

11/2/2016  
Mr. Curt Lueckenhoff  
Missouri Dept. of Natural Resources  
2710 West Main

Jefferson City MO 65109

Project Name: Bridgeton Landfill  
Project #:  
Workorder #: 1610471

Dear Mr. Curt Lueckenhoff

The following report includes the data for the above referenced project for sample(s) received on 10/24/2016 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 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 #: 1610471**

Work Order Summary

<b>CLIENT:</b>	Mr. Curt Lueckenhoff 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>	573-526-3363	<b>P.O. #</b>	3ESP170267
<b>FAX:</b>	573-526-3350	<b>PROJECT #</b>	Bridgeton Landfill
<b>DATE RECEIVED:</b>	10/24/2016	<b>CONTACT:</b>	Brian Whittaker
<b>DATE COMPLETED:</b>	11/02/2016		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (163906)	Modified TO-15	6.9 "Hg	4.8 psi
02A	D2 (163907)	Modified TO-15	6.3 "Hg	4.9 psi
03A	U1 (163908)	Modified TO-15	6.7 "Hg	5.3 psi
04A	U2 (163909)	Modified TO-15	7.3 "Hg	5 psi
05A	Lab Blank	Modified TO-15	NA	NA
05B	Lab Blank	Modified TO-15	NA	NA
06A	CCV	Modified TO-15	NA	NA
06B	CCV	Modified TO-15	NA	NA
07A	LCS	Modified TO-15	NA	NA
07AA	LCSD	Modified TO-15	NA	NA
07B	LCS	Modified TO-15	NA	NA
07BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:   
 \_\_\_\_\_  
 Technical Director

DATE: 11/02/16

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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**LABORATORY NARRATIVE**  
**Modified TO-15**  
**Missouri Dept. of Natural Resources**  
**Workorder# 1610471**

Four 6 Liter Summa Canister (100% Certified) samples were received on October 24, 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 EATL 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 (163906)**

**Lab ID#: 1610471-01A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.41	0.85	2.0
Freon 11	0.17	0.21	0.97	1.2
Ethanol	0.86	6.4	1.6	12
Acetone	0.86	5.8	2.0	14
Benzene	0.17	0.20	0.55	0.66
Toluene	0.17	0.18	0.65	0.69

**Client Sample ID: D2 (163907)**

**Lab ID#: 1610471-02A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.40	0.84	2.0
Freon 11	0.17	0.21	0.95	1.2
Ethanol	0.84	4.5	1.6	8.4
Acetone	0.84	4.5	2.0	11
Benzene	0.17	0.16 J	0.54	0.52 J

**Client Sample ID: U1 (163908)**

**Lab ID#: 1610471-03A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.40	0.86	2.0
Freon 11	0.18	0.22	0.98	1.2
Ethanol	0.88	5.6	1.6	11
Acetone	0.88	5.2	2.1	12
Benzene	0.18	0.18	0.56	0.58
Toluene	0.18	0.26	0.66	0.98

**Client Sample ID: U2 (163909)**

**Lab ID#: 1610471-04A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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**Summary of Detected Compounds**  
**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: U2 (163909)**

**Lab ID#: 1610471-04A**

<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	0.18	0.41	0.88	2.0
Freon 11	0.18	0.24	0.99	1.3
Ethanol	0.88	8.9	1.7	17
Acetone	0.88	4.4	2.1	10
Hexane	0.18	0.62	0.62	2.2
Benzene	0.18	0.22	0.56	0.71
Heptane	0.18	0.47	0.72	1.9
Toluene	0.18	0.66	0.67	2.5
m,p-Xylene	0.18	0.24	0.77	1.0



Air Toxics

Client Sample ID: D1 (163906)

