

9/1/2018

Mr. Gustan Taylor
Arcadis U.S., Inc.
28550 Cabot Dr.
Suite 500
Novi MI 48377

Project Name: FORD LTP
Project #: MI001454.0004.00003
Workorder #: 1808626

Dear Mr. Gustan Taylor

The following report includes the data for the above referenced project for sample(s) received on 8/27/2018 at Air Toxics Ltd.

The data and associated QC analyzed by 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 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 #: 1808626

Work Order Summary

CLIENT:	Mr. Gustan Taylor Arcadis U.S., Inc. 28550 Cabot Dr. Suite 500 Novi, MI 48377	BILL TO:	Accounts Payable Arcadis U.S., Inc. 630 Plaza Drive Suite 600 Highlands Ranch, CO 80129
PHONE:	248.994.2294	P.O. #	MI001454.0004.0001B
FAX:		PROJECT #	MI001454.0004.00003 FORD LTP
DATE RECEIVED:	08/27/2018	CONTACT:	Ausha Scott
DATE COMPLETED:	09/01/2018		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SVMP-4-3.5(082318)	TO-15	5.5 "Hg	15 psi
02A	SVMP-8-3.5(082318)	TO-15	5.0 "Hg	15 psi
03A	SVMP-9-4(082318)	TO-15	5.5 "Hg	15 psi
04A	SVMP-10-3(082318)	TO-15	5.5 "Hg	15 psi
05A	SVMP-21-2(082418)	TO-15	5.0 "Hg	15 psi
06A	SVMP-14-2(082418)	TO-15	4.5 "Hg	15 psi
07A	SVMP-13-2(082418)	TO-15	5.0 "Hg	15 psi
08A	SVMP-15-2(082418)	TO-15	5.0 "Hg	15 psi
09A	SVMP-16-2(082418)	TO-15	6.0 "Hg	15 psi
10A	SVMP-17-2(082418)	TO-15	5.5 "Hg	15 psi
11A	SVMP-22-3(082118)	TO-15	4.5 "Hg	14.8 psi
12A	SVMP-23-3(082218)	TO-15	3.9 "Hg	15.1 psi
13A	SVMP-24-4(082218)	TO-15	4.5 "Hg	15.1 psi
14A	SVMP-18-3(082218)	TO-15	6.9 "Hg	14.5 psi
15A	SVMP-19-3(082218)	TO-15	3.3 "Hg	14.9 psi
16A	SVMP-20-3(082218)	TO-15	4.5 "Hg	14.8 psi
17A	SVMP-7-3.5(082318)	TO-15	4.3 "Hg	15.4 psi
18A	SVMP-6-4.5(082318)	TO-15	3.7 "Hg	14.9 psi
19A	DUP-1(082318)	TO-15	8.4 "Hg	14.9 psi
20A	SVMP-5-4.5(082318)	TO-15	3.9 "Hg	14.8 psi
21A	Lab Blank	TO-15	NA	NA
22A	CCV	TO-15	NA	NA
23A	LCS	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>
23AA	LCSD	TO-15	NA	NA

CERTIFIED BY: 
 Technical Director

DATE: 09/01/18

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
EPA Method TO-15
Arcadis U.S., Inc.
Workorder# 1808626

Twenty 1 Liter Summa Canister samples were received on August 27, 2018. The laboratory performed analysis via 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.

Receiving Notes

The Chain of Custody (COC) information for samples SVMP-23-3(082218) and SVMP-24-4(082218) did not match the entries on the sample tags with regard to sample identification. Therefore the information on the sample tags was used to process and report the samples.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Ten 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.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

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 EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SVMP-4-3.5(082318)

Lab ID#: 1808626-01A

No Detections Were Found.

Client Sample ID: SVMP-8-3.5(082318)

Lab ID#: 1808626-02A

No Detections Were Found.

Client Sample ID: SVMP-9-4(082318)

Lab ID#: 1808626-03A

No Detections Were Found.

Client Sample ID: SVMP-10-3(082318)

Lab ID#: 1808626-04A

No Detections Were Found.

Client Sample ID: SVMP-21-2(082418)

Lab ID#: 1808626-05A

No Detections Were Found.

Client Sample ID: SVMP-14-2(082418)

Lab ID#: 1808626-06A

No Detections Were Found.

Client Sample ID: SVMP-13-2(082418)

Lab ID#: 1808626-07A

No Detections Were Found.

Client Sample ID: SVMP-15-2(082418)

Lab ID#: 1808626-08A

No Detections Were Found.

Client Sample ID: SVMP-16-2(082418)

Lab ID#: 1808626-09A

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

Client Sample ID: SVMP-16-2(082418)

Lab ID#: 1808626-09A

No Detections Were Found.

Client Sample ID: SVMP-17-2(082418)

Lab ID#: 1808626-10A

No Detections Were Found.

