



Air Toxics

Sample Transportation Notice

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

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

Page 1 of 1

Project Manager

Michael Parris

Collected by: (Print and Sign)

Michael Parris

Company

MD DNR

Address

Po Box 176 Jefferson City State Mo 65102

Phone (573) 526-3918

Fax

Project Info:

PO # 3E5P140678

Project #

Project Name Bridgeton landfill

Turn Around Time: Normal Rush

Lab Use Only Pressurized by: Date: Pressurization Gas: N₂ He

specify

specify

Lab I.D.

Field Sample I.D. (Location)

Can #

Date of Collection

Time of Collection

Analyses Requested

Canister Pressure/Vacuum Initial Final Receipt Final (ps)

O1A B1 (1491005)

18884

3/6/14

1131-5AM

To - 15

-30

-6

O2A B2 (1491006)

33665

3/6/14

1140-1039

To - 15

-30

-6

O3A W1 (1491007)

34258

3/6/14

1127-1610

To - 15

-30

-6

O4A W2 (1491008)

33588

3/6/14

1143-1615

To - 15

-30

-6

Relinquished by: (signature) Date/Time

Received by: (signature) Date/Time

Notes:

Michael Parris 3/7/14 1225

Michael Parris 3/12/14 1000

Skipped via UPS. Tracking #: 1Z6121880344602120. Sample event was a cross-training exercise, all sample collection overseen by project manager Mike Parris.

Relinquished by: (signature) Date/Time

Received by: (signature) Date/Time

Lab Use Only

Shipper Name

Air Bill #

Temp (°C)

Condition

Custody Seals Intact? Yes No None

Work Order # 1403217

UPS

NA

Good

3/24/2014

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

Jefferson City MO 65109

Project Name: Bridgeton Landfill

Project #:

Workorder #: 1403217

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 3/12/2014 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 #: 1403217

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. #	3ESP140678
FAX:	573-526-3350	PROJECT #	Bridgeton Landfill
DATE RECEIVED:	03/12/2014	CONTACT:	Brian Whittaker
DATE COMPLETED:	03/24/2014		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (149605)	Modified TO-15	5.5 "Hg	5.1 psi
02A	D2 (149606)	Modified TO-15	4.5 "Hg	4.8 psi
03A	U1 (149607)	Modified TO-15	5.1 "Hg	5 psi
04A	U2 (149608)	Modified TO-15	4.9 "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: 03/24/14

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

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

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.
 180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



LABORATORY NARRATIVE
Modified TO-15
Missouri Dept. of Natural Resources
Workorder# 1403217

Four 6 Liter Summa Canister (100% Certified) samples were received on March 12, 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 $< 40\%$ RSD	$\leq 30\%$ 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.

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 (149605)

Lab ID#: 1403217-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.62	0.82	3.1
Freon 11	0.16	0.24	0.93	1.4
Ethanol	0.82	3.0	1.6	5.8
Acetone	0.82	2.5	2.0	5.9
Benzene	0.16	4.7	0.53	15
Toluene	0.16	0.80	0.62	3.0
m,p-Xylene	0.16	0.21	0.72	0.92

Client Sample ID: D2 (149606)

Lab ID#: 1403217-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.54	0.77	2.6
Freon 11	0.16	0.22	0.88	1.2
Ethanol	0.78	2.0	1.5	3.8
Acetone	0.78	2.0	1.8	4.7
Benzene	0.16	0.22	0.50	0.71
Toluene	0.16	0.29	0.59	1.1

Client Sample ID: U1 (149607)

Lab ID#: 1403217-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.55	0.80	2.7
Freon 11	0.16	0.21	0.90	1.2
Ethanol	0.80	2.4	1.5	4.4
Acetone	0.80	2.8	1.9	6.6
Benzene	0.16	0.23	0.51	0.75
Toluene	0.16	0.28	0.61	1.0

Client Sample ID: U2 (149608)

Lab ID#: 1403217-04A

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

Client Sample ID: U2 (149608)

Lab ID#: 1403217-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.55	0.79	2.7
Freon 11	0.16	0.22	0.90	1.2
Ethanol	0.80	2.8	1.5	5.2
Acetone	0.80	2.2	1.9	5.3
Benzene	0.16	0.21	0.51	0.68
Toluene	0.16	0.36	0.60	1.4



Air Toxics

Client Sample ID: D1 (149605)

