



Air Toxics

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Page 1 of 1

Project Manager

Michael Paris

Collected by: (Print and Sign)

Michael Paris

Company

MO ONE

Address

PO Box 176 City Fresno State MO zip 12518

Phone (543) 526-3918

Fax

Project Info:
P.O. # 95SR400007
Project #
Project Name Bridgeton LF

Turn Around Time:
 Normal
 Rush

Lab Use Only
Pressurized by:
Date:
Pressurization Gas:

Canister Pressure/Vacuum
Initial Final Receipt Final (ppb)

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum
01A	B1 (1412261)	9950	12/8/14	1040-1520	T0-15	-90 -6.5
02A	B2 (1412262)	33931	12/8/14	1055-1500	T0-15	-29 -6
03A	M1 (1412263)	33660	12/8/14	1105-1540	T0-15	-30 -6
Relinquished by: (signature) Date/Time Received by: (signature) Date/Time Relinquished by: (signature) Date/Time Received by: (signature) Date/Time Relinquished by: (signature) Date/Time Received by: (signature) Date/Time						

Notes:

Shipped via UPS
Tracking # 1Z6927850343641787

Shipper Name: UPS Air Bill #: NA Temp (°C): NA Condition: Good Custody Seals Intact? Yes No None Work Order #: 1412284

12/31/2014
Mr. Dennis Schroeder
Missouri Dept. of Natural Resources
2710 West Main

Jefferson City MO 65109

Project Name: Bridgeton LF
Project #:
Workorder #: 1412284

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 12/18/2014 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 #: 1412284

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 LF
DATE RECEIVED:	12/18/2014	CONTACT:	Brian Whittaker
DATE COMPLETED:	12/31/2014		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (1412261)	Modified TO-15	5.7 "Hg	5 psi
02A	D2 (1412262)	Modified TO-15	5.1 "Hg	4.9 psi
03A	U1 (1412263)	Modified TO-15	5.1 "Hg	4.8 psi
04A	Lab Blank	Modified TO-15	NA	NA
05A	CCV	Modified TO-15	NA	NA
06A	LCS	Modified TO-15	NA	NA
06AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: 

 Technical Director

DATE: 12/31/14

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# 1412284**

Three 6 Liter Summa Canister (100% Certified) samples were received on December 18, 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	</=30% RSD with 2 compounds allowed out to < 40% RSD	</=30% RSD with 4 compounds allowed out to < 40% RSD
Blank and standards	Zero Air	UHP Nitrogen provides a higher purity gas matrix than zero air

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Due to the linear calibration range of the instrument, the reporting limit for 1,4-Dioxane 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: D1 (1412261)

Lab ID#: 1412284-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.39	0.82	1.9
Freon 11	0.17	0.20	0.93	1.1
Ethanol	0.83	2.5	1.6	4.7
Acetone	0.83	3.2	2.0	7.5
Benzene	0.17	0.23	0.53	0.73
Heptane	0.17	0.20	0.68	0.83
Toluene	0.17	0.26	0.62	0.98

Client Sample ID: D2 (1412262)

Lab ID#: 1412284-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.42	0.80	2.1
Freon 11	0.16	0.26	0.90	1.5
Ethanol	0.80	5.1	1.5	9.6
Acetone	0.80	2.4	1.9	5.7
2-Propanol	0.80	0.92	2.0	2.3
Methylene Chloride	0.32	0.38	1.1	1.3
Hexane	0.16	0.16 J	0.57	0.55 J
Benzene	0.16	0.18	0.51	0.57
Toluene	0.16	1.0	0.61	3.8

Client Sample ID: U1 (1412263)

Lab ID#: 1412284-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.42	0.79	2.1
Freon 11	0.16	0.20	0.90	1.1
Ethanol	0.80	1.5	1.5	2.9
Acetone	0.80	2.0	1.9	4.8
Carbon Disulfide	0.80	2.6	2.5	8.0
Toluene	0.16	0.19	0.60	0.73



Air Toxics

Client Sample ID: D1 (1412261)

