



Air Toxics

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(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Michael Paris

Collected by: (Print and Sign) Alex Diller

Company MD DNR Email Michael.Paris@dnr.ca.gov

Address Route 176 City Yuba City State TX Zip 75802

Phone _____ Fax _____

Project Info:

P.O. # 955400007

Project Name Archeology Landfill

Turn Around Time:

Normal

Rush

Lab Use Only
Pressurized by:

Date:

Pressurization Gas:

specify N₂ He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum		
						Initial	Final	Receipt Final (psi)
D1A	D ₁ (1412007)	12080	10/25/14	730 1200	TD-15	-30	-5.5	
D2A	D ₂ (1412008)	11877	10/25/14	744 1231	TD-15	-30	-6	
D3A	U ₁ (1412009)	08545	10/29/14	817 1245	TD-15	-30	-6.5	
D4A	U ₂ (1412010)	34425	10/29/14	826 1255	TD-15	-30	-6	

Relinquished by: (signature) <u>Michael Paris</u>	Date/Time <u>10/30/14</u>	Received by: (signature) <u>Michael Paris</u>	Date/Time <u>10/30/14</u>	1124	Notes: Skipped via UPS Tracking #: 1Z6722880345321575
Relinquished by: (signature) <u>Michael Paris</u>	Date/Time <u>10/31/14</u>	Received by: (signature) <u>Michael Paris</u>	Date/Time <u>11/7/14</u>	0945	

Lab Shipper Name UPS Air Bill # NA Temp (°C) Good Condition Good Custody Seals Intact? Yes No None Work Order # 1411113

11/21/2014
Mr. Dennis Schroeder
Missouri Dept. of Natural Resources
2710 West Main

Jefferson City MO 65109

Project Name: Bridgeton Landfill
Project #:
Workorder #: 1411113

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 11/7/2014 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: Brian Whittaker at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Brian Whittaker
Project Manager

WORK ORDER #: 1411113

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. #	3ESP4000007
FAX:	573-526-3350	PROJECT #	Bridgeton Landfill
DATE RECEIVED:	11/07/2014	CONTACT:	Brian Whittaker
DATE COMPLETED:	11/21/2014		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (1412007)	Modified TO-15	6.0 "Hg	5 psi
02A	D2 (1412008)	Modified TO-15	5.0 "Hg	5 psi
03A	U1 (1412009)	Modified TO-15	6.0 "Hg	5 psi
04A	U2 (1412010)	Modified TO-15	6.0 "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: 11/21/14

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
 TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
 Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.

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

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LABORATORY NARRATIVE
Modified TO-15
Missouri Dept. of Natural Resources
Workorder# 1411113

Four 6 Liter Summa Canister (100% Certified) samples were received on November 07, 2014. 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	$\leq 30\%$ RSD with 2 compounds allowed out to <math>< 40\%</math> RSD	$\leq 30\%$ RSD with 4 compounds allowed out to <math>< 40\%</math> 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.

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 (1412007)

Lab ID#: 1411113-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.42	0.83	2.1
Freon 11	0.17	0.20	0.94	1.1
Ethanol	0.84	2.6	1.6	4.9
Acetone	0.84	1.7	2.0	4.0
Toluene	0.17	0.30	0.63	1.1

Client Sample ID: D2 (1412008)

Lab ID#: 1411113-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.41	0.80	2.0
Freon 11	0.16	0.20	0.90	1.1
Ethanol	0.80	4.0	1.5	7.6
Acetone	0.80	2.0	1.9	4.7
Toluene	0.16	0.44	0.61	1.6

Client Sample ID: U1 (1412009)

Lab ID#: 1411113-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.41	0.83	2.0
Freon 11	0.17	0.17	0.94	0.96
Ethanol	0.84	1.6 J	1.6	3.1 J
Acetone	0.84	1.3 J	2.0	3.1 J
Benzene	0.17	0.26	0.54	0.83

Client Sample ID: U2 (1412010)

Lab ID#: 1411113-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.43	0.83	2.1
Freon 11	0.17	0.19	0.94	1.1

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

Client Sample ID: U2 (1412010)

Lab ID#: 1411113-04A

Ethanol	0.84	4.6 J	1.6	8.6 J
Acetone	0.84	2.9 J	2.0	6.9 J
Toluene	0.17	0.33	0.63	1.2



