

**Sample Transportation Notice**

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

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

Project Manager Dan Norris  
 Collected by: (Print and Sign) Dan Norris  
 Company Missouri DMK Email dan.norris@dmk.mo.gov  
 Address P.O. Box 176 City Jefferson City State MO Zip 65102  
 Phone 573-526-3915 Fax \_\_\_\_\_

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

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)
	D1 (134561)	34486	12/11/13	1201-1721	TO-15	-30	-5.5		
	D2 (134562)	33986	12/11/13	1214-1725	TO-15	-30	-5		
	U1 (134563)	14890	12/11/13	1234-1745	TO-15	-30	-6		
	U2 (134564)	12085	12/11/13	1238-1742	TO-15	-30	-4.5		

Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>12/12/13 1051</u>	Received by: (signature) _____ Date/Time _____	<b>Notes:</b> <u>Shipped via UPS Ground.</u> <u>Tracking # 1Z672 788</u> <u>03 4340 3338</u>
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Yes	No	None			

1/7/2014

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

Jefferson City MO 65109

Project Name: Bridgeton Landfill

Project #:

Workorder #: 1312301

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 12/18/2013 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner  
Project Manager

**WORK ORDER #: 1312301**

Work Order Summary

<b>CLIENT:</b>	Mr. Dennis Schroeder Missouri Dept. of Natural Resources 2710 West Main Jefferson City, MO 65109	<b>BILL TO:</b>	Accounts Payable Missouri Dept. of Natural Resources P.O Box 176 Jefferson City, MO 65102
<b>PHONE:</b>	573-526-4428	<b>P.O. #</b>	3ESP1301039
<b>FAX:</b>	573-526-3350	<b>PROJECT #</b>	Bridgeton Landfill
<b>DATE RECEIVED:</b>	12/18/2013	<b>CONTACT:</b>	Kelly Buettner
<b>DATE COMPLETED:</b>	12/20/2013		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (134561)	Modified TO-15	1.4 "Hg	14.8 psi
02A	D2 (134562)	Modified TO-15	1.6 "Hg	15 psi
03A	U1 (134563)	Modified TO-15	1.2 "Hg	5.1 psi
04A	U2 (134564)	Modified TO-15	1.6 "Hg	5.4 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: 12/20/13

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

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

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9562  
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



**LABORATORY NARRATIVE**  
**Modified TO-15**  
**Missouri Dept. of Natural Resources**  
**Workorder# 1312301**

Four 6 Liter Summa Canister (100% Certified) samples were received on December 18, 2013. 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.

Ethanol was detected at concentrations less than 5 times the reporting limit in sample D1 (134561). Because the preceding sample contained concentrations of Ethanol exceeding the calibration range, the result for this compound in sample D1 (134561) may be biased high.

### Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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

**Client Sample ID: D1 (134561)**

**Lab ID#: 1312301-01A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.21	0.48	1.0	2.4
Freon 11	0.21	0.22	1.2	1.2
Ethanol	1.0	2.6	2.0	5.0
Acetone	1.0	1.0	2.5	2.5
Benzene	0.21	0.26	0.67	0.82

**Client Sample ID: D2 (134562)**

**Lab ID#: 1312301-02A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.21	0.48	1.0	2.4
Ethanol	1.1	2.0	2.0	3.7
Acetone	1.1	1.3	2.5	3.2

**Client Sample ID: U1 (134563)**

**Lab ID#: 1312301-03A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.41	0.69	2.0
Freon 11	0.14	0.18	0.79	1.0
Ethanol	0.70	1.1	1.3	2.1
Acetone	0.70	0.82	1.7	1.9
Hexane	0.14	0.18	0.49	0.63
Heptane	0.14	0.15	0.57	0.60

**Client Sample ID: U2 (134564)**

**Lab ID#: 1312301-04A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.39	0.72	1.9
Freon 11	0.14	0.19	0.81	1.1
Ethanol	0.72	1.1	1.4	2.1

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

**Client Sample ID: U2 (134564)**

**Lab ID#: 1312301-04A**

Acetone	0.72	0.80	1.7	1.9
---------	------	------	-----	-----



Air Toxics

Client Sample ID: D1 (134561)