Lab ID#: 1412284-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e122321	Date of Collection:	12/8/14 3:20:00 PM
Dil. Factor:	1.66	Date of Analysis:	12/23/14 09:36 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.39	0.82	1.9
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.83	Not Detected	1.7	Not Detected
Vinyl Chloride	0.17	Not Detected	0.42	Not Detected
1,3-Butadiene	0.17	Not Detected	0.37	Not Detected
Bromomethane	0.83	Not Detected	3.2	Not Detected
Chloroethane	0.83	Not Detected	2.2	Not Detected
Freon 11	0.17	0.20	0.93	1.1
Ethanol	0.83	2.5	1.6	4.7
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Acetone	0.83	3.2	2.0	7.5
2-Propanol	0.83	Not Detected	2.0	Not Detected
Carbon Disulfide	0.83	Not Detected	2.6	Not Detected
3-Chloropropene	0.83	Not Detected	2.6	Not Detected
Methylene Chloride	0.33	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	0.66	Not Detected
Hexane	0.17	Not Detected	0.58	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.67	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.83	Not Detected	2.4	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Tetrahydrofuran	0.83	Not Detected	2.4	Not Detected
Chloroform	0.17	Not Detected	0.81	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.90	Not Detected
Cyclohexane	0.17	Not Detected	0.57	Not Detected
Carbon Tetrachloride	0.17	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.83	Not Detected	3.9	Not Detected
Benzene	0.17	0.23	0.53	0.73
1,2-Dichloroethane	0.17	Not Detected	0.67	Not Detected
Heptane	0.17	0.20	0.68	0.83
Trichloroethene	0.17	Not Detected	0.89	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.77	Not Detected
1,4-Dioxane	0.83	Not Detected	3.0	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.75	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.68	Not Detected
Toluene	0.17	0.26	0.62	0.98
trans-1,3-Dichloropropene	0.17	Not Detected	0.75	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.90	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
2-Hexanone	0.83	Not Detected	3.4	Not Detected



Client Sample ID: D1 (1412261)

Lab ID#: 1412284-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e122321	Date of Collection:	12/8/14 3:20:00 PM
Dil. Factor:	1.66	Date of Analysis:	12/23/14 09:36 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	0.76	Not Detected
Ethyl Benzene	0.17	Not Detected	0.72	Not Detected
m,p-Xylene	0.17	Not Detected	0.72	Not Detected
o-Xylene	0.17	Not Detected	0.72	Not Detected
Styrene	0.17	Not Detected	0.71	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	1.1	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	0.86	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.83	Not Detected	6.2	Not Detected
Hexachlorobutadiene	0.83	Not Detected	8.8	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	91	70-130



Air Toxics

Client Sample ID: D2 (1412262)

Lab ID#: 1412284-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e122323	Date of Collection:	12/8/14 3:10:00 PM
Dil. Factor:	1.61	Date of Analysis:	12/23/14 11:00 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.42	0.80	2.1
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	0.26	0.90	1.5
Ethanol	0.80	5.1	1.5	9.6
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	2.4	1.9	5.7
2-Propanol	0.80	0.92	2.0	2.3
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
3-Chloropropene	0.80	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	0.38	1.1	1.3
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	0.16 J	0.57	0.55 J
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	0.18	0.51	0.57
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	0.80	Not Detected	2.9	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	1.0	0.61	3.8
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 (1412262)

Lab ID#: 1412284-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e122323	Date of Collection:	12/8/14 3:10:00 PM
Dil. Factor:	1.61	Date of Analysis:	12/23/14 11:00 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

J = Estimated value.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: U1 (1412263)

Lab ID#: 1412284-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e122324	Date of Collection:	12/8/14 3:40:00 PM
Dil. Factor:	1.60	Date of Analysis:	12/24/14 05:21 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.42	0.79	2.1
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	0.20	0.90	1.1
Ethanol	0.80	1.5	1.5	2.9
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.80	2.0	1.9	4.8
2-Propanol	0.80	Not Detected	2.0	Not Detected
Carbon Disulfide	0.80	2.6	2.5	8.0
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	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	0.80	Not Detected	2.9	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	0.19	0.60	0.73
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: U1 (1412263)