Lab ID#: 1403217-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c031912	Date of Collection:	3/6/14 3:44:00 PM
Dil. Factor:	1.65	Date of Analysis:	3/19/14 04:50 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.62	0.82	3.1
Freon 114	0.16	Not Detected	1.2	Not Detected
Chloromethane	0.82	Not Detected	1.7	Not Detected
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
1,3-Butadiene	0.16	Not Detected	0.36	Not Detected
Bromomethane	0.82	Not Detected	3.2	Not Detected
Chloroethane	0.82	Not Detected	2.2	Not Detected
Freon 11	0.16	0.24	0.93	1.4
Ethanol	0.82	3.0	1.6	5.8
Freon 113	0.16	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	2.5	2.0	5.9
2-Propanol	0.82	Not Detected	2.0	Not Detected
Carbon Disulfide	0.82	Not Detected	2.6	Not Detected
3-Chloropropene	0.82	Not Detected	2.6	Not Detected
Methylene Chloride	0.33	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.59	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Hexane	0.16	Not Detected	0.58	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.67	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.82	Not Detected	2.4	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Tetrahydrofuran	0.82	Not Detected	2.4	Not Detected
Chloroform	0.16	Not Detected	0.80	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.90	Not Detected
Cyclohexane	0.16	Not Detected	0.57	Not Detected
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.82	Not Detected	3.8	Not Detected
Benzene	0.16	4.7	0.53	15
1,2-Dichloroethane	0.16	Not Detected	0.67	Not Detected
Heptane	0.16	Not Detected	0.68	Not Detected
Trichloroethene	0.16	Not Detected	0.89	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.76	Not Detected
1,4-Dioxane	0.16	Not Detected	0.59	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.75	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.68	Not Detected
Toluene	0.16	0.80	0.62	3.0
trans-1,3-Dichloropropene	0.16	Not Detected	0.75	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.90	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.82	Not Detected	3.4	Not Detected



Client Sample ID: D1 (149605)

Lab ID#: 1403217-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c031912	Date of Collection:	3/6/14 3:44:00 PM
Dil. Factor:	1.65	Date of Analysis:	3/19/14 04:50 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	1.3	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	Not Detected	0.72	Not Detected
m,p-Xylene	0.16	0.21	0.72	0.92
o-Xylene	0.16	Not Detected	0.72	Not Detected
Styrene	0.16	Not Detected	0.70	Not Detected
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	Not Detected	0.81	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.81	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.81	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.81	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.81	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.85	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2,4-Trichlorobenzene	0.82	Not Detected	6.1	Not Detected
Hexachlorobutadiene	0.82	Not Detected	8.8	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: D2 (149606)

Lab ID#: 1403217-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c031913	Date of Collection:	3/6/14 4:39:00 PM
Dil. Factor:	1.56	Date of Analysis:	3/19/14 05:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.54	0.77	2.6
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.78	Not Detected	1.6	Not Detected
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
1,3-Butadiene	0.16	Not Detected	0.34	Not Detected
Bromomethane	0.78	Not Detected	3.0	Not Detected
Chloroethane	0.78	Not Detected	2.0	Not Detected
Freon 11	0.16	0.22	0.88	1.2
Ethanol	0.78	2.0	1.5	3.8
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Acetone	0.78	2.0	1.8	4.7
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	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.56	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Hexane	0.16	Not Detected	0.55	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.63	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	0.76	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.85	Not Detected
Cyclohexane	0.16	Not Detected	0.54	Not Detected
Carbon Tetrachloride	0.16	Not Detected	0.98	Not Detected
2,2,4-Trimethylpentane	0.78	Not Detected	3.6	Not Detected
Benzene	0.16	0.22	0.50	0.71
1,2-Dichloroethane	0.16	Not Detected	0.63	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	0.29	0.59	1.1
trans-1,3-Dichloropropene	0.16	Not Detected	0.71	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.85	Not Detected
Tetrachloroethene	0.16	Not Detected	1.0	Not Detected
2-Hexanone	0.78	Not Detected	3.2	Not Detected



Air Toxics

Client Sample ID: D2 (149606)

Lab ID#: 1403217-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c031913	Date of Collection:	3/6/14 4:39:00 PM
Dil. Factor:	1.56	Date of Analysis:	3/19/14 05:32 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	Not Detected	0.68	Not Detected
o-Xylene	0.16	Not Detected	0.68	Not Detected
Styrene	0.16	Not Detected	0.66	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	5.8	Not Detected
Hexachlorobutadiene	0.78	Not Detected	8.3	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	100	70-130



Air Toxics

Client Sample ID: U1 (149607)

Lab ID#: 1403217-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c031914	Date of Collection:	3/6/14 4:10:00 PM
Dil. Factor:	1.61	Date of Analysis:	3/19/14 06:09 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.55	0.80	2.7
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	0.21	0.90	1.2
Ethanol	0.80	2.4	1.5	4.4
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	2.8	1.9	6.6
2-Propanol	0.80	Not Detected	2.0	Not Detected
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
3-Chloropropene	0.80	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	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	0.23	0.51	0.75
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	0.28	0.61	1.0
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: U1 (149607)

