



CHAIN-OF-CUSTODY RECORD

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FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

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

Project Info: P.O. # _____ Project # _____ Project Name <u>Bridgeton Landfill</u>	Turn Around Time: <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush <small>specify</small>	<small>Lab Use Only</small> Pressurized by: _____ Date: _____ Pressurization Gas: _____ N ₂ He
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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 (134551)	414	11/7/13	1636-2138	T0-15	-30	-5.75		
	D2 D1 (134552)	34005	11/7/13	1648-2127	T0-15	-30	-5		
	U1 (134553)	33327	11/7/13	1735-2155	T0-15	-30	-5		
	U2 (134554)	23993	11/7/13	1754-2214	T0-15	-30	-5.25		

Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>11/8/13 11:20</u>	Received by: (signature) _____ Date/Time _____	Notes: <u>sent via UPS Ground Tracking # 1Z6727880344942370</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	

11/30/2013
Mr. Dennis Schroeder
Missouri Dept. of Natural Resources
2710 West Main

Jefferson City MO 65109

Project Name: Bridgeton Landfill
Project #:
Workorder #: 1311237

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 11/13/2013 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 #: 1311237

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:	573-526-3363	P.O. #	3ESP1301039
FAX:	573-526-3350	PROJECT #	Bridgeton Landfill
DATE RECEIVED:	11/13/2013	CONTACT:	Kelly Buettner
DATE COMPLETED:	11/29/2013		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (134551)	Modified TO-15	3.3 "Hg	5.1 psi
02A	D2 (134552)	Modified TO-15	4.5 "Hg	5 psi
03A	U1 (134553)	Modified TO-15	4.3 "Hg	5.1 psi
04A	U2 (134554)	Modified TO-15	4.7 "Hg	5 psi
05A	Lab Blank	Modified TO-15	NA	NA
05B	Lab Blank	Modified TO-15	NA	NA
06A	CCV	Modified TO-15	NA	NA
06B	CCV	Modified TO-15	NA	NA
07A	LCS	Modified TO-15	NA	NA
07AA	LCSD	Modified TO-15	NA	NA
07B	LCS	Modified TO-15	NA	NA
07BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: 
 Technical Director

DATE: 11/30/13

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# 1311237**

Four 6 Liter Summa Canister (100% Certified) samples were received on November 13, 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.

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 (134551)

Lab ID#: 1311237-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.49	0.75	2.4
Freon 11	0.15	0.29	0.85	1.6
Ethanol	0.76	9.1	1.4	17
Acetone	0.76	2.4	1.8	5.8
Methylene Chloride	0.30	0.74	1.0	2.6
Hexane	0.15	0.25	0.53	0.89
Benzene	0.15	0.42	0.48	1.3
Toluene	0.15	0.46	0.57	1.7
m,p-Xylene	0.15	0.20	0.66	0.88

Client Sample ID: D2 (134552)

Lab ID#: 1311237-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.16	0.29	0.89	1.6
Ethanol	0.79	11 J	1.5	20 J
Acetone	0.79	3.9	1.9	9.2
Methylene Chloride	0.32	0.99	1.1	3.4
Cyclohexane	0.16	0.24	0.54	0.82
Benzene	0.16	0.44	0.50	1.4
Toluene	0.16	1.4	0.60	5.2

Client Sample ID: U1 (134553)

Lab ID#: 1311237-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.16	0.28	0.88	1.6
Ethanol	0.78	9.2 J	1.5	17 J
Acetone	0.78	2.8	1.9	6.5
Methylene Chloride	0.31	0.40	1.1	1.4
Hexane	0.16	0.18	0.55	0.63
Cyclohexane	0.16	0.42	0.54	1.4
Benzene	0.16	0.20	0.50	0.65

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

Client Sample ID: U1 (134553)

Lab ID#: 1311237-03A

Toluene	0.16	2.2	0.59	8.3
m,p-Xylene	0.16	0.25	0.68	1.1

Client Sample ID: U2 (134554)