Lab ID#: 1312301-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e121914	Date of Collection:	12/11/13 5:21:00 PM
Dil. Factor:	2.11	Date of Analysis:	12/19/13 06:59 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.21	0.48	1.0	2.4
Freon 114	0.21	Not Detected	1.5	Not Detected
Chloromethane	1.0	Not Detected	2.2	Not Detected
Vinyl Chloride	0.21	Not Detected	0.54	Not Detected
1,3-Butadiene	0.21	Not Detected	0.47	Not Detected
Bromomethane	1.0	Not Detected	4.1	Not Detected
Chloroethane	1.0	Not Detected	2.8	Not Detected
Freon 11	0.21	0.22	1.2	1.2
Ethanol	1.0	2.6	2.0	5.0
Freon 113	0.21	Not Detected	1.6	Not Detected
1,1-Dichloroethene	0.21	Not Detected	0.84	Not Detected
Acetone	1.0	1.0	2.5	2.5
2-Propanol	1.0	Not Detected	2.6	Not Detected
Carbon Disulfide	1.0	Not Detected	3.3	Not Detected
3-Chloropropene	1.0	Not Detected	3.3	Not Detected
Methylene Chloride	0.42	Not Detected	1.5	Not Detected
Methyl tert-butyl ether	0.21	Not Detected	0.76	Not Detected
trans-1,2-Dichloroethene	0.21	Not Detected	0.84	Not Detected
Hexane	0.21	Not Detected	0.74	Not Detected
1,1-Dichloroethane	0.21	Not Detected	0.85	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.0	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.21	Not Detected	0.84	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.1	Not Detected
Chloroform	0.21	Not Detected	1.0	Not Detected
1,1,1-Trichloroethane	0.21	Not Detected	1.2	Not Detected
Cyclohexane	0.21	Not Detected	0.73	Not Detected
Carbon Tetrachloride	0.21	Not Detected	1.3	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.9	Not Detected
Benzene	0.21	0.26	0.67	0.82
1,2-Dichloroethane	0.21	Not Detected	0.85	Not Detected
Heptane	0.21	Not Detected	0.86	Not Detected
Trichloroethene	0.21	Not Detected	1.1	Not Detected
1,2-Dichloropropane	0.21	Not Detected	0.98	Not Detected
1,4-Dioxane	0.21	Not Detected	0.76	Not Detected
Bromodichloromethane	0.21	Not Detected	1.4	Not Detected
cis-1,3-Dichloropropene	0.21	Not Detected	0.96	Not Detected
4-Methyl-2-pentanone	0.21	Not Detected	0.86	Not Detected
Toluene	0.21	Not Detected	0.80	Not Detected
trans-1,3-Dichloropropene	0.21	Not Detected	0.96	Not Detected
1,1,2-Trichloroethane	0.21	Not Detected	1.2	Not Detected
Tetrachloroethene	0.21	Not Detected	1.4	Not Detected
2-Hexanone	1.0	Not Detected	4.3	Not Detected



Client Sample ID: D1 (134561)

Lab ID#: 1312301-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e121914	Date of Collection:	12/11/13 5:21:00 PM
Dil. Factor:	2.11	Date of Analysis:	12/19/13 06:59 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.21	Not Detected	1.8	Not Detected
1,2-Dibromoethane (EDB)	0.21	Not Detected	1.6	Not Detected
Chlorobenzene	0.21	Not Detected	0.97	Not Detected
Ethyl Benzene	0.21	Not Detected	0.92	Not Detected
m,p-Xylene	0.21	Not Detected	0.92	Not Detected
o-Xylene	0.21	Not Detected	0.92	Not Detected
Styrene	0.21	Not Detected	0.90	Not Detected
Bromoform	0.21	Not Detected	2.2	Not Detected
Cumene	0.21	Not Detected	1.0	Not Detected
1,1,2,2-Tetrachloroethane	0.21	Not Detected	1.4	Not Detected
Propylbenzene	0.21	Not Detected	1.0	Not Detected
4-Ethyltoluene	0.21	Not Detected	1.0	Not Detected
1,3,5-Trimethylbenzene	0.21	Not Detected	1.0	Not Detected
1,2,4-Trimethylbenzene	0.21	Not Detected	1.0	Not Detected
1,3-Dichlorobenzene	0.21	Not Detected	1.3	Not Detected
1,4-Dichlorobenzene	0.21	Not Detected	1.3	Not Detected
alpha-Chlorotoluene	0.21	Not Detected	1.1	Not Detected
1,2-Dichlorobenzene	0.21	Not Detected	1.3	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected	7.8	Not Detected
Hexachlorobutadiene	1.0	Not Detected	11	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	93	70-130



