

3/22/2016

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

Jefferson City MO 65109

Project Name: Bridgeton Landfill

Project #:

Workorder #: 1603247

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 3/11/2016 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 #: 1603247**

Work Order Summary

<b>CLIENT:</b>	Mr. Dennis Schroeder Missouri Dept. of Natural Resources 2710 West Main Jefferson City, MO 65109	<b>BILL TO:</b>	Accounts Payable Missouri Dept. of Natural Resources P.O Box 176 Jefferson City, MO 65102
<b>PHONE:</b>	573-526-4428	<b>P.O. #</b>	3ESP160682
<b>FAX:</b>	573-526-3350	<b>PROJECT #</b>	Bridgeton Landfill
<b>DATE RECEIVED:</b>	03/11/2016	<b>CONTACT:</b>	Brian Whittaker
<b>DATE COMPLETED:</b>	03/22/2016		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (160368)	Modified TO-15	6.9 "Hg	4.9 psi
02A	D2 (160369)	Modified TO-15	5.3 "Hg	5.1 psi
03A	U1 (160370)	Modified TO-15	7.3 "Hg	5 psi
04A	U2 (160371)	Modified TO-15	5.7 "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: 03/22/16  
 \_\_\_\_\_

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# 1603247**

Four 6 Liter Summa Canister (100% Certified) samples were received on March 11, 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	</=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**

There were no analytical discrepancies.

**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 (160368)**

**Lab ID#: 1603247-01A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.43	0.86	2.1
Freon 11	0.17	0.22	0.97	1.2
Ethanol	0.86	2.6	1.6	4.9
Acetone	0.86	7.4	2.0	18
Hexane	0.17	0.21	0.61	0.74
2-Butanone (Methyl Ethyl Ketone)	0.86	1.1	2.6	3.2
Benzene	0.17	0.26	0.55	0.83
Heptane	0.17	0.18	0.71	0.75
Toluene	0.17	0.34	0.65	1.3

**Client Sample ID: D2 (160369)**

**Lab ID#: 1603247-02A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.48	0.81	2.4
Freon 11	0.16	0.20	0.92	1.1
Ethanol	0.82	1.6	1.5	3.0
Acetone	0.82	6.8	1.9	16
2-Butanone (Methyl Ethyl Ketone)	0.82	0.93	2.4	2.8
Benzene	0.16	0.18	0.52	0.57
Toluene	0.16	0.19	0.62	0.73

**Client Sample ID: U1 (160370)**

**Lab ID#: 1603247-03A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.48	0.88	2.4
Freon 11	0.18	0.22	0.99	1.3
Ethanol	0.88	1.8	1.7	3.5
Acetone	0.88	4.3	2.1	10
Toluene	0.18	0.21	0.67	0.78

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

**Client Sample ID: U2 (160371)**

**Lab ID#: 1603247-04A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	0.17	0.47	0.82	2.3
Freon 11	0.17	0.22	0.93	1.2
Ethanol	0.83	12	1.6	22
Acetone	0.83	30	2.0	70
2-Propanol	0.83	3.1	2.0	7.5
Benzene	0.17	0.20	0.53	0.64
Heptane	0.17	0.44	0.68	1.8
Toluene	0.17	2.9	0.62	11



Air Toxics

Client Sample ID: D1 (160368)

