

ANALYTICAL REPORT

PREPARED FOR

Attn: Kristoffer Hinskey
ARCADIS US Inc
28550 Cabot Drive
Suite 500
Novi, Michigan 48377

Generated 8/30/2023 5:03:33 AM

JOB DESCRIPTION

Ford LTP - On Site

JOB NUMBER

240-190410-1

Eurofins Cleveland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization



Generated
8/30/2023 5:03:33 AM

Authorized for release by
Michael DelMonico, Project Manager I
Michael.DelMonico@et.eurofinsus.com
(330)497-9396

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Method Summary	6
Sample Summary	7
Detection Summary	8
Client Sample Results	9
Surrogate Summary	12
QC Sample Results	13
QC Association Summary	18
Lab Chronicle	19
Certification Summary	20
Chain of Custody	21

Definitions/Glossary

Client: ARCADIS US Inc
Project/Site: Ford LTP - On Site

Job ID: 240-190410-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: ARCADIS US Inc
Project/Site: Ford LTP - On Site

Job ID: 240-190410-1

Job ID: 240-190410-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative 240-190410-1

Receipt

The samples were received on 8/18/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.5°C

GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) analyzed in batch 585087 was outside the method criteria for the following analyte(s): Vinyl chloride. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260D: The laboratory control sample (LCS) analyzed in batch 585087 was below the recovery control criteria for the following analyte(s): Vinyl Chloride. This variance only affects results measured above the reporting limit. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. This demonstrates the analyte reporting limit is valid, and it is acceptable to report ND results (non-detects). The samples associated with the LCS were non-detects for the affected analytes; therefore, the results were reported. The following samples are impacted: MW-220S_081623 (240-190410-2) and (LCS 240-585087/4). MW-220S_081623 (240-190410-2) and (LCS 240-585087/4)

Method 8260D: The continuing calibration verification (CCV) analyzed in batch 585139 was outside the method criteria for the following analyte(s): Vinyl chloride. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260D: This trip blank was contaminated a day earlier with cis-1,2-dichloroethene due to an over range sample run previous to it. The same vial was analyzed the next day (insufficient sample, only 1 vial).TRIP BLANK_90 (240-190410-1)

Method 8260D: The method blank associated with 585304 contained cis-1,2-Dichloroethene greater than one-half the reporting limit (RL). The samples were not re-analyzed because of sample load. The sample results have been qualified and reported.

Method 8260D: The continuing calibration verification (CCV) analyzed in batch 585304 was outside the method criteria for the following analyte(s): Vinyl chloride. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: ARCADIS US Inc
Project/Site: Ford LTP - On Site

Job ID: 240-190410-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CLE
8260D SIM	Volatile Organic Compounds (GC/MS)	SW846	EET CLE
5030C	Purge and Trap	SW846	EET CLE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Sample Summary

Client: ARCADIS US Inc
Project/Site: Ford LTP - On Site

Job ID: 240-190410-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-190410-1	TRIP BLANK_90	Water	08/16/23 00:00	08/18/23 08:00
240-190410-2	MW-220S_081623	Water	08/16/23 10:05	08/18/23 08:00
240-190410-3	MW-69_081623	Water	08/16/23 12:38	08/18/23 08:00

Detection Summary

Client: ARCADIS US Inc
Project/Site: Ford LTP - On Site

Job ID: 240-190410-1

Client Sample ID: TRIP BLANK_90

Lab Sample ID: 240-190410-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	4.7	B	1.0	0.46	ug/L	1		8260D	Total/NA
Vinyl chloride	0.58	J	1.0	0.45	ug/L	1		8260D	Total/NA

Client Sample ID: MW-220S_081623

Lab Sample ID: 240-190410-2

No Detections.

