

3/21/2016
Mr. Dennis Schroeder
Missouri Dept. of Natural Resources
2710 West Main

Jefferson City MO 65109

Project Name: Bridgeton Landfill
Project #:
Workorder #: 1603185

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 3/8/2016 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 Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to 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 #: 1603185

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. #	3EP160625
FAX:	573-526-3350	PROJECT #	Bridgeton Landfill
DATE RECEIVED:	03/08/2016	CONTACT:	Brian Whittaker
DATE COMPLETED:	03/21/2016		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (160364)	Modified TO-15	4.5 "Hg	5 psi
02A	D2 (160365)	Modified TO-15	4.5 "Hg	5 psi
03A	U1 (160366)	Modified TO-15	4.5 "Hg	5 psi
04A	U2 (160367)	Modified TO-15	5.5 "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: 03/21/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
 TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
 Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
 Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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 180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15
Missouri Dept. of Natural Resources
Workorder# 1603185

One 6 Liter Summa Canister (SIM Certified Calscience) and three 6 Liter Summa Canister (100% Certified) samples were received on March 08, 2016. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
Initial Calibration	$\leq 30\%$ RSD with 2 compounds allowed out to <math>< 40\%</math> RSD	$\leq 30\%$ RSD with 4 compounds allowed out to <math>< 40\%</math> RSD
Blank and standards	Zero Air	UHP Nitrogen provides a higher purity gas matrix than zero air

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

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

Definition of Data Qualifying Flags

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

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

N - The identification is based on presumptive evidence.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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

Client Sample ID: D1 (160364)

Lab ID#: 1603185-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.38	0.78	1.9
Freon 11	0.16	0.20	0.89	1.1
Ethanol	0.79	1.1	1.5	2.0
Acetone	0.79	1.3	1.9	3.0
Hexane	0.16	0.59	0.56	2.1
Benzene	0.16	0.16	0.50	0.51
Heptane	0.16	0.50	0.65	2.0

Client Sample ID: D2 (160365)

Lab ID#: 1603185-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.40	0.78	2.0
Freon 11	0.16	0.21	0.89	1.2
Ethanol	0.79	1.6	1.5	3.0
Acetone	0.79	1.8	1.9	4.3

Client Sample ID: U1 (160366)

Lab ID#: 1603185-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.40	0.78	2.0
Freon 11	0.16	0.22	0.89	1.2
Ethanol	0.79	1.1	1.5	2.0
Acetone	0.79	0.88	1.9	2.1

Client Sample ID: U2 (160367)

Lab ID#: 1603185-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.39	0.81	1.9
Freon 11	0.16	0.21	0.92	1.2

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

Client Sample ID: U2 (160367)

Lab ID#: 1603185-04A

Ethanol	0.82	1.6	1.5	2.9
Acetone	0.82	1.3	1.9	3.1
Toluene	0.16	0.17	0.62	0.64



Air Toxics

Client Sample ID: D1 (160364)

Lab ID#: 1603185-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e031022	Date of Collection:	3/2/16 1:00:00 PM
Dil. Factor:	1.58	Date of Analysis:	3/10/16 10:02 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.38	0.78	1.9
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.79	Not Detected	1.6	Not Detected
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
1,3-Butadiene	0.16	Not Detected	0.35	Not Detected
Bromomethane	0.79	Not Detected	3.1	Not Detected
Chloroethane	0.79	Not Detected	2.1	Not Detected
Freon 11	0.16	0.20	0.89	1.1
Ethanol	0.79	1.1	1.5	2.0
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.79	1.3	1.9	3.0
2-Propanol	0.79	Not Detected	1.9	Not Detected
Carbon Disulfide	0.79	Not Detected	2.5	Not Detected
3-Chloropropene	0.79	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.57	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Hexane	0.16	0.59	0.56	2.1
1,1-Dichloroethane	0.16	Not Detected	0.64	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.79	Not Detected	2.3	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Tetrahydrofuran	0.79	Not Detected	2.3	Not Detected
Chloroform	0.16	Not Detected	0.77	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Cyclohexane	0.16	Not Detected	0.54	Not Detected
Carbon Tetrachloride	0.16	Not Detected	0.99	Not Detected
2,2,4-Trimethylpentane	0.79	Not Detected	3.7	Not Detected
Benzene	0.16	0.16	0.50	0.51
1,2-Dichloroethane	0.16	Not Detected	0.64	Not Detected
Heptane	0.16	0.50	0.65	2.0
Trichloroethene	0.16	Not Detected	0.85	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.73	Not Detected
1,4-Dioxane	0.16	Not Detected	0.57	Not Detected
Bromodichloromethane	0.16	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.65	Not Detected
Toluene	0.16	Not Detected	0.60	Not Detected
trans-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.79	Not Detected	3.2	Not Detected