Client Sample ID: SVMP-22-3(082118)

Lab ID#: 1808626-11A

No Detections Were Found.

Client Sample ID: SVMP-23-3(082218)

Lab ID#: 1808626-12A

No Detections Were Found.

Client Sample ID: SVMP-24-4(082218)

Lab ID#: 1808626-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	1.2	1.3	6.4	6.9

Client Sample ID: SVMP-18-3(082218)

Lab ID#: 1808626-14A

No Detections Were Found.

Client Sample ID: SVMP-19-3(082218)

Lab ID#: 1808626-15A

No Detections Were Found.

Client Sample ID: SVMP-20-3(082218)

Lab ID#: 1808626-16A

No Detections Were Found.



Air Toxics

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

Client Sample ID: SVMP-7-3.5(082318)

Lab ID#: 1808626-17A

No Detections Were Found.

Client Sample ID: SVMP-6-4.5(082318)

Lab ID#: 1808626-18A

No Detections Were Found.

Client Sample ID: DUP-1(082318)

Lab ID#: 1808626-19A

No Detections Were Found.

Client Sample ID: SVMP-5-4.5(082318)

Lab ID#: 1808626-20A

No Detections Were Found.



Air Toxics

Client Sample ID: SVMP-4-3.5(082318)

Lab ID#: 1808626-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083006	Date of Collection: 8/23/18 12:15:00 PM
Dil. Factor:	2.47	Date of Analysis: 8/30/18 03:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.6	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Tetrachloroethene	1.2	Not Detected	8.4	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: SVMP-8-3.5(082318)

Lab ID#: 1808626-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083007	Date of Collection: 8/23/18 1:22:00 PM
Dil. Factor:	2.42	Date of Analysis: 8/30/18 03:38 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Tetrachloroethene	1.2	Not Detected	8.2	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected

Container Type: 1 Liter Summa Canister

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



Air Toxics

Client Sample ID: SVMP-9-4(082318)

Lab ID#: 1808626-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083008	Date of Collection: 8/23/18 2:35:00 PM
Dil. Factor:	2.47	Date of Analysis: 8/30/18 04:04 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.6	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Tetrachloroethene	1.2	Not Detected	8.4	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: SVMP-10-3(082318)

Lab ID#: 1808626-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083009	Date of Collection:	8/23/18 3:35:00 PM
Dil. Factor:	2.47	Date of Analysis:	8/30/18 04:31 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.6	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Tetrachloroethene	1.2	Not Detected	8.4	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: SVMP-21-2(082418)

Lab ID#: 1808626-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083010	Date of Collection: 8/24/18 9:12:00 AM
Dil. Factor:	2.42	Date of Analysis: 8/30/18 04:57 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Tetrachloroethene	1.2	Not Detected	8.2	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: SVMP-14-2(082418)

Lab ID#: 1808626-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083011	Date of Collection:	8/24/18 10:16:00 AM
Dil. Factor:	2.38	Date of Analysis:	8/30/18 05:23 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Tetrachloroethene	1.2	Not Detected	8.1	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected

Container Type: 1 Liter Summa Canister

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



Air Toxics

Client Sample ID: SVMP-13-2(082418)

Lab ID#: 1808626-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083012	Date of Collection: 8/24/18 10:53:00 AM
Dil. Factor:	2.42	Date of Analysis: 8/30/18 05:50 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Tetrachloroethene	1.2	Not Detected	8.2	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: SVMP-15-2(082418)

Lab ID#: 1808626-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083013	Date of Collection:	8/24/18 12:20:00 PM
Dil. Factor:	2.42	Date of Analysis:	8/30/18 06:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Tetrachloroethene	1.2	Not Detected	8.2	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: SVMP-16-2(082418)

Lab ID#: 1808626-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083014	Date of Collection:	8/24/18 2:16:00 PM
Dil. Factor:	2.52	Date of Analysis:	8/30/18 06:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.3	Not Detected	3.2	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.0	Not Detected
cis-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Trichloroethene	1.3	Not Detected	6.8	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Tetrachloroethene	1.3	Not Detected	8.5	Not Detected
1,4-Dioxane	5.0	Not Detected	18	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: SVMP-17-2(082418)

Lab ID#: 1808626-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083015	Date of Collection: 8/24/18 2:50:00 PM
Dil. Factor:	2.47	Date of Analysis: 8/30/18 07:09 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.6	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Tetrachloroethene	1.2	Not Detected	8.4	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: SVMP-22-3(082118)

Lab ID#: 1808626-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083016	Date of Collection: 8/21/18 10:59:00 AM
Dil. Factor:	2.36	Date of Analysis: 8/30/18 09:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Tetrachloroethene	1.2	Not Detected	8.0	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: SVMP-23-3(082218)