Client Sample ID: MW-69_081623

Lab Sample ID: 240-190410-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	11		2.0	0.86	ug/L	1		8260D SIM	Total/NA
Vinyl chloride	0.59	J	1.0	0.45	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: ARCADIS US Inc
Project/Site: Ford LTP - On Site

Job ID: 240-190410-1

Client Sample ID: TRIP BLANK_90

Lab Sample ID: 240-190410-1

Matrix: Water

Date Collected: 08/16/23 00:00
Date Received: 08/18/23 08:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			08/28/23 12:19	1
cis-1,2-Dichloroethene	4.7	B	1.0	0.46	ug/L			08/28/23 12:19	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			08/28/23 12:19	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			08/28/23 12:19	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			08/28/23 12:19	1
Vinyl chloride	0.58	J	1.0	0.45	ug/L			08/28/23 12:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		62 - 137		08/28/23 12:19	1
4-Bromofluorobenzene (Surr)	92		56 - 136		08/28/23 12:19	1
Toluene-d8 (Surr)	99		78 - 122		08/28/23 12:19	1
Dibromofluoromethane (Surr)	98		73 - 120		08/28/23 12:19	1

Client Sample Results

Client: ARCADIS US Inc
Project/Site: Ford LTP - On Site

Job ID: 240-190410-1

Client Sample ID: MW-220S_081623

Lab Sample ID: 240-190410-2

Matrix: Water

Date Collected: 08/16/23 10:05
Date Received: 08/18/23 08:00

Method: SW846 8260D SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			08/25/23 20:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		66 - 120					08/25/23 20:28	1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			08/25/23 02:30	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			08/25/23 02:30	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			08/25/23 02:30	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			08/25/23 02:30	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			08/25/23 02:30	1
Vinyl chloride	1.0	U *-	1.0	0.45	ug/L			08/25/23 02:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		62 - 137					08/25/23 02:30	1
4-Bromofluorobenzene (Surr)	95		56 - 136					08/25/23 02:30	1
Toluene-d8 (Surr)	99		78 - 122					08/25/23 02:30	1
Dibromofluoromethane (Surr)	97		73 - 120					08/25/23 02:30	1

Client Sample Results

Client: ARCADIS US Inc
Project/Site: Ford LTP - On Site

Job ID: 240-190410-1

Client Sample ID: MW-69_081623

Lab Sample ID: 240-190410-3

Matrix: Water

Date Collected: 08/16/23 12:38
Date Received: 08/18/23 08:00

Method: SW846 8260D SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	11		2.0	0.86	ug/L			08/25/23 20:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		66 - 120					08/25/23 20:52	1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			08/25/23 13:23	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			08/25/23 13:23	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			08/25/23 13:23	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			08/25/23 13:23	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			08/25/23 13:23	1
Vinyl chloride	0.59	J	1.0	0.45	ug/L			08/25/23 13:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		62 - 137					08/25/23 13:23	1
4-Bromofluorobenzene (Surr)	91		56 - 136					08/25/23 13:23	1
Toluene-d8 (Surr)	98		78 - 122					08/25/23 13:23	1
Dibromofluoromethane (Surr)	96		73 - 120					08/25/23 13:23	1

Surrogate Summary

Client: ARCADIS US Inc
Project/Site: Ford LTP - On Site

Job ID: 240-190410-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (62-137)	BFB (56-136)	TOL (78-122)	DBFM (73-120)
240-190359-D-1 MS	Matrix Spike	88	94	100	100
240-190359-F-1 MSD	Matrix Spike Duplicate	87	93	101	98
240-190407-B-4 MS	Matrix Spike	92	100	103	98
240-190407-B-4 MSD	Matrix Spike Duplicate	91	97	99	99
240-190408-E-3 MS	Matrix Spike	93	97	101	100
240-190408-G-3 MSD	Matrix Spike Duplicate	94	100	103	98
240-190410-1	TRIP BLANK_90	90	92	99	98
240-190410-2	MW-220S_081623	95	95	99	97
240-190410-3	MW-69_081623	93	91	98	96
LCS 240-585087/4	Lab Control Sample	93	99	100	100
LCS 240-585139/4	Lab Control Sample	92	94	100	98
LCS 240-585304/4	Lab Control Sample	87	94	101	99
MB 240-585087/7	Method Blank	94	92	99	95
MB 240-585139/7	Method Blank	94	93	100	98
MB 240-585304/7	Method Blank	89	89	101	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

Method: 8260D SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (66-120)			
240-190229-C-3 MS	Matrix Spike	111			
240-190229-C-3 MSD	Matrix Spike Duplicate	111			
240-190410-2	MW-220S_081623	101			
240-190410-3	MW-69_081623	95			
LCS 240-585153/5	Lab Control Sample	100			
MB 240-585153/7	Method Blank	108			