Lab ID#: 1403217-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c031914	Date of Collection:	3/6/14 4:10:00 PM
Dil. Factor:	1.61	Date of Analysis:	3/19/14 06:09 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	109	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: U2 (149608)

Lab ID#: 1403217-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c031915	Date of Collection:	3/6/14 4:15:00 PM
Dil. Factor:	1.60	Date of Analysis:	3/19/14 06:59 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.55	0.79	2.7
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	0.22	0.90	1.2
Ethanol	0.80	2.8	1.5	5.2
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.80	2.2	1.9	5.3
2-Propanol	0.80	Not Detected	2.0	Not Detected
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
3-Chloropropene	0.80	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.58	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	0.65	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	Not Detected	2.4	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.4	Not Detected
Chloroform	0.16	Not Detected	0.78	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.87	Not Detected
Cyclohexane	0.16	Not Detected	0.55	Not Detected
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.80	Not Detected	3.7	Not Detected
Benzene	0.16	0.21	0.51	0.68
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	0.36	0.60	1.4
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.87	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.80	Not Detected	3.3	Not Detected



Client Sample ID: U2 (149608)

Lab ID#: 1403217-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c031915	Date of Collection:	3/6/14 4:15:00 PM
Dil. Factor:	1.60	Date of Analysis:	3/19/14 06:59 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.69	Not Detected
m,p-Xylene	0.16	Not Detected	0.69	Not Detected
o-Xylene	0.16	Not Detected	0.69	Not Detected
Styrene	0.16	Not Detected	0.68	Not Detected
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.79	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.79	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.79	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.83	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	5.9	Not Detected
Hexachlorobutadiene	0.80	Not Detected	8.5	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1403217-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c031906	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/19/14 11:44 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#: 1403217-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c031906	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/19/14 11:44 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	106	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1403217-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c031902	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/19/14 08:34 AM

Compound	%Recovery
Freon 12	113
Freon 114	104
Chloromethane	81
Vinyl Chloride	96
1,3-Butadiene	90
Bromomethane	109
Chloroethane	98
Freon 11	100
Ethanol	84
Freon 113	102
1,1-Dichloroethene	98
Acetone	84
2-Propanol	95
Carbon Disulfide	95
3-Chloropropene	112
Methylene Chloride	93
Methyl tert-butyl ether	113
trans-1,2-Dichloroethene	94
Hexane	100
1,1-Dichloroethane	96
2-Butanone (Methyl Ethyl Ketone)	94
cis-1,2-Dichloroethene	98
Tetrahydrofuran	91
Chloroform	103
1,1,1-Trichloroethane	108
Cyclohexane	102
Carbon Tetrachloride	71
2,2,4-Trimethylpentane	91
Benzene	98
1,2-Dichloroethane	108
Heptane	105
Trichloroethene	109
1,2-Dichloropropane	100
1,4-Dioxane	107
Bromodichloromethane	108
cis-1,3-Dichloropropene	118
4-Methyl-2-pentanone	110
Toluene	104
trans-1,3-Dichloropropene	118
1,1,2-Trichloroethane	102
Tetrachloroethene	112
2-Hexanone	108

Client Sample ID: CCV

Lab ID#: 1403217-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c031902	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/19/14 08:34 AM

Compound	%Recovery
Dibromochloromethane	116
1,2-Dibromoethane (EDB)	112
Chlorobenzene	104
Ethyl Benzene	113
m,p-Xylene	117
o-Xylene	115
Styrene	120
Bromoform	118
Cumene	121
1,1,2,2-Tetrachloroethane	101
Propylbenzene	115
4-Ethyltoluene	118
1,3,5-Trimethylbenzene	120
1,2,4-Trimethylbenzene	114
1,3-Dichlorobenzene	120
1,4-Dichlorobenzene	117
alpha-Chlorotoluene	120
1,2-Dichlorobenzene	115
1,2,4-Trichlorobenzene	107
Hexachlorobutadiene	102

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	113	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1403217-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c031903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/19/14 09:23 AM

