Dil. Factor:	1.55	Date of Analysis:	10/26/15 10:42 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.78	Not Detected	3.8	Not Detected
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.78	Not Detected	1.6	Not Detected
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
1,3-Butadiene	0.16	Not Detected	0.34	Not Detected
Bromomethane	0.78	Not Detected	3.0	Not Detected
Chloroethane	0.78	Not Detected	2.0	Not Detected
Freon 11	0.16	0.20	0.87	1.1
Ethanol	0.78	18	1.5	34
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.61	Not Detected
Acetone	0.78	7.9	1.8	19
2-Propanol	0.78	2.2	1.9	5.4
Carbon Disulfide	0.78	Not Detected	2.4	Not Detected
3-Chloropropene	0.78	Not Detected	2.4	Not Detected
Methylene Chloride	0.31	0.46	1.1	1.6
Methyl tert-butyl ether	0.16	Not Detected	0.56	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected
Hexane	0.16	0.86	0.55	3.0
1,1-Dichloroethane	0.16	Not Detected	0.63	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.78	1.6	2.3	4.7
cis-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected
Tetrahydrofuran	0.78	Not Detected	2.3	Not Detected
Chloroform	0.16	Not Detected	0.76	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.84	Not Detected
Cyclohexane	0.16	1.6	0.53	5.5
Carbon Tetrachloride	0.16	Not Detected	0.98	Not Detected
2,2,4-Trimethylpentane	0.78	Not Detected	3.6	Not Detected
Benzene	0.16	0.29	0.50	0.93
1,2-Dichloroethane	0.16	Not Detected	0.63	Not Detected
Heptane	0.16	0.75	0.64	3.1
Trichloroethene	0.16	Not Detected	0.83	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.72	Not Detected
1,4-Dioxane	0.16	Not Detected	0.56	Not Detected
Bromodichloromethane	0.16	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.70	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.63	Not Detected
Toluene	0.16	9.0	0.58	34
trans-1,3-Dichloropropene	0.16	Not Detected	0.70	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.84	Not Detected
Tetrachloroethene	0.16	Not Detected	1.0	Not Detected
2-Hexanone	0.78	Not Detected	3.2	Not Detected



Client Sample ID: U1 (154206)

Lab ID#: 1510467-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v102622	Date of Collection:	10/19/15 2:53:00 PM
Dil. Factor:	1.55	Date of Analysis:	10/26/15 10:42 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.71	Not Detected
Ethyl Benzene	0.16	0.24	0.67	1.0
m,p-Xylene	0.16	0.80	0.67	3.5
o-Xylene	0.16	0.25	0.67	1.1
Styrene	0.16	Not Detected	0.66	Not Detected
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.76	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.76	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.76	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.76	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.76	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
alpha-Chlorotoluene	0.78	Not Detected	4.0	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,2,4-Trichlorobenzene	0.78	Not Detected UJ	5.8	Not Detected UJ
Hexachlorobutadiene	0.78	Not Detected UJ	8.3	Not Detected UJ

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

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1510467-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v102606	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/26/15 11:00 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#: 1510467-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v102606	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/26/15 11:00 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 UJ	3.7	Not Detected UJ
Hexachlorobutadiene	0.50	Not Detected UJ	5.3	Not Detected UJ

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

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	87	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1510467-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v102602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/26/15 07:33 AM

Compound	%Recovery
Freon 12	105
Freon 114	102
Chloromethane	104
Vinyl Chloride	109
1,3-Butadiene	99
Bromomethane	114
Chloroethane	106
Freon 11	98
Ethanol	89
Freon 113	97
1,1-Dichloroethene	98
Acetone	102
2-Propanol	97
Carbon Disulfide	108
3-Chloropropene	102
Methylene Chloride	101
Methyl tert-butyl ether	99
trans-1,2-Dichloroethene	104
Hexane	92
1,1-Dichloroethane	102
2-Butanone (Methyl Ethyl Ketone)	108
cis-1,2-Dichloroethene	98
Tetrahydrofuran	101
Chloroform	100
1,1,1-Trichloroethane	99
Cyclohexane	108
Carbon Tetrachloride	93
2,2,4-Trimethylpentane	100
Benzene	108
1,2-Dichloroethane	99
Heptane	101
Trichloroethene	97
1,2-Dichloropropane	105
1,4-Dioxane	96
Bromodichloromethane	109
cis-1,3-Dichloropropene	105
4-Methyl-2-pentanone	107
Toluene	104
trans-1,3-Dichloropropene	110
1,1,2-Trichloroethane	105
Tetrachloroethene	105
2-Hexanone	107





Client Sample ID: CCV

Lab ID#: 1510467-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v102602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/26/15 07:33 AM

Compound	%Recovery
Dibromochloromethane	110
1,2-Dibromoethane (EDB)	113
Chlorobenzene	107
Ethyl Benzene	104
m,p-Xylene	98
o-Xylene	107
Styrene	100
Bromoform	102
Cumene	109
1,1,2,2-Tetrachloroethane	111
Propylbenzene	106
4-Ethyltoluene	95
1,3,5-Trimethylbenzene	95
1,2,4-Trimethylbenzene	95
1,3-Dichlorobenzene	95
1,4-Dichlorobenzene	94
alpha-Chlorotoluene	96
1,2-Dichlorobenzene	88
1,2,4-Trichlorobenzene	63 Q
Hexachlorobutadiene	69 Q

