

9/12/2016

Mr. Curt Lueckenhoff
Missouri Dept. of Natural Resources
2710 West Main

Jefferson City MO 65109

Project Name: Bridgeton Landfill

Project #:

Workorder #: 1608465

Dear Mr. Curt Lueckenhoff

The following report includes the data for the above referenced project for sample(s) received on 8/29/2016 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 #: 1608465

Work Order Summary

CLIENT:	Mr. Curt Lueckenhoff 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:	573-526-3363	P.O. #	3ESP170078
FAX:	573-526-3350	PROJECT #	Bridgeton Landfill
DATE RECEIVED:	08/29/2016	CONTACT:	Brian Whittaker
DATE COMPLETED:	09/12/2016		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (163448)	Modified TO-15	6.3 "Hg	5 psi
02A	D2 (163449)	Modified TO-15	5.3 "Hg	5.1 psi
03A	U1 (163450)	Modified TO-15	5.7 "Hg	5.1 psi
04A	U2 (163451)	Modified TO-15	6.1 "Hg	4.9 psi
05A	Lab Blank	Modified TO-15	NA	NA
05B	Lab Blank	Modified TO-15	NA	NA
06A	CCV	Modified TO-15	NA	NA
06B	CCV	Modified TO-15	NA	NA
07A	LCS	Modified TO-15	NA	NA
07AA	LCSD	Modified TO-15	NA	NA
07B	LCS	Modified TO-15	NA	NA
07BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: 

 Technical Director

DATE: 09/12/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
 TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
 Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

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

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LABORATORY NARRATIVE
Modified TO-15
Missouri Dept. of Natural Resources
Workorder# 1608465

Four 6 Liter Summa Canister (100% Certified) samples were received on August 29, 2016. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

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

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

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

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

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: D1 (163448)

Lab ID#: 1608465-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.61	0.84	3.0
Freon 11	0.17	0.28	0.96	1.6
Ethanol	0.85	3.4	1.6	6.4
Acetone	0.85	7.8	2.0	18
2-Propanol	0.85	1.2	2.1	2.8
2-Butanone (Methyl Ethyl Ketone)	0.85	0.87	2.5	2.6
Toluene	0.17	0.35	0.64	1.3

Client Sample ID: D2 (163449)

Lab ID#: 1608465-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.71	0.81	3.5
Freon 11	0.16	0.40	0.92	2.2
Acetone	0.82	7.6	1.9	18
2-Propanol	0.82	1.1	2.0	2.8
2-Butanone (Methyl Ethyl Ketone)	0.82	1.1	2.4	3.1
Toluene	0.16	0.47	0.62	1.8

Client Sample ID: U1 (163450)

Lab ID#: 1608465-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.59	0.82	2.9
Freon 11	0.17	0.40	0.93	2.3
Ethanol	0.83	4.1	1.6	7.7
Acetone	0.83	8.4	2.0	20
2-Propanol	0.83	1.2	2.0	3.0
Toluene	0.17	0.20	0.62	0.74

Client Sample ID: U2 (163451)

Lab ID#: 1608465-04A

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

Client Sample ID: U2 (163451)

Lab ID#: 1608465-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.64	0.83	3.2
Freon 11	0.17	0.39	0.94	2.2
Ethanol	0.84	4.2	1.6	8.0
Acetone	0.84	6.9	2.0	16
Methylene Chloride	0.34	0.39	1.2	1.4
2-Butanone (Methyl Ethyl Ketone)	0.84	0.89	2.5	2.6
Toluene	0.17	0.19	0.63	0.71



Air Toxics

Client Sample ID: D1 (163448)