Lab ID#: 1412284-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e122324	Date of Collection:	12/8/14 3:40:00 PM
Dil. Factor:	1.60	Date of Analysis:	12/24/14 05:21 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	0.16	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	111	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1412284-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e122307	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/23/14 10:35 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	0.50	Not Detected	1.8	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#: 1412284-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e122307	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/23/14 10:35 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	94	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1412284-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e122302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/23/14 06:22 AM

Compound	%Recovery
Freon 12	100
Freon 114	96
Chloromethane	88
Vinyl Chloride	93
1,3-Butadiene	95
Bromomethane	94
Chloroethane	91
Freon 11	100
Ethanol	80
Freon 113	97
1,1-Dichloroethene	100
Acetone	82
2-Propanol	97
Carbon Disulfide	90
3-Chloropropene	98
Methylene Chloride	92
Methyl tert-butyl ether	113
trans-1,2-Dichloroethene	103
Hexane	107
1,1-Dichloroethane	99
2-Butanone (Methyl Ethyl Ketone)	96
cis-1,2-Dichloroethene	99
Tetrahydrofuran	100
Chloroform	98
1,1,1-Trichloroethane	105
Cyclohexane	110
Carbon Tetrachloride	77
2,2,4-Trimethylpentane	106
Benzene	98
1,2-Dichloroethane	110
Heptane	110
Trichloroethene	102
1,2-Dichloropropane	94
1,4-Dioxane	103
Bromodichloromethane	98
cis-1,3-Dichloropropene	101
4-Methyl-2-pentanone	106
Toluene	102
trans-1,3-Dichloropropene	102
1,1,2-Trichloroethane	95
Tetrachloroethene	98
2-Hexanone	100



Air Toxics

Client Sample ID: CCV

Lab ID#: 1412284-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e122302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/23/14 06:22 AM

Compound	%Recovery
Dibromochloromethane	103
1,2-Dibromoethane (EDB)	99
Chlorobenzene	95
Ethyl Benzene	111
m,p-Xylene	110
o-Xylene	115
Styrene	112
Bromoform	95
Cumene	115
1,1,2,2-Tetrachloroethane	87
Propylbenzene	101
4-Ethyltoluene	102
1,3,5-Trimethylbenzene	114
1,2,4-Trimethylbenzene	106
1,3-Dichlorobenzene	89
1,4-Dichlorobenzene	90
alpha-Chlorotoluene	85
1,2-Dichlorobenzene	86
1,2,4-Trichlorobenzene	86
Hexachlorobutadiene	87

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: LCS

Lab ID#: 1412284-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e122303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/23/14 07:17 AM

Compound	%Recovery	Method Limits
Freon 12	85	70-130
Freon 114	81	70-130
Chloromethane	74	70-130
Vinyl Chloride	79	70-130
1,3-Butadiene	77	70-130
Bromomethane	79	70-130
Chloroethane	75	70-130
Freon 11	83	70-130
Ethanol	83	70-130
Freon 113	83	70-130
1,1-Dichloroethene	87	70-130
Acetone	69 Q	70-130
2-Propanol	88	70-130
Carbon Disulfide	70	70-130
3-Chloropropene	80	70-130
Methylene Chloride	80	70-130
Methyl tert-butyl ether	85	70-130
trans-1,2-Dichloroethene	80	70-130
Hexane	88	70-130
1,1-Dichloroethane	79	70-130
2-Butanone (Methyl Ethyl Ketone)	77	70-130
cis-1,2-Dichloroethene	83	70-130
Tetrahydrofuran	82	70-130
Chloroform	82	70-130
1,1,1-Trichloroethane	86	70-130
Cyclohexane	90	70-130
Carbon Tetrachloride	70	70-130
2,2,4-Trimethylpentane	83	70-130
Benzene	76	70-130
1,2-Dichloroethane	84	70-130
Heptane	84	70-130
Trichloroethene	81	70-130
1,2-Dichloropropane	74	70-130
1,4-Dioxane	84	70-130
Bromodichloromethane	79	70-130
cis-1,3-Dichloropropene	85	70-130
4-Methyl-2-pentanone	84	70-130
Toluene	80	70-130
trans-1,3-Dichloropropene	85	70-130
1,1,2-Trichloroethane	76	70-130
Tetrachloroethene	79	70-130
2-Hexanone	85	70-130