Air Toxics

Client Sample ID: D2 (134562)

Lab ID#: 1312301-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e121915	Date of Collection:	12/11/13 5:25:00 PM
Dil. Factor:	2.14	Date of Analysis:	12/19/13 08:11 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.21	0.48	1.0	2.4
Freon 114	0.21	Not Detected	1.5	Not Detected
Chloromethane	1.1	Not Detected	2.2	Not Detected
Vinyl Chloride	0.21	Not Detected	0.55	Not Detected
1,3-Butadiene	0.21	Not Detected	0.47	Not Detected
Bromomethane	1.1	Not Detected	4.2	Not Detected
Chloroethane	1.1	Not Detected	2.8	Not Detected
Freon 11	0.21	Not Detected	1.2	Not Detected
Ethanol	1.1	2.0	2.0	3.7
Freon 113	0.21	Not Detected	1.6	Not Detected
1,1-Dichloroethene	0.21	Not Detected	0.85	Not Detected
Acetone	1.1	1.3	2.5	3.2
2-Propanol	1.1	Not Detected	2.6	Not Detected
Carbon Disulfide	1.1	Not Detected	3.3	Not Detected
3-Chloropropene	1.1	Not Detected	3.3	Not Detected
Methylene Chloride	0.43	Not Detected	1.5	Not Detected
Methyl tert-butyl ether	0.21	Not Detected	0.77	Not Detected
trans-1,2-Dichloroethene	0.21	Not Detected	0.85	Not Detected
Hexane	0.21	Not Detected	0.75	Not Detected
1,1-Dichloroethane	0.21	Not Detected	0.87	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.1	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.21	Not Detected	0.85	Not Detected
Tetrahydrofuran	1.1	Not Detected	3.2	Not Detected
Chloroform	0.21	Not Detected	1.0	Not Detected
1,1,1-Trichloroethane	0.21	Not Detected	1.2	Not Detected
Cyclohexane	0.21	Not Detected	0.74	Not Detected
Carbon Tetrachloride	0.21	Not Detected	1.3	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.0	Not Detected
Benzene	0.21	Not Detected	0.68	Not Detected
1,2-Dichloroethane	0.21	Not Detected	0.87	Not Detected
Heptane	0.21	Not Detected	0.88	Not Detected
Trichloroethene	0.21	Not Detected	1.2	Not Detected
1,2-Dichloropropane	0.21	Not Detected	0.99	Not Detected
1,4-Dioxane	0.21	Not Detected	0.77	Not Detected
Bromodichloromethane	0.21	Not Detected	1.4	Not Detected
cis-1,3-Dichloropropene	0.21	Not Detected	0.97	Not Detected
4-Methyl-2-pentanone	0.21	Not Detected	0.88	Not Detected
Toluene	0.21	Not Detected	0.81	Not Detected
trans-1,3-Dichloropropene	0.21	Not Detected	0.97	Not Detected
1,1,2-Trichloroethane	0.21	Not Detected	1.2	Not Detected
Tetrachloroethene	0.21	Not Detected	1.4	Not Detected
2-Hexanone	1.1	Not Detected	4.4	Not Detected



Air Toxics

Client Sample ID: D2 (134562)