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

Eurofins Cleveland

QC Sample Results

Client: ARCADIS US Inc
Project/Site: Ford LTP - On Site

Job ID: 240-190410-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 240-585087/7

Matrix: Water

Analysis Batch: 585087

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			08/25/23 00:50	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			08/25/23 00:50	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			08/25/23 00:50	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			08/25/23 00:50	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			08/25/23 00:50	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/25/23 00:50	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	94		62 - 137			1
4-Bromofluorobenzene (Surr)	92		56 - 136			1
Toluene-d8 (Surr)	99		78 - 122			1
Dibromofluoromethane (Surr)	95		73 - 120			1

Lab Sample ID: LCS 240-585087/4

Matrix: Water

Analysis Batch: 585087

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
	Added							
1,1-Dichloroethene	25.0		24.1		ug/L		96	63 - 134
cis-1,2-Dichloroethene	25.0		22.7		ug/L		91	77 - 123
Tetrachloroethene	25.0		22.3		ug/L		89	76 - 123
trans-1,2-Dichloroethene	25.0		21.9		ug/L		87	75 - 124
Trichloroethene	25.0		22.5		ug/L		90	70 - 122
Vinyl chloride	12.5		6.79	*-	ug/L		54	60 - 144

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	93		62 - 137
4-Bromofluorobenzene (Surr)	99		56 - 136
Toluene-d8 (Surr)	100		78 - 122
Dibromofluoromethane (Surr)	100		73 - 120

Lab Sample ID: 240-190408-E-3 MS

Matrix: Water

Analysis Batch: 585087

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample		Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
	Result	Qualifier							
1,1-Dichloroethene	1.0	U	25.0	24.1		ug/L		96	56 - 135
cis-1,2-Dichloroethene	1.0	U	25.0	23.7		ug/L		95	66 - 128
Tetrachloroethene	1.0	U	25.0	21.1		ug/L		85	62 - 131
trans-1,2-Dichloroethene	1.0	U	25.0	22.2		ug/L		89	56 - 136
Trichloroethene	1.0	U	25.0	21.3		ug/L		85	61 - 124
Vinyl chloride	1.0	U *-	12.5	8.07		ug/L		65	43 - 157

Surrogate	MS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	93		62 - 137
4-Bromofluorobenzene (Surr)	97		56 - 136
Toluene-d8 (Surr)	101		78 - 122

Eurofins Cleveland

QC Sample Results

Client: ARCADIS US Inc
Project/Site: Ford LTP - On Site

Job ID: 240-190410-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 240-190408-E-3 MS

Matrix: Water

Analysis Batch: 585087

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Surrogate	MS	MS
	%Recovery	Qualifier
Dibromofluoromethane (Surr)	100	Limits 73 - 120

Lab Sample ID: 240-190408-G-3 MSD

Matrix: Water

Analysis Batch: 585087

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
1,1-Dichloroethene	1.0	U	25.0	24.2		ug/L		97	56 - 135	0	26
cis-1,2-Dichloroethene	1.0	U	25.0	23.8		ug/L		95	66 - 128	0	14
Tetrachloroethene	1.0	U	25.0	21.7		ug/L		87	62 - 131	2	20
trans-1,2-Dichloroethene	1.0	U	25.0	22.3		ug/L		89	56 - 136	0	15
Trichloroethene	1.0	U	25.0	21.7		ug/L		87	61 - 124	2	15
Vinyl chloride	1.0	U *-	12.5	8.17		ug/L		65	43 - 157	1	24

Surrogate	MSD	MSD
	%Recovery	Qualifier
1,2-Dichloroethane-d4 (Surr)	94	Limits 62 - 137
4-Bromofluorobenzene (Surr)	100	56 - 136
Toluene-d8 (Surr)	103	78 - 122
Dibromofluoromethane (Surr)	98	73 - 120

Lab Sample ID: MB 240-585139/7

Matrix: Water

Analysis Batch: 585139

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			08/25/23 12:33	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			08/25/23 12:33	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			08/25/23 12:33	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			08/25/23 12:33	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			08/25/23 12:33	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/25/23 12:33	1

Surrogate	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2-Dichloroethane-d4 (Surr)	94		62 - 137					08/25/23 12:33	1
4-Bromofluorobenzene (Surr)	93		56 - 136					08/25/23 12:33	1
Toluene-d8 (Surr)	100		78 - 122					08/25/23 12:33	1
Dibromofluoromethane (Surr)	98		73 - 120					08/25/23 12:33	1

