

Appendix E

Vapor Analytical
Laboratory Results

7/31/2014

Mr. Christopher Kubacki
Arcadis U.S., Inc.
126 N. Jefferson St.
Suite 400
Milwaukee WI 53202

Project Name: Madison-Kipp
Project #: Madison-Kipp
Workorder #: 1407444B

Dear Mr. Christopher Kubacki

The following report includes the data for the above referenced project for sample(s) received on 7/24/2014 at Air Toxics Ltd.

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

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

Regards,



Ausha Scott
Project Manager

WORK ORDER #: 1407444B

Work Order Summary

CLIENT:	Mr. Christopher Kubacki Arcadis U.S., Inc. 126 N. Jefferson St. Suite 400 Milwaukee, WI 53202	BILL TO:	Accounts Payable Arcadis U.S., Inc. 630 Plaza Drive Suite 600 Highlands Ranch, CO 80129
PHONE:	414 277 6227	P.O. #	WI001368.0018
FAX:		PROJECT #	Madison-Kipp Madison-Kipp
DATE RECEIVED:	07/24/2014	CONTACT:	Ausha Scott
DATE COMPLETED:	07/31/2014		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
03A	VP-1N	Modified TO-15	6.3 "Hg	5.3 psi
04A	VP-1S	Modified TO-15	5.3 "Hg	5.1 psi
05A	VP-2N	Modified TO-15	7.1 "Hg	5 psi
06A	VP-2S	Modified TO-15	2.4 "Hg	5 psi
07A	VP-3	Modified TO-15	6.9 "Hg	4.8 psi
08A	VP-4	Modified TO-15	4.3 "Hg	4.9 psi
09A	VP-5	Modified TO-15	6.5 "Hg	5.2 psi
10A	VP-6	Modified TO-15	3.7 "Hg	5.4 psi
11A	VP-102	Modified TO-15	4.1 "Hg	5.1 psi
12A	DUP-1	Modified TO-15	5.5 "Hg	5 psi
13A	VP-114	Modified TO-15	5.3 "Hg	5.1 psi
14A	VP-126	Modified TO-15	6.5 "Hg	5.1 psi
15A	VP-210	Modified TO-15	5.9 "Hg	5 psi
16A	VP-222	Modified TO-15	7.3 "Hg	5.1 psi
17A	VP-237	Modified TO-15	5.7 "Hg	5.1 psi
18A	VP-261	Modified TO-15	5.5 "Hg	5.1 psi
19A	Lab Blank	Modified TO-15	NA	NA
19B	Lab Blank	Modified TO-15	NA	NA
20A	CCV	Modified TO-15	NA	NA
20B	CCV	Modified TO-15	NA	NA
21A	LCS	Modified TO-15	NA	NA
21AA	LCSD	Modified TO-15	NA	NA
21B	LCS	Modified TO-15	NA	NA

Continued on next page

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<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
21BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: 
 Technical Director

DATE: 07/31/14

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
 TX NELAP - T104704434-13-6, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
 Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
 Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.

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

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LABORATORY NARRATIVE
Modified TO-15
Arcadis U.S., Inc.
Workorder# 1407444B

Sixteen 6 Liter Summa Canister samples were received on July 24, 2014. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

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

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

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

Receiving Notes

The Chain of Custody (COC) information for sample DUP-1 and VP-114 did not match the information on the canister with regard to canister identification. The client was notified of the discrepancy and the information on the canister was used to process and report the samples.

Analytical Notes

Dilution was performed on samples VP-222 and VP-237 due to the presence of high level target species.

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: VP-1N

Lab ID#: 1407444B-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.17	1.8	1.2	12

Client Sample ID: VP-1S

Lab ID#: 1407444B-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.16	0.19	0.65	0.77
Trichloroethene	0.16	0.21	0.88	1.2
Tetrachloroethene	0.16	4.7	1.1	32

Client Sample ID: VP-2N

Lab ID#: 1407444B-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.18	1.5	1.2	10

Client Sample ID: VP-2S

Lab ID#: 1407444B-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.15	0.19	0.58	0.76
Tetrachloroethene	0.15	2.0	0.99	14

Client Sample ID: VP-3

Lab ID#: 1407444B-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.17	0.58	0.68	2.3
Trichloroethene	0.17	3.6	0.92	19
Tetrachloroethene	0.17	25	1.2	170

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

Client Sample ID: VP-4

Lab ID#: 1407444B-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.16	0.27	0.62	1.1

Client Sample ID: VP-5

Lab ID#: 1407444B-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.17	0.38	0.44	0.98
cis-1,2-Dichloroethene	0.17	2.6	0.68	10
Trichloroethene	0.17	2.4	0.93	13
Tetrachloroethene	0.17	0.59	1.2	4.0

