



CHAIN-OF-CUSTODY RECORD

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Page 1 of 1

Project Manager DAN NORRIS
 Collected by: (Print and Sign) CHRIS HEIMSOTH *Chris Heimsoth*
 Company MISSOURI DNR Email Chris.heimsoth@dnr.mo.gov
 Address PO Box 176 City Jefferson City State MO Zip 65702
 Phone 573-526-3915 Fax _____

Project Info:	Turn Around Time:	Lab Use Only
	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush specify _____	Pressurized by: Date: Pressurization Gas: N ₂ 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 (psl)
	<u>U1 (134661)</u>	<u>5761</u>	<u>11/26/13</u>	<u>0950-1608</u>	<u>TO-15</u>	<u>-295</u>	<u>-4</u>		
	<u>U2 (134662)</u>	<u>5657</u>	<u>11/26/13</u>	<u>1000-1615</u>	<u>TO-15</u>	<u>-30</u>	<u>-4.5</u>		
	<u>D1 (134663)</u>	<u>35180</u>	<u>11/26/13</u>	<u>1020-1600</u>	<u>TO-15</u>	<u>-30</u>	<u>-5</u>		
	<u>P2 (134664)</u>	<u>33787</u>	<u>11/26/13</u>	<u>1040-1605</u>	<u>TO-15</u>	<u>-30</u>	<u>-4</u>		

Relinquished by: (signature) <u>Chris Heimsoth</u> Date/Time <u>11/26/13 1730</u>	Received by: (signature) _____ Date/Time _____	Notes: <u>Shipped via UPS</u> <u>Tracking#</u> <u>1Z 672-788-03 4418 3226</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	

12/18/2013
Mr. Dennis Schroeder
Missouri Dept. of Natural Resources
2710 West Main

Jefferson City MO 65109

Project Name: BRIDGETON LANDFILL
Project #:
Workorder #: 1312041

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 12/4/2013 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 #: 1312041

Work Order Summary

CLIENT:	Mr. Dennis Schroeder Missouri Dept. of Natural Resources 2710 West Main Jefferson City, MO 65109	BILL TO:	Accounts Payable Missouri Dept. of Natural Resources P.O Box 176 Jefferson City, MO 65102
PHONE:	573-526-4428	P.O. #	3ESP1301039
FAX:	573-526-3350	PROJECT #	BRIDGETON LANDFILL
DATE RECEIVED:	12/04/2013	CONTACT:	Kelly Buettner
DATE COMPLETED:	12/18/2013		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	U1 (134661)	Modified TO-15	2.5 "Hg	5 psi
02A	U2 (134662)	Modified TO-15	2.0 "Hg	5 psi
03A	D1 (134663)	Modified TO-15	3.0 "Hg	5 psi
04A	D2 (134664)	Modified TO-15	3.5 "Hg	5 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: 12/18/13

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

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**LABORATORY NARRATIVE
Modified TO-15
Missouri Dept. of Natural Resources
Workorder# 1312041**

Four 6 Liter Summa Canister (100% Certified) samples were received on December 04, 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. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

The Relative Percent Difference (RPD) of the LCS/LCSD exceeded acceptance limits for Bromoform.

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: U1 (134661)

Lab ID#: 1312041-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.15	0.23	0.82	1.3
Ethanol	0.73	2.7	1.4	5.1
Acetone	0.73	3.2	1.7	7.6
Hexane	0.15	0.19	0.51	0.67
Benzene	0.15	1.5	0.47	4.7
Heptane	0.15	0.23	0.60	0.94
Toluene	0.15	0.24	0.55	0.90

Client Sample ID: U2 (134662)

Lab ID#: 1312041-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.14	0.23	0.81	1.3
Acetone	0.72	2.0	1.7	4.8
Methylene Chloride	0.29	0.39	1.0	1.4
Benzene	0.14	0.22	0.46	0.72
Toluene	0.14	0.14	0.54	0.55

Client Sample ID: D1 (134663)