Client Sample ID: D1 (160364)

Lab ID#: 1603185-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e031022	Date of Collection:	3/2/16 1:00:00 PM
Dil. Factor:	1.58	Date of Analysis:	3/10/16 10:02 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.73	Not Detected
Ethyl Benzene	0.16	Not Detected	0.69	Not Detected
m,p-Xylene	0.16	Not Detected	0.69	Not Detected
o-Xylene	0.16	Not Detected	0.69	Not Detected
Styrene	0.16	Not Detected	0.67	Not Detected
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.78	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.78	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.78	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.78	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.78	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.82	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2,4-Trichlorobenzene	0.79	Not Detected	5.9	Not Detected
Hexachlorobutadiene	0.79	Not Detected	8.4	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified Calscience)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	86	70-130
4-Bromofluorobenzene	107	70-130



Air Toxics

Client Sample ID: D2 (160365)

Lab ID#: 1603185-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e031023	Date of Collection:	3/2/16 2:05:00 PM
Dil. Factor:	1.58	Date of Analysis:	3/10/16 10:46 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.40	0.78	2.0
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.79	Not Detected	1.6	Not Detected
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
1,3-Butadiene	0.16	Not Detected	0.35	Not Detected
Bromomethane	0.79	Not Detected	3.1	Not Detected
Chloroethane	0.79	Not Detected	2.1	Not Detected
Freon 11	0.16	0.21	0.89	1.2
Ethanol	0.79	1.6	1.5	3.0
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.79	1.8	1.9	4.3
2-Propanol	0.79	Not Detected	1.9	Not Detected
Carbon Disulfide	0.79	Not Detected	2.5	Not Detected
3-Chloropropene	0.79	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.57	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Hexane	0.16	Not Detected	0.56	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.64	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.79	Not Detected	2.3	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Tetrahydrofuran	0.79	Not Detected	2.3	Not Detected
Chloroform	0.16	Not Detected	0.77	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Cyclohexane	0.16	Not Detected	0.54	Not Detected
Carbon Tetrachloride	0.16	Not Detected	0.99	Not Detected
2,2,4-Trimethylpentane	0.79	Not Detected	3.7	Not Detected
Benzene	0.16	Not Detected	0.50	Not Detected
1,2-Dichloroethane	0.16	Not Detected	0.64	Not Detected
Heptane	0.16	Not Detected	0.65	Not Detected
Trichloroethene	0.16	Not Detected	0.85	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.73	Not Detected
1,4-Dioxane	0.16	Not Detected	0.57	Not Detected
Bromodichloromethane	0.16	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.65	Not Detected
Toluene	0.16	Not Detected	0.60	Not Detected
trans-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.79	Not Detected	3.2	Not Detected

Client Sample ID: D2 (160365)

Lab ID#: 1603185-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e031023	Date of Collection:	3/2/16 2:05:00 PM
Dil. Factor:	1.58	Date of Analysis:	3/10/16 10:46 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.73	Not Detected
Ethyl Benzene	0.16	Not Detected	0.69	Not Detected
m,p-Xylene	0.16	Not Detected	0.69	Not Detected
o-Xylene	0.16	Not Detected	0.69	Not Detected
Styrene	0.16	Not Detected	0.67	Not Detected
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.78	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.78	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.78	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.78	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.78	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.82	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2,4-Trichlorobenzene	0.79	Not Detected	5.9	Not Detected
Hexachlorobutadiene	0.79	Not Detected	8.4	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	106	70-130