Air Toxics

Client Sample ID: D1 (1412007)

Lab ID#: 1411113-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111117	Date of Collection:	10/29/14 12:00:00 P
Dil. Factor:	1.68	Date of Analysis:	11/11/14 10:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.42	0.83	2.1
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.84	Not Detected	1.7	Not Detected
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
1,3-Butadiene	0.17	Not Detected	0.37	Not Detected
Bromomethane	0.84	Not Detected	3.3	Not Detected
Chloroethane	0.84	Not Detected	2.2	Not Detected
Freon 11	0.17	0.20	0.94	1.1
Ethanol	0.84	2.6	1.6	4.9
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	1.7	2.0	4.0
2-Propanol	0.84	Not Detected	2.1	Not Detected
Carbon Disulfide	0.84	Not Detected	2.6	Not Detected
3-Chloropropene	0.84	Not Detected	2.6	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Hexane	0.17	Not Detected	0.59	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.84	Not Detected	2.5	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Tetrahydrofuran	0.84	Not Detected	2.5	Not Detected
Chloroform	0.17	Not Detected	0.82	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Cyclohexane	0.17	Not Detected	0.58	Not Detected
Carbon Tetrachloride	0.17	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.84	Not Detected	3.9	Not Detected
Benzene	0.17	Not Detected	0.54	Not Detected
1,2-Dichloroethane	0.17	Not Detected	0.68	Not Detected
Heptane	0.17	Not Detected	0.69	Not Detected
Trichloroethene	0.17	Not Detected	0.90	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.78	Not Detected
1,4-Dioxane	0.17	Not Detected	0.60	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.69	Not Detected
Toluene	0.17	0.30	0.63	1.1
trans-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
2-Hexanone	0.84	Not Detected	3.4	Not Detected



Client Sample ID: D1 (1412007)

Lab ID#: 1411113-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111117	Date of Collection:	10/29/14 12:00:00 P
Dil. Factor:	1.68	Date of Analysis:	11/11/14 10:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	Not Detected	0.73	Not Detected
m,p-Xylene	0.17	Not Detected	0.73	Not Detected
o-Xylene	0.17	Not Detected	0.73	Not Detected
Styrene	0.17	Not Detected	0.72	Not Detected
Bromoform	0.17	Not Detected	1.7	Not Detected
Cumene	0.17	Not Detected	0.82	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.82	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.82	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.82	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.82	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.87	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected
Hexachlorobutadiene	0.84	Not Detected	9.0	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: D2 (1412008)

Lab ID#: 1411113-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111118	Date of Collection:	10/29/14 12:31:00 P
Dil. Factor:	1.61	Date of Analysis:	11/11/14 10:55 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.41	0.80	2.0
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.80	Not Detected	1.7	Not Detected
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
1,3-Butadiene	0.16	Not Detected	0.36	Not Detected
Bromomethane	0.80	Not Detected	3.1	Not Detected
Chloroethane	0.80	Not Detected	2.1	Not Detected
Freon 11	0.16	0.20	0.90	1.1
Ethanol	0.80	4.0	1.5	7.6
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	2.0	1.9	4.7
2-Propanol	0.80	Not Detected	2.0	Not Detected
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
3-Chloropropene	0.80	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.58	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Hexane	0.16	Not Detected	0.57	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	Not Detected	2.4	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.4	Not Detected
Chloroform	0.16	Not Detected	0.79	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Cyclohexane	0.16	Not Detected	0.55	Not Detected
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.80	Not Detected	3.8	Not Detected
Benzene	0.16	Not Detected	0.51	Not Detected
1,2-Dichloroethane	0.16	Not Detected	0.65	Not Detected
Heptane	0.16	Not Detected	0.66	Not Detected
Trichloroethene	0.16	Not Detected	0.86	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.74	Not Detected
1,4-Dioxane	0.16	Not Detected	0.58	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.66	Not Detected
Toluene	0.16	0.44	0.61	1.6
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.80	Not Detected	3.3	Not Detected

Client Sample ID: D2 (1412008)