Client Sample ID: VP-6

Lab ID#: 1407444B-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.16	1.0	0.62	4.2
Trichloroethene	0.16	0.34	0.84	1.8

Client Sample ID: VP-102

Lab ID#: 1407444B-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.16	0.17	1.0	1.1

Client Sample ID: DUP-1

Lab ID#: 1407444B-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.16	4.3	1.1	29

Client Sample ID: VP-114

Lab ID#: 1407444B-13A

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

Client Sample ID: VP-114

Lab ID#: 1407444B-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.16	2.9	1.1	20

Client Sample ID: VP-126

Lab ID#: 1407444B-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.17	0.48	1.2	3.3

Client Sample ID: VP-210

Lab ID#: 1407444B-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.17	5.4	1.1	36

Client Sample ID: VP-222

Lab ID#: 1407444B-16A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.89	150	6.0	1000

Client Sample ID: VP-237

Lab ID#: 1407444B-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.33	59	2.2	400

Client Sample ID: VP-261

Lab ID#: 1407444B-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.16	5.0	1.1	34



Air Toxics

Client Sample ID: VP-1N

Lab ID#: 1407444B-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v072914	Date of Collection: 7/22/14 10:30:00 AM
Dil. Factor:	1.72	Date of Analysis: 7/29/14 04:13 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Trichloroethene	0.17	Not Detected	0.92	Not Detected
Tetrachloroethene	0.17	1.8	1.2	12

Container Type: 6 Liter Summa Canister

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



Air Toxics

Client Sample ID: VP-1S

Lab ID#: 1407444B-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v072915	Date of Collection:	7/22/14 10:45:00 AM
Dil. Factor:	1.64	Date of Analysis:	7/29/14 04:49 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
cis-1,2-Dichloroethene	0.16	0.19	0.65	0.77
Trichloroethene	0.16	0.21	0.88	1.2
Tetrachloroethene	0.16	4.7	1.1	32

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: VP-2N

Lab ID#: 1407444B-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v072916	Date of Collection:	7/22/14 11:42:00 AM
Dil. Factor:	1.76	Date of Analysis:	7/29/14 05:25 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.18	Not Detected	0.45	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.70	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.70	Not Detected
Trichloroethene	0.18	Not Detected	0.94	Not Detected
Tetrachloroethene	0.18	1.5	1.2	10

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: VP-2S

Lab ID#: 1407444B-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v072917	Date of Collection:	7/22/14 11:26:00 AM
Dil. Factor:	1.46	Date of Analysis:	7/29/14 06:01 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.15	Not Detected	0.37	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
cis-1,2-Dichloroethene	0.15	0.19	0.58	0.76
Trichloroethene	0.15	Not Detected	0.78	Not Detected
Tetrachloroethene	0.15	2.0	0.99	14

Container Type: 6 Liter Summa Canister

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



Air Toxics

Client Sample ID: VP-3

Lab ID#: 1407444B-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v072918	Date of Collection:	7/22/14 4:38:00 PM
Dil. Factor:	1.72	Date of Analysis:	7/29/14 06:37 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
cis-1,2-Dichloroethene	0.17	0.58	0.68	2.3
Trichloroethene	0.17	3.6	0.92	19
Tetrachloroethene	0.17	25	1.2	170

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	106	70-130



Air Toxics

Client Sample ID: VP-4

Lab ID#: 1407444B-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v072919	Date of Collection:	7/23/14 8:12:00 AM
Dil. Factor:	1.56	Date of Analysis:	7/29/14 07:13 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.62	Not Detected
cis-1,2-Dichloroethene	0.16	0.27	0.62	1.1
Trichloroethene	0.16	Not Detected	0.84	Not Detected
Tetrachloroethene	0.16	Not Detected	1.0	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: VP-5

Lab ID#: 1407444B-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v072922	Date of Collection:	7/22/14 5:35:00 PM
Dil. Factor:	1.73	Date of Analysis:	7/29/14 09:00 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.17	0.38	0.44	0.98
trans-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
cis-1,2-Dichloroethene	0.17	2.6	0.68	10
Trichloroethene	0.17	2.4	0.93	13
Tetrachloroethene	0.17	0.59	1.2	4.0

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: VP-6

Lab ID#: 1407444B-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v072921	Date of Collection:	7/22/14 6:05:00 PM
Dil. Factor:	1.56	Date of Analysis:	7/29/14 08:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.62	Not Detected
cis-1,2-Dichloroethene	0.16	1.0	0.62	4.2
Trichloroethene	0.16	0.34	0.84	1.8
Tetrachloroethene	0.16	Not Detected	1.0	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: VP-102

Lab ID#: 1407444B-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v072923	Date of Collection:	7/23/14 9:19:00 AM
Dil. Factor:	1.56	Date of Analysis:	7/29/14 09:37 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.62	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Trichloroethene	0.16	Not Detected	0.84	Not Detected
Tetrachloroethene	0.16	0.17	1.0	1.1