Lab ID#: 1312301-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e121915	Date of Collection:	12/11/13 5:25:00 PM
Dil. Factor:	2.14	Date of Analysis:	12/19/13 08:11 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.21	Not Detected	1.8	Not Detected
1,2-Dibromoethane (EDB)	0.21	Not Detected	1.6	Not Detected
Chlorobenzene	0.21	Not Detected	0.98	Not Detected
Ethyl Benzene	0.21	Not Detected	0.93	Not Detected
m,p-Xylene	0.21	Not Detected	0.93	Not Detected
o-Xylene	0.21	Not Detected	0.93	Not Detected
Styrene	0.21	Not Detected	0.91	Not Detected
Bromoform	0.21	Not Detected	2.2	Not Detected
Cumene	0.21	Not Detected	1.0	Not Detected
1,1,2,2-Tetrachloroethane	0.21	Not Detected	1.5	Not Detected
Propylbenzene	0.21	Not Detected	1.0	Not Detected
4-Ethyltoluene	0.21	Not Detected	1.0	Not Detected
1,3,5-Trimethylbenzene	0.21	Not Detected	1.0	Not Detected
1,2,4-Trimethylbenzene	0.21	Not Detected	1.0	Not Detected
1,3-Dichlorobenzene	0.21	Not Detected	1.3	Not Detected
1,4-Dichlorobenzene	0.21	Not Detected	1.3	Not Detected
alpha-Chlorotoluene	0.21	Not Detected	1.1	Not Detected
1,2-Dichlorobenzene	0.21	Not Detected	1.3	Not Detected
1,2,4-Trichlorobenzene	1.1	Not Detected	7.9	Not Detected
Hexachlorobutadiene	1.1	Not Detected	11	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	91	70-130



Air Toxics

Client Sample ID: U1 (134563)

Lab ID#: 1312301-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e121916	Date of Collection:	12/11/13 5:45:00 PM
Dil. Factor:	1.40	Date of Analysis:	12/19/13 08:54 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.41	0.69	2.0
Freon 114	0.14	Not Detected	0.98	Not Detected
Chloromethane	0.70	Not Detected	1.4	Not Detected
Vinyl Chloride	0.14	Not Detected	0.36	Not Detected
1,3-Butadiene	0.14	Not Detected	0.31	Not Detected
Bromomethane	0.70	Not Detected	2.7	Not Detected
Chloroethane	0.70	Not Detected	1.8	Not Detected
Freon 11	0.14	0.18	0.79	1.0
Ethanol	0.70	1.1	1.3	2.1
Freon 113	0.14	Not Detected	1.1	Not Detected
1,1-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Acetone	0.70	0.82	1.7	1.9
2-Propanol	0.70	Not Detected	1.7	Not Detected
Carbon Disulfide	0.70	Not Detected	2.2	Not Detected
3-Chloropropene	0.70	Not Detected	2.2	Not Detected
Methylene Chloride	0.28	Not Detected	0.97	Not Detected
Methyl tert-butyl ether	0.14	Not Detected	0.50	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Hexane	0.14	0.18	0.49	0.63
1,1-Dichloroethane	0.14	Not Detected	0.57	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.70	Not Detected	2.1	Not Detected
cis-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Tetrahydrofuran	0.70	Not Detected	2.1	Not Detected
Chloroform	0.14	Not Detected	0.68	Not Detected
1,1,1-Trichloroethane	0.14	Not Detected	0.76	Not Detected
Cyclohexane	0.14	Not Detected	0.48	Not Detected
Carbon Tetrachloride	0.14	Not Detected	0.88	Not Detected
2,2,4-Trimethylpentane	0.70	Not Detected	3.3	Not Detected
Benzene	0.14	Not Detected	0.45	Not Detected
1,2-Dichloroethane	0.14	Not Detected	0.57	Not Detected
Heptane	0.14	0.15	0.57	0.60
Trichloroethene	0.14	Not Detected	0.75	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.65	Not Detected
1,4-Dioxane	0.14	Not Detected	0.50	Not Detected
Bromodichloromethane	0.14	Not Detected	0.94	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
4-Methyl-2-pentanone	0.14	Not Detected	0.57	Not Detected
Toluene	0.14	Not Detected	0.53	Not Detected
trans-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.76	Not Detected
Tetrachloroethene	0.14	Not Detected	0.95	Not Detected
2-Hexanone	0.70	Not Detected	2.9	Not Detected



Air Toxics

Client Sample ID: U1 (134563)

