

10/16/2015

Mr. Dennis Schroeder

Missouri Dept. of Natural Resources

2710 West Main

Jefferson City MO 65109

Project Name: Bridgeton Landfill

Project #:

Workorder #: 1510109

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 10/5/2015 at Air Toxics Ltd.

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

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

Regards,



Brian Whittaker

Project Manager

WORK ORDER #: 1510109

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. #	3ESP4000007
FAX:	573-526-3350	PROJECT #	Bridgeton Landfill
DATE RECEIVED:	10/05/2015	CONTACT:	Brian Whittaker
DATE COMPLETED:	10/16/2015		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (153593)	Modified TO-15	7.1 "Hg	5.1 psi
02A	D2 (153594)	Modified TO-15	7.8 "Hg	4.9 psi
03A	U2 (153596)	Modified TO-15	8 "Hg	5 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: 10/16/15

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# 1510109

Three 6 Liter Summa Canister (100% Certified) samples were received on October 05, 2015. 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.

Requirement	TO-15	ATL Modifications
Initial Calibration	$\leq 30\%$ RSD with 2 compounds allowed out to $< 40\%$ RSD	$\leq 30\%$ 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 (153593)

Lab ID#: 1510109-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.44	0.88	2.2
Freon 11	0.18	0.27	0.99	1.5
Ethanol	0.88	4.6	1.7	8.7
Acetone	0.88	8.0	2.1	19
Carbon Disulfide	0.88	2.0	2.8	6.2
Toluene	0.18	0.27	0.67	1.0

Client Sample ID: D2 (153594)

Lab ID#: 1510109-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.40	0.89	2.0
Freon 11	0.18	0.28	1.0	1.6
Ethanol	0.90	3.3	1.7	6.2
Acetone	0.90	4.5	2.1	11
Toluene	0.18	0.22	0.68	0.81

Client Sample ID: U2 (153596)

Lab ID#: 1510109-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.48	0.90	2.4
Freon 11	0.18	0.32	1.0	1.8
Ethanol	0.91	4.1	1.7	7.7
Acetone	0.91	6.1	2.2	14

Client Sample ID: D1 (153593)

Lab ID#: 1510109-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e100718	Date of Collection:	9/28/15 2:26:00 PM
Dil. Factor:	1.77	Date of Analysis:	10/8/15 05:55 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.44	0.88	2.2
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.88	Not Detected	1.8	Not Detected
Vinyl Chloride	0.18	Not Detected	0.45	Not Detected
1,3-Butadiene	0.18	Not Detected	0.39	Not Detected
Bromomethane	0.88	Not Detected	3.4	Not Detected
Chloroethane	0.88	Not Detected	2.3	Not Detected
Freon 11	0.18	0.27	0.99	1.5
Ethanol	0.88	4.6	1.7	8.7
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.70	Not Detected
Acetone	0.88	8.0	2.1	19
2-Propanol	0.88	Not Detected	2.2	Not Detected
Carbon Disulfide	0.88	2.0	2.8	6.2
3-Chloropropene	0.88	Not Detected	2.8	Not Detected
Methylene Chloride	0.35	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.64	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.70	Not Detected
Hexane	0.18	Not Detected	0.62	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.72	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.88	Not Detected	2.6	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.70	Not Detected
Tetrahydrofuran	0.88	Not Detected	2.6	Not Detected
Chloroform	0.18	Not Detected	0.86	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.96	Not Detected
Cyclohexane	0.18	Not Detected	0.61	Not Detected
Carbon Tetrachloride	0.18	Not Detected	1.1	Not Detected
2,2,4-Trimethylpentane	0.88	Not Detected	4.1	Not Detected
Benzene	0.18	Not Detected	0.56	Not Detected
1,2-Dichloroethane	0.18	Not Detected	0.72	Not Detected
Heptane	0.18	Not Detected	0.72	Not Detected
Trichloroethene	0.18	Not Detected	0.95	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.82	Not Detected
1,4-Dioxane	0.18	Not Detected	0.64	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.80	Not Detected
4-Methyl-2-pentanone	0.18	Not Detected	0.72	Not Detected
Toluene	0.18	0.27	0.67	1.0
trans-1,3-Dichloropropene	0.18	Not Detected	0.80	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.96	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
2-Hexanone	0.88	Not Detected	3.6	Not Detected

Client Sample ID: D1 (153593)

Lab ID#: 1510109-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e100718	Date of Collection: 9/28/15 2:26:00 PM
Dil. Factor:	1.77	Date of Analysis: 10/8/15 05:55 AM

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

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: D2 (153594)