Lab ID#: 1610471-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e102720	Date of Collection:	10/18/16 1:15:00 PM
Dil. Factor:	1.72	Date of Analysis:	10/27/16 09:55 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.41	0.85	2.0
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	3.3	Not Detected
Chloroethane	0.86	Not Detected	2.3	Not Detected
Freon 11	0.17	0.21	0.97	1.2
Ethanol	0.86	6.4	1.6	12
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	5.8	2.0	14
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	0.34	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	Not Detected	0.61	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.70	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.86	Not Detected	2.5	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Tetrahydrofuran	0.86	Not Detected	2.5	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	0.59	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	0.20	0.55	0.66
1,2-Dichloroethane	0.17	Not Detected	0.70	Not Detected
Heptane	0.17	Not Detected	0.70	Not Detected
Trichloroethene	0.17	Not Detected	0.92	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.79	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	0.70	Not Detected
Toluene	0.17	0.18	0.65	0.69
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 (163906)

Lab ID#: 1610471-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e102720	Date of Collection:	10/18/16 1:15:00 PM
Dil. Factor:	1.72	Date of Analysis:	10/27/16 09:55 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	0.79	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	0.73	Not Detected
Bromoform	0.17	Not Detected	1.8	Not Detected
Cumene	0.17	Not Detected	0.84	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.84	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.84	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.84	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.84	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	0.89	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	110	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: D2 (163907)

Lab ID#: 1610471-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e102721	Date of Collection:	10/18/16 1:20:00 PM
Dil. Factor:	1.69	Date of Analysis:	10/27/16 10:41 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.40	0.84	2.0
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.84	Not Detected	1.7	Not Detected
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
1,3-Butadiene	0.17	Not Detected	0.37	Not Detected
Bromomethane	0.84	Not Detected	3.3	Not Detected
Chloroethane	0.84	Not Detected	2.2	Not Detected
Freon 11	0.17	0.21	0.95	1.2
Ethanol	0.84	4.5	1.6	8.4
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	4.5	2.0	11
2-Propanol	0.84	Not Detected	2.1	Not Detected
Carbon Disulfide	0.84	Not Detected	2.6	Not Detected
3-Chloropropene	0.84	Not Detected	2.6	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.61	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Hexane	0.17	Not Detected	0.60	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.84	Not Detected	2.5	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Tetrahydrofuran	0.84	Not Detected	2.5	Not Detected
Chloroform	0.17	Not Detected	0.82	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Cyclohexane	0.17	Not Detected	0.58	Not Detected
Carbon Tetrachloride	0.17	Not Detected	1.1	Not Detected
2,2,4-Trimethylpentane	0.84	Not Detected	3.9	Not Detected
Benzene	0.17	0.16 J	0.54	0.52 J
1,2-Dichloroethane	0.17	Not Detected	0.68	Not Detected
Heptane	0.17	Not Detected	0.69	Not Detected
Trichloroethene	0.17	Not Detected	0.91	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.78	Not Detected
1,4-Dioxane	0.17	Not Detected	0.61	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.77	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.69	Not Detected
Toluene	0.17	Not Detected	0.64	Not Detected
trans-1,3-Dichloropropene	0.17	Not Detected	0.77	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
2-Hexanone	0.84	Not Detected	3.5	Not Detected



Client Sample ID: D2 (163907)

Lab ID#: 1610471-02A

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

File Name:	e102721	Date of Collection:	10/18/16 1:20:00 PM
Dil. Factor:	1.69	Date of Analysis:	10/27/16 10:41 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	0.78	Not Detected
Ethyl Benzene	0.17	Not Detected	0.73	Not Detected
m,p-Xylene	0.17	Not Detected	0.73	Not Detected
o-Xylene	0.17	Not Detected	0.73	Not Detected
Styrene	0.17	Not Detected	0.72	Not Detected
Bromoform	0.17	Not Detected	1.7	Not Detected
Cumene	0.17	Not Detected	0.83	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.83	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.83	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.83	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.83	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	0.87	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.3	Not Detected
Hexachlorobutadiene	0.84	Not Detected	9.0	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	101	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: U1 (163908)

