



**CHAIN-OF-CUSTODY RECORD**

**Sample Transportation Notice**

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FOLSOM, CA 95630-4719  
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Michael Paris  
 Collected by: (Print and Sign) Cedric Luniqun John Lopez  
 Company MO DNR Email Michael.Paris@caldec.com  
 Address P.O. Box 176 City Johnson City State MO Zip 65102  
 Phone (573) 526-3918 Fax \_\_\_\_\_

Project Info:  
 P.O. # 3558140816  
 Project # \_\_\_\_\_  
 Project Name Bridge For LF

Turn Around Time:  
 Normal  
 Rush  
specify

Lab Use Only  
 Pressurized by: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Pressurization Gas: N<sub>2</sub> He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum	
						Initial	Final (psi)
	U1 (149213)	05363	4/25/14	1050-1550	T0-15	-29.5	-5.5
	U2 (149214)	36043	4/25/14	1105-1605	T0-15	-29.5	-6
	D2 (149215)	34729	4/25/14	1135-1635	T0-15	-30	-6
	D1 (149216)	35981	4/25/14	1130-1620	T0-15	-30	-6

Notes: Shipped via UPS.  
Tracking # 1Z07248808A3841007

Relinquished by: (signature) Michael Paris Date/Time 4/26/14 0830  
 Received by: (signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

Relinquished by: (signature) Michael Paris Date/Time 4/26/14 0830  
 Received by: (signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

Relinquished by: (signature) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received by: (signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

Shipper Name \_\_\_\_\_ Air Bill # \_\_\_\_\_ Temp (°C) \_\_\_\_\_ Condition \_\_\_\_\_ Custody Seals Intact? \_\_\_\_\_ Work Order # \_\_\_\_\_

Yes No None

5/15/2014

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

Jefferson City MO 65109

Project Name: Bridgeton LF

Project #:

Workorder #: 1405051

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 5/2/2014 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Brian Whittaker at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Brian Whittaker  
Project Manager

**WORK ORDER #: 1405051**

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>	3ESP140816
<b>FAX:</b>	573-526-3350	<b>PROJECT #</b>	Bridgeton LF
<b>DATE RECEIVED:</b>	05/02/2014	<b>CONTACT:</b>	Brian Whittaker
<b>DATE COMPLETED:</b>	05/15/2014		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	U1 (149213)	Modified TO-15	6.7 "Hg	4.9 psi
02A	U2 (149214)	Modified TO-15	6.3 "Hg	4.9 psi
03A	D2 (149215)	Modified TO-15	6.7 "Hg	4.9 psi
04A	D1 (149216)	Modified TO-15	6.5 "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: 05/15/14  
 \_\_\_\_\_

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NJ NELAP - CA016, NY NELAP - 11291,  
 TX NELAP - T104704434-13-6, UT NELAP CA009332013-4, VA NELAP - 460197, WA NELAP - C935  
 Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)  
 Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.

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 - 9562  
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**  
**Modified TO-15**  
**Missouri Dept. of Natural Resources**  
**Workorder# 1405051**

Four 6 Liter Summa Canister (100% Certified) samples were received on May 02, 2014. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

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

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

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

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

**Definition of Data Qualifying Flags**

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

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

N - The identification is based on presumptive evidence.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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

**Client Sample ID: U1 (149213)**

**Lab ID#: 1405051-01A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.39	0.85	1.9
Ethanol	0.86	2.0	1.6	3.8
Acetone	0.86	2.2	2.0	5.3

**Client Sample ID: U2 (149214)**

**Lab ID#: 1405051-02A**

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	0.17	0.95	0.95
Ethanol	0.84	2.6	1.6	4.9
Acetone	0.84	2.6	2.0	6.3

**Client Sample ID: D2 (149215)**

**Lab ID#: 1405051-03A**

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	0.18	0.97	1.0
Ethanol	0.86	2.0	1.6	3.8
Acetone	0.86	3.1	2.0	7.4