Lab ID#: 1312041-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.51	0.74	2.5
Freon 11	0.15	0.24	0.84	1.3
Ethanol	0.74	3.1	1.4	5.8
Acetone	0.74	2.1	1.8	5.0
Benzene	0.15	0.20	0.48	0.66
Toluene	0.15	0.15	0.56	0.58

Client Sample ID: D2 (134664)

Lab ID#: 1312041-04A

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

Client Sample ID: D2 (134664)

Lab ID#: 1312041-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.15	0.24	0.85	1.4
Ethanol	0.76	3.2	1.4	6.0
Acetone	0.76	2.3	1.8	5.4
Hexane	0.15	0.16	0.54	0.56
Benzene	0.15	0.23	0.48	0.74
Toluene	0.15	0.19	0.57	0.73



Air Toxics

Client Sample ID: U1 (134661)

Lab ID#: 1312041-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121311	Date of Collection:	11/26/13 4:08:00 PM
Dil. Factor:	1.46	Date of Analysis:	12/13/13 08:55 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	Not Detected	0.72	Not Detected
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.73	Not Detected	1.5	Not Detected
Vinyl Chloride	0.15	Not Detected	0.37	Not Detected
1,3-Butadiene	0.15	Not Detected	0.32	Not Detected
Bromomethane	0.73	Not Detected	2.8	Not Detected
Chloroethane	0.73	Not Detected	1.9	Not Detected
Freon 11	0.15	0.23	0.82	1.3
Ethanol	0.73	2.7	1.4	5.1
Freon 113	0.15	Not Detected	1.1	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Acetone	0.73	3.2	1.7	7.6
2-Propanol	0.73	Not Detected	1.8	Not Detected
Carbon Disulfide	0.73	Not Detected	2.3	Not Detected
3-Chloropropene	0.73	Not Detected	2.3	Not Detected
Methylene Chloride	0.29	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.53	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Hexane	0.15	0.19	0.51	0.67
1,1-Dichloroethane	0.15	Not Detected	0.59	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.73	Not Detected	2.2	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Tetrahydrofuran	0.73	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.71	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.80	Not Detected
Cyclohexane	0.15	Not Detected	0.50	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.92	Not Detected
2,2,4-Trimethylpentane	0.73	Not Detected	3.4	Not Detected
Benzene	0.15	1.5	0.47	4.7
1,2-Dichloroethane	0.15	Not Detected	0.59	Not Detected
Heptane	0.15	0.23	0.60	0.94
Trichloroethene	0.15	Not Detected	0.78	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.67	Not Detected
1,4-Dioxane	0.15	Not Detected	0.53	Not Detected
Bromodichloromethane	0.15	Not Detected	0.98	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.60	Not Detected
Toluene	0.15	0.24	0.55	0.90
trans-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.80	Not Detected
Tetrachloroethene	0.15	Not Detected	0.99	Not Detected
2-Hexanone	0.73	Not Detected	3.0	Not Detected

Client Sample ID: U1 (134661)

Lab ID#: 1312041-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121311	Date of Collection: 11/26/13 4:08:00 PM
Dil. Factor:	1.46	Date of Analysis: 12/13/13 08:55 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.15	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
Chlorobenzene	0.15	Not Detected	0.67	Not Detected
Ethyl Benzene	0.15	Not Detected	0.63	Not Detected
m,p-Xylene	0.15	Not Detected	0.63	Not Detected
o-Xylene	0.15	Not Detected	0.63	Not Detected
Styrene	0.15	Not Detected	0.62	Not Detected
Bromoform	0.15	Not Detected	1.5	Not Detected
Cumene	0.15	Not Detected	0.72	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	Not Detected	0.72	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.72	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.72	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.72	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.76	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,2,4-Trichlorobenzene	0.73	Not Detected	5.4	Not Detected
Hexachlorobutadiene	0.73	Not Detected	7.8	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: U2 (134662)