Lab ID#: 1610471-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e102807	Date of Collection:	10/18/16 1:45:00 PM
Dil. Factor:	1.75	Date of Analysis:	10/28/16 12:23 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.40	0.86	2.0
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	0.98	1.2
Ethanol	0.88	5.6	1.6	11
Freon 113	0.18	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Acetone	0.88	5.2	2.1	12
2-Propanol	0.88	Not Detected	2.2	Not Detected
Carbon Disulfide	0.88	Not Detected	2.7	Not Detected
3-Chloropropene	0.88	Not Detected	2.7	Not Detected
Methylene Chloride	0.35	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.63	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Hexane	0.18	Not Detected	0.62	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.71	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.88	Not Detected	2.6	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Tetrahydrofuran	0.88	Not Detected	2.6	Not Detected
Chloroform	0.18	Not Detected	0.85	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Cyclohexane	0.18	Not Detected	0.60	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	0.18	0.56	0.58
1,2-Dichloroethane	0.18	Not Detected	0.71	Not Detected
Heptane	0.18	Not Detected	0.72	Not Detected
Trichloroethene	0.18	Not Detected	0.94	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.81	Not Detected
1,4-Dioxane	0.18	Not Detected	0.63	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
4-Methyl-2-pentanone	0.18	Not Detected	0.72	Not Detected
Toluene	0.18	0.26	0.66	0.98
trans-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.95	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 (163908)

Lab ID#: 1610471-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e102807	Date of Collection:	10/18/16 1:45:00 PM
Dil. Factor:	1.75	Date of Analysis:	10/28/16 12:23 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	1.3	Not Detected
Chlorobenzene	0.18	Not Detected	0.80	Not Detected
Ethyl Benzene	0.18	Not Detected	0.76	Not Detected
m,p-Xylene	0.18	Not Detected	0.76	Not Detected
o-Xylene	0.18	Not Detected	0.76	Not Detected
Styrene	0.18	Not Detected	0.74	Not Detected
Bromoform	0.18	Not Detected	1.8	Not Detected
Cumene	0.18	Not Detected	0.86	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.18	Not Detected	0.86	Not Detected
4-Ethyltoluene	0.18	Not Detected	0.86	Not Detected
1,3,5-Trimethylbenzene	0.18	Not Detected	0.86	Not Detected
1,2,4-Trimethylbenzene	0.18	Not Detected	0.86	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.18	Not Detected	0.90	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.88	Not Detected	6.5	Not Detected
Hexachlorobutadiene	0.88	Not Detected	9.3	Not Detected

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

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



Air Toxics

Client Sample ID: U2 (163909)

Lab ID#: 1610471-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e102808	Date of Collection:	10/18/16 1:00:00 PM
Dil. Factor:	1.77	Date of Analysis:	10/28/16 01:05 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.41	0.88	2.0
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	0.24	0.99	1.3
Ethanol	0.88	8.9	1.7	17
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.70	Not Detected
Acetone	0.88	4.4	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	0.62	0.62	2.2
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	0.22	0.56	0.71
1,2-Dichloroethane	0.18	Not Detected	0.72	Not Detected
Heptane	0.18	0.47	0.72	1.9
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	0.66	0.67	2.5
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: U2 (163909)

Lab ID#: 1610471-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e102808	Date of Collection:	10/18/16 1:00:00 PM
Dil. Factor:	1.77	Date of Analysis:	10/28/16 01:05 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	0.24	0.77	1.0
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	106	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1610471-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e102707	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/27/16 11:29 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Hexane	0.10	Not Detected	0.35	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Heptane	0.10	Not Detected	0.41	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 1610471-05A

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

<b>File Name:</b>	<b>e102707</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 10/27/16 11:29 AM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
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

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1610471-05B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e102806	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/28/16 11:28 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Hexane	0.10	Not Detected	0.35	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Heptane	0.10	Not Detected	0.41	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected





Client Sample ID: Lab Blank

Lab ID#: 1610471-05B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e102806	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/28/16 11:28 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	108	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1610471-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e102702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/27/16 07:34 AM

