

ANALYTICAL REPORT

PREPARED FOR

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Generated 12/4/2023 9:04:24 AM

JOB DESCRIPTION

Ford LTP - On Site

JOB NUMBER

240-195974-1

Eurofins Cleveland

Job Notes

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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



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Definitions/Glossary

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

Job ID: 240-195974-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
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.
α	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: 240-195974-1

Job ID: 240-195974-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative 240-195974-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 11/25/2023 10:00 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 2.7°C

GC/MS VOA

Method 8260D: The method requirement for no headspace was not met. The following volatile sample was analyzed with headspace in the sample container(s): MW-10_112123 (240-195974-3) and MW-56_112123 (240-195974-5).

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: 240-195974-1

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

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- 10
- 11
- 12
- 13
- 14

Sample Summary

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

Job ID: 240-195974-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-195974-1	TRIP BLANK_109	Water	11/21/23 00:00	11/25/23 10:00
240-195974-2	MW-04_112123	Water	11/21/23 11:52	11/25/23 10:00
240-195974-3	MW-10_112123	Water	11/21/23 10:36	11/25/23 10:00
240-195974-4	MW-03_112123	Water	11/21/23 12:52	11/25/23 10:00
240-195974-5	MW-56_112123	Water	11/21/23 15:11	11/25/23 10:00

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- 10
- 11
- 12
- 13
- 14

Detection Summary

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

Job ID: 240-195974-1

Client Sample ID: TRIP BLANK_109

Lab Sample ID: 240-195974-1

No Detections.

Client Sample ID: MW-04_112123

Lab Sample ID: 240-195974-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	1.3	J	2.0	0.86	ug/L	1		8260D SIM	Total/NA
cis-1,2-Dichloroethene	8200		200	92	ug/L	200		8260D	Total/NA
trans-1,2-Dichloroethene	230		200	100	ug/L	200		8260D	Total/NA
Trichloroethene	430		200	88	ug/L	200		8260D	Total/NA
Vinyl chloride	1600		200	90	ug/L	200		8260D	Total/NA

Client Sample ID: MW-10_112123

Lab Sample ID: 240-195974-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	4.4		2.0	0.86	ug/L	1		8260D SIM	Total/NA
Vinyl chloride	4600		100	45	ug/L	100		8260D	Total/NA

Client Sample ID: MW-03_112123

Lab Sample ID: 240-195974-4

No Detections.

Client Sample ID: MW-56_112123

Lab Sample ID: 240-195974-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.89	J	2.0	0.86	ug/L	1		8260D SIM	Total/NA
cis-1,2-Dichloroethene	1.3		1.0	0.46	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 240-195974-1

Client Sample ID: TRIP BLANK_109

Lab Sample ID: 240-195974-1

Date Collected: 11/21/23 00:00

Matrix: Water

Date Received: 11/25/23 10:00

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			11/28/23 17:57	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/28/23 17:57	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/28/23 17:57	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/28/23 17:57	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/28/23 17:57	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/28/23 17:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		62 - 137		11/28/23 17:57	1
4-Bromofluorobenzene (Surr)	102		56 - 136		11/28/23 17:57	1
Toluene-d8 (Surr)	104		78 - 122		11/28/23 17:57	1
Dibromofluoromethane (Surr)	104		73 - 120		11/28/23 17:57	1

Client Sample Results

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

Job ID: 240-195974-1

Client Sample ID: MW-04_112123

Lab Sample ID: 240-195974-2

Date Collected: 11/21/23 11:52

Matrix: Water

Date Received: 11/25/23 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.3	J	2.0	0.86	ug/L			11/30/23 00:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		66 - 120					11/30/23 00:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	200	U	200	98	ug/L			11/29/23 17:24	200
cis-1,2-Dichloroethene	8200		200	92	ug/L			11/29/23 17:24	200
Tetrachloroethene	200	U	200	88	ug/L			11/29/23 17:24	200
trans-1,2-Dichloroethene	230		200	100	ug/L			11/29/23 17:24	200
Trichloroethene	430		200	88	ug/L			11/29/23 17:24	200
Vinyl chloride	1600		200	90	ug/L			11/29/23 17:24	200
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		62 - 137					11/29/23 17:24	200
4-Bromofluorobenzene (Surr)	110		56 - 136					11/29/23 17:24	200
Toluene-d8 (Surr)	111		78 - 122					11/29/23 17:24	200
Dibromofluoromethane (Surr)	112		73 - 120					11/29/23 17:24	200