Lab ID#: 1311237-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.16	0.30	0.89	1.7
Ethanol	0.80	6.0 J	1.5	11 J
Acetone	0.80	3.3	1.9	7.9
Methylene Chloride	0.32	1.6	1.1	5.7
Benzene	0.16	0.22	0.51	0.70
Heptane	0.16	0.22	0.65	0.92
Toluene	0.16	0.35	0.60	1.3
m,p-Xylene	0.16	0.17	0.69	0.75



Air Toxics

Client Sample ID: D1 (134551)

Lab ID#: 1311237-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111509	Date of Collection:	11/7/13 9:38:00 PM
Dil. Factor:	1.51	Date of Analysis:	11/15/13 07:21 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.49	0.75	2.4
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.76	Not Detected	1.6	Not Detected
Vinyl Chloride	0.15	Not Detected	0.38	Not Detected
1,3-Butadiene	0.15	Not Detected	0.33	Not Detected
Bromomethane	0.76	Not Detected	2.9	Not Detected
Chloroethane	0.76	Not Detected	2.0	Not Detected
Freon 11	0.15	0.29	0.85	1.6
Ethanol	0.76	9.1	1.4	17
Freon 113	0.15	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Acetone	0.76	2.4	1.8	5.8
2-Propanol	0.76	Not Detected	1.8	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	0.74	1.0	2.6
Methyl tert-butyl ether	0.15	Not Detected	0.54	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Hexane	0.15	0.25	0.53	0.89
1,1-Dichloroethane	0.15	Not Detected	0.61	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	0.82	Not Detected
Cyclohexane	0.15	Not Detected	0.52	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.95	Not Detected
2,2,4-Trimethylpentane	0.76	Not Detected	3.5	Not Detected
Benzene	0.15	0.42	0.48	1.3
1,2-Dichloroethane	0.15	Not Detected	0.61	Not Detected
Heptane	0.15	Not Detected	0.62	Not Detected
Trichloroethene	0.15	Not Detected	0.81	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.70	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	0.62	Not Detected
Toluene	0.15	0.46	0.57	1.7
trans-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.82	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
2-Hexanone	0.76	Not Detected	3.1	Not Detected

Client Sample ID: D1 (134551)

Lab ID#: 1311237-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111509	Date of Collection:	11/7/13 9:38:00 PM
Dil. Factor:	1.51	Date of Analysis:	11/15/13 07:21 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	1.2	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	0.20	0.66	0.88
o-Xylene	0.15	Not Detected	0.66	Not Detected
Styrene	0.15	Not Detected	0.64	Not Detected
Bromoform	0.15	Not Detected	1.6	Not Detected
Cumene	0.15	Not Detected	0.74	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	Not Detected	0.74	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.74	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.74	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.74	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	0.78	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	8.0	Not Detected

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	93	70-130



Air Toxics

Client Sample ID: D2 (134552)

Lab ID#: 1311237-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111806	Date of Collection:	11/7/13 9:27:00 PM
Dil. Factor:	1.58	Date of Analysis:	11/18/13 01:50 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	Not Detected	0.78	Not Detected
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.79	Not Detected	1.6	Not Detected
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
1,3-Butadiene	0.16	Not Detected	0.35	Not Detected
Bromomethane	0.79	Not Detected	3.1	Not Detected
Chloroethane	0.79	Not Detected	2.1	Not Detected
Freon 11	0.16	0.29	0.89	1.6
Ethanol	0.79	11 J	1.5	20 J
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.79	3.9	1.9	9.2
2-Propanol	0.79	Not Detected	1.9	Not Detected
Carbon Disulfide	0.79	Not Detected	2.5	Not Detected
3-Chloropropene	0.79	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	0.99	1.1	3.4
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)	0.79	Not Detected	2.3	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Tetrahydrofuran	0.79	Not Detected	2.3	Not Detected
Chloroform	0.16	Not Detected	0.77	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Cyclohexane	0.16	0.24	0.54	0.82
Carbon Tetrachloride	0.16	Not Detected	0.99	Not Detected
2,2,4-Trimethylpentane	0.79	Not Detected	3.7	Not Detected
Benzene	0.16	0.44	0.50	1.4
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	1.0	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	1.4	0.60	5.2
trans-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.79	Not Detected	3.2	Not Detected



Client Sample ID: D2 (134552)

Lab ID#: 1311237-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111806	Date of Collection:	11/7/13 9:27:00 PM
Dil. Factor:	1.58	Date of Analysis:	11/18/13 01:50 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	0.73	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	0.67	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	0.95	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.82	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2,4-Trichlorobenzene	0.79	Not Detected UJ	5.9	Not Detected UJ
Hexachlorobutadiene	0.79	Not Detected	8.4	Not Detected

J = Estimated value due to bias in the CCV.