Compound	%Recovery
Freon 12	83
Freon 114	84
Chloromethane	90
Vinyl Chloride	83
1,3-Butadiene	84
Bromomethane	87
Chloroethane	89
Freon 11	83
Ethanol	87
Freon 113	82
1,1-Dichloroethene	82
Acetone	87
2-Propanol	87
Carbon Disulfide	76
3-Chloropropene	78
Methylene Chloride	82
Methyl tert-butyl ether	83
trans-1,2-Dichloroethene	82
Hexane	86
1,1-Dichloroethane	84
2-Butanone (Methyl Ethyl Ketone)	85
cis-1,2-Dichloroethene	81
Tetrahydrofuran	91
Chloroform	83
1,1,1-Trichloroethane	80
Cyclohexane	82
Carbon Tetrachloride	78
2,2,4-Trimethylpentane	85
Benzene	86
1,2-Dichloroethane	88
Heptane	90
Trichloroethene	88
1,2-Dichloropropane	89
1,4-Dioxane	86
Bromodichloromethane	88
cis-1,3-Dichloropropene	87
4-Methyl-2-pentanone	93
Toluene	88
trans-1,3-Dichloropropene	83
1,1,2-Trichloroethane	88
Tetrachloroethene	84
2-Hexanone	90



Air Toxics

Client Sample ID: CCV

Lab ID#: 1610471-06A

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

<b>File Name:</b>	<b>e102702</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 10/27/16 07:34 AM

<b>Compound</b>	<b>%Recovery</b>
Dibromochloromethane	87
1,2-Dibromoethane (EDB)	85
Chlorobenzene	85
Ethyl Benzene	86
m,p-Xylene	87
o-Xylene	86
Styrene	87
Bromoform	90
Cumene	88
1,1,2,2-Tetrachloroethane	90
Propylbenzene	87
4-Ethyltoluene	88
1,3,5-Trimethylbenzene	88
1,2,4-Trimethylbenzene	83
1,3-Dichlorobenzene	82
1,4-Dichlorobenzene	84
alpha-Chlorotoluene	88
1,2-Dichlorobenzene	86
1,2,4-Trichlorobenzene	75
Hexachlorobutadiene	80

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: CCV

Lab ID#: 1610471-06B

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

File Name:	e102802	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/28/16 08:21 AM

Compound	%Recovery
Freon 12	85
Freon 114	85
Chloromethane	92
Vinyl Chloride	85
1,3-Butadiene	88
Bromomethane	89
Chloroethane	88
Freon 11	85
Ethanol	85
Freon 113	84
1,1-Dichloroethene	85
Acetone	90
2-Propanol	90
Carbon Disulfide	81
3-Chloropropene	81
Methylene Chloride	85
Methyl tert-butyl ether	84
trans-1,2-Dichloroethene	84
Hexane	86
1,1-Dichloroethane	88
2-Butanone (Methyl Ethyl Ketone)	82
cis-1,2-Dichloroethene	84
Tetrahydrofuran	93
Chloroform	87
1,1,1-Trichloroethane	82
Cyclohexane	83
Carbon Tetrachloride	79
2,2,4-Trimethylpentane	86
Benzene	89
1,2-Dichloroethane	90
Heptane	94
Trichloroethene	88
1,2-Dichloropropane	92
1,4-Dioxane	90
Bromodichloromethane	90
cis-1,3-Dichloropropene	90
4-Methyl-2-pentanone	97
Toluene	91
trans-1,3-Dichloropropene	86
1,1,2-Trichloroethane	88
Tetrachloroethene	85
2-Hexanone	91



Air Toxics

Client Sample ID: CCV

Lab ID#: 1610471-06B

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

File Name:	e102802	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/28/16 08:21 AM

Compound	%Recovery
Dibromochloromethane	89
1,2-Dibromoethane (EDB)	86
Chlorobenzene	88
Ethyl Benzene	87
m,p-Xylene	88
o-Xylene	87
Styrene	89
Bromoform	92
Cumene	89
1,1,2,2-Tetrachloroethane	94
Propylbenzene	89
4-Ethyltoluene	91
1,3,5-Trimethylbenzene	92
1,2,4-Trimethylbenzene	86
1,3-Dichlorobenzene	85
1,4-Dichlorobenzene	87
alpha-Chlorotoluene	90
1,2-Dichlorobenzene	89
1,2,4-Trichlorobenzene	80
Hexachlorobutadiene	84