Lab Sample ID: LCS 240-585139/4

Matrix: Water

Analysis Batch: 585139

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1-Dichloroethene	25.0	27.1		ug/L		108	63 - 134
cis-1,2-Dichloroethene	25.0	25.9		ug/L		104	77 - 123
Tetrachloroethene	25.0	27.0		ug/L		108	76 - 123
trans-1,2-Dichloroethene	25.0	25.0		ug/L		100	75 - 124
Trichloroethene	25.0	25.5		ug/L		102	70 - 122

Eurofins Cleveland

QC Sample Results

Client: ARCADIS US Inc
Project/Site: Ford LTP - On Site

Job ID: 240-190410-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 240-585139/4

Matrix: Water

Analysis Batch: 585139

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte		Spike	LCS	LCS	Unit	D	%Rec	Limits
		Added	Result	Qualifier				
Vinyl chloride		12.5	8.83		ug/L	71	60 - 144	
Surrogate								
1,2-Dichloroethane-d4 (Surr)	92		62 - 137					
4-Bromofluorobenzene (Surr)	94		56 - 136					
Toluene-d8 (Surr)	100		78 - 122					
Dibromofluoromethane (Surr)	98		73 - 120					

Lab Sample ID: 240-190407-B-4 MS

Matrix: Water

Analysis Batch: 585139

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
1,1-Dichloroethene	6.7	U	167	140		ug/L	84	56 - 135	
cis-1,2-Dichloroethene	9.5		167	188		ug/L	107	66 - 128	
Tetrachloroethene	6.7	U	167	150		ug/L	90	62 - 131	
trans-1,2-Dichloroethene	6.7	U F2	167	136		ug/L	82	56 - 136	
Trichloroethene	6.7	U F2	167	136		ug/L	82	61 - 124	
Vinyl chloride	170	F1	83.3	198	F1	ug/L	38	43 - 157	
Surrogate									
1,2-Dichloroethane-d4 (Surr)	92		62 - 137						
4-Bromofluorobenzene (Surr)	100		56 - 136						
Toluene-d8 (Surr)	103		78 - 122						
Dibromofluoromethane (Surr)	98		73 - 120						

Lab Sample ID: 240-190407-B-4 MSD

Matrix: Water

Analysis Batch: 585139

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
1,1-Dichloroethene	6.7	U	167	172		ug/L	103	56 - 135	20	26	
cis-1,2-Dichloroethene	9.5		167	197		ug/L	113	66 - 128	5	14	
Tetrachloroethene	6.7	U	167	176		ug/L	106	62 - 131	16	20	
trans-1,2-Dichloroethene	6.7	U F2	167	160	F2	ug/L	96	56 - 136	16	15	
Trichloroethene	6.7	U F2	167	165	F2	ug/L	99	61 - 124	19	15	
Vinyl chloride	170	F1	83.3	231		ug/L	78	43 - 157	16	24	
Surrogate											
1,2-Dichloroethane-d4 (Surr)	91		62 - 137								
4-Bromofluorobenzene (Surr)	97		56 - 136								
Toluene-d8 (Surr)	99		78 - 122								
Dibromofluoromethane (Surr)	99		73 - 120								

Eurofins Cleveland

QC Sample Results

Client: ARCADIS US Inc
Project/Site: Ford LTP - On Site

Job ID: 240-190410-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 240-585304/7

Matrix: Water

Analysis Batch: 585304

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			08/28/23 11:28	1
cis-1,2-Dichloroethene	0.842	J	1.0	0.46	ug/L			08/28/23 11:28	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			08/28/23 11:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			08/28/23 11:28	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			08/28/23 11:28	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/28/23 11:28	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	89		62 - 137		08/28/23 11:28	1
4-Bromofluorobenzene (Surr)	89		56 - 136		08/28/23 11:28	1
Toluene-d8 (Surr)	101		78 - 122		08/28/23 11:28	1
Dibromofluoromethane (Surr)	99		73 - 120		08/28/23 11:28	1

