



Air Toxics

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

Page 1 of 1

Project Manager Michael Penn

Collected by: (Print and Sign) Teresa Trevany

Company MO DIVE Email _____

Address PO Box 174 City Jefferson City State MO Zip 65102

Phone (573) 526-3918 Fax _____

Project Info:

Project # 33SP16044D

Project Name Budgets Lead #11

Turn Around Time:

Normal

Rush

Lab Use Only

Pressurized by: _____

Date: _____

Pressurization Gas: _____

Canister Pressure/Vacuum

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum		
						Initial	Final	Receipt Final (psi)
01A	D1 (154698)	661227	12/24/15	0810-1327	TO-15	-29.5	-6	
02A	D2 (154697)	66490	12/24/15	0823-1335	TO-15	-30	-6	
03A	V1 (154696)	661227	12/24/15	0835-1338	TO-15	-27	-6	
	N/A	5673			Engelhardt vacuum - do not analyze	-25.5		

Relinquished by: (signature) _____ Date/Time 12/24/15 1411

Received by: (signature) TJ Date/Time 1/4/16

Relinquished by: (signature) _____ Date/Time _____

Received by: (signature) _____ Date/Time _____

Notes: Shipped via UPS Tracking # 1ZK0400603995151944

Shipper Name JPS Air Bill # _____ Temp (°C) NA Condition Good Custody Seals Intact? Yes No None Work Order # 1601010

1/9/2016

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

Jefferson City MO 65109

Project Name: Bridgeton Landfill

Project #:

Workorder #: 1601010

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 1/4/2016 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 #: 1601010

Work Order Summary

CLIENT:	Mr. Dennis Schroeder Missouri Dept. of Natural Resources 2710 West Main Jefferson City, MO 65109	BILL TO:	Accounts Payable Missouri Dept. of Natural Resources P.O Box 176 Jefferson City, MO 65102
PHONE:	573-526-4428	P.O. #	3ESP160440
FAX:	573-526-3350	PROJECT #	Bridgeton Landfill
DATE RECEIVED:	01/04/2016	CONTACT:	Brian Whittaker
DATE COMPLETED:	01/09/2016		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (154698)	Modified TO-15	4.7 "Hg	5.2 psi
02A	D2 (154697)	Modified TO-15	4.3 "Hg	5.1 psi
03A	U1 (154696)	Modified TO-15	3.7 "Hg	4.8 psi
04A	Lab Blank	Modified TO-15	NA	NA
05A	CCV	Modified TO-15	NA	NA
06A	LCS	Modified TO-15	NA	NA
06AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: 

 Technical Director

DATE: 01/09/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
 TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
 Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.

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# 1601010

Three 6 Liter Summa Canister (100% Certified) samples were received on January 04, 2016. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

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

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

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

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

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

Definition of Data Qualifying Flags

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

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

N - The identification is based on presumptive evidence.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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

Client Sample ID: D1 (154698)

Lab ID#: 1601010-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.49	0.79	2.4
Freon 11	0.16	0.24	0.90	1.3
Ethanol	0.80	2.9	1.5	5.4
Acetone	0.80	4.0	1.9	9.5
Hexane	0.16	0.23	0.56	0.80
Benzene	0.16	0.17	0.51	0.55
Toluene	0.16	0.39	0.60	1.5
m,p-Xylene	0.16	0.32	0.69	1.4

Client Sample ID: D2 (154697)

Lab ID#: 1601010-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.49	0.78	2.4
Freon 11	0.16	0.24	0.88	1.4
Ethanol	0.78	3.9	1.5	7.4
Acetone	0.78	6.4	1.9	15
Hexane	0.16	0.18	0.55	0.62
2-Butanone (Methyl Ethyl Ketone)	0.78	1.4	2.3	4.0
Benzene	0.16	0.17	0.50	0.54
Toluene	0.16	0.27	0.59	1.0
m,p-Xylene	0.16	0.17	0.68	0.73

Client Sample ID: U1 (154696)

Lab ID#: 1601010-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.47	0.75	2.3
1,3-Butadiene	0.15	0.30	0.33	0.67
Freon 11	0.15	0.38	0.85	2.1
Ethanol	0.76	7.0	1.4	13
Acetone	0.76	7.6	1.8	18
2-Propanol	0.76	1.2	1.8	2.9