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	87	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1510467-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v102603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/26/15 08:14 AM

Compound	%Recovery	Method Limits
Freon 12	110	70-130
Freon 114	113	70-130
Chloromethane	113	70-130
Vinyl Chloride	118	70-130
1,3-Butadiene	101	70-130
Bromomethane	116	70-130
Chloroethane	113	70-130
Freon 11	106	70-130
Ethanol	108	70-130
Freon 113	104	70-130
1,1-Dichloroethene	104	70-130
Acetone	108	70-130
2-Propanol	107	70-130
Carbon Disulfide	102	70-130
3-Chloropropene	103	70-130
Methylene Chloride	101	70-130
Methyl tert-butyl ether	106	70-130
trans-1,2-Dichloroethene	90	70-130
Hexane	98	70-130
1,1-Dichloroethane	106	70-130
2-Butanone (Methyl Ethyl Ketone)	112	70-130
cis-1,2-Dichloroethene	118	70-130
Tetrahydrofuran	110	70-130
Chloroform	105	70-130
1,1,1-Trichloroethane	98	70-130
Cyclohexane	114	70-130
Carbon Tetrachloride	88	70-130
2,2,4-Trimethylpentane	103	70-130
Benzene	114	70-130
1,2-Dichloroethane	105	70-130
Heptane	106	70-130
Trichloroethene	97	70-130
1,2-Dichloropropane	106	70-130
1,4-Dioxane	106	70-130
Bromodichloromethane	120	70-130
cis-1,3-Dichloropropene	102	70-130
4-Methyl-2-pentanone	109	70-130
Toluene	105	70-130
trans-1,3-Dichloropropene	122	70-130
1,1,2-Trichloroethane	122	70-130
Tetrachloroethene	120	70-130
2-Hexanone	125	70-130

Client Sample ID: LCS

Lab ID#: 1510467-06A

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

File Name:	v102603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/26/15 08:14 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	122	70-130
1,2-Dibromoethane (EDB)	121	70-130
Chlorobenzene	117	70-130
Ethyl Benzene	109	70-130
m,p-Xylene	113	70-130
o-Xylene	112	70-130
Styrene	111	70-130
Bromoform	114	70-130
Cumene	118	70-130
1,1,2,2-Tetrachloroethane	131 Q	70-130
Propylbenzene	118	70-130
4-Ethyltoluene	106	70-130
1,3,5-Trimethylbenzene	106	70-130
1,2,4-Trimethylbenzene	104	70-130
1,3-Dichlorobenzene	106	70-130
1,4-Dichlorobenzene	108	70-130
alpha-Chlorotoluene	119	70-130
1,2-Dichlorobenzene	103	70-130
1,2,4-Trichlorobenzene	82	70-130
Hexachlorobutadiene	88	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1510467-06AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v102604	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/26/15 08:52 AM

Compound	%Recovery	Method Limits
Freon 12	113	70-130
Freon 114	113	70-130
Chloromethane	112	70-130
Vinyl Chloride	121	70-130
1,3-Butadiene	103	70-130
Bromomethane	125	70-130
Chloroethane	116	70-130
Freon 11	108	70-130
Ethanol	102	70-130
Freon 113	102	70-130
1,1-Dichloroethene	106	70-130
Acetone	110	70-130
2-Propanol	111	70-130
Carbon Disulfide	101	70-130
3-Chloropropene	106	70-130
Methylene Chloride	102	70-130
Methyl tert-butyl ether	106	70-130
trans-1,2-Dichloroethene	96	70-130
Hexane	97	70-130
1,1-Dichloroethane	109	70-130
2-Butanone (Methyl Ethyl Ketone)	109	70-130
cis-1,2-Dichloroethene	116	70-130
Tetrahydrofuran	108	70-130
Chloroform	106	70-130
1,1,1-Trichloroethane	104	70-130
Cyclohexane	108	70-130
Carbon Tetrachloride	91	70-130
2,2,4-Trimethylpentane	103	70-130
Benzene	106	70-130
1,2-Dichloroethane	102	70-130
Heptane	99	70-130
Trichloroethene	97	70-130
1,2-Dichloropropane	104	70-130
1,4-Dioxane	102	70-130
Bromodichloromethane	118	70-130
cis-1,3-Dichloropropene	99	70-130
4-Methyl-2-pentanone	105	70-130
Toluene	103	70-130
trans-1,3-Dichloropropene	116	70-130
1,1,2-Trichloroethane	116	70-130
Tetrachloroethene	115	70-130
2-Hexanone	114	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1510467-06AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v102604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/26/15 08:52 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	114	70-130
1,2-Dibromoethane (EDB)	120	70-130
Chlorobenzene	114	70-130
Ethyl Benzene	107	70-130
m,p-Xylene	106	70-130
o-Xylene	107	70-130
Styrene	103	70-130
Bromoform	110	70-130
Cumene	113	70-130
1,1,2,2-Tetrachloroethane	124	70-130
Propylbenzene	111	70-130
4-Ethyltoluene	98	70-130
1,3,5-Trimethylbenzene	98	70-130
1,2,4-Trimethylbenzene	100	70-130
1,3-Dichlorobenzene	98	70-130
1,4-Dichlorobenzene	99	70-130
alpha-Chlorotoluene	115	70-130
1,2-Dichlorobenzene	94	70-130
1,2,4-Trichlorobenzene	81	70-130
Hexachlorobutadiene	83	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	85	70-130