Lab Sample ID: LCS 240-585304/4

Matrix: Water

Analysis Batch: 585304

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
	Added							
1,1-Dichloroethene	25.0		26.8		ug/L		107	63 - 134
cis-1,2-Dichloroethene	25.0		26.3		ug/L		105	77 - 123
Tetrachloroethene	25.0		25.8		ug/L		103	76 - 123
trans-1,2-Dichloroethene	25.0		25.0		ug/L		100	75 - 124
Trichloroethene	25.0		24.3		ug/L		97	70 - 122
Vinyl chloride	12.5		9.67		ug/L		77	60 - 144

Surrogate	LCS		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	87		62 - 137			
4-Bromofluorobenzene (Surr)	94		56 - 136			
Toluene-d8 (Surr)	101		78 - 122			
Dibromofluoromethane (Surr)	99		73 - 120			

Lab Sample ID: 240-190359-D-1 MS

Matrix: Water

Analysis Batch: 585304

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Surrogate	MS		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	88		62 - 137			
4-Bromofluorobenzene (Surr)	94		56 - 136			
Toluene-d8 (Surr)	100		78 - 122			
Dibromofluoromethane (Surr)	100		73 - 120			

Lab Sample ID: 240-190359-F-1 MSD

Matrix: Water

Analysis Batch: 585304

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Surrogate	MSD		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	87		62 - 137			

Eurofins Cleveland

QC Sample Results

Client: ARCADIS US Inc
Project/Site: Ford LTP - On Site

Job ID: 240-190410-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 240-190359-F-1 MSD

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 585304

Surrogate	MSD	MSD	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	93				56 - 136
Toluene-d8 (Surr)	101				78 - 122
Dibromofluoromethane (Surr)	98				73 - 120

Method: 8260D SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-585153/7

Client Sample ID: Method Blank
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 585153

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane			2.0	U		2.0	0.86	ug/L		08/25/23 12:00	1
Surrogate	MB	MB	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)			108		66 - 120					08/25/23 12:00	1

Lab Sample ID: LCS 240-585153/5

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 585153

Analyte	LCS	LCS	Spike	Result	LCS	Result	Qualifer	Unit	D	%Rec	%Rec
1,4-Dioxane			Added	10.0		9.06		ug/L		91	80 - 122
Surrogate	LCS	LCS	%Recovery	Qualifier	Limits					Limits	
1,2-Dichloroethane-d4 (Surr)			100		66 - 120						

Lab Sample ID: 240-190229-C-3 MS

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 585153

Analyte	Sample	Sample	Spike	MS	MS	%Rec	RPD
1,4-Dioxane	Result	Qualifier	Added	Result	Qualifier	Unit	Limit
1,4-Dioxane	2.0	U	10.0	10.2		ug/L	102
Surrogate	MS	MS	%Recovery	Qualifier	Limits		
1,2-Dichloroethane-d4 (Surr)			111		66 - 120		

Lab Sample ID: 240-190229-C-3 MSD

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 585153

Analyte	Sample	Sample	Spike	MSD	MSD	%Rec	RPD
1,4-Dioxane	Result	Qualifier	Added	Result	Qualifier	Unit	Limit
1,4-Dioxane	2.0	U	10.0	10.6		ug/L	106
Surrogate	MSD	MSD	%Recovery	Qualifier	Limits		
1,2-Dichloroethane-d4 (Surr)			111		66 - 120		

Eurofins Cleveland

QC Association Summary

Client: ARCADIS US Inc
Project/Site: Ford LTP - On Site

Job ID: 240-190410-1

GC/MS VOA

Analysis Batch: 585087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190410-2	MW-220S_081623	Total/NA	Water	8260D	
MB 240-585087/7	Method Blank	Total/NA	Water	8260D	
LCS 240-585087/4	Lab Control Sample	Total/NA	Water	8260D	
240-190408-E-3 MS	Matrix Spike	Total/NA	Water	8260D	
240-190408-G-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

Analysis Batch: 585139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190410-3	MW-69_081623	Total/NA	Water	8260D	
MB 240-585139/7	Method Blank	Total/NA	Water	8260D	
LCS 240-585139/4	Lab Control Sample	Total/NA	Water	8260D	
240-190407-B-4 MS	Matrix Spike	Total/NA	Water	8260D	
240-190407-B-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