Lab ID#: 1603247-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20031507	Date of Collection:	3/7/16 1:55:00 PM
Dil. Factor:	1.73	Date of Analysis:	3/15/16 04:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.43	0.86	2.1
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.86	Not Detected	1.8	Not Detected
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
1,3-Butadiene	0.17	Not Detected	0.38	Not Detected
Bromomethane	0.86	Not Detected	3.4	Not Detected
Chloroethane	0.86	Not Detected	2.3	Not Detected
Freon 11	0.17	0.22	0.97	1.2
Ethanol	0.86	2.6	1.6	4.9
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	7.4	2.0	18
2-Propanol	0.86	Not Detected	2.1	Not Detected
Carbon Disulfide	0.86	Not Detected	2.7	Not Detected
3-Chloropropene	0.86	Not Detected	2.7	Not Detected
Methylene Chloride	0.35	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.62	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Hexane	0.17	0.21	0.61	0.74
1,1-Dichloroethane	0.17	Not Detected	0.70	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.86	1.1	2.6	3.2
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Tetrahydrofuran	0.86	Not Detected	2.6	Not Detected
Chloroform	0.17	Not Detected	0.84	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.94	Not Detected
Cyclohexane	0.17	Not Detected	0.60	Not Detected
Carbon Tetrachloride	0.17	Not Detected	1.1	Not Detected
2,2,4-Trimethylpentane	0.86	Not Detected	4.0	Not Detected
Benzene	0.17	0.26	0.55	0.83
1,2-Dichloroethane	0.17	Not Detected	0.70	Not Detected
Heptane	0.17	0.18	0.71	0.75
Trichloroethene	0.17	Not Detected	0.93	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.80	Not Detected
1,4-Dioxane	0.17	Not Detected	0.62	Not Detected
Bromodichloromethane	0.17	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.71	Not Detected
Toluene	0.17	0.34	0.65	1.3
trans-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.94	Not Detected
Tetrachloroethene	0.17	Not Detected	1.2	Not Detected
2-Hexanone	0.86	Not Detected	3.5	Not Detected

Client Sample ID: D1 (160368)

Lab ID#: 1603247-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20031507	Date of Collection:	3/7/16 1:55:00 PM
Dil. Factor:	1.73	Date of Analysis:	3/15/16 04:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.5	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.80	Not Detected
Ethyl Benzene	0.17	Not Detected	0.75	Not Detected
m,p-Xylene	0.17	Not Detected	0.75	Not Detected
o-Xylene	0.17	Not Detected	0.75	Not Detected
Styrene	0.17	Not Detected	0.74	Not Detected
Bromoform	0.17	Not Detected	1.8	Not Detected
Cumene	0.17	Not Detected	0.85	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.85	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.85	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.85	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.85	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	0.90	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.86	Not Detected	6.4	Not Detected
Hexachlorobutadiene	0.86	Not Detected	9.2	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	95	70-130





Air Toxics

Client Sample ID: D2 (160369)

Lab ID#: 1603247-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20031508	Date of Collection:	3/7/16 1:00:00 PM
Dil. Factor:	1.64	Date of Analysis:	3/15/16 04:56 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.48	0.81	2.4
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	0.20	0.92	1.1
Ethanol	0.82	1.6	1.5	3.0
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	6.8	1.9	16
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	0.93	2.4	2.8
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	0.18	0.52	0.57
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	0.19	0.62	0.73
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: D2 (160369)

Lab ID#: 1603247-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20031508	Date of Collection:	3/7/16 1:00:00 PM
Dil. Factor:	1.64	Date of Analysis:	3/15/16 04:56 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	0.71	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	92	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: U1 (160370)