Lab ID#: 1411113-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111118	Date of Collection:	10/29/14 12:31:00 P
Dil. Factor:	1.61	Date of Analysis:	11/11/14 10:55 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.70	Not Detected
m,p-Xylene	0.16	Not Detected	0.70	Not Detected
o-Xylene	0.16	Not Detected	0.70	Not Detected
Styrene	0.16	Not Detected	0.68	Not Detected
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	Not Detected	0.79	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.79	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.79	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.83	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6.0	Not Detected
Hexachlorobutadiene	0.80	Not Detected	8.6	Not Detected

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

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



Air Toxics

Client Sample ID: U1 (1412009)

Lab ID#: 1411113-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111207	Date of Collection:	10/29/14 12:45:00 P
Dil. Factor:	1.68	Date of Analysis:	11/12/14 12:34 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.41	0.83	2.0
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.84	Not Detected	1.7	Not Detected
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
1,3-Butadiene	0.17	Not Detected	0.37	Not Detected
Bromomethane	0.84	Not Detected	3.3	Not Detected
Chloroethane	0.84	Not Detected	2.2	Not Detected
Freon 11	0.17	0.17	0.94	0.96
Ethanol	0.84	1.6 J	1.6	3.1 J
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	1.3 J	2.0	3.1 J
2-Propanol	0.84	Not Detected	2.1	Not Detected
Carbon Disulfide	0.84	Not Detected	2.6	Not Detected
3-Chloropropene	0.84	Not Detected	2.6	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Hexane	0.17	Not Detected	0.59	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.84	Not Detected	2.5	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Tetrahydrofuran	0.84	Not Detected	2.5	Not Detected
Chloroform	0.17	Not Detected	0.82	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Cyclohexane	0.17	Not Detected	0.58	Not Detected
Carbon Tetrachloride	0.17	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.84	Not Detected	3.9	Not Detected
Benzene	0.17	0.26	0.54	0.83
1,2-Dichloroethane	0.17	Not Detected	0.68	Not Detected
Heptane	0.17	Not Detected	0.69	Not Detected
Trichloroethene	0.17	Not Detected	0.90	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.78	Not Detected
1,4-Dioxane	0.17	Not Detected	0.60	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.69	Not Detected
Toluene	0.17	Not Detected	0.63	Not Detected
trans-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
2-Hexanone	0.84	Not Detected	3.4	Not Detected

Client Sample ID: U1 (1412009)

Lab ID#: 1411113-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111207	Date of Collection:	10/29/14 12:45:00 P
Dil. Factor:	1.68	Date of Analysis:	11/12/14 12:34 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	Not Detected	0.73	Not Detected
m,p-Xylene	0.17	Not Detected	0.73	Not Detected
o-Xylene	0.17	Not Detected	0.73	Not Detected
Styrene	0.17	Not Detected	0.72	Not Detected
Bromoform	0.17	Not Detected	1.7	Not Detected
Cumene	0.17	Not Detected	0.82	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.82	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.82	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.82	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.82	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.87	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected
Hexachlorobutadiene	0.84	Not Detected	9.0	Not Detected

J = Estimated value due to bias in the CCV.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: U2 (1412010)

Lab ID#: 1411113-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111208	Date of Collection:	10/29/14 12:55:00 P
Dil. Factor:	1.68	Date of Analysis:	11/12/14 01:47 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.43	0.83	2.1
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.84	Not Detected	1.7	Not Detected
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
1,3-Butadiene	0.17	Not Detected	0.37	Not Detected
Bromomethane	0.84	Not Detected	3.3	Not Detected
Chloroethane	0.84	Not Detected	2.2	Not Detected
Freon 11	0.17	0.19	0.94	1.1
Ethanol	0.84	4.6 J	1.6	8.6 J
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	2.9 J	2.0	6.9 J
2-Propanol	0.84	Not Detected	2.1	Not Detected
Carbon Disulfide	0.84	Not Detected	2.6	Not Detected
3-Chloropropene	0.84	Not Detected	2.6	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Hexane	0.17	Not Detected	0.59	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.84	Not Detected	2.5	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Tetrahydrofuran	0.84	Not Detected	2.5	Not Detected
Chloroform	0.17	Not Detected	0.82	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Cyclohexane	0.17	Not Detected	0.58	Not Detected
Carbon Tetrachloride	0.17	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.84	Not Detected	3.9	Not Detected
Benzene	0.17	Not Detected	0.54	Not Detected
1,2-Dichloroethane	0.17	Not Detected	0.68	Not Detected
Heptane	0.17	Not Detected	0.69	Not Detected
Trichloroethene	0.17	Not Detected	0.90	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.78	Not Detected
1,4-Dioxane	0.17	Not Detected	0.60	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.69	Not Detected
Toluene	0.17	0.33	0.63	1.2
trans-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
2-Hexanone	0.84	Not Detected	3.4	Not Detected