Lab ID#: 1312041-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121312	Date of Collection:	11/26/13 4:15:00 PM
Dil. Factor:	1.44	Date of Analysis:	12/13/13 09:46 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	Not Detected	0.71	Not Detected
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	0.23	0.81	1.3
Ethanol	0.72	Not Detected	1.4	Not Detected
Freon 113	0.14	Not Detected	1.1	Not Detected
1,1-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Acetone	0.72	2.0	1.7	4.8
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	2.2	Not Detected
Methylene Chloride	0.29	0.39	1.0	1.4
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	0.58	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	0.70	Not Detected
1,1,1-Trichloroethane	0.14	Not Detected	0.78	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	0.22	0.46	0.72
1,2-Dichloroethane	0.14	Not Detected	0.58	Not Detected
Heptane	0.14	Not Detected	0.59	Not Detected
Trichloroethene	0.14	Not Detected	0.77	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.66	Not Detected
1,4-Dioxane	0.14	Not Detected	0.52	Not Detected
Bromodichloromethane	0.14	Not Detected	0.96	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.65	Not Detected
4-Methyl-2-pentanone	0.14	Not Detected	0.59	Not Detected
Toluene	0.14	0.14	0.54	0.55
trans-1,3-Dichloropropene	0.14	Not Detected	0.65	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.78	Not Detected
Tetrachloroethene	0.14	Not Detected	0.98	Not Detected
2-Hexanone	0.72	Not Detected	2.9	Not Detected

Client Sample ID: U2 (134662)

Lab ID#: 1312041-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121312	Date of Collection:	11/26/13 4:15:00 PM
Dil. Factor:	1.44	Date of Analysis:	12/13/13 09:46 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	0.66	Not Detected
Ethyl Benzene	0.14	Not Detected	0.62	Not Detected
m,p-Xylene	0.14	Not Detected	0.62	Not Detected
o-Xylene	0.14	Not Detected	0.62	Not Detected
Styrene	0.14	Not Detected	0.61	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	0.99	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	0.86	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
alpha-Chlorotoluene	0.14	Not Detected	0.74	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
1,2,4-Trichlorobenzene	0.72	Not Detected	5.3	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	102	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: D1 (134663)

Lab ID#: 1312041-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121313	Date of Collection:	11/26/13 4:00:00 PM
Dil. Factor:	1.49	Date of Analysis:	12/13/13 10:34 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.51	0.74	2.5
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.74	Not Detected	1.5	Not Detected
Vinyl Chloride	0.15	Not Detected	0.38	Not Detected
1,3-Butadiene	0.15	Not Detected	0.33	Not Detected
Bromomethane	0.74	Not Detected	2.9	Not Detected
Chloroethane	0.74	Not Detected	2.0	Not Detected
Freon 11	0.15	0.24	0.84	1.3
Ethanol	0.74	3.1	1.4	5.8
Freon 113	0.15	Not Detected	1.1	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Acetone	0.74	2.1	1.8	5.0
2-Propanol	0.74	Not Detected	1.8	Not Detected
Carbon Disulfide	0.74	Not Detected	2.3	Not Detected
3-Chloropropene	0.74	Not Detected	2.3	Not Detected
Methylene Chloride	0.30	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.54	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Hexane	0.15	Not Detected	0.52	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.60	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.74	Not Detected	2.2	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Tetrahydrofuran	0.74	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.73	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.81	Not Detected
Cyclohexane	0.15	Not Detected	0.51	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.94	Not Detected
2,2,4-Trimethylpentane	0.74	Not Detected	3.5	Not Detected
Benzene	0.15	0.20	0.48	0.66
1,2-Dichloroethane	0.15	Not Detected	0.60	Not Detected
Heptane	0.15	Not Detected	0.61	Not Detected
Trichloroethene	0.15	Not Detected	0.80	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.69	Not Detected
1,4-Dioxane	0.15	Not Detected	0.54	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.61	Not Detected
Toluene	0.15	0.15	0.56	0.58
trans-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.81	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
2-Hexanone	0.74	Not Detected	3.0	Not Detected