Lab ID#: 1603247-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20031509	Date of Collection:	3/7/16 1:40:00 PM
Dil. Factor:	1.77	Date of Analysis:	3/15/16 05:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.48	0.88	2.4
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.88	Not Detected	1.8	Not Detected
Vinyl Chloride	0.18	Not Detected	0.45	Not Detected
1,3-Butadiene	0.18	Not Detected	0.39	Not Detected
Bromomethane	0.88	Not Detected	3.4	Not Detected
Chloroethane	0.88	Not Detected	2.3	Not Detected
Freon 11	0.18	0.22	0.99	1.3
Ethanol	0.88	1.8	1.7	3.5
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.70	Not Detected
Acetone	0.88	4.3	2.1	10
2-Propanol	0.88	Not Detected	2.2	Not Detected
Carbon Disulfide	0.88	Not Detected	2.8	Not Detected
3-Chloropropene	0.88	Not Detected	2.8	Not Detected
Methylene Chloride	0.35	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.64	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.70	Not Detected
Hexane	0.18	Not Detected	0.62	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.72	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.88	Not Detected	2.6	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.70	Not Detected
Tetrahydrofuran	0.88	Not Detected	2.6	Not Detected
Chloroform	0.18	Not Detected	0.86	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.96	Not Detected
Cyclohexane	0.18	Not Detected	0.61	Not Detected
Carbon Tetrachloride	0.18	Not Detected	1.1	Not Detected
2,2,4-Trimethylpentane	0.88	Not Detected	4.1	Not Detected
Benzene	0.18	Not Detected	0.56	Not Detected
1,2-Dichloroethane	0.18	Not Detected	0.72	Not Detected
Heptane	0.18	Not Detected	0.72	Not Detected
Trichloroethene	0.18	Not Detected	0.95	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.82	Not Detected
1,4-Dioxane	0.18	Not Detected	0.64	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.80	Not Detected
4-Methyl-2-pentanone	0.18	Not Detected	0.72	Not Detected
Toluene	0.18	0.21	0.67	0.78
trans-1,3-Dichloropropene	0.18	Not Detected	0.80	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.96	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
2-Hexanone	0.88	Not Detected	3.6	Not Detected

Client Sample ID: U1 (160370)

Lab ID#: 1603247-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20031509	Date of Collection:	3/7/16 1:40:00 PM
Dil. Factor:	1.77	Date of Analysis:	3/15/16 05:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.18	Not Detected	1.5	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.4	Not Detected
Chlorobenzene	0.18	Not Detected	0.81	Not Detected
Ethyl Benzene	0.18	Not Detected	0.77	Not Detected
m,p-Xylene	0.18	Not Detected	0.77	Not Detected
o-Xylene	0.18	Not Detected	0.77	Not Detected
Styrene	0.18	Not Detected	0.75	Not Detected
Bromoform	0.18	Not Detected	1.8	Not Detected
Cumene	0.18	Not Detected	0.87	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.18	Not Detected	0.87	Not Detected
4-Ethyltoluene	0.18	Not Detected	0.87	Not Detected
1,3,5-Trimethylbenzene	0.18	Not Detected	0.87	Not Detected
1,2,4-Trimethylbenzene	0.18	Not Detected	0.87	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
alpha-Chlorotoluene	0.18	Not Detected	0.92	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.88	Not Detected	6.6	Not Detected
Hexachlorobutadiene	0.88	Not Detected	9.4	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: U2 (160371)

Lab ID#: 1603247-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20031510	Date of Collection:	3/7/16 2:15:00 PM
Dil. Factor:	1.66	Date of Analysis:	3/15/16 06:25 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.47	0.82	2.3
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	0.22	0.93	1.2
Ethanol	0.83	12	1.6	22
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Acetone	0.83	30	2.0	70
2-Propanol	0.83	3.1	2.0	7.5
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	0.20	0.53	0.64
1,2-Dichloroethane	0.17	Not Detected	0.67	Not Detected
Heptane	0.17	0.44	0.68	1.8
Trichloroethene	0.17	Not Detected	0.89	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.77	Not Detected
1,4-Dioxane	0.17	Not Detected	0.60	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.75	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.68	Not Detected
Toluene	0.17	2.9	0.62	11
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: U2 (160371)

Lab ID#: 1603247-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20031510	Date of Collection:	3/7/16 2:15:00 PM
Dil. Factor:	1.66	Date of Analysis:	3/15/16 06:25 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	96	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1603247-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20031506	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/15/16 03:37 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



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1603247-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20031506	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/15/16 03:37 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	0.10	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	97	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	90	70-130





Air Toxics

Client Sample ID: CCV

Lab ID#: 1603247-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20031502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/15/16 12:41 PM