Analysis Batch: 585153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190410-2	MW-220S_081623	Total/NA	Water	8260D SIM	
240-190410-3	MW-69_081623	Total/NA	Water	8260D SIM	
MB 240-585153/7	Method Blank	Total/NA	Water	8260D SIM	
LCS 240-585153/5	Lab Control Sample	Total/NA	Water	8260D SIM	
240-190229-C-3 MS	Matrix Spike	Total/NA	Water	8260D SIM	
240-190229-C-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D SIM	

Analysis Batch: 585304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190410-1	TRIP BLANK_90	Total/NA	Water	8260D	
MB 240-585304/7	Method Blank	Total/NA	Water	8260D	
LCS 240-585304/4	Lab Control Sample	Total/NA	Water	8260D	
240-190359-D-1 MS	Matrix Spike	Total/NA	Water	8260D	
240-190359-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

Lab Chronicle

Client: ARCADIS US Inc
Project/Site: Ford LTP - On Site

Job ID: 240-190410-1

Client Sample ID: TRIP BLANK_90

Lab Sample ID: 240-190410-1

Matrix: Water

Date Collected: 08/16/23 00:00
Date Received: 08/18/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	585304	LEE	EET CLE	08/28/23 12:19

Client Sample ID: MW-220S_081623

Lab Sample ID: 240-190410-2

Matrix: Water

Date Collected: 08/16/23 10:05
Date Received: 08/18/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	585087	LEE	EET CLE	08/25/23 02:30
Total/NA	Analysis	8260D SIM		1	585153	MRL	EET CLE	08/25/23 20:28

Client Sample ID: MW-69_081623

Lab Sample ID: 240-190410-3

Matrix: Water

Date Collected: 08/16/23 12:38
Date Received: 08/18/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	585139	LEE	EET CLE	08/25/23 13:23
Total/NA	Analysis	8260D SIM		1	585153	MRL	EET CLE	08/25/23 20:52

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Eurofins Cleveland

Accreditation/Certification Summary

Client: ARCADIS US Inc
Project/Site: Ford LTP - On Site

Job ID: 240-190410-1

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23 *
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-23
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	12-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Barberton Facility

Client	Arcadis	Site Name				Cooler unpacked by:
Cooler Received on	8-18-23	Opened on	8-18-23			Nancy Lyle
FedEx: 1 st Grd Exp UPS FAS Waypoint		Client Drop Off	Eurofins Courier	Other		
Receipt After-hours: Drop-off Date/Time			Storage Location			

Eurofins Cooler #	FC	Foam Box	Client Cooler	Box	Other	
Packing material used:	Bubble Wrap	Foam	Plastic Bag	None	Other	
COOLANT:	Wet Ice	Blue Ice	Dry Ice	Water	None	
1. Cooler temperature upon receipt	<input type="checkbox"/> See Multiple Cooler Form					
IR GUN #	22	(CF	-0.1	°C)	Observed Cooler Temp.	0.6 °C Corrected Cooler Temp. 0.5 °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity	1	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	Tests that are not checked for pH by Receiving:	
-Were the seals on the outside of the cooler(s) signed & dated?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	VOAs	
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/McHg)?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	Oil and Grease	
-Were tamper/custody seals intact and uncompromised?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	TOC	
3. Shippers' packing slip attached to the cooler(s)?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA		
4. Did custody papers accompany the sample(s)?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA		
5. Were the custody papers relinquished & signed in the appropriate place?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA		
6. Was/were the person(s) who collected the samples clearly identified on the COC?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA		
7. Did all bottles arrive in good condition (Unbroken)?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA		
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA		
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA		
10. Were correct bottle(s) used for the test(s) indicated?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA		
11. Sufficient quantity received to perform indicated analyses?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA		
12. Are these work share samples and all listed on the COC?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA		
If yes, Questions 13-17 have been checked at the originating laboratory.						
13. Were all preserved sample(s) at the correct pH upon receipt?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	pH Strip Lot# HC312502	
14. Were VOAs on the COC?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA		
15. Were air bubbles >6 mm in any VOA vials? <input checked="" type="checkbox"/> Larger than this.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA		
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Covered	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA		
17. Was a LL Hg or Me Hg trip blank present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA		

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

DATA VERIFICATION REPORT



August 30, 2023

Kris Hinskey
Arcadis of Michigan
28550 Cabot Drive
Suite 500
Novi, MI US 48377

CADENA project ID: E203728
Project: Ford Livonia Transmission Plant - ON-SITE -Soil Gas, Ground water and Soil
Project number: 30167538.401.03- onsite groundwater
Event Specific Scope of Work References: Sample COC
Laboratory: Eurofins Environment Testing LLC - Cleveland
Laboratory submittal: 190410-1
Sample date: 2023-08-16
Report received by CADENA: 2023-08-30
Initial Data Verification completed by CADENA: 2023-08-30
Number of Samples:3
Sample Matrices: Water
Test Categories: GCMS VOC
Please see attached criteria report or sample result/qualified analytical result summary for qualifier flags assigned to sample data.