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

Client Sample ID: U1 (154696)

Lab ID#: 1601010-03A

Methylene Chloride	0.30	1.1	1.0	3.8
Hexane	0.15	0.34	0.53	1.2
2-Butanone (Methyl Ethyl Ketone)	0.76	1.1	2.2	3.2
Benzene	0.15	0.78	0.48	2.5
Heptane	0.15	0.21	0.62	0.86
Toluene	0.15	1.0	0.57	3.8
m,p-Xylene	0.15	0.22	0.66	0.97



Air Toxics

Client Sample ID: D1 (154698)

Lab ID#: 1601010-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010517	Date of Collection:	12/24/15 1:27:00 PM
Dil. Factor:	1.60	Date of Analysis:	1/5/16 07:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.49	0.79	2.4
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.80	Not Detected	1.6	Not Detected
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
1,3-Butadiene	0.16	Not Detected	0.35	Not Detected
Bromomethane	0.80	Not Detected	3.1	Not Detected
Chloroethane	0.80	Not Detected	2.1	Not Detected
Freon 11	0.16	0.24	0.90	1.3
Ethanol	0.80	2.9	1.5	5.4
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.80	4.0	1.9	9.5
2-Propanol	0.80	Not Detected	2.0	Not Detected
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
3-Chloropropene	0.80	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.58	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Hexane	0.16	0.23	0.56	0.80
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	Not Detected	2.4	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.4	Not Detected
Chloroform	0.16	Not Detected	0.78	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.87	Not Detected
Cyclohexane	0.16	Not Detected	0.55	Not Detected
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.80	Not Detected	3.7	Not Detected
Benzene	0.16	0.17	0.51	0.55
1,2-Dichloroethane	0.16	Not Detected	0.65	Not Detected
Heptane	0.16	Not Detected	0.66	Not Detected
Trichloroethene	0.16	Not Detected	0.86	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.74	Not Detected
1,4-Dioxane	0.16	Not Detected	0.58	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.66	Not Detected
Toluene	0.16	0.39	0.60	1.5
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.87	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.80	Not Detected	3.3	Not Detected

Client Sample ID: D1 (154698)

Lab ID#: 1601010-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010517	Date of Collection:	12/24/15 1:27:00 PM
Dil. Factor:	1.60	Date of Analysis:	1/5/16 07:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.69	Not Detected
m,p-Xylene	0.16	0.32	0.69	1.4
o-Xylene	0.16	Not Detected	0.69	Not Detected
Styrene	0.16	Not Detected	0.68	Not Detected
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.79	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.79	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.79	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
alpha-Chlorotoluene	0.16	Not Detected UJ	0.83	Not Detected UJ
1,2-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	5.9	Not Detected
Hexachlorobutadiene	0.80	Not Detected	8.5	Not Detected

UJ = Analyte associated with low bias in the CCV and/or LCS.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: D2 (154697)

Lab ID#: 1601010-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010518	Date of Collection:	12/24/15 1:35:00 PM
Dil. Factor:	1.57	Date of Analysis:	1/5/16 08:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.49	0.78	2.4
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.78	Not Detected	1.6	Not Detected
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
1,3-Butadiene	0.16	Not Detected	0.35	Not Detected
Bromomethane	0.78	Not Detected	3.0	Not Detected
Chloroethane	0.78	Not Detected	2.1	Not Detected
Freon 11	0.16	0.24	0.88	1.4
Ethanol	0.78	3.9	1.5	7.4
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Acetone	0.78	6.4	1.9	15
2-Propanol	0.78	Not Detected	1.9	Not Detected
Carbon Disulfide	0.78	Not Detected	2.4	Not Detected
3-Chloropropene	0.78	Not Detected	2.4	Not Detected
Methylene Chloride	0.31	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.57	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Hexane	0.16	0.18	0.55	0.62
1,1-Dichloroethane	0.16	Not Detected	0.64	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.78	1.4	2.3	4.0
cis-1,2-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Tetrahydrofuran	0.78	Not Detected	2.3	Not Detected
Chloroform	0.16	Not Detected	0.77	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Cyclohexane	0.16	Not Detected	0.54	Not Detected
Carbon Tetrachloride	0.16	Not Detected	0.99	Not Detected
2,2,4-Trimethylpentane	0.78	Not Detected	3.7	Not Detected
Benzene	0.16	0.17	0.50	0.54
1,2-Dichloroethane	0.16	Not Detected	0.64	Not Detected
Heptane	0.16	Not Detected	0.64	Not Detected
Trichloroethene	0.16	Not Detected	0.84	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.72	Not Detected
1,4-Dioxane	0.16	Not Detected	0.56	Not Detected
Bromodichloromethane	0.16	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.71	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.64	Not Detected
Toluene	0.16	0.27	0.59	1.0
trans-1,3-Dichloropropene	0.16	Not Detected	0.71	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.78	Not Detected	3.2	Not Detected