Air Toxics

Client Sample ID: U1 (160366)

Lab ID#: 1603185-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e031024	Date of Collection:	3/2/16 1:57:00 PM
Dil. Factor:	1.58	Date of Analysis:	3/11/16 12:16 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.40	0.78	2.0
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.79	Not Detected	1.6	Not Detected
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
1,3-Butadiene	0.16	Not Detected	0.35	Not Detected
Bromomethane	0.79	Not Detected	3.1	Not Detected
Chloroethane	0.79	Not Detected	2.1	Not Detected
Freon 11	0.16	0.22	0.89	1.2
Ethanol	0.79	1.1	1.5	2.0
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.79	0.88	1.9	2.1
2-Propanol	0.79	Not Detected	1.9	Not Detected
Carbon Disulfide	0.79	Not Detected	2.5	Not Detected
3-Chloropropene	0.79	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.57	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Hexane	0.16	Not Detected	0.56	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.64	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.79	Not Detected	2.3	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Tetrahydrofuran	0.79	Not Detected	2.3	Not Detected
Chloroform	0.16	Not Detected	0.77	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Cyclohexane	0.16	Not Detected	0.54	Not Detected
Carbon Tetrachloride	0.16	Not Detected	0.99	Not Detected
2,2,4-Trimethylpentane	0.79	Not Detected	3.7	Not Detected
Benzene	0.16	Not Detected	0.50	Not Detected
1,2-Dichloroethane	0.16	Not Detected	0.64	Not Detected
Heptane	0.16	Not Detected	0.65	Not Detected
Trichloroethene	0.16	Not Detected	0.85	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.73	Not Detected
1,4-Dioxane	0.16	Not Detected	0.57	Not Detected
Bromodichloromethane	0.16	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.65	Not Detected
Toluene	0.16	Not Detected	0.60	Not Detected
trans-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.79	Not Detected	3.2	Not Detected

Client Sample ID: U1 (160366)

Lab ID#: 1603185-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e031024	Date of Collection:	3/2/16 1:57:00 PM
Dil. Factor:	1.58	Date of Analysis:	3/11/16 12:16 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.73	Not Detected
Ethyl Benzene	0.16	Not Detected	0.69	Not Detected
m,p-Xylene	0.16	Not Detected	0.69	Not Detected
o-Xylene	0.16	Not Detected	0.69	Not Detected
Styrene	0.16	Not Detected	0.67	Not Detected
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.78	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.78	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.78	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.78	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.78	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.82	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2,4-Trichlorobenzene	0.79	Not Detected	5.9	Not Detected
Hexachlorobutadiene	0.79	Not Detected	8.4	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	110	70-130



Air Toxics

Client Sample ID: U2 (160367)

Lab ID#: 1603185-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e031025	Date of Collection:	3/2/16 1:42:00 PM
Dil. Factor:	1.64	Date of Analysis:	3/11/16 01:07 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.39	0.81	1.9
Freon 114	0.16	Not Detected	1.1	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	0.21	0.92	1.2
Ethanol	0.82	1.6	1.5	2.9
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	1.3	1.9	3.1
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	0.66	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	0.89	Not Detected
Cyclohexane	0.16	Not Detected	0.56	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	Not Detected	0.52	Not Detected
1,2-Dichloroethane	0.16	Not Detected	0.66	Not Detected
Heptane	0.16	Not Detected	0.67	Not Detected
Trichloroethene	0.16	Not Detected	0.88	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	0.74	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.67	Not Detected
Toluene	0.16	0.17	0.62	0.64
trans-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.82	Not Detected	3.4	Not Detected



Air Toxics

Client Sample ID: U2 (160367)