The following minor QC exceptions or missing information were noted:

TBK – GCMS VOC TRIP blank had detections above/below the RL for the following analytes: CIS-1,2-DICHLOROETHENE/VINYL CHOLRIDE. The following client sample results should be considered to be non-detect at the RL and qualified with UB flags: VINYL CHOLRIDE -003.

LCS - GCMS VOC QC batch LCS recovery was outlying biased low for the following analyte: VINYL CHLORIDE. The following client sample results should be considered to be estimated and qualified with UJ flags if non-detect: -002.

GCMS VOC QC batch method blank had a detection below the RL for the following analyte: CIS-1,2-DICHLOROETHENE. Qualification of client sample results was not required based on this method blank detection.

GCMS VOC QC batch MS/MSD recovery outliers were not determined using a client sample so qualification was not required based on these sample-specific QC outliers.

GCMS VOC QC batch CCV response outliers as noted in the laboratory submittal case narrative were not used to qualify client sample results as part of this level 2 data package verification review.

Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Data verification for the report specified above was completed using the Ford Motor Company Environmental Laboratory Technical Specification, the CADENA Standard Operating Procedure for the Verification of

Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

The definitions of the qualifiers used for this data package are defined in the analytical report. CADENA valid qualifiers are defined in the table below. To view and download a PDF copy of the laboratory analytical report access the CADENA CLMS at <http://clms.cadenaco.com/index.cfm>.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

CADENA Inc, 1099 Highland Drive, Suite E, Ann Arbor, MI 48108 517-819-0356

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
J-	The result is an estimated quantity, but the result may be biased low.
JB	NON-DETECT AT THE CONCENTRATION REPORTED AND ESTIMATED
JH	The sample result is considered estimated and is potentially biased high.
JL	The sample result is considered estimated and is potentially biased low.
JUB	NON-DETECT AT THE REPORTING LIMIT AND ESTIMATED
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
TNTC	Too Numerous to Count - Asbestos and Microbiological Results.
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

Qualified Results Summary

CADENA Project ID: E203728

Laboratory: Eurofins Environment Testing LLC - Cleveland

Laboratory Submittal: 190410-1

		Sample Name:	MW-220S_081623		MW-69_081623		
		Lab Sample ID:	2401904102		2401904103		
		Sample Date:	8/16/2023		8/16/2023		
	Analyte	Cas No.	Report Result	Valid Limit	Report Result	Valid Limit	Report Units
			Result	Units	Qualifier	Result	Units Qualifier
GC/MS VOC							
	<u>OSW-8260D</u>						
	Vinyl chloride	75-01-4	ND	1.0 ug/l	UJ	0.59	1.0 ug/l UB

Analytical Results Summary

CADENA Project ID: E203728

Laboratory: Eurofins Environment Testing LLC - Cleveland

Laboratory Submittal: 190410-1

Analyte	Sample Name: TRIP BLANK_90			MW-220S_081623			MW-69_081623				
	Lab Sample ID: 2401904101			2401904102			2401904103				
	Sample Date: 8/16/2023			8/16/2023			8/16/2023				
		Report	Valid	Report	Valid	Report	Valid	Report	Valid		
Analyte	Cas No.	Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier		
GC/MS VOC											
<u>OSW-8260D</u>											
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---		
cis-1,2-Dichloroethene	156-59-2	4.7	1.0	ug/l	---	ND	1.0	ug/l	---		
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---		
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---		
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---		
Vinyl chloride	75-01-4	0.58	1.0	ug/l	---	ND	1.0	ug/l	UJ		
<u>OSW-8260DSIM</u>											
1,4-Dioxane	123-91-1					ND	2.0	ug/l	---		
								11	2.0	ug/l	---