Container Type: NA - Not Applicable

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



Air Toxics

Client Sample ID: LCS

Lab ID#: 1610471-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e102703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/27/16 08:18 AM

Compound	%Recovery	Method Limits
Freon 12	108	70-130
Freon 114	109	70-130
Chloromethane	120	70-130
Vinyl Chloride	109	70-130
1,3-Butadiene	110	70-130
Bromomethane	115	70-130
Chloroethane	116	70-130
Freon 11	106	70-130
Ethanol	74	70-130
Freon 113	103	70-130
1,1-Dichloroethene	99	70-130
Acetone	107	70-130
2-Propanol	111	70-130
Carbon Disulfide	97	70-130
3-Chloropropene	102	70-130
Methylene Chloride	104	70-130
Methyl tert-butyl ether	104	70-130
trans-1,2-Dichloroethene	106	70-130
Hexane	113	70-130
1,1-Dichloroethane	104	70-130
2-Butanone (Methyl Ethyl Ketone)	105	70-130
cis-1,2-Dichloroethene	101	70-130
Tetrahydrofuran	115	70-130
Chloroform	107	70-130
1,1,1-Trichloroethane	104	70-130
Cyclohexane	105	70-130
Carbon Tetrachloride	102	70-130
2,2,4-Trimethylpentane	108	70-130
Benzene	108	70-130
1,2-Dichloroethane	109	70-130
Heptane	113	70-130
Trichloroethene	108	70-130
1,2-Dichloropropane	110	70-130
1,4-Dioxane	107	70-130
Bromodichloromethane	111	70-130
cis-1,3-Dichloropropene	108	70-130
4-Methyl-2-pentanone	114	70-130
Toluene	110	70-130
trans-1,3-Dichloropropene	103	70-130
1,1,2-Trichloroethane	105	70-130
Tetrachloroethene	104	70-130
2-Hexanone	108	70-130

Client Sample ID: LCS

Lab ID#: 1610471-07A

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

<b>File Name:</b>	<b>e102703</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 10/27/16 08:18 AM

<b>Compound</b>	<b>%Recovery</b>	<b>Method Limits</b>
Dibromochloromethane	109	70-130
1,2-Dibromoethane (EDB)	106	70-130
Chlorobenzene	106	70-130
Ethyl Benzene	107	70-130
m,p-Xylene	107	70-130
o-Xylene	108	70-130
Styrene	107	70-130
Bromoform	114	70-130
Cumene	109	70-130
1,1,2,2-Tetrachloroethane	110	70-130
Propylbenzene	107	70-130
4-Ethyltoluene	109	70-130
1,3,5-Trimethylbenzene	108	70-130
1,2,4-Trimethylbenzene	100	70-130
1,3-Dichlorobenzene	101	70-130
1,4-Dichlorobenzene	106	70-130
alpha-Chlorotoluene	110	70-130
1,2-Dichlorobenzene	104	70-130
1,2,4-Trichlorobenzene	81	70-130
Hexachlorobutadiene	102	70-130

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1610471-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e102704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/27/16 09:00 AM