UJ = Non-detected compound 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	92	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	90	70-130



Air Toxics

Client Sample ID: U1 (134553)

Lab ID#: 1311237-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111807	Date of Collection:	11/7/13 9:55:00 PM
Dil. Factor:	1.57	Date of Analysis:	11/18/13 02:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	Not Detected	0.78	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	0.35	Not Detected
Bromomethane	0.78	Not Detected	3.0	Not Detected
Chloroethane	0.78	Not Detected	2.1	Not Detected
Freon 11	0.16	0.28	0.88	1.6
Ethanol	0.78	9.2 J	1.5	17 J
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Acetone	0.78	2.8	1.9	6.5
2-Propanol	0.78	Not Detected	1.9	Not Detected
Carbon Disulfide	0.78	Not Detected	2.4	Not Detected
3-Chloropropene	0.78	Not Detected	2.4	Not Detected
Methylene Chloride	0.31	0.40	1.1	1.4
Methyl tert-butyl ether	0.16	Not Detected	0.57	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Hexane	0.16	0.18	0.55	0.63
1,1-Dichloroethane	0.16	Not Detected	0.64	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.78	Not Detected	2.3	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Tetrahydrofuran	0.78	Not Detected	2.3	Not Detected
Chloroform	0.16	Not Detected	0.77	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Cyclohexane	0.16	0.42	0.54	1.4
Carbon Tetrachloride	0.16	Not Detected	0.99	Not Detected
2,2,4-Trimethylpentane	0.78	Not Detected	3.7	Not Detected
Benzene	0.16	0.20	0.50	0.65
1,2-Dichloroethane	0.16	Not Detected	0.64	Not Detected
Heptane	0.16	Not Detected	0.64	Not Detected
Trichloroethene	0.16	Not Detected	0.84	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	0.71	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.64	Not Detected
Toluene	0.16	2.2	0.59	8.3
trans-1,3-Dichloropropene	0.16	Not Detected	0.71	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.78	Not Detected	3.2	Not Detected



Client Sample ID: U1 (134553)

Lab ID#: 1311237-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111807	Date of Collection:	11/7/13 9:55:00 PM
Dil. Factor:	1.57	Date of Analysis:	11/18/13 02:43 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	0.72	Not Detected
Ethyl Benzene	0.16	Not Detected	0.68	Not Detected
m,p-Xylene	0.16	0.25	0.68	1.1
o-Xylene	0.16	Not Detected	0.68	Not Detected
Styrene	0.16	Not Detected	0.67	Not Detected
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.77	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.77	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.77	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.77	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.77	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.94	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.94	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.81	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.94	Not Detected
1,2,4-Trichlorobenzene	0.78	Not Detected UJ	5.8	Not Detected UJ
Hexachlorobutadiene	0.78	Not Detected	8.4	Not Detected

J = Estimated value due to bias in the CCV.

UJ = Non-detected compound 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	89	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: U2 (134554)

Lab ID#: 1311237-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111809	Date of Collection:	11/7/13 10:14:00 PM
Dil. Factor:	1.59	Date of Analysis:	11/18/13 04:26 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	Not Detected	0.79	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	0.30	0.89	1.7
Ethanol	0.80	6.0 J	1.5	11 J
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.80	3.3	1.9	7.9
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	1.6	1.1	5.7
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	0.22	0.51	0.70
1,2-Dichloroethane	0.16	Not Detected	0.64	Not Detected
Heptane	0.16	0.22	0.65	0.92
Trichloroethene	0.16	Not Detected	0.85	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.73	Not Detected
1,4-Dioxane	0.16	Not Detected	0.57	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.65	Not Detected
Toluene	0.16	0.35	0.60	1.3
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: U2 (134554)

Lab ID#: 1311237-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111809	Date of Collection:	11/7/13 10:14:00 PM
Dil. Factor:	1.59	Date of Analysis:	11/18/13 04:26 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	0.17	0.69	0.75
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	0.16	Not Detected	0.82	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	8.5	Not Detected

J = Estimated value due to bias in the CCV.