Lab ID#: 1510109-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e100719	Date of Collection:	9/28/15 2:47:00 PM
Dil. Factor:	1.80	Date of Analysis:	10/8/15 06:36 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.40	0.89	2.0
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	0.28	1.0	1.6
Ethanol	0.90	3.3	1.7	6.2
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Acetone	0.90	4.5	2.1	11
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	0.65	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	0.73	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	0.88	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	0.58	Not Detected
1,2-Dichloroethane	0.18	Not Detected	0.73	Not Detected
Heptane	0.18	Not Detected	0.74	Not Detected
Trichloroethene	0.18	Not Detected	0.97	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.83	Not Detected
1,4-Dioxane	0.18	Not Detected	0.65	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.82	Not Detected
4-Methyl-2-pentanone	0.18	Not Detected	0.74	Not Detected
Toluene	0.18	0.22	0.68	0.81
trans-1,3-Dichloropropene	0.18	Not Detected	0.82	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: D2 (153594)

Lab ID#: 1510109-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e100719	Date of Collection:	9/28/15 2:47:00 PM
Dil. Factor:	1.80	Date of Analysis:	10/8/15 06:36 AM

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	0.83	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	0.77	Not Detected
Bromoform	0.18	Not Detected	1.9	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	6.7	Not Detected
Hexachlorobutadiene	0.90	Not Detected	9.6	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: U2 (153596)

Lab ID#: 1510109-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: e100720

Date of Collection: 9/28/15 2:40:00 PM

Dil. Factor: 1.82

Date of Analysis: 10/8/15 07:18 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.48	0.90	2.4
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	0.32	1.0	1.8
Ethanol	0.91	4.1	1.7	7.7
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Acetone	0.91	6.1	2.2	14
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	Not Detected	0.68	Not Detected
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

Client Sample ID: U2 (153596)

Lab ID#: 1510109-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e100720	Date of Collection:	9/28/15 2:40:00 PM
Dil. Factor:	1.82	Date of Analysis:	10/8/15 07:18 AM

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	111	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: Lab Blank

Lab ID#: 1510109-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN				
File Name:	e100712	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 10/7/15 05:05 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#: 1510109-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e100712	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/7/15 05:05 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	105	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: CCV

Lab ID#: 1510109-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e100703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/7/15 10:12 AM

Compound	%Recovery
Freon 12	120
Freon 114	115
Chloromethane	105
Vinyl Chloride	102
1,3-Butadiene	99
Bromomethane	107
Chloroethane	104
Freon 11	122
Ethanol	96
Freon 113	109
1,1-Dichloroethene	111
Acetone	91
2-Propanol	103
Carbon Disulfide	89
3-Chloropropene	101
Methylene Chloride	103
Methyl tert-butyl ether	115
trans-1,2-Dichloroethene	109
Hexane	109
1,1-Dichloroethane	104
2-Butanone (Methyl Ethyl Ketone)	100
cis-1,2-Dichloroethene	113
Tetrahydrofuran	104
Chloroform	113
1,1,1-Trichloroethane	125
Cyclohexane	110
Carbon Tetrachloride	117
2,2,4-Trimethylpentane	100
Benzene	101
1,2-Dichloroethane	117
Heptane	107
Trichloroethene	106
1,2-Dichloropropane	94
1,4-Dioxane	95
Bromodichloromethane	107
cis-1,3-Dichloropropene	101
4-Methyl-2-pentanone	100
Toluene	106
trans-1,3-Dichloropropene	106
1,1,2-Trichloroethane	94
Tetrachloroethene	109
2-Hexanone	102

Client Sample ID: CCV

Lab ID#: 1510109-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e100703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/7/15 10:12 AM

Compound	%Recovery
Dibromochloromethane	112
1,2-Dibromoethane (EDB)	108
Chlorobenzene	110
Ethyl Benzene	120
m,p-Xylene	120
o-Xylene	113
Styrene	123
Bromoform	113
Cumene	120
1,1,2,2-Tetrachloroethane	94
Propylbenzene	116
4-Ethyltoluene	121
1,3,5-Trimethylbenzene	125
1,2,4-Trimethylbenzene	118
1,3-Dichlorobenzene	115
1,4-Dichlorobenzene	117
alpha-Chlorotoluene	102
1,2-Dichlorobenzene	120
1,2,4-Trichlorobenzene	106
Hexachlorobutadiene	104