Client Sample ID: D1 (134663)

Lab ID#: 1312041-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121313	Date of Collection: 11/26/13 4:00:00 PM
Dil. Factor:	1.49	Date of Analysis: 12/13/13 10:34 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
Chlorobenzene	0.15	Not Detected	0.68	Not Detected
Ethyl Benzene	0.15	Not Detected	0.65	Not Detected
m,p-Xylene	0.15	Not Detected	0.65	Not Detected
o-Xylene	0.15	Not Detected	0.65	Not Detected
Styrene	0.15	Not Detected	0.63	Not Detected
Bromoform	0.15	Not Detected	1.5	Not Detected
Cumene	0.15	Not Detected	0.73	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	Not Detected	0.73	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.73	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.73	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.73	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.77	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,2,4-Trichlorobenzene	0.74	Not Detected	5.5	Not Detected
Hexachlorobutadiene	0.74	Not Detected	7.9	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	88	70-130



Air Toxics

Client Sample ID: D2 (134664)

Lab ID#: 1312041-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121314	Date of Collection:	11/26/13 4:05:00 PM
Dil. Factor:	1.52	Date of Analysis:	12/14/13 06:56 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	Not Detected	0.75	Not Detected
Freon 114	0.15	Not Detected	1.1	Not Detected
Chloromethane	0.76	Not Detected	1.6	Not Detected
Vinyl Chloride	0.15	Not Detected	0.39	Not Detected
1,3-Butadiene	0.15	Not Detected	0.34	Not Detected
Bromomethane	0.76	Not Detected	3.0	Not Detected
Chloroethane	0.76	Not Detected	2.0	Not Detected
Freon 11	0.15	0.24	0.85	1.4
Ethanol	0.76	3.2	1.4	6.0
Freon 113	0.15	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Acetone	0.76	2.3	1.8	5.4
2-Propanol	0.76	Not Detected	1.9	Not Detected
Carbon Disulfide	0.76	Not Detected	2.4	Not Detected
3-Chloropropene	0.76	Not Detected	2.4	Not Detected
Methylene Chloride	0.30	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.55	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Hexane	0.15	0.16	0.54	0.56
1,1-Dichloroethane	0.15	Not Detected	0.62	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.76	Not Detected	2.2	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Tetrahydrofuran	0.76	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.74	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Cyclohexane	0.15	Not Detected	0.52	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.96	Not Detected
2,2,4-Trimethylpentane	0.76	Not Detected	3.6	Not Detected
Benzene	0.15	0.23	0.48	0.74
1,2-Dichloroethane	0.15	Not Detected	0.62	Not Detected
Heptane	0.15	Not Detected	0.62	Not Detected
Trichloroethene	0.15	Not Detected	0.82	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.70	Not Detected
1,4-Dioxane	0.15	Not Detected	0.55	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.62	Not Detected
Toluene	0.15	0.19	0.57	0.73
trans-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
2-Hexanone	0.76	Not Detected	3.1	Not Detected

Client Sample ID: D2 (134664)

Lab ID#: 1312041-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121314	Date of Collection:	11/26/13 4:05:00 PM
Dil. Factor:	1.52	Date of Analysis:	12/14/13 06:56 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.2	Not Detected
Chlorobenzene	0.15	Not Detected	0.70	Not Detected
Ethyl Benzene	0.15	Not Detected	0.66	Not Detected
m,p-Xylene	0.15	Not Detected	0.66	Not Detected
o-Xylene	0.15	Not Detected	0.66	Not Detected
Styrene	0.15	Not Detected	0.65	Not Detected
Bromoform	0.15	Not Detected	1.6	Not Detected
Cumene	0.15	Not Detected	0.75	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	Not Detected	0.75	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.75	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.75	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.75	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.79	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,2,4-Trichlorobenzene	0.76	Not Detected	5.6	Not Detected
Hexachlorobutadiene	0.76	Not Detected	8.1	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: Lab Blank

Lab ID#: 1312041-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121308	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/13/13 06:06 PM

