



**Method : Modified TO-15-LL**

CAS Number	Compound	Rpt. Limit (ppbv)
75-71-8	Freon 12	0.10
76-14-2	Freon 114	0.10
74-87-3	Chloromethane	0.50
75-01-4	Vinyl Chloride	0.10
106-99-0	1,3-Butadiene	0.10
74-83-9	Bromomethane	0.50
75-00-3	Chloroethane	0.50
75-69-4	Freon 11	0.10
64-17-5	Ethanol	0.50
76-13-1	Freon 113	0.10
75-35-4	1,1-Dichloroethene	0.10
67-64-1	Acetone	0.50
67-63-0	2-Propanol	0.50
75-15-0	Carbon Disulfide	0.50
107-05-1	3-Chloropropene	0.50
75-09-2	Methylene Chloride	0.20
1634-04-4	Methyl tert-butyl ether	0.10
156-60-5	trans-1,2-Dichloroethene	0.10
110-54-3	Hexane	0.10
75-34-3	1,1-Dichloroethane	0.10
78-93-3	2-Butanone (Methyl Ethyl Ketone)	0.50
156-59-2	cis-1,2-Dichloroethene	0.10
109-99-9	Tetrahydrofuran	0.50
67-66-3	Chloroform	0.10
71-55-6	1,1,1-Trichloroethane	0.10
110-82-7	Cyclohexane	0.10
56-23-5	Carbon Tetrachloride	0.10
540-84-1	2,2,4-Trimethylpentane	0.50
71-43-2	Benzene	0.10
107-06-2	1,2-Dichloroethane	0.10
142-82-5	Heptane	0.10
79-01-6	Trichloroethene	0.10
78-87-5	1,2-Dichloropropane	0.10
123-91-1	1,4-Dioxane	0.10
75-27-4	Bromodichloromethane	0.10
10061-01-5	cis-1,3-Dichloropropene	0.10
108-10-1	4-Methyl-2-pentanone	0.10
108-88-3	Toluene	0.10
10061-02-6	trans-1,3-Dichloropropene	0.10
79-00-5	1,1,2-Trichloroethane	0.10

**Method : Modified TO-15-LL**

<b>CAS Number</b>	<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>
127-18-4	Tetrachloroethene	0.10
591-78-6	2-Hexanone	0.50
124-48-1	Dibromochloromethane	0.10
106-93-4	1,2-Dibromoethane (EDB)	0.10
108-90-7	Chlorobenzene	0.10
100-41-4	Ethyl Benzene	0.10
108-38-3	m,p-Xylene	0.10
95-47-6	o-Xylene	0.10
100-42-5	Styrene	0.10
75-25-2	Bromoform	0.10
98-82-8	Cumene	0.10
79-34-5	1,1,2,2-Tetrachloroethane	0.10
103-65-1	Propylbenzene	0.10
622-96-8	4-Ethyltoluene	0.10
108-67-8	1,3,5-Trimethylbenzene	0.10
95-63-6	1,2,4-Trimethylbenzene	0.10
541-73-1	1,3-Dichlorobenzene	0.10
106-46-7	1,4-Dichlorobenzene	0.10
100-44-7	alpha-Chlorotoluene	0.10
95-50-1	1,2-Dichlorobenzene	0.10
120-82-1	1,2,4-Trichlorobenzene	0.50
87-68-3	Hexachlorobutadiene	0.50

<b>CAS Number</b>	<b>Surrogate</b>	<b>Method Limits</b>
17060-07-0	1,2-Dichloroethane-d4	70-130
2037-26-5	Toluene-d8	70-130
460-00-4	4-Bromofluorobenzene	70-130

10/2/2013  
Ms. Celeste Koon  
Missouri Dept. of Natural Resources  
2710 West Main

Jefferson City MO 65109

Project Name:  
Project #:  
Workorder #: 1309351

Dear Ms. Celeste Koon

The following report includes the data for the above referenced project for sample(s) received on 9/19/2013 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: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner  
Project Manager

**WORK ORDER #: 1309351**

Work Order Summary

<b>CLIENT:</b>	Ms. Celeste Koon 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>	3ESP1301039
<b>FAX:</b>	573-526-3350	<b>PROJECT #</b>	
<b>DATE RECEIVED:</b>	09/19/2013	<b>CONTACT:</b>	Kelly Buettner
<b>DATE COMPLETED:</b>	10/02/2013		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (132104)	Modified TO-15	8.2 "Hg	4.9 psi
02A	D2 (132105)	Modified TO-15	6.7 "Hg	5 psi
03A	U1 (132106)	Modified TO-15	7.8 "Hg	5.2 psi
04A	U2 (132107)	Modified TO-15	7.6 "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: 10/02/13