UJ = Non-detected compound 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	89	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	90	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1311237-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111508	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	11/15/13 06:23 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#: 1311237-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111508	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/15/13 06:23 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	92	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1311237-05B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111805	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	11/18/13 12:22 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#: 1311237-05B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111805	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	11/18/13 12:22 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 UJ	3.7	Not Detected UJ
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected

UJ = Non-detected compound associated with low bias in the CCV and/or LCS.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	91	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1311237-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/15/13 02:35 PM

Compound	%Recovery
Freon 12	110
Freon 114	102
Chloromethane	109
Vinyl Chloride	110
1,3-Butadiene	109
Bromomethane	134 Q
Chloroethane	118
Freon 11	129
Ethanol	122
Freon 113	115
1,1-Dichloroethene	108
Acetone	96
2-Propanol	92
Carbon Disulfide	102
3-Chloropropene	99
Methylene Chloride	90
Methyl tert-butyl ether	88
trans-1,2-Dichloroethene	91
Hexane	94
1,1-Dichloroethane	100
2-Butanone (Methyl Ethyl Ketone)	93
cis-1,2-Dichloroethene	89
Tetrahydrofuran	93
Chloroform	96
1,1,1-Trichloroethane	93
Cyclohexane	88
Carbon Tetrachloride	110
2,2,4-Trimethylpentane	100
Benzene	115
1,2-Dichloroethane	118
Heptane	117
Trichloroethene	101
1,2-Dichloropropane	113
1,4-Dioxane	97
Bromodichloromethane	115
cis-1,3-Dichloropropene	99
4-Methyl-2-pentanone	102
Toluene	106
trans-1,3-Dichloropropene	95
1,1,2-Trichloroethane	95
Tetrachloroethene	95
2-Hexanone	92

Client Sample ID: CCV

Lab ID#: 1311237-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/15/13 02:35 PM

Compound	%Recovery
Dibromochloromethane	102
1,2-Dibromoethane (EDB)	96
Chlorobenzene	96
Ethyl Benzene	97
m,p-Xylene	96
o-Xylene	94
Styrene	93
Bromoform	98
Cumene	97
1,1,2,2-Tetrachloroethane	101
Propylbenzene	101
4-Ethyltoluene	112
1,3,5-Trimethylbenzene	95
1,2,4-Trimethylbenzene	99
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	101
alpha-Chlorotoluene	102
1,2-Dichlorobenzene	98
1,2,4-Trichlorobenzene	75
Hexachlorobutadiene	80

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	106	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1311237-06B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111802	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/18/13 09:30 AM

Compound	%Recovery
Freon 12	115
Freon 114	107
Chloromethane	112
Vinyl Chloride	111
1,3-Butadiene	111
Bromomethane	132 Q
Chloroethane	115
Freon 11	128
Ethanol	137 Q
Freon 113	111
1,1-Dichloroethene	103
Acetone	92
2-Propanol	90
Carbon Disulfide	101
3-Chloropropene	104
Methylene Chloride	90
Methyl tert-butyl ether	86
trans-1,2-Dichloroethene	90
Hexane	90
1,1-Dichloroethane	98
2-Butanone (Methyl Ethyl Ketone)	92
cis-1,2-Dichloroethene	85
Tetrahydrofuran	91
Chloroform	95
1,1,1-Trichloroethane	91
Cyclohexane	85
Carbon Tetrachloride	109
2,2,4-Trimethylpentane	92
Benzene	113
1,2-Dichloroethane	115
Heptane	112
Trichloroethene	99
1,2-Dichloropropane	110
1,4-Dioxane	99
Bromodichloromethane	112
cis-1,3-Dichloropropene	99
4-Methyl-2-pentanone	100
Toluene	102
trans-1,3-Dichloropropene	100
1,1,2-Trichloroethane	99
Tetrachloroethene	97
2-Hexanone	90