Compound	%Recovery	Method Limits
Freon 12	103	70-130
Freon 114	104	70-130
Chloromethane	114	70-130
Vinyl Chloride	104	70-130
1,3-Butadiene	104	70-130
Bromomethane	110	70-130
Chloroethane	108	70-130
Freon 11	102	70-130
Ethanol	80	70-130
Freon 113	98	70-130
1,1-Dichloroethene	96	70-130
Acetone	103	70-130
2-Propanol	105	70-130
Carbon Disulfide	92	70-130
3-Chloropropene	100	70-130
Methylene Chloride	98	70-130
Methyl tert-butyl ether	101	70-130
trans-1,2-Dichloroethene	100	70-130
Hexane	108	70-130
1,1-Dichloroethane	98	70-130
2-Butanone (Methyl Ethyl Ketone)	102	70-130
cis-1,2-Dichloroethene	98	70-130
Tetrahydrofuran	108	70-130
Chloroform	101	70-130
1,1,1-Trichloroethane	98	70-130
Cyclohexane	104	70-130
Carbon Tetrachloride	97	70-130
2,2,4-Trimethylpentane	101	70-130
Benzene	104	70-130
1,2-Dichloroethane	102	70-130
Heptane	114	70-130
Trichloroethene	104	70-130
1,2-Dichloropropane	108	70-130
1,4-Dioxane	102	70-130
Bromodichloromethane	107	70-130
cis-1,3-Dichloropropene	106	70-130
4-Methyl-2-pentanone	110	70-130
Toluene	107	70-130
trans-1,3-Dichloropropene	102	70-130
1,1,2-Trichloroethane	104	70-130
Tetrachloroethene	103	70-130
2-Hexanone	103	70-130





Air Toxics

Client Sample ID: LCSD

Lab ID#: 1610471-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e102704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/27/16 09:00 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	107	70-130
1,2-Dibromoethane (EDB)	103	70-130
Chlorobenzene	104	70-130
Ethyl Benzene	104	70-130
m,p-Xylene	104	70-130
o-Xylene	106	70-130
Styrene	105	70-130
Bromoform	112	70-130
Cumene	106	70-130
1,1,2,2-Tetrachloroethane	109	70-130
Propylbenzene	105	70-130
4-Ethyltoluene	106	70-130
1,3,5-Trimethylbenzene	104	70-130
1,2,4-Trimethylbenzene	98	70-130
1,3-Dichlorobenzene	98	70-130
1,4-Dichlorobenzene	101	70-130
alpha-Chlorotoluene	105	70-130
1,2-Dichlorobenzene	102	70-130
1,2,4-Trichlorobenzene	77	70-130
Hexachlorobutadiene	96	70-130

Container Type: NA - Not Applicable

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



Air Toxics

Client Sample ID: LCS

Lab ID#: 1610471-07B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e102803	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/28/16 09:04 AM

Compound	%Recovery	Method Limits
Freon 12	110	70-130
Freon 114	110	70-130
Chloromethane	122	70-130
Vinyl Chloride	112	70-130
1,3-Butadiene	111	70-130
Bromomethane	116	70-130
Chloroethane	115	70-130
Freon 11	108	70-130
Ethanol	75	70-130
Freon 113	106	70-130
1,1-Dichloroethene	102	70-130
Acetone	112	70-130
2-Propanol	113	70-130
Carbon Disulfide	100	70-130
3-Chloropropene	102	70-130
Methylene Chloride	106	70-130
Methyl tert-butyl ether	106	70-130
trans-1,2-Dichloroethene	105	70-130
Hexane	116	70-130
1,1-Dichloroethane	108	70-130
2-Butanone (Methyl Ethyl Ketone)	109	70-130
cis-1,2-Dichloroethene	102	70-130
Tetrahydrofuran	117	70-130
Chloroform	109	70-130
1,1,1-Trichloroethane	104	70-130
Cyclohexane	109	70-130
Carbon Tetrachloride	100	70-130
2,2,4-Trimethylpentane	111	70-130
Benzene	108	70-130
1,2-Dichloroethane	106	70-130
Heptane	115	70-130
Trichloroethene	107	70-130
1,2-Dichloropropane	110	70-130
1,4-Dioxane	104	70-130
Bromodichloromethane	109	70-130
cis-1,3-Dichloropropene	110	70-130
4-Methyl-2-pentanone	115	70-130
Toluene	109	70-130
trans-1,3-Dichloropropene	104	70-130
1,1,2-Trichloroethane	109	70-130
Tetrachloroethene	104	70-130
2-Hexanone	105	70-130