Lab ID#: 1312301-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e121916	Date of Collection:	12/11/13 5:45:00 PM
Dil. Factor:	1.40	Date of Analysis:	12/19/13 08:54 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.64	Not Detected
Ethyl Benzene	0.14	Not Detected	0.61	Not Detected
m,p-Xylene	0.14	Not Detected	0.61	Not Detected
o-Xylene	0.14	Not Detected	0.61	Not Detected
Styrene	0.14	Not Detected	0.60	Not Detected
Bromoform	0.14	Not Detected	1.4	Not Detected
Cumene	0.14	Not Detected	0.69	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.96	Not Detected
Propylbenzene	0.14	Not Detected	0.69	Not Detected
4-Ethyltoluene	0.14	Not Detected	0.69	Not Detected
1,3,5-Trimethylbenzene	0.14	Not Detected	0.69	Not Detected
1,2,4-Trimethylbenzene	0.14	Not Detected	0.69	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.84	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.84	Not Detected
alpha-Chlorotoluene	0.14	Not Detected	0.72	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.84	Not Detected
1,2,4-Trichlorobenzene	0.70	Not Detected	5.2	Not Detected
Hexachlorobutadiene	0.70	Not Detected	7.5	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	92	70-130



Air Toxics

Client Sample ID: U2 (134564)

Lab ID#: 1312301-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e121917	Date of Collection:	12/11/13 5:42:00 PM
Dil. Factor:	1.45	Date of Analysis:	12/19/13 09:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.39	0.72	1.9
Freon 114	0.14	Not Detected	1.0	Not Detected
Chloromethane	0.72	Not Detected	1.5	Not Detected
Vinyl Chloride	0.14	Not Detected	0.37	Not Detected
1,3-Butadiene	0.14	Not Detected	0.32	Not Detected
Bromomethane	0.72	Not Detected	2.8	Not Detected
Chloroethane	0.72	Not Detected	1.9	Not Detected
Freon 11	0.14	0.19	0.81	1.1
Ethanol	0.72	1.1	1.4	2.1
Freon 113	0.14	Not Detected	1.1	Not Detected
1,1-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Acetone	0.72	0.80	1.7	1.9
2-Propanol	0.72	Not Detected	1.8	Not Detected
Carbon Disulfide	0.72	Not Detected	2.2	Not Detected
3-Chloropropene	0.72	Not Detected	2.3	Not Detected
Methylene Chloride	0.29	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.14	Not Detected	0.52	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Hexane	0.14	Not Detected	0.51	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.59	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.72	Not Detected	2.1	Not Detected
cis-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Tetrahydrofuran	0.72	Not Detected	2.1	Not Detected
Chloroform	0.14	Not Detected	0.71	Not Detected
1,1,1-Trichloroethane	0.14	Not Detected	0.79	Not Detected
Cyclohexane	0.14	Not Detected	0.50	Not Detected
Carbon Tetrachloride	0.14	Not Detected	0.91	Not Detected
2,2,4-Trimethylpentane	0.72	Not Detected	3.4	Not Detected
Benzene	0.14	Not Detected	0.46	Not Detected
1,2-Dichloroethane	0.14	Not Detected	0.59	Not Detected
Heptane	0.14	Not Detected	0.59	Not Detected
Trichloroethene	0.14	Not Detected	0.78	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.67	Not Detected
1,4-Dioxane	0.14	Not Detected	0.52	Not Detected
Bromodichloromethane	0.14	Not Detected	0.97	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.66	Not Detected
4-Methyl-2-pentanone	0.14	Not Detected	0.59	Not Detected
Toluene	0.14	Not Detected	0.55	Not Detected
trans-1,3-Dichloropropene	0.14	Not Detected	0.66	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.79	Not Detected
Tetrachloroethene	0.14	Not Detected	0.98	Not Detected
2-Hexanone	0.72	Not Detected	3.0	Not Detected



Air Toxics

Client Sample ID: U2 (134564)

Lab ID#: 1312301-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e121917	Date of Collection:	12/11/13 5:42:00 PM
Dil. Factor:	1.45	Date of Analysis:	12/19/13 09:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.67	Not Detected
Ethyl Benzene	0.14	Not Detected	0.63	Not Detected
m,p-Xylene	0.14	Not Detected	0.63	Not Detected
o-Xylene	0.14	Not Detected	0.63	Not Detected
Styrene	0.14	Not Detected	0.62	Not Detected
Bromoform	0.14	Not Detected	1.5	Not Detected
Cumene	0.14	Not Detected	0.71	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	1.0	Not Detected
Propylbenzene	0.14	Not Detected	0.71	Not Detected
4-Ethyltoluene	0.14	Not Detected	0.71	Not Detected
1,3,5-Trimethylbenzene	0.14	Not Detected	0.71	Not Detected
1,2,4-Trimethylbenzene	0.14	Not Detected	0.71	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.87	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.87	Not Detected
alpha-Chlorotoluene	0.14	Not Detected	0.75	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.87	Not Detected
1,2,4-Trichlorobenzene	0.72	Not Detected	5.4	Not Detected
Hexachlorobutadiene	0.72	Not Detected	7.7	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1312301-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e121906	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/19/13 12:27 PM