Client Sample ID: CCV

Lab ID#: 1311237-06B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111802	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/18/13 09:30 AM

Compound	%Recovery
Dibromochloromethane	104
1,2-Dibromoethane (EDB)	98
Chlorobenzene	96
Ethyl Benzene	100
m,p-Xylene	92
o-Xylene	96
Styrene	96
Bromoform	137 Q
Cumene	100
1,1,2,2-Tetrachloroethane	105
Propylbenzene	99
4-Ethyltoluene	97
1,3,5-Trimethylbenzene	93
1,2,4-Trimethylbenzene	89
1,3-Dichlorobenzene	98
1,4-Dichlorobenzene	100
alpha-Chlorotoluene	106
1,2-Dichlorobenzene	98
1,2,4-Trichlorobenzene	66 Q
Hexachlorobutadiene	77

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1311237-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111505	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	11/15/13 03:20 PM

Compound	%Recovery	Method Limits
Freon 12	102	70-130
Freon 114	95	70-130
Chloromethane	101	70-130
Vinyl Chloride	103	70-130
1,3-Butadiene	102	70-130
Bromomethane	139 Q	70-130
Chloroethane	115	70-130
Freon 11	123	70-130
Ethanol	122	70-130
Freon 113	118	70-130
1,1-Dichloroethene	112	70-130
Acetone	93	70-130
2-Propanol	86	70-130
Carbon Disulfide	103	70-130
3-Chloropropene	101	70-130
Methylene Chloride	93	70-130
Methyl tert-butyl ether	83	70-130
trans-1,2-Dichloroethene	90	70-130
Hexane	89	70-130
1,1-Dichloroethane	93	70-130
2-Butanone (Methyl Ethyl Ketone)	92	70-130
cis-1,2-Dichloroethene	84	70-130
Tetrahydrofuran	90	70-130
Chloroform	93	70-130
1,1,1-Trichloroethane	88	70-130
Cyclohexane	84	70-130
Carbon Tetrachloride	112	70-130
2,2,4-Trimethylpentane	89	70-130
Benzene	106	70-130
1,2-Dichloroethane	108	70-130
Heptane	108	70-130
Trichloroethene	94	70-130
1,2-Dichloropropane	102	70-130
1,4-Dioxane	99	70-130
Bromodichloromethane	112	70-130
cis-1,3-Dichloropropene	90	70-130
4-Methyl-2-pentanone	102	70-130
Toluene	96	70-130
trans-1,3-Dichloropropene	86	70-130
1,1,2-Trichloroethane	90	70-130
Tetrachloroethene	87	70-130
2-Hexanone	88	70-130

Client Sample ID: LCS

Lab ID#: 1311237-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111505	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/15/13 03:20 PM

Compound	%Recovery	Method Limits
Dibromochloromethane	96	70-130
1,2-Dibromoethane (EDB)	91	70-130
Chlorobenzene	86	70-130
Ethyl Benzene	92	70-130
m,p-Xylene	89	70-130
o-Xylene	90	70-130
Styrene	88	70-130
Bromoform	95	70-130
Cumene	97	70-130
1,1,2,2-Tetrachloroethane	97	70-130
Propylbenzene	98	70-130
4-Ethyltoluene	98	70-130
1,3,5-Trimethylbenzene	90	70-130
1,2,4-Trimethylbenzene	86	70-130
1,3-Dichlorobenzene	92	70-130
1,4-Dichlorobenzene	97	70-130
alpha-Chlorotoluene	92	70-130
1,2-Dichlorobenzene	96	70-130
1,2,4-Trichlorobenzene	73	70-130
Hexachlorobutadiene	87	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1311237-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111506	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/15/13 04:17 PM