Compound	%Recovery	Method Limits
Freon 12	114	70-130
Freon 114	109	70-130
Chloromethane	82	70-130
Vinyl Chloride	98	70-130
1,3-Butadiene	95	70-130
Bromomethane	107	70-130
Chloroethane	96	70-130
Freon 11	106	70-130
Ethanol	102	70-130
Freon 113	121	70-130
1,1-Dichloroethene	112	70-130
Acetone	90	70-130
2-Propanol	102	70-130
Carbon Disulfide	94	70-130
3-Chloropropene	109	70-130
Methylene Chloride	104	70-130
Methyl tert-butyl ether	115	70-130
trans-1,2-Dichloroethene	90	70-130
Hexane	103	70-130
1,1-Dichloroethane	102	70-130
2-Butanone (Methyl Ethyl Ketone)	105	70-130
cis-1,2-Dichloroethene	116	70-130
Tetrahydrofuran	97	70-130
Chloroform	109	70-130
1,1,1-Trichloroethane	113	70-130
Cyclohexane	112	70-130
Carbon Tetrachloride	64 Q	70-130
2,2,4-Trimethylpentane	92	70-130
Benzene	100	70-130
1,2-Dichloroethane	110	70-130
Heptane	106	70-130
Trichloroethene	113	70-130
1,2-Dichloropropane	99	70-130
1,4-Dioxane	117	70-130
Bromodichloromethane	112	70-130
cis-1,3-Dichloropropene	123	70-130
4-Methyl-2-pentanone	117	70-130
Toluene	104	70-130
trans-1,3-Dichloropropene	115	70-130
1,1,2-Trichloroethane	100	70-130
Tetrachloroethene	112	70-130
2-Hexanone	114	70-130

Client Sample ID: LCS

Lab ID#: 1403217-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c031903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/19/14 09:23 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	119	70-130
1,2-Dibromoethane (EDB)	112	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	110	70-130
m,p-Xylene	114	70-130
o-Xylene	110	70-130
Styrene	114	70-130
Bromoform	118	70-130
Cumene	117	70-130
1,1,2,2-Tetrachloroethane	97	70-130
Propylbenzene	108	70-130
4-Ethyltoluene	107	70-130
1,3,5-Trimethylbenzene	106	70-130
1,2,4-Trimethylbenzene	98	70-130
1,3-Dichlorobenzene	107	70-130
1,4-Dichlorobenzene	102	70-130
alpha-Chlorotoluene	124	70-130
1,2-Dichlorobenzene	105	70-130
1,2,4-Trichlorobenzene	85	70-130
Hexachlorobutadiene	79	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	105	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1403217-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c031904	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/19/14 10:11 AM

Compound	%Recovery	Method Limits
Freon 12	112	70-130
Freon 114	107	70-130
Chloromethane	83	70-130
Vinyl Chloride	97	70-130
1,3-Butadiene	94	70-130
Bromomethane	114	70-130
Chloroethane	104	70-130
Freon 11	106	70-130
Ethanol	102	70-130
Freon 113	126	70-130
1,1-Dichloroethene	118	70-130
Acetone	95	70-130
2-Propanol	106	70-130
Carbon Disulfide	95	70-130
3-Chloropropene	114	70-130
Methylene Chloride	110	70-130
Methyl tert-butyl ether	119	70-130
trans-1,2-Dichloroethene	94	70-130
Hexane	105	70-130
1,1-Dichloroethane	104	70-130
2-Butanone (Methyl Ethyl Ketone)	102	70-130
cis-1,2-Dichloroethene	121	70-130
Tetrahydrofuran	92	70-130
Chloroform	110	70-130
1,1,1-Trichloroethane	114	70-130
Cyclohexane	114	70-130
Carbon Tetrachloride	65 Q	70-130
2,2,4-Trimethylpentane	95	70-130
Benzene	98	70-130
1,2-Dichloroethane	105	70-130
Heptane	106	70-130
Trichloroethene	114	70-130
1,2-Dichloropropane	101	70-130
1,4-Dioxane	119	70-130
Bromodichloromethane	110	70-130
cis-1,3-Dichloropropene	122	70-130
4-Methyl-2-pentanone	115	70-130
Toluene	102	70-130
trans-1,3-Dichloropropene	115	70-130
1,1,2-Trichloroethane	102	70-130
Tetrachloroethene	115	70-130
2-Hexanone	116	70-130



Client Sample ID: LCSD

Lab ID#: 1403217-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c031904	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/19/14 10:11 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	120	70-130
1,2-Dibromoethane (EDB)	113	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	111	70-130
m,p-Xylene	113	70-130
o-Xylene	112	70-130
Styrene	116	70-130
Bromoform	119	70-130
Cumene	118	70-130
1,1,2,2-Tetrachloroethane	98	70-130
Propylbenzene	111	70-130
4-Ethyltoluene	112	70-130
1,3,5-Trimethylbenzene	111	70-130
1,2,4-Trimethylbenzene	102	70-130
1,3-Dichlorobenzene	110	70-130
1,4-Dichlorobenzene	107	70-130
alpha-Chlorotoluene	128	70-130
1,2-Dichlorobenzene	108	70-130
1,2,4-Trichlorobenzene	91	70-130
Hexachlorobutadiene	84	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	105	70-130