Compound	%Recovery
Freon 12	104
Freon 114	109
Chloromethane	103
Vinyl Chloride	106
1,3-Butadiene	103
Bromomethane	122
Chloroethane	103
Freon 11	97
Ethanol	98
Freon 113	110
1,1-Dichloroethene	108
Acetone	97
2-Propanol	89
Carbon Disulfide	109
3-Chloropropene	103
Methylene Chloride	104
Methyl tert-butyl ether	100
trans-1,2-Dichloroethene	105
Hexane	104
1,1-Dichloroethane	101
2-Butanone (Methyl Ethyl Ketone)	103
cis-1,2-Dichloroethene	107
Tetrahydrofuran	100
Chloroform	100
1,1,1-Trichloroethane	97
Cyclohexane	105
Carbon Tetrachloride	111
2,2,4-Trimethylpentane	108
Benzene	115
1,2-Dichloroethane	102
Heptane	111
Trichloroethene	112
1,2-Dichloropropane	114
1,4-Dioxane	116
Bromodichloromethane	107
cis-1,3-Dichloropropene	110
4-Methyl-2-pentanone	106
Toluene	112
trans-1,3-Dichloropropene	105
1,1,2-Trichloroethane	110
Tetrachloroethene	113
2-Hexanone	100



Air Toxics

Client Sample ID: CCV

Lab ID#: 1603247-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20031502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/15/16 12:41 PM

Compound	%Recovery
Dibromochloromethane	118
1,2-Dibromoethane (EDB)	118
Chlorobenzene	112
Ethyl Benzene	117
m,p-Xylene	113
o-Xylene	112
Styrene	117
Bromoform	122
Cumene	110
1,1,2,2-Tetrachloroethane	115
Propylbenzene	99
4-Ethyltoluene	93
1,3,5-Trimethylbenzene	112
1,2,4-Trimethylbenzene	108
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	100
alpha-Chlorotoluene	109
1,2-Dichlorobenzene	98
1,2,4-Trichlorobenzene	88
Hexachlorobutadiene	80

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	83	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: LCS

Lab ID#: 1603247-07A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>20031503</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 3/15/16 01:34 PM</b>

<b>Compound</b>	<b>%Recovery</b>	<b>Method Limits</b>
Freon 12	103	70-130
Freon 114	112	70-130
Chloromethane	102	70-130
Vinyl Chloride	106	70-130
1,3-Butadiene	99	70-130
Bromomethane	118	70-130
Chloroethane	97	70-130
Freon 11	95	70-130
Ethanol	96	70-130
Freon 113	100	70-130
1,1-Dichloroethene	100	70-130
Acetone	92	70-130
2-Propanol	87	70-130
Carbon Disulfide	92	70-130
3-Chloropropene	91	70-130
Methylene Chloride	99	70-130
Methyl tert-butyl ether	89	70-130
trans-1,2-Dichloroethene	104	70-130
Hexane	96	70-130
1,1-Dichloroethane	95	70-130
2-Butanone (Methyl Ethyl Ketone)	96	70-130
cis-1,2-Dichloroethene	98	70-130
Tetrahydrofuran	93	70-130
Chloroform	95	70-130
1,1,1-Trichloroethane	91	70-130
Cyclohexane	99	70-130
Carbon Tetrachloride	95	70-130
2,2,4-Trimethylpentane	100	70-130
Benzene	108	70-130
1,2-Dichloroethane	97	70-130
Heptane	105	70-130
Trichloroethene	106	70-130
1,2-Dichloropropane	107	70-130
1,4-Dioxane	111	70-130
Bromodichloromethane	109	70-130
cis-1,3-Dichloropropene	97	70-130
4-Methyl-2-pentanone	102	70-130
Toluene	109	70-130
trans-1,3-Dichloropropene	104	70-130
1,1,2-Trichloroethane	107	70-130
Tetrachloroethene	116	70-130
2-Hexanone	102	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1603247-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20031503	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/15/16 01:34 PM