Client Sample ID: U2 (1412010)

Lab ID#: 1411113-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111208	Date of Collection:	10/29/14 12:55:00 P
Dil. Factor:	1.68	Date of Analysis:	11/12/14 01:47 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	Not Detected	0.73	Not Detected
m,p-Xylene	0.17	Not Detected	0.73	Not Detected
o-Xylene	0.17	Not Detected	0.73	Not Detected
Styrene	0.17	Not Detected	0.72	Not Detected
Bromoform	0.17	Not Detected	1.7	Not Detected
Cumene	0.17	Not Detected	0.82	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.82	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.82	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.82	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.82	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.87	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected
Hexachlorobutadiene	0.84	Not Detected	9.0	Not Detected

J = Estimated value due to bias in the CCV.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411113-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111106	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	11/11/14 11:40 AM

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#: 1411113-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111106	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/11/14 11:40 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	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	95	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411113-05B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111206	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	11/12/14 11:40 AM

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 UJ	0.94	Not Detected UJ
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 UJ	1.2	Not Detected UJ
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#: 1411113-05B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111206	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/12/14 11:40 AM

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

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

Container Type: NA - Not Applicable

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



Air Toxics

Client Sample ID: CCV

Lab ID#: 1411113-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/11/14 08:27 AM

Compound	%Recovery
Freon 12	86
Freon 114	88
Chloromethane	75
Vinyl Chloride	83
1,3-Butadiene	83
Bromomethane	86
Chloroethane	81
Freon 11	86
Ethanol	72
Freon 113	91
1,1-Dichloroethene	88
Acetone	70
2-Propanol	81
Carbon Disulfide	85
3-Chloropropene	87
Methylene Chloride	75
Methyl tert-butyl ether	90
trans-1,2-Dichloroethene	90
Hexane	83
1,1-Dichloroethane	82
2-Butanone (Methyl Ethyl Ketone)	87
cis-1,2-Dichloroethene	89
Tetrahydrofuran	80
Chloroform	84
1,1,1-Trichloroethane	89
Cyclohexane	88
Carbon Tetrachloride	93
2,2,4-Trimethylpentane	113
Benzene	87
1,2-Dichloroethane	90
Heptane	92
Trichloroethene	90
1,2-Dichloropropane	83
1,4-Dioxane	90
Bromodichloromethane	90
cis-1,3-Dichloropropene	88
4-Methyl-2-pentanone	89
Toluene	88
trans-1,3-Dichloropropene	89
1,1,2-Trichloroethane	88
Tetrachloroethene	94
2-Hexanone	96



Air Toxics

Client Sample ID: CCV

Lab ID#: 1411113-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/11/14 08:27 AM

Compound	%Recovery
Dibromochloromethane	95
1,2-Dibromoethane (EDB)	92
Chlorobenzene	89
Ethyl Benzene	93
m,p-Xylene	98
o-Xylene	96
Styrene	101
Bromoform	94
Cumene	100
1,1,2,2-Tetrachloroethane	85
Propylbenzene	94
4-Ethyltoluene	104
1,3,5-Trimethylbenzene	91
1,2,4-Trimethylbenzene	96
1,3-Dichlorobenzene	90
1,4-Dichlorobenzene	91
alpha-Chlorotoluene	82
1,2-Dichlorobenzene	90
1,2,4-Trichlorobenzene	75
Hexachlorobutadiene	86

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1411113-06B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111202	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/12/14 08:32 AM