Client Sample ID: LCS

Lab ID#: 1610471-07B

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

<b>File Name:</b>	<b>e102803</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 10/28/16 09:04 AM

<b>Compound</b>	<b>%Recovery</b>	<b>Method Limits</b>
Dibromochloromethane	110	70-130
1,2-Dibromoethane (EDB)	105	70-130
Chlorobenzene	107	70-130
Ethyl Benzene	108	70-130
m,p-Xylene	106	70-130
o-Xylene	108	70-130
Styrene	109	70-130
Bromoform	114	70-130
Cumene	108	70-130
1,1,2,2-Tetrachloroethane	112	70-130
Propylbenzene	108	70-130
4-Ethyltoluene	108	70-130
1,3,5-Trimethylbenzene	109	70-130
1,2,4-Trimethylbenzene	101	70-130
1,3-Dichlorobenzene	102	70-130
1,4-Dichlorobenzene	105	70-130
alpha-Chlorotoluene	110	70-130
1,2-Dichlorobenzene	106	70-130
1,2,4-Trichlorobenzene	82	70-130
Hexachlorobutadiene	106	70-130

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1610471-07BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e102804	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/28/16 09:49 AM

Compound	%Recovery	Method Limits
Freon 12	103	70-130
Freon 114	105	70-130
Chloromethane	116	70-130
Vinyl Chloride	108	70-130
1,3-Butadiene	106	70-130
Bromomethane	112	70-130
Chloroethane	111	70-130
Freon 11	103	70-130
Ethanol	72	70-130
Freon 113	101	70-130
1,1-Dichloroethene	97	70-130
Acetone	104	70-130
2-Propanol	110	70-130
Carbon Disulfide	95	70-130
3-Chloropropene	97	70-130
Methylene Chloride	100	70-130
Methyl tert-butyl ether	102	70-130
trans-1,2-Dichloroethene	104	70-130
Hexane	110	70-130
1,1-Dichloroethane	101	70-130
2-Butanone (Methyl Ethyl Ketone)	100	70-130
cis-1,2-Dichloroethene	98	70-130
Tetrahydrofuran	113	70-130
Chloroform	104	70-130
1,1,1-Trichloroethane	100	70-130
Cyclohexane	104	70-130
Carbon Tetrachloride	94	70-130
2,2,4-Trimethylpentane	104	70-130
Benzene	104	70-130
1,2-Dichloroethane	105	70-130
Heptane	114	70-130
Trichloroethene	105	70-130
1,2-Dichloropropane	109	70-130
1,4-Dioxane	104	70-130
Bromodichloromethane	107	70-130
cis-1,3-Dichloropropene	106	70-130
4-Methyl-2-pentanone	112	70-130
Toluene	107	70-130
trans-1,3-Dichloropropene	103	70-130
1,1,2-Trichloroethane	108	70-130
Tetrachloroethene	103	70-130
2-Hexanone	107	70-130

Client Sample ID: LCSD

Lab ID#: 1610471-07BB

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

<b>File Name:</b>	<b>e102804</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 10/28/16 09:49 AM

<b>Compound</b>	<b>%Recovery</b>	<b>Method Limits</b>
Dibromochloromethane	110	70-130
1,2-Dibromoethane (EDB)	105	70-130
Chlorobenzene	106	70-130
Ethyl Benzene	106	70-130
m,p-Xylene	105	70-130
o-Xylene	108	70-130
Styrene	108	70-130
Bromoform	114	70-130
Cumene	108	70-130
1,1,2,2-Tetrachloroethane	113	70-130
Propylbenzene	108	70-130
4-Ethyltoluene	110	70-130
1,3,5-Trimethylbenzene	108	70-130
1,2,4-Trimethylbenzene	100	70-130
1,3-Dichlorobenzene	102	70-130
1,4-Dichlorobenzene	106	70-130
alpha-Chlorotoluene	110	70-130
1,2-Dichlorobenzene	105	70-130
1,2,4-Trichlorobenzene	81	70-130
Hexachlorobutadiene	103	70-130

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	105	70-130