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NJ NELAP - CA016, NY NELAP - 11291,  
 TX NELAP - T104704434-12-5, UT NELAP CA009332012-3, VA NELAP - 460197, WA NELAP - C935  
 Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)  
 Accreditation number: CA300005, Effective date: 10/18/2012, Expiration date: 10/17/2013.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.  
 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# 1309351**

Four 6 Liter Summa Canister (100% Certified) samples were received on September 19, 2013. 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**

The Relative Percent Difference (RPD) of the LCS/LCSD exceeded acceptance limits for Ethanol.

**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 (132104)**

**Lab ID#: 1309351-01A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.50	0.90	2.5
Freon 11	0.18	0.22	1.0	1.2
Ethanol	0.92	2.2	1.7	4.1
Acetone	0.92	4.4	2.2	10

**Client Sample ID: D2 (132105)**

**Lab ID#: 1309351-02A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.57	0.86	2.8
Freon 11	0.17	0.27	0.97	1.5
Ethanol	0.86	8.1	1.6	15
Acetone	0.86	8.7	2.0	21
2-Propanol	0.86	1.1	2.1	2.7
Methylene Chloride	0.35	0.36	1.2	1.3
Hexane	0.17	0.24	0.61	0.84
2-Butanone (Methyl Ethyl Ketone)	0.86	1.1	2.6	3.4
Benzene	0.17	0.43	0.55	1.4
Toluene	0.17	0.87	0.65	3.3
m,p-Xylene	0.17	0.20	0.75	0.85

**Client Sample ID: U1 (132106)**

**Lab ID#: 1309351-03A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.56	0.90	2.8
Freon 11	0.18	0.24	1.0	1.3
Ethanol	0.91	1.6	1.7	3.1
Acetone	0.91	4.4	2.2	10
Toluene	0.18	0.18	0.68	0.69



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

**Client Sample ID: U2 (132107)**

**Lab ID#: 1309351-04A**

<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	0.55	0.88	2.7
Freon 11	0.18	0.24	1.0	1.4
Ethanol	0.90	1.4	1.7	2.7
Acetone	0.90	4.0	2.1	9.4



Air Toxics

Client Sample ID: D1 (132104)

Lab ID#: 1309351-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c100108	Date of Collection:	9/12/13 6:00:00 PM
Dil. Factor:	1.83	Date of Analysis:	10/1/13 02:04 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.50	0.90	2.5
Freon 114	0.18	Not Detected	1.3	Not Detected
Chloromethane	0.92	Not Detected	1.9	Not Detected
Vinyl Chloride	0.18	Not Detected	0.47	Not Detected
1,3-Butadiene	0.18	Not Detected	0.40	Not Detected
Bromomethane	0.92	Not Detected	3.6	Not Detected
Chloroethane	0.92	Not Detected	2.4	Not Detected
Freon 11	0.18	0.22	1.0	1.2
Ethanol	0.92	2.2	1.7	4.1
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Acetone	0.92	4.4	2.2	10
2-Propanol	0.92	Not Detected	2.2	Not Detected
Carbon Disulfide	0.92	Not Detected	2.8	Not Detected
3-Chloropropene	0.92	Not Detected	2.9	Not Detected
Methylene Chloride	0.37	Not Detected	1.3	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.66	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Hexane	0.18	Not Detected	0.64	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.74	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.92	Not Detected	2.7	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Tetrahydrofuran	0.92	Not Detected	2.7	Not Detected
Chloroform	0.18	Not Detected	0.89	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	1.0	Not Detected
Cyclohexane	0.18	Not Detected	0.63	Not Detected
Carbon Tetrachloride	0.18	Not Detected	1.2	Not Detected
2,2,4-Trimethylpentane	0.92	Not Detected	4.3	Not Detected
Benzene	0.18	Not Detected	0.58	Not Detected
1,2-Dichloroethane	0.18	Not Detected	0.74	Not Detected
Heptane	0.18	Not Detected	0.75	Not Detected
Trichloroethene	0.18	Not Detected	0.98	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.84	Not Detected
1,4-Dioxane	0.18	Not Detected	0.66	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.83	Not Detected
4-Methyl-2-pentanone	0.18	Not Detected	0.75	Not Detected
Toluene	0.18	Not Detected	0.69	Not Detected
trans-1,3-Dichloropropene	0.18	Not Detected	0.83	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	1.0	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
2-Hexanone	0.92	Not Detected	3.7	Not Detected