Lab ID#: 1808626-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083017	Date of Collection: 8/22/18 1:12:00 PM
Dil. Factor:	2.33	Date of Analysis: 8/30/18 09:42 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Tetrachloroethene	1.2	Not Detected	7.9	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: SVMP-24-4(082218)

Lab ID#: 1808626-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083018	Date of Collection:	8/22/18 2:10:00 PM
Dil. Factor:	2.38	Date of Analysis:	8/30/18 10:08 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	1.3	6.4	6.9
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Tetrachloroethene	1.2	Not Detected	8.1	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected

Container Type: 1 Liter Summa Canister

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



Air Toxics

Client Sample ID: SVMP-18-3(082218)

Lab ID#: 1808626-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083019	Date of Collection:	8/22/18 3:10:00 PM
Dil. Factor:	2.58	Date of Analysis:	8/30/18 10:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.3	Not Detected	3.3	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.1	Not Detected
cis-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Trichloroethene	1.3	Not Detected	6.9	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Tetrachloroethene	1.3	Not Detected	8.8	Not Detected
1,4-Dioxane	5.2	Not Detected	18	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: SVMP-19-3(082218)

Lab ID#: 1808626-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083020	Date of Collection:	8/22/18 4:10:00 PM
Dil. Factor:	2.26	Date of Analysis:	8/30/18 11:01 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.5	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Trichloroethene	1.1	Not Detected	6.1	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Tetrachloroethene	1.1	Not Detected	7.7	Not Detected
1,4-Dioxane	4.5	Not Detected	16	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: SVMP-20-3(082218)

Lab ID#: 1808626-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083021	Date of Collection:	8/22/18 5:10:00 PM
Dil. Factor:	2.36	Date of Analysis:	8/30/18 11:27 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Tetrachloroethene	1.2	Not Detected	8.0	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: SVMP-7-3.5(082318)

Lab ID#: 1808626-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083022	Date of Collection: 8/23/18 9:12:00 AM
Dil. Factor:	2.39	Date of Analysis: 8/30/18 11:54 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Tetrachloroethene	1.2	Not Detected	8.1	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: SVMP-6-4.5(082318)

Lab ID#: 1808626-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083023	Date of Collection:	8/23/18 10:30:00 AM
Dil. Factor:	2.30	Date of Analysis:	8/31/18 12:20 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	2.9	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Trichloroethene	1.2	Not Detected	6.2	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Tetrachloroethene	1.2	Not Detected	7.8	Not Detected
1,4-Dioxane	4.6	Not Detected	16	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: DUP-1(082318)

Lab ID#: 1808626-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083024	Date of Collection: 8/23/18
Dil. Factor:	2.80	Date of Analysis: 8/31/18 12:47 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.4	Not Detected	3.6	Not Detected
1,1-Dichloroethene	1.4	Not Detected	5.6	Not Detected
cis-1,2-Dichloroethene	1.4	Not Detected	5.6	Not Detected
Trichloroethene	1.4	Not Detected	7.5	Not Detected
trans-1,2-Dichloroethene	1.4	Not Detected	5.6	Not Detected
Tetrachloroethene	1.4	Not Detected	9.5	Not Detected
1,4-Dioxane	5.6	Not Detected	20	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: SVMP-5-4.5(082318)

Lab ID#: 1808626-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083025	Date of Collection: 8/23/18 10:55:00 AM
Dil. Factor:	2.31	Date of Analysis: 8/31/18 01:13 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Trichloroethene	1.2	Not Detected	6.2	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Tetrachloroethene	1.2	Not Detected	7.8	Not Detected
1,4-Dioxane	4.6	Not Detected	17	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1808626-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083005	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/30/18 12:42 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: CCV

Lab ID#: 1808626-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083002	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/30/18 10:55 AM

Compound	%Recovery
Vinyl Chloride	113
1,1-Dichloroethene	113
cis-1,2-Dichloroethene	112
Trichloroethene	108
trans-1,2-Dichloroethene	110
Tetrachloroethene	104
1,4-Dioxane	102

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	106	70-130

Client Sample ID: LCS

Lab ID#: 1808626-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/30/18 11:31 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	113	70-130
1,1-Dichloroethene	108	70-130
cis-1,2-Dichloroethene	101	70-130
Trichloroethene	107	70-130
trans-1,2-Dichloroethene	119	70-130
Tetrachloroethene	101	70-130
1,4-Dioxane	101	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: LCSD

Lab ID#: 1808626-23AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a083004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/30/18 11:55 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	116	70-130
1,1-Dichloroethene	111	70-130
cis-1,2-Dichloroethene	103	70-130
Trichloroethene	106	70-130
trans-1,2-Dichloroethene	122	70-130
Tetrachloroethene	104	70-130
1,4-Dioxane	105	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	107	70-130