Client Sample ID: D2 (154697)

Lab ID#: 1601010-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010518	Date of Collection:	12/24/15 1:35:00 PM
Dil. Factor:	1.57	Date of Analysis:	1/5/16 08:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.72	Not Detected
Ethyl Benzene	0.16	Not Detected	0.68	Not Detected
m,p-Xylene	0.16	0.17	0.68	0.73
o-Xylene	0.16	Not Detected	0.68	Not Detected
Styrene	0.16	Not Detected	0.67	Not Detected
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.77	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.77	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.77	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.77	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.77	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.94	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.94	Not Detected
alpha-Chlorotoluene	0.16	Not Detected UJ	0.81	Not Detected UJ
1,2-Dichlorobenzene	0.16	Not Detected	0.94	Not Detected
1,2,4-Trichlorobenzene	0.78	Not Detected	5.8	Not Detected
Hexachlorobutadiene	0.78	Not Detected	8.4	Not Detected

UJ = Analyte associated with low bias in the CCV and/or LCS.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: U1 (154696)

Lab ID#: 1601010-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010519	Date of Collection:	12/24/15 1:53:00 PM
Dil. Factor:	1.51	Date of Analysis:	1/5/16 09:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.47	0.75	2.3
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.76	Not Detected	1.6	Not Detected
Vinyl Chloride	0.15	Not Detected	0.38	Not Detected
1,3-Butadiene	0.15	0.30	0.33	0.67
Bromomethane	0.76	Not Detected	2.9	Not Detected
Chloroethane	0.76	Not Detected	2.0	Not Detected
Freon 11	0.15	0.38	0.85	2.1
Ethanol	0.76	7.0	1.4	13
Freon 113	0.15	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Acetone	0.76	7.6	1.8	18
2-Propanol	0.76	1.2	1.8	2.9
Carbon Disulfide	0.76	Not Detected	2.4	Not Detected
3-Chloropropene	0.76	Not Detected	2.4	Not Detected
Methylene Chloride	0.30	1.1	1.0	3.8
Methyl tert-butyl ether	0.15	Not Detected	0.54	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Hexane	0.15	0.34	0.53	1.2
1,1-Dichloroethane	0.15	Not Detected	0.61	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.76	1.1	2.2	3.2
cis-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Tetrahydrofuran	0.76	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.74	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.82	Not Detected
Cyclohexane	0.15	Not Detected	0.52	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.95	Not Detected
2,2,4-Trimethylpentane	0.76	Not Detected	3.5	Not Detected
Benzene	0.15	0.78	0.48	2.5
1,2-Dichloroethane	0.15	Not Detected	0.61	Not Detected
Heptane	0.15	0.21	0.62	0.86
Trichloroethene	0.15	Not Detected	0.81	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.70	Not Detected
1,4-Dioxane	0.15	Not Detected	0.54	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.62	Not Detected
Toluene	0.15	1.0	0.57	3.8
trans-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.82	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
2-Hexanone	0.76	Not Detected	3.1	Not Detected



Client Sample ID: U1 (154696)