Air Toxics

Client Sample ID: D1 (132104)

Lab ID#: 1309351-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c100108	Date of Collection:	9/12/13 6:00:00 PM
Dil. Factor:	1.83	Date of Analysis:	10/1/13 02:04 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.18	Not Detected	1.6	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.4	Not Detected
Chlorobenzene	0.18	Not Detected	0.84	Not Detected
Ethyl Benzene	0.18	Not Detected	0.79	Not Detected
m,p-Xylene	0.18	Not Detected	0.79	Not Detected
o-Xylene	0.18	Not Detected	0.79	Not Detected
Styrene	0.18	Not Detected	0.78	Not Detected
Bromoform	0.18	Not Detected	1.9	Not Detected
Cumene	0.18	Not Detected	0.90	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.18	Not Detected	0.90	Not Detected
4-Ethyltoluene	0.18	Not Detected	0.90	Not Detected
1,3,5-Trimethylbenzene	0.18	Not Detected	0.90	Not Detected
1,2,4-Trimethylbenzene	0.18	Not Detected	0.90	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	0.95	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.92	Not Detected	6.8	Not Detected
Hexachlorobutadiene	0.92	Not Detected	9.8	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: D2 (132105)

Lab ID#: 1309351-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c100109	Date of Collection:	9/12/13 6:53:00 PM
Dil. Factor:	1.73	Date of Analysis:	10/1/13 02:51 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.57	0.86	2.8
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	0.27	0.97	1.5
Ethanol	0.86	8.1	1.6	15
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	8.7	2.0	21
2-Propanol	0.86	1.1	2.1	2.7
Carbon Disulfide	0.86	Not Detected	2.7	Not Detected
3-Chloropropene	0.86	Not Detected	2.7	Not Detected
Methylene Chloride	0.35	0.36	1.2	1.3
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	0.24	0.61	0.84
1,1-Dichloroethane	0.17	Not Detected	0.70	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.86	1.1	2.6	3.4
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	0.43	0.55	1.4
1,2-Dichloroethane	0.17	Not Detected	0.70	Not Detected
Heptane	0.17	Not Detected	0.71	Not Detected
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	0.87	0.65	3.3
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



Air Toxics

Client Sample ID: D2 (132105)

Lab ID#: 1309351-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c100109	Date of Collection:	9/12/13 6:53:00 PM
Dil. Factor:	1.73	Date of Analysis:	10/1/13 02:51 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	0.20	0.75	0.85
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	110	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: U1 (132106)

Lab ID#: 1309351-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c100110	Date of Collection:	9/12/13 6:40:00 PM
Dil. Factor:	1.82	Date of Analysis:	10/1/13 03:38 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.56	0.90	2.8
Freon 114	0.18	Not Detected	1.3	Not Detected
Chloromethane	0.91	Not Detected	1.9	Not Detected
Vinyl Chloride	0.18	Not Detected	0.46	Not Detected
1,3-Butadiene	0.18	Not Detected	0.40	Not Detected
Bromomethane	0.91	Not Detected	3.5	Not Detected
Chloroethane	0.91	Not Detected	2.4	Not Detected
Freon 11	0.18	0.24	1.0	1.3
Ethanol	0.91	1.6	1.7	3.1
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Acetone	0.91	4.4	2.2	10
2-Propanol	0.91	Not Detected	2.2	Not Detected
Carbon Disulfide	0.91	Not Detected	2.8	Not Detected
3-Chloropropene	0.91	Not Detected	2.8	Not Detected
Methylene Chloride	0.36	Not Detected	1.3	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.66	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Hexane	0.18	Not Detected	0.64	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.74	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.91	Not Detected	2.7	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Tetrahydrofuran	0.91	Not Detected	2.7	Not Detected
Chloroform	0.18	Not Detected	0.89	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.99	Not Detected
Cyclohexane	0.18	Not Detected	0.63	Not Detected
Carbon Tetrachloride	0.18	Not Detected	1.1	Not Detected
2,2,4-Trimethylpentane	0.91	Not Detected	4.2	Not Detected
Benzene	0.18	Not Detected	0.58	Not Detected
1,2-Dichloroethane	0.18	Not Detected	0.74	Not Detected
Heptane	0.18	Not Detected	0.74	Not Detected
Trichloroethene	0.18	Not Detected	0.98	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.84	Not Detected
1,4-Dioxane	0.18	Not Detected	0.66	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.83	Not Detected
4-Methyl-2-pentanone	0.18	Not Detected	0.74	Not Detected
Toluene	0.18	0.18	0.68	0.69
trans-1,3-Dichloropropene	0.18	Not Detected	0.83	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.99	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
2-Hexanone	0.91	Not Detected	3.7	Not Detected