Compound	%Recovery	Method Limits
Freon 12	100	70-130
Freon 114	93	70-130
Chloromethane	100	70-130
Vinyl Chloride	100	70-130
1,3-Butadiene	101	70-130
Bromomethane	135 Q	70-130
Chloroethane	110	70-130
Freon 11	119	70-130
Ethanol	122	70-130
Freon 113	114	70-130
1,1-Dichloroethene	111	70-130
Acetone	88	70-130
2-Propanol	86	70-130
Carbon Disulfide	100	70-130
3-Chloropropene	92	70-130
Methylene Chloride	90	70-130
Methyl tert-butyl ether	81	70-130
trans-1,2-Dichloroethene	88	70-130
Hexane	87	70-130
1,1-Dichloroethane	90	70-130
2-Butanone (Methyl Ethyl Ketone)	90	70-130
cis-1,2-Dichloroethene	82	70-130
Tetrahydrofuran	89	70-130
Chloroform	89	70-130
1,1,1-Trichloroethane	86	70-130
Cyclohexane	84	70-130
Carbon Tetrachloride	110	70-130
2,2,4-Trimethylpentane	84	70-130
Benzene	105	70-130
1,2-Dichloroethane	108	70-130
Heptane	105	70-130
Trichloroethene	93	70-130
1,2-Dichloropropane	103	70-130
1,4-Dioxane	99	70-130
Bromodichloromethane	108	70-130
cis-1,3-Dichloropropene	88	70-130
4-Methyl-2-pentanone	102	70-130
Toluene	94	70-130
trans-1,3-Dichloropropene	87	70-130
1,1,2-Trichloroethane	88	70-130
Tetrachloroethene	87	70-130
2-Hexanone	96	70-130

Client Sample ID: LCSD

Lab ID#: 1311237-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111506	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/15/13 04:17 PM

Compound	%Recovery	Method Limits
Dibromochloromethane	100	70-130
1,2-Dibromoethane (EDB)	91	70-130
Chlorobenzene	89	70-130
Ethyl Benzene	87	70-130
m,p-Xylene	86	70-130
o-Xylene	84	70-130
Styrene	81	70-130
Bromoform	96	70-130
Cumene	90	70-130
1,1,2,2-Tetrachloroethane	93	70-130
Propylbenzene	92	70-130
4-Ethyltoluene	99	70-130
1,3,5-Trimethylbenzene	79	70-130
1,2,4-Trimethylbenzene	81	70-130
1,3-Dichlorobenzene	86	70-130
1,4-Dichlorobenzene	89	70-130
alpha-Chlorotoluene	87	70-130
1,2-Dichlorobenzene	87	70-130
1,2,4-Trichlorobenzene	63 Q	70-130
Hexachlorobutadiene	75	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1311237-07B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111803	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/18/13 10:32 AM

Compound	%Recovery	Method Limits
Freon 12	102	70-130
Freon 114	96	70-130
Chloromethane	102	70-130
Vinyl Chloride	102	70-130
1,3-Butadiene	102	70-130
Bromomethane	133 Q	70-130
Chloroethane	110	70-130
Freon 11	120	70-130
Ethanol	120	70-130
Freon 113	115	70-130
1,1-Dichloroethene	111	70-130
Acetone	88	70-130
2-Propanol	84	70-130
Carbon Disulfide	100	70-130
3-Chloropropene	94	70-130
Methylene Chloride	88	70-130
Methyl tert-butyl ether	77	70-130
trans-1,2-Dichloroethene	84	70-130
Hexane	84	70-130
1,1-Dichloroethane	89	70-130
2-Butanone (Methyl Ethyl Ketone)	86	70-130
cis-1,2-Dichloroethene	80	70-130
Tetrahydrofuran	87	70-130
Chloroform	88	70-130
1,1,1-Trichloroethane	84	70-130
Cyclohexane	81	70-130
Carbon Tetrachloride	106	70-130
2,2,4-Trimethylpentane	82	70-130
Benzene	102	70-130
1,2-Dichloroethane	105	70-130
Heptane	102	70-130
Trichloroethene	92	70-130
1,2-Dichloropropane	100	70-130
1,4-Dioxane	95	70-130
Bromodichloromethane	106	70-130
cis-1,3-Dichloropropene	87	70-130
4-Methyl-2-pentanone	101	70-130
Toluene	91	70-130
trans-1,3-Dichloropropene	87	70-130
1,1,2-Trichloroethane	89	70-130
Tetrachloroethene	88	70-130
2-Hexanone	99	70-130