Lab ID#: 1603185-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e031025	Date of Collection:	3/2/16 1:42:00 PM
Dil. Factor:	1.64	Date of Analysis:	3/11/16 01:07 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	1.3	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	Not Detected	0.71	Not Detected
m,p-Xylene	0.16	Not Detected	0.71	Not Detected
o-Xylene	0.16	Not Detected	0.71	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	8.7	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	106	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1603185-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e031007	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/10/16 09:55 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



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1603185-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e031007	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/10/16 09:55 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	96	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	109	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1603185-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e031002	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/10/16 06:21 AM

Compound	%Recovery
Freon 12	99
Freon 114	111
Chloromethane	87
Vinyl Chloride	78
1,3-Butadiene	78
Bromomethane	83
Chloroethane	71
Freon 11	106
Ethanol	93
Freon 113	106
1,1-Dichloroethene	85
Acetone	80
2-Propanol	81
Carbon Disulfide	70
3-Chloropropene	70
Methylene Chloride	79
Methyl tert-butyl ether	79
trans-1,2-Dichloroethene	87
Hexane	77
1,1-Dichloroethane	79
2-Butanone (Methyl Ethyl Ketone)	70
cis-1,2-Dichloroethene	84
Tetrahydrofuran	83
Chloroform	89
1,1,1-Trichloroethane	99
Cyclohexane	76
Carbon Tetrachloride	116
2,2,4-Trimethylpentane	84
Benzene	78
1,2-Dichloroethane	106
Heptane	83
Trichloroethene	114
1,2-Dichloropropane	77
1,4-Dioxane	86
Bromodichloromethane	95
cis-1,3-Dichloropropene	78
4-Methyl-2-pentanone	85
Toluene	86
trans-1,3-Dichloropropene	88
1,1,2-Trichloroethane	92
Tetrachloroethene	116
2-Hexanone	77

Client Sample ID: CCV

Lab ID#: 1603185-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e031002	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/10/16 06:21 AM

Compound	%Recovery
Dibromochloromethane	121
1,2-Dibromoethane (EDB)	101
Chlorobenzene	103
Ethyl Benzene	100
m,p-Xylene	101
o-Xylene	100
Styrene	99
Bromoform	128
Cumene	103
1,1,2,2-Tetrachloroethane	87
Propylbenzene	97
4-Ethyltoluene	104
1,3,5-Trimethylbenzene	110
1,2,4-Trimethylbenzene	102
1,3-Dichlorobenzene	121
1,4-Dichlorobenzene	123
alpha-Chlorotoluene	106
1,2-Dichlorobenzene	125
1,2,4-Trichlorobenzene	108
Hexachlorobutadiene	127

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	112	70-130

Client Sample ID: LCS

Lab ID#: 1603185-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e031003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/10/16 07:05 AM

Compound	%Recovery	Method Limits
Freon 12	96	70-130
Freon 114	112	70-130
Chloromethane	85	70-130
Vinyl Chloride	78	70-130
1,3-Butadiene	76	70-130
Bromomethane	81	70-130
Chloroethane	72	70-130
Freon 11	104	70-130
Ethanol	92	70-130
Freon 113	101	70-130
1,1-Dichloroethene	82	70-130
Acetone	74	70-130
2-Propanol	80	70-130
Carbon Disulfide	59 Q	70-130
3-Chloropropene	68 Q	70-130
Methylene Chloride	75	70-130
Methyl tert-butyl ether	75	70-130
trans-1,2-Dichloroethene	84	70-130
Hexane	76	70-130
1,1-Dichloroethane	76	70-130
2-Butanone (Methyl Ethyl Ketone)	69 Q	70-130
cis-1,2-Dichloroethene	80	70-130
Tetrahydrofuran	79	70-130
Chloroform	86	70-130
1,1,1-Trichloroethane	98	70-130
Cyclohexane	76	70-130
Carbon Tetrachloride	103	70-130
2,2,4-Trimethylpentane	76	70-130
Benzene	77	70-130
1,2-Dichloroethane	101	70-130
Heptane	82	70-130
Trichloroethene	113	70-130
1,2-Dichloropropane	74	70-130
1,4-Dioxane	80	70-130
Bromodichloromethane	96	70-130
cis-1,3-Dichloropropene	73	70-130
4-Methyl-2-pentanone	84	70-130
Toluene	85	70-130
trans-1,3-Dichloropropene	88	70-130
1,1,2-Trichloroethane	89	70-130
Tetrachloroethene	114	70-130
2-Hexanone	80	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1603185-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e031003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/10/16 07:05 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	122	70-130
1,2-Dibromoethane (EDB)	100	70-130
Chlorobenzene	106	70-130
Ethyl Benzene	99	70-130
m,p-Xylene	100	70-130
o-Xylene	101	70-130
Styrene	100	70-130
Bromoform	128	70-130
Cumene	104	70-130
1,1,2,2-Tetrachloroethane	85	70-130
Propylbenzene	98	70-130
4-Ethyltoluene	112	70-130
1,3,5-Trimethylbenzene	98	70-130
1,2,4-Trimethylbenzene	100	70-130
1,3-Dichlorobenzene	125	70-130
1,4-Dichlorobenzene	122	70-130
alpha-Chlorotoluene	110	70-130
1,2-Dichlorobenzene	123	70-130
1,2,4-Trichlorobenzene	123	70-130
Hexachlorobutadiene	138 Q	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	110	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1603185-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e031004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/10/16 07:48 AM