Air Toxics

Client Sample ID: U1 (132106)

Lab ID#: 1309351-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c100110	Date of Collection:	9/12/13 6:40:00 PM
Dil. Factor:	1.82	Date of Analysis:	10/1/13 03:38 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.18	Not Detected	1.6	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.4	Not Detected
Chlorobenzene	0.18	Not Detected	0.84	Not Detected
Ethyl Benzene	0.18	Not Detected	0.79	Not Detected
m,p-Xylene	0.18	Not Detected	0.79	Not Detected
o-Xylene	0.18	Not Detected	0.79	Not Detected
Styrene	0.18	Not Detected	0.78	Not Detected
Bromoform	0.18	Not Detected	1.9	Not Detected
Cumene	0.18	Not Detected	0.89	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.18	Not Detected	0.89	Not Detected
4-Ethyltoluene	0.18	Not Detected	0.89	Not Detected
1,3,5-Trimethylbenzene	0.18	Not Detected	0.89	Not Detected
1,2,4-Trimethylbenzene	0.18	Not Detected	0.89	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	0.94	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.91	Not Detected	6.8	Not Detected
Hexachlorobutadiene	0.91	Not Detected	9.7	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: U2 (132107)

Lab ID#: 1309351-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c100111	Date of Collection:	9/12/13 7:13:00 PM
Dil. Factor:	1.79	Date of Analysis:	10/1/13 04:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.55	0.88	2.7
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.90	Not Detected	1.8	Not Detected
Vinyl Chloride	0.18	Not Detected	0.46	Not Detected
1,3-Butadiene	0.18	Not Detected	0.40	Not Detected
Bromomethane	0.90	Not Detected	3.5	Not Detected
Chloroethane	0.90	Not Detected	2.4	Not Detected
Freon 11	0.18	0.24	1.0	1.4
Ethanol	0.90	1.4	1.7	2.7
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Acetone	0.90	4.0	2.1	9.4
2-Propanol	0.90	Not Detected	2.2	Not Detected
Carbon Disulfide	0.90	Not Detected	2.8	Not Detected
3-Chloropropene	0.90	Not Detected	2.8	Not Detected
Methylene Chloride	0.36	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	0.71	Not Detected
Hexane	0.18	Not Detected	0.63	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.72	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.90	Not Detected	2.6	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Tetrahydrofuran	0.90	Not Detected	2.6	Not Detected
Chloroform	0.18	Not Detected	0.87	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Cyclohexane	0.18	Not Detected	0.62	Not Detected
Carbon Tetrachloride	0.18	Not Detected	1.1	Not Detected
2,2,4-Trimethylpentane	0.90	Not Detected	4.2	Not Detected
Benzene	0.18	Not Detected	0.57	Not Detected
1,2-Dichloroethane	0.18	Not Detected	0.72	Not Detected
Heptane	0.18	Not Detected	0.73	Not Detected
Trichloroethene	0.18	Not Detected	0.96	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.83	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	0.81	Not Detected
4-Methyl-2-pentanone	0.18	Not Detected	0.73	Not Detected
Toluene	0.18	Not Detected	0.67	Not Detected
trans-1,3-Dichloropropene	0.18	Not Detected	0.81	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
2-Hexanone	0.90	Not Detected	3.7	Not Detected





Air Toxics

Client Sample ID: U2 (132107)