Client Sample ID: LCS

Lab ID#: 1311237-07B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111803	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/18/13 10:32 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	100	70-130
1,2-Dibromoethane (EDB)	90	70-130
Chlorobenzene	85	70-130
Ethyl Benzene	84	70-130
m,p-Xylene	82	70-130
o-Xylene	79	70-130
Styrene	77	70-130
Bromoform	97	70-130
Cumene	84	70-130
1,1,2,2-Tetrachloroethane	94	70-130
Propylbenzene	88	70-130
4-Ethyltoluene	97	70-130
1,3,5-Trimethylbenzene	77	70-130
1,2,4-Trimethylbenzene	80	70-130
1,3-Dichlorobenzene	85	70-130
1,4-Dichlorobenzene	84	70-130
alpha-Chlorotoluene	88	70-130
1,2-Dichlorobenzene	85	70-130
1,2,4-Trichlorobenzene	59 Q	70-130
Hexachlorobutadiene	73	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	86	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1311237-07BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111804	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/18/13 11:21 AM

Compound	%Recovery	Method Limits
Freon 12	100	70-130
Freon 114	94	70-130
Chloromethane	100	70-130
Vinyl Chloride	99	70-130
1,3-Butadiene	100	70-130
Bromomethane	133 Q	70-130
Chloroethane	108	70-130
Freon 11	120	70-130
Ethanol	123	70-130
Freon 113	114	70-130
1,1-Dichloroethene	108	70-130
Acetone	89	70-130
2-Propanol	86	70-130
Carbon Disulfide	100	70-130
3-Chloropropene	95	70-130
Methylene Chloride	88	70-130
Methyl tert-butyl ether	77	70-130
trans-1,2-Dichloroethene	86	70-130
Hexane	83	70-130
1,1-Dichloroethane	90	70-130
2-Butanone (Methyl Ethyl Ketone)	87	70-130
cis-1,2-Dichloroethene	81	70-130
Tetrahydrofuran	84	70-130
Chloroform	89	70-130
1,1,1-Trichloroethane	84	70-130
Cyclohexane	82	70-130
Carbon Tetrachloride	108	70-130
2,2,4-Trimethylpentane	83	70-130
Benzene	103	70-130
1,2-Dichloroethane	106	70-130
Heptane	103	70-130
Trichloroethene	91	70-130
1,2-Dichloropropane	101	70-130
1,4-Dioxane	95	70-130
Bromodichloromethane	108	70-130
cis-1,3-Dichloropropene	88	70-130
4-Methyl-2-pentanone	100	70-130
Toluene	92	70-130
trans-1,3-Dichloropropene	88	70-130
1,1,2-Trichloroethane	90	70-130
Tetrachloroethene	88	70-130
2-Hexanone	93	70-130

Client Sample ID: LCSD

Lab ID#: 1311237-07BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a111804	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/18/13 11:21 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	99	70-130
1,2-Dibromoethane (EDB)	92	70-130
Chlorobenzene	87	70-130
Ethyl Benzene	87	70-130
m,p-Xylene	81	70-130
o-Xylene	81	70-130
Styrene	81	70-130
Bromoform	97	70-130
Cumene	87	70-130
1,1,2,2-Tetrachloroethane	96	70-130
Propylbenzene	84	70-130
4-Ethyltoluene	83	70-130
1,3,5-Trimethylbenzene	75	70-130
1,2,4-Trimethylbenzene	72	70-130
1,3-Dichlorobenzene	82	70-130
1,4-Dichlorobenzene	84	70-130
alpha-Chlorotoluene	88	70-130
1,2-Dichlorobenzene	84	70-130
1,2,4-Trichlorobenzene	60 Q	70-130
Hexachlorobutadiene	73	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	98	70-130