



Air Toxics

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Page 1 of 1

Project Manager

Michael Davis

Collected by: (Print and Sign)

Kirk Mitchell

Company

MDNR

Email

Address

P.O. Box 176

City Elk Grove State MD Zip 6502

Phone

573-526-3918

Fax

Project Info:

P.O. # 35SP400007

Project #

Project Name Bridgeton Landfill

Turn Around Time:

☒ Normal

☐ Rush

Lab Use Only
Pressurized by:

Date:

Pressurization Gas:

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)

OIA

U1 (151353)

94945

2-27-15

0945-1450

TD-15

-30

-2

O2A

U2 (151351)

5574

2-27-15

1020-1431

TD-15

-29

-11

O3A

D1 (151358)

5563

2-27-15

0920-1431

TD-15

-30

-4

O4A

D2 (151352)

34265

2-27-15

1030-1430

TD-15

-30

-8.5

Relinquished by: (signature)

[Signature]

Date/Time

3-4-2015

Received by: (signature)

[Signature]

Date/Time

3/4/15

Notes:

Relinquished by: (signature)

[Signature]

Date/Time

1000 hours

Received by: (signature)

[Signature]

Date/Time

3/4/15

Notes:

Relinquished by: (signature)

[Signature]

Date/Time

3/4/15

Received by: (signature)

[Signature]

Date/Time

3/4/15

Notes:

Relinquished by: (signature)

[Signature]

Date/Time

3/4/15

Received by: (signature)

[Signature]

Date/Time

3/4/15

Notes:

Lab

Shipper Name

Air Bill #

Temp (°C)

Condition

Custody Seals Intact?

Work Order #

Use Only

1503139

1503139

1503139

1503139

1503139

1503139

1503139

1503139

3/20/2015

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

Jefferson City MO 65109

Project Name: Bridgeton Landfill

Project #:

Workorder #: 1503139

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 3/9/2015 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 #: 1503139

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:	03/09/2015	CONTACT:	Brian Whittaker
DATE COMPLETED:	03/20/2015		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	U1 (151353)	Modified TO-15	1.2 "Hg	4.8 psi
02A(cancelled)	U2 (151351)	Modified TO-15	0.4 psi	5.2 psi
03A	D1 (151350)	Modified TO-15	0.2 "Hg	5.1 psi
04A	D2 (151352)	Modified TO-15	5.3 "Hg	4.7 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: 03/20/15

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 Low Level
Missouri Dept. of Natural Resources
Workorder# 1503139

Four 6 Liter Summa Canister (100% Certified) samples were received on March 09, 2015. 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

The Summa canister for sample U2 (151351) was leaking upon arrival. The client was notified and the analysis was cancelled.

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 CCV analyses have not been flagged.

Due to the linear calibration range of the instrument, the reporting limit for alpha-Chlorotoluene was raised from 0.10ppbv to 0.50ppbv.

Definition of Data Qualifying Flags

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

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

N - The identification is based on presumptive evidence.

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

- a-File was requantified
- b-File was quantified by a second column and detector
- r1-File was requantified for the purpose of reissue

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: U1 (151353)

Lab ID#: 1503139-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.40	0.68	2.0
Freon 11	0.14	0.17	0.78	0.95
Ethanol	0.69	0.95 J0	1.3	1.8 J0
Acetone	0.69	1.7	1.6	4.2
Methylene Chloride	0.28	0.31	0.96	1.1
Hexane	0.14	0.22	0.49	0.76
Toluene	0.14	0.57	0.52	2.2

Client Sample ID: D1 (151350)

Lab ID#: 1503139-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.39	0.67	1.9
Freon 11	0.14	0.19	0.76	1.0
Ethanol	0.68	1.3 J0	1.3	2.5 J0
Acetone	0.68	1.1	1.6	2.7
Benzene	0.14	0.14	0.43	0.46

Client Sample ID: D2 (151352)

Lab ID#: 1503139-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.40	0.79	2.0
Freon 11	0.16	0.19	0.90	1.1
Ethanol	0.80	1.2 J0	1.5	2.3 J0
Acetone	0.80	1.1	1.9	2.6
Benzene	0.16	0.19	0.51	0.61

Client Sample ID: U1 (151353)