Lab ID#: 1309351-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c100111	Date of Collection:	9/12/13 7:13:00 PM
Dil. Factor:	1.79	Date of Analysis:	10/1/13 04:29 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	0.82	Not Detected
Ethyl Benzene	0.18	Not Detected	0.78	Not Detected
m,p-Xylene	0.18	Not Detected	0.78	Not Detected
o-Xylene	0.18	Not Detected	0.78	Not Detected
Styrene	0.18	Not Detected	0.76	Not Detected
Bromoform	0.18	Not Detected	1.8	Not Detected
Cumene	0.18	Not Detected	0.88	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.18	Not Detected	0.88	Not Detected
4-Ethyltoluene	0.18	Not Detected	0.88	Not Detected
1,3,5-Trimethylbenzene	0.18	Not Detected	0.88	Not Detected
1,2,4-Trimethylbenzene	0.18	Not Detected	0.88	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	0.93	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.90	Not Detected	6.6	Not Detected
Hexachlorobutadiene	0.90	Not Detected	9.5	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1309351-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c100106	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/1/13 12:27 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#: 1309351-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c100106	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/1/13 12:27 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	104	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1309351-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c100102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/1/13 09:43 AM

Compound	%Recovery
Freon 12	106
Freon 114	102
Chloromethane	96
Vinyl Chloride	95
1,3-Butadiene	100
Bromomethane	112
Chloroethane	98
Freon 11	105
Ethanol	99
Freon 113	99
1,1-Dichloroethene	96
Acetone	96
2-Propanol	107
Carbon Disulfide	89
3-Chloropropene	110
Methylene Chloride	77
Methyl tert-butyl ether	104
trans-1,2-Dichloroethene	92
Hexane	104
1,1-Dichloroethane	97
2-Butanone (Methyl Ethyl Ketone)	90
cis-1,2-Dichloroethene	93
Tetrahydrofuran	100
Chloroform	98
1,1,1-Trichloroethane	104
Cyclohexane	97
Carbon Tetrachloride	109
2,2,4-Trimethylpentane	108
Benzene	87
1,2-Dichloroethane	108
Heptane	104
Trichloroethene	96
1,2-Dichloropropane	88
1,4-Dioxane	94
Bromodichloromethane	97
cis-1,3-Dichloropropene	98
4-Methyl-2-pentanone	108
Toluene	90
trans-1,3-Dichloropropene	106
1,1,2-Trichloroethane	100
Tetrachloroethene	100
2-Hexanone	107

Client Sample ID: CCV

Lab ID#: 1309351-06A

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

<b>File Name:</b>	<b>c100102</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 10/1/13 09:43 AM</b>

<b>Compound</b>	<b>%Recovery</b>
Dibromochloromethane	110
1,2-Dibromoethane (EDB)	107
Chlorobenzene	99
Ethyl Benzene	103
m,p-Xylene	105
o-Xylene	104
Styrene	107
Bromoform	115
Cumene	102
1,1,2,2-Tetrachloroethane	100
Propylbenzene	94
4-Ethyltoluene	96
1,3,5-Trimethylbenzene	93
1,2,4-Trimethylbenzene	97
1,3-Dichlorobenzene	95
1,4-Dichlorobenzene	91
alpha-Chlorotoluene	108
1,2-Dichlorobenzene	98
1,2,4-Trichlorobenzene	113
Hexachlorobutadiene	85

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: LCS

Lab ID#: 1309351-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

<b>File Name:</b>	<b>c100103</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 10/1/13 10:28 AM</b>

Compound	%Recovery	Method Limits
Freon 12	105	70-130
Freon 114	97	70-130
Chloromethane	91	70-130
Vinyl Chloride	94	70-130
1,3-Butadiene	96	70-130
Bromomethane	114	70-130
Chloroethane	93	70-130
Freon 11	101	70-130
Ethanol	90	70-130
Freon 113	95	70-130
1,1-Dichloroethene	96	70-130
Acetone	86	70-130
2-Propanol	101	70-130
Carbon Disulfide	105	70-130
3-Chloropropene	124	70-130
Methylene Chloride	73	70-130
Methyl tert-butyl ether	98	70-130
trans-1,2-Dichloroethene	98	70-130
Hexane	99	70-130
1,1-Dichloroethane	92	70-130
2-Butanone (Methyl Ethyl Ketone)	86	70-130
cis-1,2-Dichloroethene	88	70-130
Tetrahydrofuran	91	70-130
Chloroform	92	70-130
1,1,1-Trichloroethane	101	70-130
Cyclohexane	92	70-130
Carbon Tetrachloride	86	70-130
2,2,4-Trimethylpentane	96	70-130
Benzene	88	70-130
1,2-Dichloroethane	104	70-130
Heptane	102	70-130
Trichloroethene	99	70-130
1,2-Dichloropropane	90	70-130
1,4-Dioxane	97	70-130
Bromodichloromethane	103	70-130
cis-1,3-Dichloropropene	101	70-130
4-Methyl-2-pentanone	110	70-130
Toluene	94	70-130
trans-1,3-Dichloropropene	99	70-130
1,1,2-Trichloroethane	92	70-130
Tetrachloroethene	96	70-130
2-Hexanone	104	70-130