**Client Sample ID: D1 (149216)**

**Lab ID#: 1405051-04A**

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	0.18	0.96	1.0
Ethanol	0.86	1.8	1.6	3.5
Acetone	0.86	3.8	2.0	9.0



Air Toxics

Client Sample ID: U1 (149213)

Lab ID#: 1405051-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v050812	Date of Collection:	4/25/14 3:50:00 PM
Dil. Factor:	1.72	Date of Analysis:	5/8/14 05:44 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.39	0.85	1.9
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	Not Detected	0.97	Not Detected
Ethanol	0.86	2.0	1.6	3.8
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	2.2	2.0	5.3
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	Not Detected	0.55	Not Detected
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	Not Detected	0.65	Not Detected
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



Air Toxics

Client Sample ID: U1 (149213)

Lab ID#: 1405051-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v050812	Date of Collection:	4/25/14 3:50:00 PM
Dil. Factor:	1.72	Date of Analysis:	5/8/14 05:44 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	81	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	104	70-130





Air Toxics

Client Sample ID: U2 (149214)

Lab ID#: 1405051-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v050813	Date of Collection:	4/25/14 4:05:00 PM
Dil. Factor:	1.69	Date of Analysis:	5/8/14 06:19 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	0.17	0.95	0.95
Ethanol	0.84	2.6	1.6	4.9
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	2.6	2.0	6.3
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	Not Detected	0.54	Not Detected
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



Air Toxics

Client Sample ID: U2 (149214)

Lab ID#: 1405051-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v050813	Date of Collection:	4/25/14 4:05:00 PM
Dil. Factor:	1.69	Date of Analysis:	5/8/14 06:19 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

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	84	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: D2 (149215)

Lab ID#: 1405051-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v050814	Date of Collection:	4/25/14 4:35:00 PM
Dil. Factor:	1.72	Date of Analysis:	5/8/14 06:55 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	0.18	0.97	1.0
Ethanol	0.86	2.0	1.6	3.8
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	3.1	2.0	7.4
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	Not Detected	0.55	Not Detected
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	Not Detected	0.65	Not Detected
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: D2 (149215)

Lab ID#: 1405051-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v050814	Date of Collection:	4/25/14 4:35:00 PM
Dil. Factor:	1.72	Date of Analysis:	5/8/14 06:55 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	82	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: D1 (149216)

Lab ID#: 1405051-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v050815	Date of Collection:	4/25/14 4:20:00 PM
Dil. Factor:	1.71	Date of Analysis:	5/8/14 07:39 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	0.86	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	2.2	Not Detected
Freon 11	0.17	0.18	0.96	1.0
Ethanol	0.86	1.8	1.6	3.5
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	3.8	2.0	9.0
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	0.60	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.69	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	0.83	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.93	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	Not Detected	0.55	Not Detected
1,2-Dichloroethane	0.17	Not Detected	0.69	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	1.1	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	Not Detected	0.64	Not Detected
trans-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.93	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 (149216)

Lab ID#: 1405051-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v050815	Date of Collection:	4/25/14 4:20:00 PM
Dil. Factor:	1.71	Date of Analysis:	5/8/14 07:39 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	0.79	Not Detected
Ethyl Benzene	0.17	Not Detected	0.74	Not Detected
m,p-Xylene	0.17	Not Detected	0.74	Not Detected
o-Xylene	0.17	Not Detected	0.74	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	0.88	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.86	Not Detected	6.3	Not Detected
Hexachlorobutadiene	0.86	Not Detected	9.1	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	83	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1405051-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v050810	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	5/8/14 03:48 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#: 1405051-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v050810	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	5/8/14 03:48 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	80	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	103	70-130





Air Toxics

Client Sample ID: CCV

Lab ID#: 1405051-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v050806	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 5/8/14 12:22 PM