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

Client Sample ID: Lab Blank

Lab ID#: 1312041-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121308	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/13/13 06:06 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	82	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	90	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1312041-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/13/13 12:58 PM

Compound	%Recovery
Freon 12	110
Freon 114	105
Chloromethane	102
Vinyl Chloride	108
1,3-Butadiene	108
Bromomethane	108
Chloroethane	95
Freon 11	103
Ethanol	110
Freon 113	105
1,1-Dichloroethene	112
Acetone	96
2-Propanol	104
Carbon Disulfide	103
3-Chloropropene	103
Methylene Chloride	98
Methyl tert-butyl ether	101
trans-1,2-Dichloroethene	96
Hexane	101
1,1-Dichloroethane	104
2-Butanone (Methyl Ethyl Ketone)	100
cis-1,2-Dichloroethene	100
Tetrahydrofuran	121
Chloroform	104
1,1,1-Trichloroethane	96
Cyclohexane	97
Carbon Tetrachloride	113
2,2,4-Trimethylpentane	106
Benzene	105
1,2-Dichloroethane	102
Heptane	101
Trichloroethene	103
1,2-Dichloropropane	104
1,4-Dioxane	100
Bromodichloromethane	105
cis-1,3-Dichloropropene	102
4-Methyl-2-pentanone	108
Toluene	101
trans-1,3-Dichloropropene	100
1,1,2-Trichloroethane	96
Tetrachloroethene	100
2-Hexanone	101



Air Toxics

Client Sample ID: CCV

Lab ID#: 1312041-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/13/13 12:58 PM

Compound	%Recovery
Dibromochloromethane	103
1,2-Dibromoethane (EDB)	96
Chlorobenzene	99
Ethyl Benzene	102
m,p-Xylene	96
o-Xylene	102
Styrene	96
Bromoform	91
Cumene	99
1,1,2,2-Tetrachloroethane	99
Propylbenzene	94
4-Ethyltoluene	98
1,3,5-Trimethylbenzene	93
1,2,4-Trimethylbenzene	92
1,3-Dichlorobenzene	87
1,4-Dichlorobenzene	85
alpha-Chlorotoluene	95
1,2-Dichlorobenzene	89
1,2,4-Trichlorobenzene	90
Hexachlorobutadiene	80

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: LCS

Lab ID#: 1312041-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121304	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/13/13 02:38 PM

Compound	%Recovery	Method Limits
Freon 12	122	70-130
Freon 114	118	70-130
Chloromethane	118	70-130
Vinyl Chloride	123	70-130
1,3-Butadiene	118	70-130
Bromomethane	112	70-130
Chloroethane	101	70-130
Freon 11	119	70-130
Ethanol	129	70-130
Freon 113	138 Q	70-130
1,1-Dichloroethene	143 Q	70-130
Acetone	108	70-130
2-Propanol	121	70-130
Carbon Disulfide	109	70-130
3-Chloropropene	119	70-130
Methylene Chloride	129	70-130
Methyl tert-butyl ether	115	70-130
trans-1,2-Dichloroethene	98	70-130
Hexane	120	70-130
1,1-Dichloroethane	121	70-130
2-Butanone (Methyl Ethyl Ketone)	115	70-130
cis-1,2-Dichloroethene	128	70-130
Tetrahydrofuran	115	70-130
Chloroform	120	70-130
1,1,1-Trichloroethane	113	70-130
Cyclohexane	118	70-130
Carbon Tetrachloride	121	70-130
2,2,4-Trimethylpentane	124	70-130
Benzene	117	70-130
1,2-Dichloroethane	116	70-130
Heptane	117	70-130
Trichloroethene	120	70-130
1,2-Dichloropropane	119	70-130
1,4-Dioxane	115	70-130
Bromodichloromethane	122	70-130
cis-1,3-Dichloropropene	122	70-130
4-Methyl-2-pentanone	128	70-130
Toluene	114	70-130
trans-1,3-Dichloropropene	112	70-130
1,1,2-Trichloroethane	109	70-130
Tetrachloroethene	113	70-130
2-Hexanone	119	70-130