Compound	%Recovery
Freon 12	81
Freon 114	82
Chloromethane	70
Vinyl Chloride	78
1,3-Butadiene	76
Bromomethane	81
Chloroethane	77
Freon 11	81
Ethanol	68 Q
Freon 113	86
1,1-Dichloroethene	81
Acetone	67 Q
2-Propanol	76
Carbon Disulfide	78
3-Chloropropene	81
Methylene Chloride	70
Methyl tert-butyl ether	84
trans-1,2-Dichloroethene	85
Hexane	79
1,1-Dichloroethane	78
2-Butanone (Methyl Ethyl Ketone)	83
cis-1,2-Dichloroethene	83
Tetrahydrofuran	75
Chloroform	80
1,1,1-Trichloroethane	85
Cyclohexane	83
Carbon Tetrachloride	88
2,2,4-Trimethylpentane	105
Benzene	87
1,2-Dichloroethane	91
Heptane	92
Trichloroethene	89
1,2-Dichloropropane	83
1,4-Dioxane	90
Bromodichloromethane	91
cis-1,3-Dichloropropene	86
4-Methyl-2-pentanone	89
Toluene	88
trans-1,3-Dichloropropene	89
1,1,2-Trichloroethane	90
Tetrachloroethene	94
2-Hexanone	96

Client Sample ID: CCV

Lab ID#: 1411113-06B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111202	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/12/14 08:32 AM

Compound	%Recovery
Dibromochloromethane	95
1,2-Dibromoethane (EDB)	92
Chlorobenzene	88
Ethyl Benzene	91
m,p-Xylene	98
o-Xylene	96
Styrene	101
Bromoform	94
Cumene	99
1,1,2,2-Tetrachloroethane	84
Propylbenzene	94
4-Ethyltoluene	102
1,3,5-Trimethylbenzene	91
1,2,4-Trimethylbenzene	95
1,3-Dichlorobenzene	90
1,4-Dichlorobenzene	91
alpha-Chlorotoluene	80
1,2-Dichlorobenzene	89
1,2,4-Trichlorobenzene	70
Hexachlorobutadiene	84

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1411113-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111103	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/11/14 09:12 AM

Compound	%Recovery	Method Limits
Freon 12	90	70-130
Freon 114	91	70-130
Chloromethane	76	70-130
Vinyl Chloride	86	70-130
1,3-Butadiene	82	70-130
Bromomethane	88	70-130
Chloroethane	83	70-130
Freon 11	88	70-130
Ethanol	83	70-130
Freon 113	97	70-130
1,1-Dichloroethene	92	70-130
Acetone	68 Q	70-130
2-Propanol	88	70-130
Carbon Disulfide	69 Q	70-130
3-Chloropropene	85	70-130
Methylene Chloride	78	70-130
Methyl tert-butyl ether	86	70-130
trans-1,2-Dichloroethene	88	70-130
Hexane	87	70-130
1,1-Dichloroethane	84	70-130
2-Butanone (Methyl Ethyl Ketone)	87	70-130
cis-1,2-Dichloroethene	91	70-130
Tetrahydrofuran	80	70-130
Chloroform	87	70-130
1,1,1-Trichloroethane	92	70-130
Cyclohexane	90	70-130
Carbon Tetrachloride	57 Q	70-130
2,2,4-Trimethylpentane	114	70-130
Benzene	92	70-130
1,2-Dichloroethane	96	70-130
Heptane	98	70-130
Trichloroethene	97	70-130
1,2-Dichloropropane	88	70-130
1,4-Dioxane	95	70-130
Bromodichloromethane	93	70-130
cis-1,3-Dichloropropene	98	70-130
4-Methyl-2-pentanone	95	70-130
Toluene	94	70-130
trans-1,3-Dichloropropene	90	70-130
1,1,2-Trichloroethane	92	70-130
Tetrachloroethene	101	70-130
2-Hexanone	101	70-130

Client Sample ID: LCS

Lab ID#: 1411113-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111103	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/11/14 09:12 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	95	70-130
1,2-Dibromoethane (EDB)	97	70-130
Chlorobenzene	92	70-130
Ethyl Benzene	95	70-130
m,p-Xylene	104	70-130
o-Xylene	100	70-130
Styrene	114	70-130
Bromoform	90	70-130
Cumene	104	70-130
1,1,2,2-Tetrachloroethane	89	70-130
Propylbenzene	100	70-130
4-Ethyltoluene	111	70-130
1,3,5-Trimethylbenzene	108	70-130
1,2,4-Trimethylbenzene	108	70-130
1,3-Dichlorobenzene	97	70-130
1,4-Dichlorobenzene	98	70-130
alpha-Chlorotoluene	139 Q	70-130
1,2-Dichlorobenzene	98	70-130
1,2,4-Trichlorobenzene	100	70-130
Hexachlorobutadiene	101	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1411113-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111104	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/11/14 10:07 AM