Compound	%Recovery
Freon 12	92
Freon 114	107
Chloromethane	93
Vinyl Chloride	94
1,3-Butadiene	90
Bromomethane	107
Chloroethane	96
Freon 11	93
Ethanol	98
Freon 113	108
1,1-Dichloroethene	100
Acetone	88
2-Propanol	95
Carbon Disulfide	96
3-Chloropropene	100
Methylene Chloride	97
Methyl tert-butyl ether	94
trans-1,2-Dichloroethene	100
Hexane	89
1,1-Dichloroethane	89
2-Butanone (Methyl Ethyl Ketone)	98
cis-1,2-Dichloroethene	96
Tetrahydrofuran	92
Chloroform	95
1,1,1-Trichloroethane	94
Cyclohexane	96
Carbon Tetrachloride	103
2,2,4-Trimethylpentane	93
Benzene	95
1,2-Dichloroethane	90
Heptane	94
Trichloroethene	106
1,2-Dichloropropane	92
1,4-Dioxane	102
Bromodichloromethane	97
cis-1,3-Dichloropropene	99
4-Methyl-2-pentanone	99
Toluene	100
trans-1,3-Dichloropropene	101
1,1,2-Trichloroethane	100
Tetrachloroethene	116
2-Hexanone	97

Client Sample ID: CCV

Lab ID#: 1405051-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v050806	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 5/8/14 12:22 PM

Compound	%Recovery
Dibromochloromethane	116
1,2-Dibromoethane (EDB)	105
Chlorobenzene	106
Ethyl Benzene	109
m,p-Xylene	110
o-Xylene	113
Styrene	112
Bromoform	133 Q
Cumene	107
1,1,2,2-Tetrachloroethane	98
Propylbenzene	106
4-Ethyltoluene	117
1,3,5-Trimethylbenzene	110
1,2,4-Trimethylbenzene	121
1,3-Dichlorobenzene	122
1,4-Dichlorobenzene	120
alpha-Chlorotoluene	102
1,2-Dichlorobenzene	117
1,2,4-Trichlorobenzene	143 Q
Hexachlorobutadiene	132 Q

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	84	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	124	70-130

Client Sample ID: LCS

Lab ID#: 1405051-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v050807	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 5/8/14 01:36 PM

Compound	%Recovery	Method Limits
Freon 12	91	70-130
Freon 114	106	70-130
Chloromethane	90	70-130
Vinyl Chloride	92	70-130
1,3-Butadiene	84	70-130
Bromomethane	109	70-130
Chloroethane	94	70-130
Freon 11	92	70-130
Ethanol	96	70-130
Freon 113	122	70-130
1,1-Dichloroethene	109	70-130
Acetone	89	70-130
2-Propanol	95	70-130
Carbon Disulfide	88	70-130
3-Chloropropene	91	70-130
Methylene Chloride	101	70-130
Methyl tert-butyl ether	92	70-130
trans-1,2-Dichloroethene	88	70-130
Hexane	88	70-130
1,1-Dichloroethane	90	70-130
2-Butanone (Methyl Ethyl Ketone)	96	70-130
cis-1,2-Dichloroethene	108	70-130
Tetrahydrofuran	90	70-130
Chloroform	93	70-130
1,1,1-Trichloroethane	92	70-130
Cyclohexane	97	70-130
Carbon Tetrachloride	86	70-130
2,2,4-Trimethylpentane	89	70-130
Benzene	94	70-130
1,2-Dichloroethane	87	70-130
Heptane	92	70-130
Trichloroethene	106	70-130
1,2-Dichloropropane	90	70-130
1,4-Dioxane	100	70-130
Bromodichloromethane	98	70-130
cis-1,3-Dichloropropene	102	70-130
4-Methyl-2-pentanone	100	70-130
Toluene	96	70-130
trans-1,3-Dichloropropene	91	70-130
1,1,2-Trichloroethane	96	70-130
Tetrachloroethene	115	70-130
2-Hexanone	96	70-130