Lab ID#: 1601010-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010519	Date of Collection:	12/24/15 1:53:00 PM
Dil. Factor:	1.51	Date of Analysis:	1/5/16 09:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.2	Not Detected
Chlorobenzene	0.15	Not Detected	0.70	Not Detected
Ethyl Benzene	0.15	Not Detected	0.66	Not Detected
m,p-Xylene	0.15	0.22	0.66	0.97
o-Xylene	0.15	Not Detected	0.66	Not Detected
Styrene	0.15	Not Detected	0.64	Not Detected
Bromoform	0.15	Not Detected	1.6	Not Detected
Cumene	0.15	Not Detected	0.74	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	Not Detected	0.74	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.74	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.74	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.74	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
alpha-Chlorotoluene	0.15	Not Detected UJ	0.78	Not Detected UJ
1,2-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,2,4-Trichlorobenzene	0.76	Not Detected	5.6	Not Detected
Hexachlorobutadiene	0.76	Not Detected	8.0	Not Detected

UJ = Analyte associated with low bias in the CCV and/or LCS.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1601010-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010507	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/5/16 11:20 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#: 1601010-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010507	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/5/16 11:20 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 UJ	0.52	Not Detected UJ
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

UJ = Analyte associated with low bias in the CCV and/or LCS.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1601010-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/5/16 06:50 AM

Compound	%Recovery
Freon 12	93
Freon 114	100
Chloromethane	89
Vinyl Chloride	98
1,3-Butadiene	98
Bromomethane	129
Chloroethane	98
Freon 11	96
Ethanol	101
Freon 113	98
1,1-Dichloroethene	106
Acetone	97
2-Propanol	89
Carbon Disulfide	103
3-Chloropropene	104
Methylene Chloride	97
Methyl tert-butyl ether	104
trans-1,2-Dichloroethene	102
Hexane	103
1,1-Dichloroethane	96
2-Butanone (Methyl Ethyl Ketone)	99
cis-1,2-Dichloroethene	102
Tetrahydrofuran	100
Chloroform	97
1,1,1-Trichloroethane	93
Cyclohexane	105
Carbon Tetrachloride	86
2,2,4-Trimethylpentane	101
Benzene	95
1,2-Dichloroethane	89
Heptane	96
Trichloroethene	99
1,2-Dichloropropane	92
1,4-Dioxane	94
Bromodichloromethane	100
cis-1,3-Dichloropropene	99
4-Methyl-2-pentanone	95
Toluene	99
trans-1,3-Dichloropropene	105
1,1,2-Trichloroethane	98
Tetrachloroethene	104
2-Hexanone	85



Air Toxics

Client Sample ID: CCV

Lab ID#: 1601010-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/5/16 06:50 AM

Compound	%Recovery
Dibromochloromethane	103
1,2-Dibromoethane (EDB)	103
Chlorobenzene	100
Ethyl Benzene	105
m,p-Xylene	108
o-Xylene	109
Styrene	108
Bromoform	104
Cumene	105
1,1,2,2-Tetrachloroethane	96
Propylbenzene	97
4-Ethyltoluene	99
1,3,5-Trimethylbenzene	102
1,2,4-Trimethylbenzene	107
1,3-Dichlorobenzene	91
1,4-Dichlorobenzene	88
alpha-Chlorotoluene	66 Q
1,2-Dichlorobenzene	92
1,2,4-Trichlorobenzene	85
Hexachlorobutadiene	89

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1601010-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010503	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/5/16 07:31 AM

Compound	%Recovery	Method Limits
Freon 12	96	70-130
Freon 114	110	70-130
Chloromethane	90	70-130
Vinyl Chloride	102	70-130
1,3-Butadiene	96	70-130
Bromomethane	134 Q	70-130
Chloroethane	103	70-130
Freon 11	102	70-130
Ethanol	107	70-130
Freon 113	100	70-130
1,1-Dichloroethene	108	70-130
Acetone	100	70-130
2-Propanol	93	70-130
Carbon Disulfide	93	70-130
3-Chloropropene	102	70-130
Methylene Chloride	101	70-130
Methyl tert-butyl ether	107	70-130
trans-1,2-Dichloroethene	108	70-130
Hexane	105	70-130
1,1-Dichloroethane	98	70-130
2-Butanone (Methyl Ethyl Ketone)	101	70-130
cis-1,2-Dichloroethene	106	70-130
Tetrahydrofuran	100	70-130
Chloroform	99	70-130
1,1,1-Trichloroethane	96	70-130
Cyclohexane	109	70-130
Carbon Tetrachloride	74	70-130
2,2,4-Trimethylpentane	107	70-130
Benzene	97	70-130
1,2-Dichloroethane	90	70-130
Heptane	99	70-130
Trichloroethene	105	70-130
1,2-Dichloropropane	97	70-130
1,4-Dioxane	103	70-130
Bromodichloromethane	105	70-130
cis-1,3-Dichloropropene	98	70-130
4-Methyl-2-pentanone	101	70-130
Toluene	101	70-130
trans-1,3-Dichloropropene	108	70-130
1,1,2-Trichloroethane	102	70-130
Tetrachloroethene	109	70-130
2-Hexanone	103	70-130