Lab ID#: 1608465-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20090922	Date of Collection:	8/23/16 1:15:00 PM
Dil. Factor:	1.70	Date of Analysis:	9/9/16 08:18 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.61	0.84	3.0
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.85	Not Detected	1.8	Not Detected
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
1,3-Butadiene	0.17	Not Detected	0.38	Not Detected
Bromomethane	0.85	Not Detected	3.3	Not Detected
Chloroethane	0.85	Not Detected	2.2	Not Detected
Freon 11	0.17	0.28	0.96	1.6
Ethanol	0.85	3.4	1.6	6.4
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.85	7.8	2.0	18
2-Propanol	0.85	1.2	2.1	2.8
Carbon Disulfide	0.85	Not Detected	2.6	Not Detected
3-Chloropropene	0.85	Not Detected	2.7	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.61	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	0.69	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.85	0.87	2.5	2.6
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Tetrahydrofuran	0.85	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	0.58	Not Detected
Carbon Tetrachloride	0.17	Not Detected	1.1	Not Detected
2,2,4-Trimethylpentane	0.85	Not Detected	4.0	Not Detected
Benzene	0.17	Not Detected	0.54	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	0.91	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	0.70	Not Detected
Toluene	0.17	0.35	0.64	1.3
trans-1,3-Dichloropropene	0.17	Not Detected	0.77	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	0.85	Not Detected	3.5	Not Detected



Air Toxics

Client Sample ID: D1 (163448)

Lab ID#: 1608465-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20090922	Date of Collection:	8/23/16 1:15:00 PM
Dil. Factor:	1.70	Date of Analysis:	9/9/16 08:18 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	0.74	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	0.72	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	0.85	Not Detected	6.3	Not Detected
Hexachlorobutadiene	0.85	Not Detected	9.1	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: D2 (163449)

Lab ID#: 1608465-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20091207	Date of Collection:	8/23/16 1:20:00 PM
Dil. Factor:	1.64	Date of Analysis:	9/12/16 01:21 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.71	0.81	3.5
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.82	Not Detected	1.7	Not Detected
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
1,3-Butadiene	0.16	Not Detected	0.36	Not Detected
Bromomethane	0.82	Not Detected	3.2	Not Detected
Chloroethane	0.82	Not Detected	2.2	Not Detected
Freon 11	0.16	0.40	0.92	2.2
Ethanol	0.82	Not Detected	1.5	Not Detected
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	7.6	1.9	18
2-Propanol	0.82	1.1	2.0	2.8
Carbon Disulfide	0.82	Not Detected	2.6	Not Detected
3-Chloropropene	0.82	Not Detected	2.6	Not Detected
Methylene Chloride	0.33	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.59	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Hexane	0.16	Not Detected	0.58	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.66	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.82	1.1	2.4	3.1
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Tetrahydrofuran	0.82	Not Detected	2.4	Not Detected
Chloroform	0.16	Not Detected	0.80	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Cyclohexane	0.16	Not Detected	0.56	Not Detected
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.82	Not Detected	3.8	Not Detected
Benzene	0.16	Not Detected	0.52	Not Detected
1,2-Dichloroethane	0.16	Not Detected	0.66	Not Detected
Heptane	0.16	Not Detected	0.67	Not Detected
Trichloroethene	0.16	Not Detected	0.88	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.76	Not Detected
1,4-Dioxane	0.16	Not Detected	0.59	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.67	Not Detected
Toluene	0.16	0.47	0.62	1.8
trans-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.82	Not Detected	3.4	Not Detected

Client Sample ID: D2 (163449)

Lab ID#: 1608465-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20091207	Date of Collection:	8/23/16 1:20:00 PM
Dil. Factor:	1.64	Date of Analysis:	9/12/16 01:21 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	1.3	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	Not Detected	0.71	Not Detected
m,p-Xylene	0.16	Not Detected	0.71	Not Detected
o-Xylene	0.16	Not Detected	0.71	Not Detected
Styrene	0.16	Not Detected	0.70	Not Detected
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	Not Detected	0.81	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.81	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.81	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.81	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.81	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.85	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2,4-Trichlorobenzene	0.82	Not Detected	6.1	Not Detected
Hexachlorobutadiene	0.82	Not Detected	8.7	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: U1 (163450)