Client Sample ID: LCS

Lab ID#: 1405051-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v050807	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 5/8/14 01:36 PM

Compound	%Recovery	Method Limits
Dibromochloromethane	119	70-130
1,2-Dibromoethane (EDB)	103	70-130
Chlorobenzene	99	70-130
Ethyl Benzene	102	70-130
m,p-Xylene	103	70-130
o-Xylene	107	70-130
Styrene	108	70-130
Bromoform	129	70-130
Cumene	104	70-130
1,1,2,2-Tetrachloroethane	92	70-130
Propylbenzene	102	70-130
4-Ethyltoluene	109	70-130
1,3,5-Trimethylbenzene	101	70-130
1,2,4-Trimethylbenzene	107	70-130
1,3-Dichlorobenzene	116	70-130
1,4-Dichlorobenzene	111	70-130
alpha-Chlorotoluene	106	70-130
1,2-Dichlorobenzene	109	70-130
1,2,4-Trichlorobenzene	115	70-130
Hexachlorobutadiene	115	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	80	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	114	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1405051-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v050808	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 5/8/14 02:20 PM

Compound	%Recovery	Method Limits
Freon 12	86	70-130
Freon 114	102	70-130
Chloromethane	88	70-130
Vinyl Chloride	88	70-130
1,3-Butadiene	82	70-130
Bromomethane	104	70-130
Chloroethane	91	70-130
Freon 11	90	70-130
Ethanol	93	70-130
Freon 113	117	70-130
1,1-Dichloroethene	106	70-130
Acetone	83	70-130
2-Propanol	90	70-130
Carbon Disulfide	84	70-130
3-Chloropropene	90	70-130
Methylene Chloride	97	70-130
Methyl tert-butyl ether	88	70-130
trans-1,2-Dichloroethene	83	70-130
Hexane	84	70-130
1,1-Dichloroethane	87	70-130
2-Butanone (Methyl Ethyl Ketone)	94	70-130
cis-1,2-Dichloroethene	105	70-130
Tetrahydrofuran	87	70-130
Chloroform	90	70-130
1,1,1-Trichloroethane	87	70-130
Cyclohexane	92	70-130
Carbon Tetrachloride	83	70-130
2,2,4-Trimethylpentane	85	70-130
Benzene	92	70-130
1,2-Dichloroethane	86	70-130
Heptane	89	70-130
Trichloroethene	102	70-130
1,2-Dichloropropane	88	70-130
1,4-Dioxane	99	70-130
Bromodichloromethane	96	70-130
cis-1,3-Dichloropropene	99	70-130
4-Methyl-2-pentanone	96	70-130
Toluene	93	70-130
trans-1,3-Dichloropropene	91	70-130
1,1,2-Trichloroethane	96	70-130
Tetrachloroethene	113	70-130
2-Hexanone	94	70-130

Client Sample ID: LCSD

Lab ID#: 1405051-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v050808	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 5/8/14 02:20 PM

Compound	%Recovery	Method Limits
Dibromochloromethane	115	70-130
1,2-Dibromoethane (EDB)	102	70-130
Chlorobenzene	98	70-130
Ethyl Benzene	98	70-130
m,p-Xylene	96	70-130
o-Xylene	97	70-130
Styrene	98	70-130
Bromoform	128	70-130
Cumene	95	70-130
1,1,2,2-Tetrachloroethane	90	70-130
Propylbenzene	87	70-130
4-Ethyltoluene	93	70-130
1,3,5-Trimethylbenzene	88	70-130
1,2,4-Trimethylbenzene	90	70-130
1,3-Dichlorobenzene	104	70-130
1,4-Dichlorobenzene	99	70-130
alpha-Chlorotoluene	98	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	111	70-130
Hexachlorobutadiene	97	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	79	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	106	70-130