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





Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1312301-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e121906	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/19/13 12:27 PM

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

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	91	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1312301-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e121902	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/19/13 09:16 AM

Compound	%Recovery
Freon 12	80
Freon 114	84
Chloromethane	82
Vinyl Chloride	86
1,3-Butadiene	90
Bromomethane	88
Chloroethane	91
Freon 11	79
Ethanol	94
Freon 113	84
1,1-Dichloroethene	91
Acetone	73
2-Propanol	94
Carbon Disulfide	95
3-Chloropropene	97
Methylene Chloride	86
Methyl tert-butyl ether	94
trans-1,2-Dichloroethene	91
Hexane	98
1,1-Dichloroethane	84
2-Butanone (Methyl Ethyl Ketone)	95
cis-1,2-Dichloroethene	90
Tetrahydrofuran	100
Chloroform	85
1,1,1-Trichloroethane	87
Cyclohexane	98
Carbon Tetrachloride	86
2,2,4-Trimethylpentane	94
Benzene	85
1,2-Dichloroethane	79
Heptane	97
Trichloroethene	85
1,2-Dichloropropane	83
1,4-Dioxane	92
Bromodichloromethane	81
cis-1,3-Dichloropropene	91
4-Methyl-2-pentanone	96
Toluene	89
trans-1,3-Dichloropropene	87
1,1,2-Trichloroethane	83
Tetrachloroethene	85
2-Hexanone	97

Client Sample ID: CCV

Lab ID#: 1312301-06A

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

<b>File Name:</b>	<b>e121902</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 12/19/13 09:16 AM</b>

<b>Compound</b>	<b>%Recovery</b>
Dibromochloromethane	82
1,2-Dibromoethane (EDB)	86
Chlorobenzene	81
Ethyl Benzene	88
m,p-Xylene	93
o-Xylene	94
Styrene	95
Bromoform	84
Cumene	95
1,1,2,2-Tetrachloroethane	78
Propylbenzene	88
4-Ethyltoluene	92
1,3,5-Trimethylbenzene	88
1,2,4-Trimethylbenzene	91
1,3-Dichlorobenzene	79
1,4-Dichlorobenzene	81
alpha-Chlorotoluene	89
1,2-Dichlorobenzene	80
1,2,4-Trichlorobenzene	78
Hexachlorobutadiene	77

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1312301-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e121903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/19/13 10:00 AM

Compound	%Recovery	Method Limits
Freon 12	76	70-130
Freon 114	82	70-130
Chloromethane	78	70-130
Vinyl Chloride	81	70-130
1,3-Butadiene	87	70-130
Bromomethane	84	70-130
Chloroethane	86	70-130
Freon 11	76	70-130
Ethanol	92	70-130
Freon 113	92	70-130
1,1-Dichloroethene	96	70-130
Acetone	69 Q	70-130
2-Propanol	93	70-130
Carbon Disulfide	76	70-130
3-Chloropropene	96	70-130
Methylene Chloride	92	70-130
Methyl tert-butyl ether	90	70-130
trans-1,2-Dichloroethene	76	70-130
Hexane	96	70-130
1,1-Dichloroethane	83	70-130
2-Butanone (Methyl Ethyl Ketone)	94	70-130
cis-1,2-Dichloroethene	97	70-130
Tetrahydrofuran	97	70-130
Chloroform	83	70-130
1,1,1-Trichloroethane	84	70-130
Cyclohexane	98	70-130
Carbon Tetrachloride	103	70-130
2,2,4-Trimethylpentane	92	70-130
Benzene	78	70-130
1,2-Dichloroethane	76	70-130
Heptane	91	70-130
Trichloroethene	78	70-130
1,2-Dichloropropane	80	70-130
1,4-Dioxane	87	70-130
Bromodichloromethane	79	70-130
cis-1,3-Dichloropropene	90	70-130
4-Methyl-2-pentanone	96	70-130
Toluene	82	70-130
trans-1,3-Dichloropropene	79	70-130
1,1,2-Trichloroethane	80	70-130
Tetrachloroethene	80	70-130
2-Hexanone	97	70-130