Client Sample ID: LCS

Lab ID#: 1601010-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010503	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/5/16 07:31 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	108	70-130
1,2-Dibromoethane (EDB)	109	70-130
Chlorobenzene	104	70-130
Ethyl Benzene	108	70-130
m,p-Xylene	109	70-130
o-Xylene	115	70-130
Styrene	106	70-130
Bromoform	113	70-130
Cumene	110	70-130
1,1,2,2-Tetrachloroethane	100	70-130
Propylbenzene	101	70-130
4-Ethyltoluene	99	70-130
1,3,5-Trimethylbenzene	102	70-130
1,2,4-Trimethylbenzene	103	70-130
1,3-Dichlorobenzene	97	70-130
1,4-Dichlorobenzene	95	70-130
alpha-Chlorotoluene	124	70-130
1,2-Dichlorobenzene	98	70-130
1,2,4-Trichlorobenzene	105	70-130
Hexachlorobutadiene	98	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1601010-06AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010504	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/5/16 08:13 AM

Compound	%Recovery	Method Limits
Freon 12	94	70-130
Freon 114	105	70-130
Chloromethane	88	70-130
Vinyl Chloride	97	70-130
1,3-Butadiene	93	70-130
Bromomethane	128	70-130
Chloroethane	99	70-130
Freon 11	98	70-130
Ethanol	100	70-130
Freon 113	100	70-130
1,1-Dichloroethene	109	70-130
Acetone	98	70-130
2-Propanol	92	70-130
Carbon Disulfide	91	70-130
3-Chloropropene	97	70-130
Methylene Chloride	100	70-130
Methyl tert-butyl ether	102	70-130
trans-1,2-Dichloroethene	105	70-130
Hexane	103	70-130
1,1-Dichloroethane	98	70-130
2-Butanone (Methyl Ethyl Ketone)	99	70-130
cis-1,2-Dichloroethene	103	70-130
Tetrahydrofuran	100	70-130
Chloroform	95	70-130
1,1,1-Trichloroethane	94	70-130
Cyclohexane	106	70-130
Carbon Tetrachloride	72	70-130
2,2,4-Trimethylpentane	103	70-130
Benzene	98	70-130
1,2-Dichloroethane	91	70-130
Heptane	100	70-130
Trichloroethene	104	70-130
1,2-Dichloropropane	97	70-130
1,4-Dioxane	100	70-130
Bromodichloromethane	102	70-130
cis-1,3-Dichloropropene	99	70-130
4-Methyl-2-pentanone	103	70-130
Toluene	102	70-130
trans-1,3-Dichloropropene	107	70-130
1,1,2-Trichloroethane	101	70-130
Tetrachloroethene	106	70-130
2-Hexanone	102	70-130

Client Sample ID: LCSD

Lab ID#: 1601010-06AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/5/16 08:13 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	106	70-130
1,2-Dibromoethane (EDB)	105	70-130
Chlorobenzene	102	70-130
Ethyl Benzene	109	70-130
m,p-Xylene	106	70-130
o-Xylene	112	70-130
Styrene	104	70-130
Bromoform	109	70-130
Cumene	106	70-130
1,1,2,2-Tetrachloroethane	97	70-130
Propylbenzene	96	70-130
4-Ethyltoluene	94	70-130
1,3,5-Trimethylbenzene	100	70-130
1,2,4-Trimethylbenzene	100	70-130
1,3-Dichlorobenzene	93	70-130
1,4-Dichlorobenzene	90	70-130
alpha-Chlorotoluene	119	70-130
1,2-Dichlorobenzene	94	70-130
1,2,4-Trichlorobenzene	102	70-130
Hexachlorobutadiene	93	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	84	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	100	70-130