Lab ID#: 1608465-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20091208	Date of Collection:	8/23/16 1:30:00 PM
Dil. Factor:	1.66	Date of Analysis:	9/12/16 02:00 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.59	0.82	2.9
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.83	Not Detected	1.7	Not Detected
Vinyl Chloride	0.17	Not Detected	0.42	Not Detected
1,3-Butadiene	0.17	Not Detected	0.37	Not Detected
Bromomethane	0.83	Not Detected	3.2	Not Detected
Chloroethane	0.83	Not Detected	2.2	Not Detected
Freon 11	0.17	0.40	0.93	2.3
Ethanol	0.83	4.1	1.6	7.7
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Acetone	0.83	8.4	2.0	20
2-Propanol	0.83	1.2	2.0	3.0
Carbon Disulfide	0.83	Not Detected	2.6	Not Detected
3-Chloropropene	0.83	Not Detected	2.6	Not Detected
Methylene Chloride	0.33	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Hexane	0.17	Not Detected	0.58	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.67	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.83	Not Detected	2.4	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Tetrahydrofuran	0.83	Not Detected	2.4	Not Detected
Chloroform	0.17	Not Detected	0.81	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.90	Not Detected
Cyclohexane	0.17	Not Detected	0.57	Not Detected
Carbon Tetrachloride	0.17	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.83	Not Detected	3.9	Not Detected
Benzene	0.17	Not Detected	0.53	Not Detected
1,2-Dichloroethane	0.17	Not Detected	0.67	Not Detected
Heptane	0.17	Not Detected	0.68	Not Detected
Trichloroethene	0.17	Not Detected	0.89	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.77	Not Detected
1,4-Dioxane	0.17	Not Detected	0.60	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.75	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.68	Not Detected
Toluene	0.17	0.20	0.62	0.74
trans-1,3-Dichloropropene	0.17	Not Detected	0.75	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.90	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
2-Hexanone	0.83	Not Detected	3.4	Not Detected



Client Sample ID: U1 (163450)

Lab ID#: 1608465-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20091208	Date of Collection:	8/23/16 1:30:00 PM
Dil. Factor:	1.66	Date of Analysis:	9/12/16 02:00 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	0.76	Not Detected
Ethyl Benzene	0.17	Not Detected	0.72	Not Detected
m,p-Xylene	0.17	Not Detected	0.72	Not Detected
o-Xylene	0.17	Not Detected	0.72	Not Detected
Styrene	0.17	Not Detected	0.71	Not Detected
Bromoform	0.17	Not Detected	1.7	Not Detected
Cumene	0.17	Not Detected	0.82	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.1	Not Detected
Propylbenzene	0.17	Not Detected	0.82	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.82	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.82	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.82	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	0.86	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.83	Not Detected	6.2	Not Detected
Hexachlorobutadiene	0.83	Not Detected	8.8	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	91	70-130



Air Toxics

Client Sample ID: U2 (163451)

Lab ID#: 1608465-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20091209	Date of Collection:	8/23/16 1:45:00 PM
Dil. Factor:	1.68	Date of Analysis:	9/12/16 02:38 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.64	0.83	3.2
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	0.39	0.94	2.2
Ethanol	0.84	4.2	1.6	8.0
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	6.9	2.0	16
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	0.39	1.2	1.4
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Hexane	0.17	Not Detected	0.59	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.84	0.89	2.5	2.6
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	1.0	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	0.90	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.78	Not Detected
1,4-Dioxane	0.17	Not Detected	0.60	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.69	Not Detected
Toluene	0.17	0.19	0.63	0.71
trans-1,3-Dichloropropene	0.17	Not Detected	0.76	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	3.4	Not Detected

Client Sample ID: U2 (163451)