Compound	%Recovery	Method Limits
Freon 12	92	70-130
Freon 114	94	70-130
Chloromethane	78	70-130
Vinyl Chloride	89	70-130
1,3-Butadiene	83	70-130
Bromomethane	89	70-130
Chloroethane	86	70-130
Freon 11	90	70-130
Ethanol	84	70-130
Freon 113	99	70-130
1,1-Dichloroethene	96	70-130
Acetone	72	70-130
2-Propanol	90	70-130
Carbon Disulfide	71	70-130
3-Chloropropene	88	70-130
Methylene Chloride	80	70-130
Methyl tert-butyl ether	90	70-130
trans-1,2-Dichloroethene	90	70-130
Hexane	88	70-130
1,1-Dichloroethane	85	70-130
2-Butanone (Methyl Ethyl Ketone)	91	70-130
cis-1,2-Dichloroethene	94	70-130
Tetrahydrofuran	82	70-130
Chloroform	90	70-130
1,1,1-Trichloroethane	94	70-130
Cyclohexane	93	70-130
Carbon Tetrachloride	57 Q	70-130
2,2,4-Trimethylpentane	118	70-130
Benzene	90	70-130
1,2-Dichloroethane	95	70-130
Heptane	96	70-130
Trichloroethene	96	70-130
1,2-Dichloropropane	87	70-130
1,4-Dioxane	94	70-130
Bromodichloromethane	92	70-130
cis-1,3-Dichloropropene	96	70-130
4-Methyl-2-pentanone	93	70-130
Toluene	92	70-130
trans-1,3-Dichloropropene	88	70-130
1,1,2-Trichloroethane	92	70-130
Tetrachloroethene	100	70-130
2-Hexanone	101	70-130

Client Sample ID: LCSD

Lab ID#: 1411113-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111104	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/11/14 10:07 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	93	70-130
1,2-Dibromoethane (EDB)	96	70-130
Chlorobenzene	92	70-130
Ethyl Benzene	97	70-130
m,p-Xylene	102	70-130
o-Xylene	99	70-130
Styrene	110	70-130
Bromoform	88	70-130
Cumene	102	70-130
1,1,2,2-Tetrachloroethane	87	70-130
Propylbenzene	99	70-130
4-Ethyltoluene	109	70-130
1,3,5-Trimethylbenzene	106	70-130
1,2,4-Trimethylbenzene	106	70-130
1,3-Dichlorobenzene	95	70-130
1,4-Dichlorobenzene	96	70-130
alpha-Chlorotoluene	138 Q	70-130
1,2-Dichlorobenzene	97	70-130
1,2,4-Trichlorobenzene	98	70-130
Hexachlorobutadiene	97	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1411113-07B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111203	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/12/14 09:20 AM

Compound	%Recovery	Method Limits
Freon 12	88	70-130
Freon 114	90	70-130
Chloromethane	76	70-130
Vinyl Chloride	85	70-130
1,3-Butadiene	82	70-130
Bromomethane	88	70-130
Chloroethane	82	70-130
Freon 11	87	70-130
Ethanol	81	70-130
Freon 113	96	70-130
1,1-Dichloroethene	91	70-130
Acetone	69 Q	70-130
2-Propanol	85	70-130
Carbon Disulfide	69 Q	70-130
3-Chloropropene	83	70-130
Methylene Chloride	75	70-130
Methyl tert-butyl ether	84	70-130
trans-1,2-Dichloroethene	86	70-130
Hexane	84	70-130
1,1-Dichloroethane	84	70-130
2-Butanone (Methyl Ethyl Ketone)	87	70-130
cis-1,2-Dichloroethene	90	70-130
Tetrahydrofuran	78	70-130
Chloroform	87	70-130
1,1,1-Trichloroethane	91	70-130
Cyclohexane	89	70-130
Carbon Tetrachloride	55 Q	70-130
2,2,4-Trimethylpentane	112	70-130
Benzene	92	70-130
1,2-Dichloroethane	97	70-130
Heptane	96	70-130
Trichloroethene	96	70-130
1,2-Dichloropropane	87	70-130
1,4-Dioxane	91	70-130
Bromodichloromethane	93	70-130
cis-1,3-Dichloropropene	97	70-130
4-Methyl-2-pentanone	94	70-130
Toluene	92	70-130
trans-1,3-Dichloropropene	88	70-130
1,1,2-Trichloroethane	91	70-130
Tetrachloroethene	98	70-130
2-Hexanone	100	70-130