Lab ID#: 1503139-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v031220	Date of Collection:	2/27/15 2:50:00 PM
Dil. Factor:	1.38	Date of Analysis:	3/12/15 09:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.40	0.68	2.0
Freon 114	0.14	Not Detected	0.96	Not Detected
Chloromethane	0.69	Not Detected	1.4	Not Detected
Vinyl Chloride	0.14	Not Detected	0.35	Not Detected
1,3-Butadiene	0.14	Not Detected	0.30	Not Detected
Bromomethane	0.69	Not Detected	2.7	Not Detected
Chloroethane	0.69	Not Detected	1.8	Not Detected
Freon 11	0.14	0.17	0.78	0.95
Ethanol	0.69	0.95 J0	1.3	1.8 J0
Freon 113	0.14	Not Detected	1.0	Not Detected
1,1-Dichloroethene	0.14	Not Detected	0.55	Not Detected
Acetone	0.69	1.7	1.6	4.2
2-Propanol	0.69	Not Detected	1.7	Not Detected
Carbon Disulfide	0.69	Not Detected	2.1	Not Detected
3-Chloropropene	0.69	Not Detected	2.2	Not Detected
Methylene Chloride	0.28	0.31	0.96	1.1
Methyl tert-butyl ether	0.14	Not Detected	0.50	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.55	Not Detected
Hexane	0.14	0.22	0.49	0.76
1,1-Dichloroethane	0.14	Not Detected	0.56	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.69	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.14	Not Detected	0.55	Not Detected
Tetrahydrofuran	0.69	Not Detected	2.0	Not Detected
Chloroform	0.14	Not Detected	0.67	Not Detected
1,1,1-Trichloroethane	0.14	Not Detected	0.75	Not Detected
Cyclohexane	0.14	Not Detected	0.48	Not Detected
Carbon Tetrachloride	0.14	Not Detected	0.87	Not Detected
2,2,4-Trimethylpentane	0.69	Not Detected	3.2	Not Detected
Benzene	0.14	Not Detected	0.44	Not Detected
1,2-Dichloroethane	0.14	Not Detected	0.56	Not Detected
Heptane	0.14	Not Detected	0.56	Not Detected
Trichloroethene	0.14	Not Detected	0.74	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.64	Not Detected
1,4-Dioxane	0.14	Not Detected	0.50	Not Detected
Bromodichloromethane	0.14	Not Detected	0.92	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.63	Not Detected
4-Methyl-2-pentanone	0.14	Not Detected	0.56	Not Detected
Toluene	0.14	0.57	0.52	2.2
trans-1,3-Dichloropropene	0.14	Not Detected	0.63	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.75	Not Detected
Tetrachloroethene	0.14	Not Detected	0.94	Not Detected
2-Hexanone	0.69	Not Detected	2.8	Not Detected

Client Sample ID: U1 (151353)

Lab ID#: 1503139-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v031220	Date of Collection:	2/27/15 2:50:00 PM
Dil. Factor:	1.38	Date of Analysis:	3/12/15 09:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.64	Not Detected
Ethyl Benzene	0.14	Not Detected	0.60	Not Detected
m,p-Xylene	0.14	Not Detected	0.60	Not Detected
o-Xylene	0.14	Not Detected	0.60	Not Detected
Styrene	0.14	Not Detected	0.59	Not Detected
Bromoform	0.14	Not Detected	1.4	Not Detected
Cumene	0.14	Not Detected	0.68	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.95	Not Detected
Propylbenzene	0.14	Not Detected	0.68	Not Detected
4-Ethyltoluene	0.14	Not Detected	0.68	Not Detected
1,3,5-Trimethylbenzene	0.14	Not Detected	0.68	Not Detected
1,2,4-Trimethylbenzene	0.14	Not Detected	0.68	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.83	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.83	Not Detected
alpha-Chlorotoluene	0.69	Not Detected	3.6	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.83	Not Detected
1,2,4-Trichlorobenzene	0.69	Not Detected	5.1	Not Detected
Hexachlorobutadiene	0.69	Not Detected	7.4	Not Detected

J0 = Estimated value due to bias in the CCV.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	92	70-130

Client Sample ID: D1 (151350)