Lab ID#: 1608465-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20091209	Date of Collection:	8/23/16 1:45:00 PM
Dil. Factor:	1.68	Date of Analysis:	9/12/16 02:38 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	0.77	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	0.82	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.82	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.82	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.82	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.82	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	6.2	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	113	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	93	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1608465-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20090907	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/9/16 07:55 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#: 1608465-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20090907	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/9/16 07:55 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	89	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1608465-05B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20091206	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/12/16 11:53 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#: 1608465-05B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20091206	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/12/16 11:53 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	86	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1608465-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20090902	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/8/16 11:21 PM

Compound	%Recovery
Freon 12	105
Freon 114	96
Chloromethane	104
Vinyl Chloride	96
1,3-Butadiene	96
Bromomethane	119
Chloroethane	97
Freon 11	98
Ethanol	92
Freon 113	93
1,1-Dichloroethene	90
Acetone	93
2-Propanol	89
Carbon Disulfide	102
3-Chloropropene	98
Methylene Chloride	92
Methyl tert-butyl ether	93
trans-1,2-Dichloroethene	94
Hexane	96
1,1-Dichloroethane	99
2-Butanone (Methyl Ethyl Ketone)	97
cis-1,2-Dichloroethene	97
Tetrahydrofuran	98
Chloroform	100
1,1,1-Trichloroethane	98
Cyclohexane	96
Carbon Tetrachloride	108
2,2,4-Trimethylpentane	102
Benzene	108
1,2-Dichloroethane	114
Heptane	114
Trichloroethene	106
1,2-Dichloropropane	109
1,4-Dioxane	104
Bromodichloromethane	113
cis-1,3-Dichloropropene	111
4-Methyl-2-pentanone	119
Toluene	111
trans-1,3-Dichloropropene	111
1,1,2-Trichloroethane	104
Tetrachloroethene	101
2-Hexanone	109



Air Toxics

Client Sample ID: CCV

Lab ID#: 1608465-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20090902	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/8/16 11:21 PM

Compound	%Recovery
Dibromochloromethane	120
1,2-Dibromoethane (EDB)	109
Chlorobenzene	106
Ethyl Benzene	110
m,p-Xylene	110
o-Xylene	109
Styrene	118
Bromoform	125
Cumene	116
1,1,2,2-Tetrachloroethane	117
Propylbenzene	109
4-Ethyltoluene	99
1,3,5-Trimethylbenzene	111
1,2,4-Trimethylbenzene	104
1,3-Dichlorobenzene	104
1,4-Dichlorobenzene	97
alpha-Chlorotoluene	122
1,2-Dichlorobenzene	104
1,2,4-Trichlorobenzene	86
Hexachlorobutadiene	84

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	107	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1608465-06B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20091202	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/12/16 08:20 AM

Compound	%Recovery
Freon 12	109
Freon 114	97
Chloromethane	104
Vinyl Chloride	97
1,3-Butadiene	92
Bromomethane	88
Chloroethane	97
Freon 11	99
Ethanol	80
Freon 113	93
1,1-Dichloroethene	85
Acetone	90
2-Propanol	79
Carbon Disulfide	104
3-Chloropropene	92
Methylene Chloride	93
Methyl tert-butyl ether	88
trans-1,2-Dichloroethene	97
Hexane	91
1,1-Dichloroethane	102
2-Butanone (Methyl Ethyl Ketone)	95
cis-1,2-Dichloroethene	94
Tetrahydrofuran	95
Chloroform	102
1,1,1-Trichloroethane	101
Cyclohexane	94
Carbon Tetrachloride	107
2,2,4-Trimethylpentane	95
Benzene	122
1,2-Dichloroethane	131 Q
Heptane	125
Trichloroethene	115
1,2-Dichloropropane	123
1,4-Dioxane	115
Bromodichloromethane	129
cis-1,3-Dichloropropene	113
4-Methyl-2-pentanone	127
Toluene	120
trans-1,3-Dichloropropene	116
1,1,2-Trichloroethane	117
Tetrachloroethene	109
2-Hexanone	111