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: DUP-1

Lab ID#: 1407444B-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v072924	Date of Collection:	7/23/14	
Dil. Factor:	1.64	Date of Analysis:	7/29/14 10:13 PM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Trichloroethene	0.16	Not Detected	0.88	Not Detected
Tetrachloroethene	0.16	4.3	1.1	29

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: VP-114

Lab ID#: 1407444B-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v072925	Date of Collection:	7/23/14 10:42:00 AM
Dil. Factor:	1.64	Date of Analysis:	7/30/14 06:12 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Trichloroethene	0.16	Not Detected	0.88	Not Detected
Tetrachloroethene	0.16	2.9	1.1	20

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	123	70-130

Client Sample ID: VP-126

Lab ID#: 1407444B-14A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v073012	Date of Collection: 7/23/14 11:03:00 AM
Dil. Factor:	1.72	Date of Analysis: 7/30/14 02:56 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Trichloroethene	0.17	Not Detected	0.92	Not Detected
Tetrachloroethene	0.17	0.48	1.2	3.3

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: VP-210

Lab ID#: 1407444B-15A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v073013	Date of Collection: 7/23/14 12:33:00 PM
Dil. Factor:	1.67	Date of Analysis: 7/30/14 03:39 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Trichloroethene	0.17	Not Detected	0.90	Not Detected
Tetrachloroethene	0.17	5.4	1.1	36

Container Type: 6 Liter Summa Canister

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



Air Toxics

Client Sample ID: VP-222

Lab ID#: 1407444B-16A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v073014	Date of Collection:	7/23/14 12:50:00 PM
Dil. Factor:	8.90	Date of Analysis:	7/30/14 04:30 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.89	Not Detected	2.3	Not Detected
trans-1,2-Dichloroethene	0.89	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.89	Not Detected	3.5	Not Detected
Trichloroethene	0.89	Not Detected	4.8	Not Detected
Tetrachloroethene	0.89	150	6.0	1000

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: VP-237

Lab ID#: 1407444B-17A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v073015	Date of Collection: 7/23/14 3:02:00 PM
Dil. Factor:	3.32	Date of Analysis: 7/30/14 05:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.33	Not Detected	0.85	Not Detected
trans-1,2-Dichloroethene	0.33	Not Detected	1.3	Not Detected
cis-1,2-Dichloroethene	0.33	Not Detected	1.3	Not Detected
Trichloroethene	0.33	Not Detected	1.8	Not Detected
Tetrachloroethene	0.33	59	2.2	400

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	90	70-130

Client Sample ID: VP-261

Lab ID#: 1407444B-18A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v073016	Date of Collection:	7/23/14 2:07:00 PM
Dil. Factor:	1.65	Date of Analysis:	7/30/14 06:23 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Trichloroethene	0.16	Not Detected	0.89	Not Detected
Tetrachloroethene	0.16	5.0	1.1	34

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1407444B-19A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v072906	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/29/14 09:56 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	88	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1407444B-19B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v073006	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/30/14 10:10 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1407444B-20A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v072902	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/29/14 06:48 AM

Compound	%Recovery
Vinyl Chloride	100
trans-1,2-Dichloroethene	94
cis-1,2-Dichloroethene	95
Trichloroethene	97
Tetrachloroethene	110

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1407444B-20B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v073002	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/30/14 07:10 AM

Compound	%Recovery
Vinyl Chloride	103
trans-1,2-Dichloroethene	96
cis-1,2-Dichloroethene	96
Trichloroethene	99
Tetrachloroethene	110

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	110	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1407444B-21A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v072903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/29/14 07:31 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	104	70-130
trans-1,2-Dichloroethene	82	70-130
cis-1,2-Dichloroethene	108	70-130
Trichloroethene	95	70-130
Tetrachloroethene	110	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1407444B-21AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v072904	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/29/14 08:08 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	104	70-130
trans-1,2-Dichloroethene	84	70-130
cis-1,2-Dichloroethene	112	70-130
Trichloroethene	100	70-130
Tetrachloroethene	106	70-130

Container Type: NA - Not Applicable

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



Air Toxics

Client Sample ID: LCS

Lab ID#: 1407444B-21B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v073003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/30/14 07:52 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	105	70-130
trans-1,2-Dichloroethene	85	70-130
cis-1,2-Dichloroethene	111	70-130
Trichloroethene	98	70-130
Tetrachloroethene	107	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	108	70-130

Client Sample ID: LCSD

Lab ID#: 1407444B-21BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v073004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/30/14 08:28 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	105	70-130
trans-1,2-Dichloroethene	85	70-130
cis-1,2-Dichloroethene	110	70-130
Trichloroethene	100	70-130
Tetrachloroethene	113	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	106	70-130