Client Sample ID: LCS

Lab ID#: 1411113-07B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111203	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/12/14 09:20 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	93	70-130
1,2-Dibromoethane (EDB)	94	70-130
Chlorobenzene	91	70-130
Ethyl Benzene	96	70-130
m,p-Xylene	103	70-130
o-Xylene	98	70-130
Styrene	110	70-130
Bromoform	89	70-130
Cumene	102	70-130
1,1,2,2-Tetrachloroethane	88	70-130
Propylbenzene	99	70-130
4-Ethyltoluene	110	70-130
1,3,5-Trimethylbenzene	106	70-130
1,2,4-Trimethylbenzene	104	70-130
1,3-Dichlorobenzene	94	70-130
1,4-Dichlorobenzene	96	70-130
alpha-Chlorotoluene	135 Q	70-130
1,2-Dichlorobenzene	97	70-130
1,2,4-Trichlorobenzene	98	70-130
Hexachlorobutadiene	100	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: LCS D

Lab ID#: 1411113-07BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111204	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/12/14 10:05 AM

Compound	%Recovery	Method Limits
Freon 12	88	70-130
Freon 114	90	70-130
Chloromethane	75	70-130
Vinyl Chloride	85	70-130
1,3-Butadiene	82	70-130
Bromomethane	86	70-130
Chloroethane	83	70-130
Freon 11	87	70-130
Ethanol	81	70-130
Freon 113	95	70-130
1,1-Dichloroethene	90	70-130
Acetone	69 Q	70-130
2-Propanol	86	70-130
Carbon Disulfide	68 Q	70-130
3-Chloropropene	84	70-130
Methylene Chloride	75	70-130
Methyl tert-butyl ether	85	70-130
trans-1,2-Dichloroethene	86	70-130
Hexane	84	70-130
1,1-Dichloroethane	84	70-130
2-Butanone (Methyl Ethyl Ketone)	87	70-130
cis-1,2-Dichloroethene	91	70-130
Tetrahydrofuran	80	70-130
Chloroform	87	70-130
1,1,1-Trichloroethane	91	70-130
Cyclohexane	89	70-130
Carbon Tetrachloride	54 Q	70-130
2,2,4-Trimethylpentane	114	70-130
Benzene	90	70-130
1,2-Dichloroethane	94	70-130
Heptane	94	70-130
Trichloroethene	93	70-130
1,2-Dichloropropane	86	70-130
1,4-Dioxane	89	70-130
Bromodichloromethane	90	70-130
cis-1,3-Dichloropropene	94	70-130
4-Methyl-2-pentanone	92	70-130
Toluene	90	70-130
trans-1,3-Dichloropropene	88	70-130
1,1,2-Trichloroethane	91	70-130
Tetrachloroethene	98	70-130
2-Hexanone	99	70-130

Client Sample ID: LCSD

Lab ID#: 1411113-07BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e111204	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/12/14 10:05 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	94	70-130
1,2-Dibromoethane (EDB)	95	70-130
Chlorobenzene	90	70-130
Ethyl Benzene	93	70-130
m,p-Xylene	102	70-130
o-Xylene	98	70-130
Styrene	111	70-130
Bromoform	88	70-130
Cumene	103	70-130
1,1,2,2-Tetrachloroethane	88	70-130
Propylbenzene	98	70-130
4-Ethyltoluene	109	70-130
1,3,5-Trimethylbenzene	106	70-130
1,2,4-Trimethylbenzene	106	70-130
1,3-Dichlorobenzene	94	70-130
1,4-Dichlorobenzene	96	70-130
alpha-Chlorotoluene	136 Q	70-130
1,2-Dichlorobenzene	96	70-130
1,2,4-Trichlorobenzene	98	70-130
Hexachlorobutadiene	99	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	102	70-130