Lab ID#: 1503139-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v031222	Date of Collection:	2/27/15 2:31:00 PM
Dil. Factor:	1.36	Date of Analysis:	3/12/15 11:10 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.39	0.67	1.9
Freon 114	0.14	Not Detected	0.95	Not Detected
Chloromethane	0.68	Not Detected	1.4	Not Detected
Vinyl Chloride	0.14	Not Detected	0.35	Not Detected
1,3-Butadiene	0.14	Not Detected	0.30	Not Detected
Bromomethane	0.68	Not Detected	2.6	Not Detected
Chloroethane	0.68	Not Detected	1.8	Not Detected
Freon 11	0.14	0.19	0.76	1.0
Ethanol	0.68	1.3 J0	1.3	2.5 J0
Freon 113	0.14	Not Detected	1.0	Not Detected
1,1-Dichloroethene	0.14	Not Detected	0.54	Not Detected
Acetone	0.68	1.1	1.6	2.7
2-Propanol	0.68	Not Detected	1.7	Not Detected
Carbon Disulfide	0.68	Not Detected	2.1	Not Detected
3-Chloropropene	0.68	Not Detected	2.1	Not Detected
Methylene Chloride	0.27	Not Detected	0.94	Not Detected
Methyl tert-butyl ether	0.14	Not Detected	0.49	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.54	Not Detected
Hexane	0.14	Not Detected	0.48	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.55	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.68	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.14	Not Detected	0.54	Not Detected
Tetrahydrofuran	0.68	Not Detected	2.0	Not Detected
Chloroform	0.14	Not Detected	0.66	Not Detected
1,1,1-Trichloroethane	0.14	Not Detected	0.74	Not Detected
Cyclohexane	0.14	Not Detected	0.47	Not Detected
Carbon Tetrachloride	0.14	Not Detected	0.86	Not Detected
2,2,4-Trimethylpentane	0.68	Not Detected	3.2	Not Detected
Benzene	0.14	0.14	0.43	0.46
1,2-Dichloroethane	0.14	Not Detected	0.55	Not Detected
Heptane	0.14	Not Detected	0.56	Not Detected
Trichloroethene	0.14	Not Detected	0.73	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.63	Not Detected
1,4-Dioxane	0.14	Not Detected	0.49	Not Detected
Bromodichloromethane	0.14	Not Detected	0.91	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.62	Not Detected
4-Methyl-2-pentanone	0.14	Not Detected	0.56	Not Detected
Toluene	0.14	Not Detected	0.51	Not Detected
trans-1,3-Dichloropropene	0.14	Not Detected	0.62	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.74	Not Detected
Tetrachloroethene	0.14	Not Detected	0.92	Not Detected
2-Hexanone	0.68	Not Detected	2.8	Not Detected

Client Sample ID: D1 (151350)

Lab ID#: 1503139-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v031222	Date of Collection:	2/27/15 2:31:00 PM
Dil. Factor:	1.36	Date of Analysis:	3/12/15 11:10 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.0	Not Detected
Chlorobenzene	0.14	Not Detected	0.63	Not Detected
Ethyl Benzene	0.14	Not Detected	0.59	Not Detected
m,p-Xylene	0.14	Not Detected	0.59	Not Detected
o-Xylene	0.14	Not Detected	0.59	Not Detected
Styrene	0.14	Not Detected	0.58	Not Detected
Bromoform	0.14	Not Detected	1.4	Not Detected
Cumene	0.14	Not Detected	0.67	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.93	Not Detected
Propylbenzene	0.14	Not Detected	0.67	Not Detected
4-Ethyltoluene	0.14	Not Detected	0.67	Not Detected
1,3,5-Trimethylbenzene	0.14	Not Detected	0.67	Not Detected
1,2,4-Trimethylbenzene	0.14	Not Detected	0.67	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.82	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.82	Not Detected
alpha-Chlorotoluene	0.68	Not Detected	3.5	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.82	Not Detected
1,2,4-Trichlorobenzene	0.68	Not Detected	5.0	Not Detected
Hexachlorobutadiene	0.68	Not Detected	7.2	Not Detected

J0 = Estimated value due to bias in the CCV.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	89	70-130

Client Sample ID: D2 (151352)

Lab ID#: 1503139-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v031223	Date of Collection:	2/27/15 2:30:00 PM
Dil. Factor:	1.60	Date of Analysis:	3/13/15 05:19 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.40	0.79	2.0
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	0.19	0.90	1.1
Ethanol	0.80	1.2 J0	1.5	2.3 J0
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.80	1.1	1.9	2.6
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	0.63	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	0.19	0.51	0.61
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	Not Detected	0.60	Not Detected
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