Client Sample ID: LCS

Lab ID#: 1309351-07A

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

<b>File Name:</b>	<b>c100103</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 10/1/13 10:28 AM</b>

<b>Compound</b>	<b>%Recovery</b>	<b>Method Limits</b>
Dibromochloromethane	99	70-130
1,2-Dibromoethane (EDB)	101	70-130
Chlorobenzene	95	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	102	70-130
o-Xylene	100	70-130
Styrene	104	70-130
Bromoform	100	70-130
Cumene	100	70-130
1,1,2,2-Tetrachloroethane	92	70-130
Propylbenzene	98	70-130
4-Ethyltoluene	97	70-130
1,3,5-Trimethylbenzene	95	70-130
1,2,4-Trimethylbenzene	106	70-130
1,3-Dichlorobenzene	99	70-130
1,4-Dichlorobenzene	100	70-130
alpha-Chlorotoluene	110	70-130
1,2-Dichlorobenzene	107	70-130
1,2,4-Trichlorobenzene	130	70-130
Hexachlorobutadiene	97	70-130

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1309351-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c100104	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/1/13 11:09 AM

Compound	%Recovery	Method Limits
Freon 12	101	70-130
Freon 114	95	70-130
Chloromethane	89	70-130
Vinyl Chloride	94	70-130
1,3-Butadiene	97	70-130
Bromomethane	113	70-130
Chloroethane	90	70-130
Freon 11	102	70-130
Ethanol	122	70-130
Freon 113	97	70-130
1,1-Dichloroethene	97	70-130
Acetone	88	70-130
2-Propanol	104	70-130
Carbon Disulfide	109	70-130
3-Chloropropene	122	70-130
Methylene Chloride	73	70-130
Methyl tert-butyl ether	100	70-130
trans-1,2-Dichloroethene	102	70-130
Hexane	98	70-130
1,1-Dichloroethane	91	70-130
2-Butanone (Methyl Ethyl Ketone)	90	70-130
cis-1,2-Dichloroethene	91	70-130
Tetrahydrofuran	95	70-130
Chloroform	94	70-130
1,1,1-Trichloroethane	101	70-130
Cyclohexane	94	70-130
Carbon Tetrachloride	89	70-130
2,2,4-Trimethylpentane	93	70-130
Benzene	86	70-130
1,2-Dichloroethane	105	70-130
Heptane	100	70-130
Trichloroethene	97	70-130
1,2-Dichloropropane	90	70-130
1,4-Dioxane	97	70-130
Bromodichloromethane	101	70-130
cis-1,3-Dichloropropene	101	70-130
4-Methyl-2-pentanone	108	70-130
Toluene	91	70-130
trans-1,3-Dichloropropene	106	70-130
1,1,2-Trichloroethane	96	70-130
Tetrachloroethene	101	70-130
2-Hexanone	107	70-130



Client Sample ID: LCSD

Lab ID#: 1309351-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c100104	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/1/13 11:09 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	104	70-130
1,2-Dibromoethane (EDB)	106	70-130
Chlorobenzene	96	70-130
Ethyl Benzene	102	70-130
m,p-Xylene	100	70-130
o-Xylene	101	70-130
Styrene	105	70-130
Bromoform	104	70-130
Cumene	100	70-130
1,1,2,2-Tetrachloroethane	97	70-130
Propylbenzene	94	70-130
4-Ethyltoluene	95	70-130
1,3,5-Trimethylbenzene	93	70-130
1,2,4-Trimethylbenzene	98	70-130
1,3-Dichlorobenzene	96	70-130
1,4-Dichlorobenzene	93	70-130
alpha-Chlorotoluene	108	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	122	70-130
Hexachlorobutadiene	92	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	102	70-130