Client Sample ID: LCS

Lab ID#: 1312041-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121304	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/13/13 02:38 PM

Compound	%Recovery	Method Limits
Dibromochloromethane	117	70-130
1,2-Dibromoethane (EDB)	109	70-130
Chlorobenzene	110	70-130
Ethyl Benzene	113	70-130
m,p-Xylene	106	70-130
o-Xylene	114	70-130
Styrene	110	70-130
Bromoform	148 Q	70-130
Cumene	113	70-130
1,1,2,2-Tetrachloroethane	112	70-130
Propylbenzene	113	70-130
4-Ethyltoluene	115	70-130
1,3,5-Trimethylbenzene	117	70-130
1,2,4-Trimethylbenzene	110	70-130
1,3-Dichlorobenzene	96	70-130
1,4-Dichlorobenzene	99	70-130
alpha-Chlorotoluene	116	70-130
1,2-Dichlorobenzene	103	70-130
1,2,4-Trichlorobenzene	89	70-130
Hexachlorobutadiene	73	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1312041-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121305	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/13/13 03:34 PM

Compound	%Recovery	Method Limits
Freon 12	102	70-130
Freon 114	97	70-130
Chloromethane	97	70-130
Vinyl Chloride	102	70-130
1,3-Butadiene	98	70-130
Bromomethane	101	70-130
Chloroethane	88	70-130
Freon 11	100	70-130
Ethanol	105	70-130
Freon 113	117	70-130
1,1-Dichloroethene	115	70-130
Acetone	92	70-130
2-Propanol	101	70-130
Carbon Disulfide	90	70-130
3-Chloropropene	98	70-130
Methylene Chloride	102	70-130
Methyl tert-butyl ether	96	70-130
trans-1,2-Dichloroethene	81	70-130
Hexane	102	70-130
1,1-Dichloroethane	101	70-130
2-Butanone (Methyl Ethyl Ketone)	100	70-130
cis-1,2-Dichloroethene	111	70-130
Tetrahydrofuran	120	70-130
Chloroform	99	70-130
1,1,1-Trichloroethane	94	70-130
Cyclohexane	98	70-130
Carbon Tetrachloride	102	70-130
2,2,4-Trimethylpentane	101	70-130
Benzene	116	70-130
1,2-Dichloroethane	117	70-130
Heptane	117	70-130
Trichloroethene	115	70-130
1,2-Dichloropropane	121	70-130
1,4-Dioxane	118	70-130
Bromodichloromethane	120	70-130
cis-1,3-Dichloropropene	118	70-130
4-Methyl-2-pentanone	124	70-130
Toluene	111	70-130
trans-1,3-Dichloropropene	115	70-130
1,1,2-Trichloroethane	112	70-130
Tetrachloroethene	119	70-130
2-Hexanone	121	70-130

Client Sample ID: LCSD

Lab ID#: 1312041-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121305	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/13/13 03:34 PM

Compound	%Recovery	Method Limits
Dibromochloromethane	124	70-130
1,2-Dibromoethane (EDB)	116	70-130
Chlorobenzene	114	70-130
Ethyl Benzene	116	70-130
m,p-Xylene	115	70-130
o-Xylene	114	70-130
Styrene	113	70-130
Bromoform	110	70-130
Cumene	118	70-130
1,1,2,2-Tetrachloroethane	117	70-130
Propylbenzene	118	70-130
4-Ethyltoluene	121	70-130
1,3,5-Trimethylbenzene	114	70-130
1,2,4-Trimethylbenzene	116	70-130
1,3-Dichlorobenzene	100	70-130
1,4-Dichlorobenzene	103	70-130
alpha-Chlorotoluene	120	70-130
1,2-Dichlorobenzene	106	70-130
1,2,4-Trichlorobenzene	96	70-130
Hexachlorobutadiene	81	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	76	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	99	70-130