Air Toxics

Client Sample ID: D2 (151352)

Lab ID#: 1503139-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v031223	Date of Collection:	2/27/15 2:30:00 PM
Dil. Factor:	1.60	Date of Analysis:	3/13/15 05:19 AM

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	0.80	Not Detected	4.1	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

J0 = Estimated value due to bias in the CCV.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1503139-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v031208	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/12/15 01:11 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#: 1503139-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v031208	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/12/15 01:11 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	0.50	Not Detected	2.6	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	99	70-130
4-Bromofluorobenzene	90	70-130

Client Sample ID: CCV

Lab ID#: 1503139-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v031203	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/12/15 09:19 AM

Compound	%Recovery
Freon 12	97
Freon 114	100
Chloromethane	118
Vinyl Chloride	106
1,3-Butadiene	108
Bromomethane	100
Chloroethane	104
Freon 11	95
Ethanol	140 Q
Freon 113	100
1,1-Dichloroethene	100
Acetone	99
2-Propanol	121
Carbon Disulfide	96
3-Chloropropene	100
Methylene Chloride	93
Methyl tert-butyl ether	100
trans-1,2-Dichloroethene	100
Hexane	109
1,1-Dichloroethane	101
2-Butanone (Methyl Ethyl Ketone)	95
cis-1,2-Dichloroethene	97
Tetrahydrofuran	121
Chloroform	98
1,1,1-Trichloroethane	92
Cyclohexane	98
Carbon Tetrachloride	106
2,2,4-Trimethylpentane	106
Benzene	101
1,2-Dichloroethane	102
Heptane	112
Trichloroethene	108
1,2-Dichloropropane	108
1,4-Dioxane	88
Bromodichloromethane	101
cis-1,3-Dichloropropene	101
4-Methyl-2-pentanone	118
Toluene	100
trans-1,3-Dichloropropene	100
1,1,2-Trichloroethane	111
Tetrachloroethene	106
2-Hexanone	101

Client Sample ID: CCV

Lab ID#: 1503139-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v031203	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/12/15 09:19 AM

Compound	%Recovery
Dibromochloromethane	109
1,2-Dibromoethane (EDB)	110
Chlorobenzene	104
Ethyl Benzene	99
m,p-Xylene	94
o-Xylene	93
Styrene	96
Bromoform	109
Cumene	98
1,1,2,2-Tetrachloroethane	101
Propylbenzene	90
4-Ethyltoluene	93
1,3,5-Trimethylbenzene	88
1,2,4-Trimethylbenzene	91
1,3-Dichlorobenzene	92
1,4-Dichlorobenzene	76
alpha-Chlorotoluene	94
1,2-Dichlorobenzene	84
1,2,4-Trichlorobenzene	87
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	99	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: LCS

Lab ID#: 1503139-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v031205	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/12/15 11:05 AM

Compound	%Recovery	Method Limits
Freon 12	95	70-130
Freon 114	102	70-130
Chloromethane	113	70-130
Vinyl Chloride	104	70-130
1,3-Butadiene	104	70-130
Bromomethane	100	70-130
Chloroethane	105	70-130
Freon 11	95	70-130
Ethanol	145 Q	70-130
Freon 113	97	70-130
1,1-Dichloroethene	99	70-130
Acetone	96	70-130
2-Propanol	120	70-130
Carbon Disulfide	83	70-130
3-Chloropropene	91	70-130
Methylene Chloride	94	70-130
Methyl tert-butyl ether	94	70-130
trans-1,2-Dichloroethene	85	70-130
Hexane	103	70-130
1,1-Dichloroethane	97	70-130
2-Butanone (Methyl Ethyl Ketone)	92	70-130
cis-1,2-Dichloroethene	103	70-130
Tetrahydrofuran	113	70-130
Chloroform	94	70-130
1,1,1-Trichloroethane	89	70-130
Cyclohexane	94	70-130
Carbon Tetrachloride	107	70-130
2,2,4-Trimethylpentane	96	70-130
Benzene	91	70-130
1,2-Dichloroethane	93	70-130
Heptane	99	70-130
Trichloroethene	97	70-130
1,2-Dichloropropane	97	70-130
1,4-Dioxane	80	70-130
Bromodichloromethane	94	70-130
cis-1,3-Dichloropropene	86	70-130
4-Methyl-2-pentanone	104	70-130
Toluene	91	70-130
trans-1,3-Dichloropropene	90	70-130
1,1,2-Trichloroethane	99	70-130
Tetrachloroethene	97	70-130
2-Hexanone	91	70-130