Client Sample ID: CCV

Lab ID#: 1608465-06B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20091202	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/12/16 08:20 AM

Compound	%Recovery
Dibromochloromethane	135 Q
1,2-Dibromoethane (EDB)	119
Chlorobenzene	115
Ethyl Benzene	115
m,p-Xylene	111
o-Xylene	109
Styrene	122
Bromoform	137 Q
Cumene	120
1,1,2,2-Tetrachloroethane	131 Q
Propylbenzene	112
4-Ethyltoluene	101
1,3,5-Trimethylbenzene	110
1,2,4-Trimethylbenzene	102
1,3-Dichlorobenzene	105
1,4-Dichlorobenzene	98
alpha-Chlorotoluene	118
1,2-Dichlorobenzene	105
1,2,4-Trichlorobenzene	86
Hexachlorobutadiene	91

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	109	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1608465-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20090903	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/9/16 12:10 AM

Compound	%Recovery	Method Limits
Freon 12	111	70-130
Freon 114	106	70-130
Chloromethane	101	70-130
Vinyl Chloride	106	70-130
1,3-Butadiene	100	70-130
Bromomethane	111	70-130
Chloroethane	105	70-130
Freon 11	103	70-130
Ethanol	101	70-130
Freon 113	94	70-130
1,1-Dichloroethene	92	70-130
Acetone	94	70-130
2-Propanol	97	70-130
Carbon Disulfide	92	70-130
3-Chloropropene	96	70-130
Methylene Chloride	94	70-130
Methyl tert-butyl ether	91	70-130
trans-1,2-Dichloroethene	98	70-130
Hexane	97	70-130
1,1-Dichloroethane	99	70-130
2-Butanone (Methyl Ethyl Ketone)	98	70-130
cis-1,2-Dichloroethene	95	70-130
Tetrahydrofuran	101	70-130
Chloroform	102	70-130
1,1,1-Trichloroethane	100	70-130
Cyclohexane	98	70-130
Carbon Tetrachloride	118	70-130
2,2,4-Trimethylpentane	102	70-130
Benzene	104	70-130
1,2-Dichloroethane	106	70-130
Heptane	110	70-130
Trichloroethene	103	70-130
1,2-Dichloropropane	107	70-130
1,4-Dioxane	99	70-130
Bromodichloromethane	116	70-130
cis-1,3-Dichloropropene	101	70-130
4-Methyl-2-pentanone	117	70-130
Toluene	106	70-130
trans-1,3-Dichloropropene	112	70-130
1,1,2-Trichloroethane	103	70-130
Tetrachloroethene	100	70-130
2-Hexanone	105	70-130

Client Sample ID: LCS

Lab ID#: 1608465-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20090903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/9/16 12:10 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	120	70-130
1,2-Dibromoethane (EDB)	108	70-130
Chlorobenzene	102	70-130
Ethyl Benzene	106	70-130
m,p-Xylene	107	70-130
o-Xylene	106	70-130
Styrene	114	70-130
Bromoform	128	70-130
Cumene	110	70-130
1,1,2,2-Tetrachloroethane	114	70-130
Propylbenzene	107	70-130
4-Ethyltoluene	96	70-130
1,3,5-Trimethylbenzene	107	70-130
1,2,4-Trimethylbenzene	98	70-130
1,3-Dichlorobenzene	99	70-130
1,4-Dichlorobenzene	93	70-130
alpha-Chlorotoluene	127	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	85	70-130
Hexachlorobutadiene	87	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	107	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1608465-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20090904	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/9/16 04:40 AM