Client Sample ID: LCS

Lab ID#: 1412284-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e122303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/23/14 07:17 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	85	70-130
1,2-Dibromoethane (EDB)	82	70-130
Chlorobenzene	79	70-130
Ethyl Benzene	91	70-130
m,p-Xylene	93	70-130
o-Xylene	94	70-130
Styrene	102	70-130
Bromoform	81	70-130
Cumene	96	70-130
1,1,2,2-Tetrachloroethane	74	70-130
Propylbenzene	88	70-130
4-Ethyltoluene	90	70-130
1,3,5-Trimethylbenzene	118	70-130
1,2,4-Trimethylbenzene	108	70-130
1,3-Dichlorobenzene	89	70-130
1,4-Dichlorobenzene	91	70-130
alpha-Chlorotoluene	154 Q	70-130
1,2-Dichlorobenzene	95	70-130
1,2,4-Trichlorobenzene	135 Q	70-130
Hexachlorobutadiene	130	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1412284-06AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e122304	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/23/14 08:00 AM

Compound	%Recovery	Method Limits
Freon 12	83	70-130
Freon 114	79	70-130
Chloromethane	72	70-130
Vinyl Chloride	79	70-130
1,3-Butadiene	76	70-130
Bromomethane	76	70-130
Chloroethane	74	70-130
Freon 11	80	70-130
Ethanol	82	70-130
Freon 113	83	70-130
1,1-Dichloroethene	86	70-130
Acetone	67 Q	70-130
2-Propanol	87	70-130
Carbon Disulfide	67 Q	70-130
3-Chloropropene	80	70-130
Methylene Chloride	78	70-130
Methyl tert-butyl ether	84	70-130
trans-1,2-Dichloroethene	80	70-130
Hexane	86	70-130
1,1-Dichloroethane	77	70-130
2-Butanone (Methyl Ethyl Ketone)	76	70-130
cis-1,2-Dichloroethene	83	70-130
Tetrahydrofuran	81	70-130
Chloroform	80	70-130
1,1,1-Trichloroethane	85	70-130
Cyclohexane	89	70-130
Carbon Tetrachloride	69 Q	70-130
2,2,4-Trimethylpentane	82	70-130
Benzene	76	70-130
1,2-Dichloroethane	83	70-130
Heptane	84	70-130
Trichloroethene	81	70-130
1,2-Dichloropropane	74	70-130
1,4-Dioxane	80	70-130
Bromodichloromethane	78	70-130
cis-1,3-Dichloropropene	85	70-130
4-Methyl-2-pentanone	84	70-130
Toluene	79	70-130
trans-1,3-Dichloropropene	82	70-130
1,1,2-Trichloroethane	74	70-130
Tetrachloroethene	79	70-130
2-Hexanone	86	70-130



Client Sample ID: LCSD

Lab ID#: 1412284-06AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e122304	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/23/14 08:00 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	84	70-130
1,2-Dibromoethane (EDB)	80	70-130
Chlorobenzene	76	70-130
Ethyl Benzene	89	70-130
m,p-Xylene	90	70-130
o-Xylene	94	70-130
Styrene	100	70-130
Bromoform	81	70-130
Cumene	94	70-130
1,1,2,2-Tetrachloroethane	72	70-130
Propylbenzene	87	70-130
4-Ethyltoluene	89	70-130
1,3,5-Trimethylbenzene	116	70-130
1,2,4-Trimethylbenzene	107	70-130
1,3-Dichlorobenzene	88	70-130
1,4-Dichlorobenzene	90	70-130
alpha-Chlorotoluene	151 Q	70-130
1,2-Dichlorobenzene	94	70-130
1,2,4-Trichlorobenzene	139 Q	70-130
Hexachlorobutadiene	130	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130