Compound	%Recovery	Method Limits
Freon 12	96	70-130
Freon 114	111	70-130
Chloromethane	85	70-130
Vinyl Chloride	77	70-130
1,3-Butadiene	75	70-130
Bromomethane	80	70-130
Chloroethane	73	70-130
Freon 11	104	70-130
Ethanol	93	70-130
Freon 113	118	70-130
1,1-Dichloroethene	79	70-130
Acetone	73	70-130
2-Propanol	84	70-130
Carbon Disulfide	59 Q	70-130
3-Chloropropene	68 Q	70-130
Methylene Chloride	74	70-130
Methyl tert-butyl ether	74	70-130
trans-1,2-Dichloroethene	86	70-130
Hexane	74	70-130
1,1-Dichloroethane	74	70-130
2-Butanone (Methyl Ethyl Ketone)	68 Q	70-130
cis-1,2-Dichloroethene	80	70-130
Tetrahydrofuran	80	70-130
Chloroform	87	70-130
1,1,1-Trichloroethane	97	70-130
Cyclohexane	73	70-130
Carbon Tetrachloride	103	70-130
2,2,4-Trimethylpentane	77	70-130
Benzene	76	70-130
1,2-Dichloroethane	100	70-130
Heptane	82	70-130
Trichloroethene	112	70-130
1,2-Dichloropropane	79	70-130
1,4-Dioxane	85	70-130
Bromodichloromethane	97	70-130
cis-1,3-Dichloropropene	72	70-130
4-Methyl-2-pentanone	84	70-130
Toluene	84	70-130
trans-1,3-Dichloropropene	87	70-130
1,1,2-Trichloroethane	91	70-130
Tetrachloroethene	114	70-130
2-Hexanone	80	70-130

Client Sample ID: LCSD

Lab ID#: 1603185-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e031004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/10/16 07:48 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	118	70-130
1,2-Dibromoethane (EDB)	100	70-130
Chlorobenzene	102	70-130
Ethyl Benzene	98	70-130
m,p-Xylene	99	70-130
o-Xylene	102	70-130
Styrene	98	70-130
Bromoform	126	70-130
Cumene	102	70-130
1,1,2,2-Tetrachloroethane	86	70-130
Propylbenzene	98	70-130
4-Ethyltoluene	111	70-130
1,3,5-Trimethylbenzene	96	70-130
1,2,4-Trimethylbenzene	103	70-130
1,3-Dichlorobenzene	123	70-130
1,4-Dichlorobenzene	122	70-130
alpha-Chlorotoluene	109	70-130
1,2-Dichlorobenzene	124	70-130
1,2,4-Trichlorobenzene	120	70-130
Hexachlorobutadiene	133 Q	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	86	70-130
4-Bromofluorobenzene	112	70-130