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	105	70-130

Client Sample ID: LCS

Lab ID#: 1510109-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: e100704

Date of Collection: NA

Dil. Factor: 1.00

Date of Analysis: 10/7/15 10:54 AM

Compound	%Recovery	Method Limits
Freon 12	94	70-130
Freon 114	95	70-130
Chloromethane	81	70-130
Vinyl Chloride	80	70-130
1,3-Butadiene	76	70-130
Bromomethane	90	70-130
Chloroethane	88	70-130
Freon 11	102	70-130
Ethanol	70	70-130
Freon 113	86	70-130
1,1-Dichloroethene	88	70-130
Acetone	75	70-130
2-Propanol	84	70-130
Carbon Disulfide	62 Q	70-130
3-Chloropropene	68 Q	70-130
Methylene Chloride	82	70-130
Methyl tert-butyl ether	85	70-130
trans-1,2-Dichloroethene	78	70-130
Hexane	89	70-130
1,1-Dichloroethane	85	70-130
2-Butanone (Methyl Ethyl Ketone)	80	70-130
cis-1,2-Dichloroethene	97	70-130
Tetrahydrofuran	82	70-130
Chloroform	90	70-130
1,1,1-Trichloroethane	99	70-130
Cyclohexane	93	70-130
Carbon Tetrachloride	72	70-130
2,2,4-Trimethylpentane	80	70-130
Benzene	82	70-130
1,2-Dichloroethane	94	70-130
Heptane	86	70-130
Trichloroethene	85	70-130
1,2-Dichloropropane	73	70-130
1,4-Dioxane	75	70-130
Bromodichloromethane	89	70-130
cis-1,3-Dichloropropene	79	70-130
4-Methyl-2-pentanone	79	70-130
Toluene	82	70-130
trans-1,3-Dichloropropene	84	70-130
1,1,2-Trichloroethane	84	70-130
Tetrachloroethene	93	70-130
2-Hexanone	83	70-130

Client Sample ID: LCS

Lab ID#: 1510109-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e100704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/7/15 10:54 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	96	70-130
1,2-Dibromoethane (EDB)	91	70-130
Chlorobenzene	91	70-130
Ethyl Benzene	99	70-130
m,p-Xylene	99	70-130
o-Xylene	97	70-130
Styrene	98	70-130
Bromoform	96	70-130
Cumene	98	70-130
1,1,2,2-Tetrachloroethane	80	70-130
Propylbenzene	100	70-130
4-Ethyltoluene	101	70-130
1,3,5-Trimethylbenzene	98	70-130
1,2,4-Trimethylbenzene	94	70-130
1,3-Dichlorobenzene	95	70-130
1,4-Dichlorobenzene	98	70-130
alpha-Chlorotoluene	83	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	83	70-130
Hexachlorobutadiene	95	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1510109-06AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: e100705

Date of Collection: NA

Dil. Factor: 1.00

Date of Analysis: 10/7/15 11:36 AM

Compound	%Recovery	Method Limits
Freon 12	100	70-130
Freon 114	98	70-130
Chloromethane	82	70-130
Vinyl Chloride	82	70-130
1,3-Butadiene	78	70-130
Bromomethane	88	70-130
Chloroethane	88	70-130
Freon 11	99	70-130
Ethanol	78	70-130
Freon 113	88	70-130
1,1-Dichloroethene	94	70-130
Acetone	75	70-130
2-Propanol	84	70-130
Carbon Disulfide	64 Q	70-130
3-Chloropropene	76	70-130
Methylene Chloride	84	70-130
Methyl tert-butyl ether	87	70-130
trans-1,2-Dichloroethene	74	70-130
Hexane	90	70-130
1,1-Dichloroethane	84	70-130
2-Butanone (Methyl Ethyl Ketone)	88	70-130
cis-1,2-Dichloroethene	98	70-130
Tetrahydrofuran	74	70-130
Chloroform	92	70-130
1,1,1-Trichloroethane	100	70-130
Cyclohexane	92	70-130
Carbon Tetrachloride	71	70-130
2,2,4-Trimethylpentane	83	70-130
Benzene	85	70-130
1,2-Dichloroethane	95	70-130
Heptane	91	70-130
Trichloroethene	84	70-130
1,2-Dichloropropane	80	70-130
1,4-Dioxane	79	70-130
Bromodichloromethane	90	70-130
cis-1,3-Dichloropropene	78	70-130
4-Methyl-2-pentanone	80	70-130
Toluene	89	70-130
trans-1,3-Dichloropropene	87	70-130
1,1,2-Trichloroethane	82	70-130
Tetrachloroethene	92	70-130
2-Hexanone	84	70-130

Client Sample ID: LCSD

Lab ID#: 1510109-06AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: e100705

Date of Collection: NA

Dil. Factor: 1.00

Date of Analysis: 10/7/15 11:36 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	94	70-130
1,2-Dibromoethane (EDB)	91	70-130
Chlorobenzene	90	70-130
Ethyl Benzene	93	70-130
m,p-Xylene	98	70-130
o-Xylene	95	70-130
Styrene	96	70-130
Bromoform	96	70-130
Cumene	98	70-130
1,1,2,2-Tetrachloroethane	80	70-130
Propylbenzene	98	70-130
4-Ethyltoluene	99	70-130
1,3,5-Trimethylbenzene	98	70-130
1,2,4-Trimethylbenzene	91	70-130
1,3-Dichlorobenzene	95	70-130
1,4-Dichlorobenzene	99	70-130
alpha-Chlorotoluene	85	70-130
1,2-Dichlorobenzene	97	70-130
1,2,4-Trichlorobenzene	88	70-130
Hexachlorobutadiene	90	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	104	70-130