Compound	%Recovery	Method Limits
Dibromochloromethane	119	70-130
1,2-Dibromoethane (EDB)	115	70-130
Chlorobenzene	110	70-130
Ethyl Benzene	115	70-130
m,p-Xylene	108	70-130
o-Xylene	110	70-130
Styrene	113	70-130
Bromoform	125	70-130
Cumene	108	70-130
1,1,2,2-Tetrachloroethane	115	70-130
Propylbenzene	97	70-130
4-Ethyltoluene	92	70-130
1,3,5-Trimethylbenzene	109	70-130
1,2,4-Trimethylbenzene	105	70-130
1,3-Dichlorobenzene	99	70-130
1,4-Dichlorobenzene	98	70-130
alpha-Chlorotoluene	111	70-130
1,2-Dichlorobenzene	99	70-130
1,2,4-Trichlorobenzene	98	70-130
Hexachlorobutadiene	90	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	80	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1603247-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20031504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/15/16 02:18 PM

Compound	%Recovery	Method Limits
Freon 12	105	70-130
Freon 114	112	70-130
Chloromethane	103	70-130
Vinyl Chloride	108	70-130
1,3-Butadiene	100	70-130
Bromomethane	116	70-130
Chloroethane	101	70-130
Freon 11	99	70-130
Ethanol	105	70-130
Freon 113	103	70-130
1,1-Dichloroethene	102	70-130
Acetone	96	70-130
2-Propanol	92	70-130
Carbon Disulfide	96	70-130
3-Chloropropene	96	70-130
Methylene Chloride	102	70-130
Methyl tert-butyl ether	93	70-130
trans-1,2-Dichloroethene	106	70-130
Hexane	100	70-130
1,1-Dichloroethane	97	70-130
2-Butanone (Methyl Ethyl Ketone)	101	70-130
cis-1,2-Dichloroethene	102	70-130
Tetrahydrofuran	96	70-130
Chloroform	97	70-130
1,1,1-Trichloroethane	94	70-130
Cyclohexane	104	70-130
Carbon Tetrachloride	101	70-130
2,2,4-Trimethylpentane	103	70-130
Benzene	109	70-130
1,2-Dichloroethane	97	70-130
Heptane	106	70-130
Trichloroethene	107	70-130
1,2-Dichloropropane	109	70-130
1,4-Dioxane	110	70-130
Bromodichloromethane	112	70-130
cis-1,3-Dichloropropene	97	70-130
4-Methyl-2-pentanone	104	70-130
Toluene	107	70-130
trans-1,3-Dichloropropene	107	70-130
1,1,2-Trichloroethane	111	70-130
Tetrachloroethene	115	70-130
2-Hexanone	98	70-130

Client Sample ID: LCSD

Lab ID#: 1603247-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20031504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/15/16 02:18 PM

Compound	%Recovery	Method Limits
Dibromochloromethane	119	70-130
1,2-Dibromoethane (EDB)	117	70-130
Chlorobenzene	113	70-130
Ethyl Benzene	118	70-130
m,p-Xylene	110	70-130
o-Xylene	112	70-130
Styrene	115	70-130
Bromoform	126	70-130
Cumene	112	70-130
1,1,2,2-Tetrachloroethane	118	70-130
Propylbenzene	100	70-130
4-Ethyltoluene	94	70-130
1,3,5-Trimethylbenzene	110	70-130
1,2,4-Trimethylbenzene	105	70-130
1,3-Dichlorobenzene	102	70-130
1,4-Dichlorobenzene	100	70-130
alpha-Chlorotoluene	113	70-130
1,2-Dichlorobenzene	103	70-130
1,2,4-Trichlorobenzene	112	70-130
Hexachlorobutadiene	99	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	83	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	105	70-130