Client Sample ID: LCS

Lab ID#: 1503139-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v031205	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/12/15 11:05 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	98	70-130
1,2-Dibromoethane (EDB)	98	70-130
Chlorobenzene	94	70-130
Ethyl Benzene	84	70-130
m,p-Xylene	79	70-130
o-Xylene	86	70-130
Styrene	80	70-130
Bromoform	100	70-130
Cumene	82	70-130
1,1,2,2-Tetrachloroethane	90	70-130
Propylbenzene	76	70-130
4-Ethyltoluene	79	70-130
1,3,5-Trimethylbenzene	75	70-130
1,2,4-Trimethylbenzene	81	70-130
1,3-Dichlorobenzene	78	70-130
1,4-Dichlorobenzene	65 Q	70-130
alpha-Chlorotoluene	84	70-130
1,2-Dichlorobenzene	72	70-130
1,2,4-Trichlorobenzene	77	70-130
Hexachlorobutadiene	64 Q	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	98	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: LCSD

Lab ID#: 1503139-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: v031206

Date of Collection: NA

Dil. Factor: 1.00

Date of Analysis: 3/12/15 11:45 AM

Compound	%Recovery	Method Limits
Freon 12	90	70-130
Freon 114	94	70-130
Chloromethane	104	70-130
Vinyl Chloride	96	70-130
1,3-Butadiene	98	70-130
Bromomethane	96	70-130
Chloroethane	98	70-130
Freon 11	90	70-130
Ethanol	127	70-130
Freon 113	92	70-130
1,1-Dichloroethene	92	70-130
Acetone	87	70-130
2-Propanol	114	70-130
Carbon Disulfide	79	70-130
3-Chloropropene	85	70-130
Methylene Chloride	88	70-130
Methyl tert-butyl ether	88	70-130
trans-1,2-Dichloroethene	79	70-130
Hexane	96	70-130
1,1-Dichloroethane	92	70-130
2-Butanone (Methyl Ethyl Ketone)	84	70-130
cis-1,2-Dichloroethene	100	70-130
Tetrahydrofuran	110	70-130
Chloroform	89	70-130
1,1,1-Trichloroethane	85	70-130
Cyclohexane	91	70-130
Carbon Tetrachloride	99	70-130
2,2,4-Trimethylpentane	96	70-130
Benzene	89	70-130
1,2-Dichloroethane	92	70-130
Heptane	100	70-130
Trichloroethene	98	70-130
1,2-Dichloropropane	97	70-130
1,4-Dioxane	78	70-130
Bromodichloromethane	94	70-130
cis-1,3-Dichloropropene	87	70-130
4-Methyl-2-pentanone	105	70-130
Toluene	91	70-130
trans-1,3-Dichloropropene	90	70-130
1,1,2-Trichloroethane	98	70-130
Tetrachloroethene	94	70-130
2-Hexanone	90	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1503139-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: v031206

Date of Collection: NA

Dil. Factor: 1.00

Date of Analysis: 3/12/15 11:45 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	95	70-130
1,2-Dibromoethane (EDB)	97	70-130
Chlorobenzene	89	70-130
Ethyl Benzene	84	70-130
m,p-Xylene	83	70-130
o-Xylene	85	70-130
Styrene	83	70-130
Bromoform	95	70-130
Cumene	84	70-130
1,1,2,2-Tetrachloroethane	91	70-130
Propylbenzene	80	70-130
4-Ethyltoluene	80	70-130
1,3,5-Trimethylbenzene	77	70-130
1,2,4-Trimethylbenzene	82	70-130
1,3-Dichlorobenzene	80	70-130
1,4-Dichlorobenzene	67 Q	70-130
alpha-Chlorotoluene	84	70-130
1,2-Dichlorobenzene	72	70-130
1,2,4-Trichlorobenzene	81	70-130
Hexachlorobutadiene	68 Q	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	98	70-130
4-Bromofluorobenzene	98	70-130