Client Sample ID: LCS

Lab ID#: 1312301-07A

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

<b>File Name:</b>	<b>e121903</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 12/19/13 10:00 AM</b>

<b>Compound</b>	<b>%Recovery</b>	<b>Method Limits</b>
Dibromochloromethane	83	70-130
1,2-Dibromoethane (EDB)	85	70-130
Chlorobenzene	76	70-130
Ethyl Benzene	82	70-130
m,p-Xylene	90	70-130
o-Xylene	88	70-130
Styrene	91	70-130
Bromoform	85	70-130
Cumene	91	70-130
1,1,2,2-Tetrachloroethane	75	70-130
Propylbenzene	86	70-130
4-Ethyltoluene	89	70-130
1,3,5-Trimethylbenzene	81	70-130
1,2,4-Trimethylbenzene	83	70-130
1,3-Dichlorobenzene	74	70-130
1,4-Dichlorobenzene	77	70-130
alpha-Chlorotoluene	91	70-130
1,2-Dichlorobenzene	77	70-130
1,2,4-Trichlorobenzene	78	70-130
Hexachlorobutadiene	77	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	98	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: LCSD

Lab ID#: 1312301-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e121904	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/19/13 10:40 AM

Compound	%Recovery	Method Limits
Freon 12	74	70-130
Freon 114	79	70-130
Chloromethane	76	70-130
Vinyl Chloride	80	70-130
1,3-Butadiene	85	70-130
Bromomethane	81	70-130
Chloroethane	84	70-130
Freon 11	74	70-130
Ethanol	73	70-130
Freon 113	90	70-130
1,1-Dichloroethene	97	70-130
Acetone	68 Q	70-130
2-Propanol	93	70-130
Carbon Disulfide	73	70-130
3-Chloropropene	97	70-130
Methylene Chloride	89	70-130
Methyl tert-butyl ether	90	70-130
trans-1,2-Dichloroethene	76	70-130
Hexane	94	70-130
1,1-Dichloroethane	82	70-130
2-Butanone (Methyl Ethyl Ketone)	93	70-130
cis-1,2-Dichloroethene	96	70-130
Tetrahydrofuran	97	70-130
Chloroform	81	70-130
1,1,1-Trichloroethane	83	70-130
Cyclohexane	96	70-130
Carbon Tetrachloride	102	70-130
2,2,4-Trimethylpentane	89	70-130
Benzene	79	70-130
1,2-Dichloroethane	76	70-130
Heptane	90	70-130
Trichloroethene	79	70-130
1,2-Dichloropropane	80	70-130
1,4-Dioxane	90	70-130
Bromodichloromethane	80	70-130
cis-1,3-Dichloropropene	90	70-130
4-Methyl-2-pentanone	98	70-130
Toluene	82	70-130
trans-1,3-Dichloropropene	79	70-130
1,1,2-Trichloroethane	80	70-130
Tetrachloroethene	82	70-130
2-Hexanone	98	70-130

Client Sample ID: LCSD

Lab ID#: 1312301-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e121904	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/19/13 10:40 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	83	70-130
1,2-Dibromoethane (EDB)	84	70-130
Chlorobenzene	77	70-130
Ethyl Benzene	83	70-130
m,p-Xylene	89	70-130
o-Xylene	87	70-130
Styrene	89	70-130
Bromoform	86	70-130
Cumene	92	70-130
1,1,2,2-Tetrachloroethane	76	70-130
Propylbenzene	87	70-130
4-Ethyltoluene	88	70-130
1,3,5-Trimethylbenzene	85	70-130
1,2,4-Trimethylbenzene	84	70-130
1,3-Dichlorobenzene	75	70-130
1,4-Dichlorobenzene	76	70-130
alpha-Chlorotoluene	91	70-130
1,2-Dichlorobenzene	77	70-130
1,2,4-Trichlorobenzene	77	70-130
Hexachlorobutadiene	78	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	99	70-130
4-Bromofluorobenzene	101	70-130