Compound	%Recovery	Method Limits
Freon 12	116	70-130
Freon 114	109	70-130
Chloromethane	105	70-130
Vinyl Chloride	108	70-130
1,3-Butadiene	103	70-130
Bromomethane	116	70-130
Chloroethane	107	70-130
Freon 11	107	70-130
Ethanol	103	70-130
Freon 113	98	70-130
1,1-Dichloroethene	96	70-130
Acetone	98	70-130
2-Propanol	102	70-130
Carbon Disulfide	94	70-130
3-Chloropropene	102	70-130
Methylene Chloride	98	70-130
Methyl tert-butyl ether	95	70-130
trans-1,2-Dichloroethene	104	70-130
Hexane	100	70-130
1,1-Dichloroethane	101	70-130
2-Butanone (Methyl Ethyl Ketone)	103	70-130
cis-1,2-Dichloroethene	98	70-130
Tetrahydrofuran	104	70-130
Chloroform	105	70-130
1,1,1-Trichloroethane	104	70-130
Cyclohexane	102	70-130
Carbon Tetrachloride	122	70-130
2,2,4-Trimethylpentane	106	70-130
Benzene	107	70-130
1,2-Dichloroethane	109	70-130
Heptane	113	70-130
Trichloroethene	106	70-130
1,2-Dichloropropane	110	70-130
1,4-Dioxane	102	70-130
Bromodichloromethane	121	70-130
cis-1,3-Dichloropropene	104	70-130
4-Methyl-2-pentanone	120	70-130
Toluene	110	70-130
trans-1,3-Dichloropropene	117	70-130
1,1,2-Trichloroethane	107	70-130
Tetrachloroethene	104	70-130
2-Hexanone	114	70-130

Client Sample ID: LCSD

Lab ID#: 1608465-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20090904	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/9/16 04:40 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	126	70-130
1,2-Dibromoethane (EDB)	113	70-130
Chlorobenzene	107	70-130
Ethyl Benzene	112	70-130
m,p-Xylene	114	70-130
o-Xylene	114	70-130
Styrene	120	70-130
Bromoform	134 Q	70-130
Cumene	118	70-130
1,1,2,2-Tetrachloroethane	118	70-130
Propylbenzene	113	70-130
4-Ethyltoluene	101	70-130
1,3,5-Trimethylbenzene	112	70-130
1,2,4-Trimethylbenzene	101	70-130
1,3-Dichlorobenzene	104	70-130
1,4-Dichlorobenzene	99	70-130
alpha-Chlorotoluene	134 Q	70-130
1,2-Dichlorobenzene	104	70-130
1,2,4-Trichlorobenzene	89	70-130
Hexachlorobutadiene	89	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	107	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1608465-07B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20091203	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/12/16 09:09 AM

Compound	%Recovery	Method Limits
Freon 12	111	70-130
Freon 114	104	70-130
Chloromethane	99	70-130
Vinyl Chloride	103	70-130
1,3-Butadiene	98	70-130
Bromomethane	119	70-130
Chloroethane	104	70-130
Freon 11	104	70-130
Ethanol	91	70-130
Freon 113	93	70-130
1,1-Dichloroethene	88	70-130
Acetone	93	70-130
2-Propanol	87	70-130
Carbon Disulfide	91	70-130
3-Chloropropene	92	70-130
Methylene Chloride	94	70-130
Methyl tert-butyl ether	84	70-130
trans-1,2-Dichloroethene	99	70-130
Hexane	93	70-130
1,1-Dichloroethane	97	70-130
2-Butanone (Methyl Ethyl Ketone)	94	70-130
cis-1,2-Dichloroethene	90	70-130
Tetrahydrofuran	95	70-130
Chloroform	102	70-130
1,1,1-Trichloroethane	100	70-130
Cyclohexane	94	70-130
Carbon Tetrachloride	115	70-130
2,2,4-Trimethylpentane	98	70-130
Benzene	118	70-130
1,2-Dichloroethane	122	70-130
Heptane	122	70-130
Trichloroethene	109	70-130
1,2-Dichloropropane	118	70-130
1,4-Dioxane	107	70-130
Bromodichloromethane	130	70-130
cis-1,3-Dichloropropene	103	70-130
4-Methyl-2-pentanone	125	70-130
Toluene	116	70-130
trans-1,3-Dichloropropene	117	70-130
1,1,2-Trichloroethane	114	70-130
Tetrachloroethene	107	70-130
2-Hexanone	112	70-130

Client Sample ID: LCS

Lab ID#: 1608465-07B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20091203	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/12/16 09:09 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	133 Q	70-130
1,2-Dibromoethane (EDB)	118	70-130
Chlorobenzene	110	70-130
Ethyl Benzene	116	70-130
m,p-Xylene	112	70-130
o-Xylene	110	70-130
Styrene	122	70-130
Bromoform	140 Q	70-130
Cumene	117	70-130
1,1,2,2-Tetrachloroethane	127	70-130
Propylbenzene	110	70-130
4-Ethyltoluene	97	70-130
1,3,5-Trimethylbenzene	115	70-130
1,2,4-Trimethylbenzene	104	70-130
1,3-Dichlorobenzene	103	70-130
1,4-Dichlorobenzene	97	70-130
alpha-Chlorotoluene	129	70-130
1,2-Dichlorobenzene	103	70-130
1,2,4-Trichlorobenzene	93	70-130
Hexachlorobutadiene	90	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1608465-07BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20091204	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/12/16 09:57 AM

Compound	%Recovery	Method Limits
Freon 12	108	70-130
Freon 114	102	70-130
Chloromethane	98	70-130
Vinyl Chloride	100	70-130
1,3-Butadiene	96	70-130
Bromomethane	119	70-130
Chloroethane	101	70-130
Freon 11	102	70-130
Ethanol	90	70-130
Freon 113	93	70-130
1,1-Dichloroethene	88	70-130
Acetone	94	70-130
2-Propanol	89	70-130
Carbon Disulfide	90	70-130
3-Chloropropene	93	70-130
Methylene Chloride	94	70-130
Methyl tert-butyl ether	86	70-130
trans-1,2-Dichloroethene	97	70-130
Hexane	93	70-130
1,1-Dichloroethane	96	70-130
2-Butanone (Methyl Ethyl Ketone)	94	70-130
cis-1,2-Dichloroethene	92	70-130
Tetrahydrofuran	96	70-130
Chloroform	100	70-130
1,1,1-Trichloroethane	100	70-130
Cyclohexane	95	70-130
Carbon Tetrachloride	114	70-130
2,2,4-Trimethylpentane	98	70-130
Benzene	111	70-130
1,2-Dichloroethane	116	70-130
Heptane	118	70-130
Trichloroethene	107	70-130
1,2-Dichloropropane	115	70-130
1,4-Dioxane	105	70-130
Bromodichloromethane	122	70-130
cis-1,3-Dichloropropene	102	70-130
4-Methyl-2-pentanone	122	70-130
Toluene	111	70-130
trans-1,3-Dichloropropene	112	70-130
1,1,2-Trichloroethane	108	70-130
Tetrachloroethene	103	70-130
2-Hexanone	108	70-130

Client Sample ID: LCSD

Lab ID#: 1608465-07BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20091204	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/12/16 09:57 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	128	70-130
1,2-Dibromoethane (EDB)	112	70-130
Chlorobenzene	105	70-130
Ethyl Benzene	108	70-130
m,p-Xylene	106	70-130
o-Xylene	105	70-130
Styrene	114	70-130
Bromoform	134 Q	70-130
Cumene	112	70-130
1,1,2,2-Tetrachloroethane	120	70-130
Propylbenzene	104	70-130
4-Ethyltoluene	93	70-130
1,3,5-Trimethylbenzene	110	70-130
1,2,4-Trimethylbenzene	101	70-130
1,3-Dichlorobenzene	98	70-130
1,4-Dichlorobenzene	92	70-130
alpha-Chlorotoluene	122	70-130
1,2-Dichlorobenzene	98	70-130
1,2,4-Trichlorobenzene	95	70-130
Hexachlorobutadiene	92	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	99	70-130