Client Sample Results

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

Job ID: 240-195974-1

Client Sample ID: MW-10_112123

Lab Sample ID: 240-195974-3

Date Collected: 11/21/23 10:36

Matrix: Water

Date Received: 11/25/23 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	4.4		2.0	0.86	ug/L			11/30/23 00:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		66 - 120					11/30/23 00:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	50	U	50	25	ug/L			11/29/23 17:48	50
cis-1,2-Dichloroethene	50	U	50	23	ug/L			11/29/23 17:48	50
Tetrachloroethene	50	U	50	22	ug/L			11/29/23 17:48	50
trans-1,2-Dichloroethene	50	U	50	26	ug/L			11/29/23 17:48	50
Trichloroethene	50	U	50	22	ug/L			11/29/23 17:48	50
Vinyl chloride	4600		100	45	ug/L			11/30/23 17:40	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	115		62 - 137					11/29/23 17:48	50
1,2-Dichloroethane-d4 (Surr)	117		62 - 137					11/30/23 17:40	100
4-Bromofluorobenzene (Surr)	105		56 - 136					11/29/23 17:48	50
4-Bromofluorobenzene (Surr)	101		56 - 136					11/30/23 17:40	100
Toluene-d8 (Surr)	107		78 - 122					11/29/23 17:48	50
Toluene-d8 (Surr)	102		78 - 122					11/30/23 17:40	100
Dibromofluoromethane (Surr)	110		73 - 120					11/29/23 17:48	50
Dibromofluoromethane (Surr)	107		73 - 120					11/30/23 17:40	100

Client Sample Results

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

Job ID: 240-195974-1

Client Sample ID: MW-03_112123

Lab Sample ID: 240-195974-4

Date Collected: 11/21/23 12:52

Matrix: Water

Date Received: 11/25/23 10:00

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			11/30/23 01:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		66 - 120					11/30/23 01:06	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			11/29/23 18:12	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/29/23 18:12	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/29/23 18:12	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/29/23 18:12	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/29/23 18:12	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/29/23 18:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	123		62 - 137					11/29/23 18:12	1
4-Bromofluorobenzene (Surr)	107		56 - 136					11/29/23 18:12	1
Toluene-d8 (Surr)	110		78 - 122					11/29/23 18:12	1
Dibromofluoromethane (Surr)	113		73 - 120					11/29/23 18:12	1

Client Sample Results

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

Job ID: 240-195974-1

Client Sample ID: MW-56_112123

Lab Sample ID: 240-195974-5

Date Collected: 11/21/23 15:11

Matrix: Water

Date Received: 11/25/23 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.89	J	2.0	0.86	ug/L			11/30/23 02:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		66 - 120					11/30/23 02:17	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			11/29/23 19:25	1
cis-1,2-Dichloroethene	1.3		1.0	0.46	ug/L			11/29/23 19:25	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/29/23 19:25	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/29/23 19:25	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/29/23 19:25	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/29/23 19:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	115		62 - 137					11/29/23 19:25	1
4-Bromofluorobenzene (Surr)	107		56 - 136					11/29/23 19:25	1
Toluene-d8 (Surr)	107		78 - 122					11/29/23 19:25	1
Dibromofluoromethane (Surr)	108		73 - 120					11/29/23 19:25	1

Surrogate Summary

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

Job ID: 240-195974-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (62-137)	BFB (56-136)	TOL (78-122)	DBFM (73-120)
240-195974-1	TRIP BLANK_109	111	102	104	104
240-195974-2	MW-04_112123	119	110	111	112
240-195974-3	MW-10_112123	115	105	107	110
240-195974-3	MW-10_112123	117	101	102	107
240-195974-4	MW-03_112123	123	107	110	113
240-195974-4 MS	MW-03-MS_112123	117	113	111	108
240-195974-4 MSD	MW-03-MSD_112123	117	113	110	108
240-195974-5	MW-56_112123	115	107	107	108
240-196062-C-4 MS	Matrix Spike	112	109	107	104
240-196062-C-4 MSD	Matrix Spike Duplicate	111	107	102	103
LCS 240-595968/5	Lab Control Sample	112	107	105	106
LCS 240-596084/5	Lab Control Sample	118	117	115	112
LCS 240-596202/5	Lab Control Sample	110	107	107	104
MB 240-595968/8	Method Blank	109	103	105	104
MB 240-596084/8	Method Blank	120	111	114	110
MB 240-596202/8	Method Blank	109	99	102	103

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

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA
		(66-120)
240-195974-2	MW-04_112123	110
240-195974-3	MW-10_112123	105
240-195974-4	MW-03_112123	107
240-195974-4 MS	MW-03-MS_112123	109
240-195974-4 MSD	MW-03-MSD_112123	108
240-195974-5	MW-56_112123	107
LCS 240-596116/4	Lab Control Sample	104
MB 240-596116/6	Method Blank	106

Surrogate Legend

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

QC Sample Results

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

Job ID: 240-195974-1

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

Lab Sample ID: MB 240-595968/8
Matrix: Water
Analysis Batch: 595968

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			11/28/23 17:09	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/28/23 17:09	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/28/23 17:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/28/23 17:09	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/28/23 17:09	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/28/23 17:09	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	109		62 - 137		11/28/23 17:09	1
4-Bromofluorobenzene (Surr)	103		56 - 136		11/28/23 17:09	1
Toluene-d8 (Surr)	105		78 - 122		11/28/23 17:09	1
Dibromofluoromethane (Surr)	104		73 - 120		11/28/23 17:09	1

Lab Sample ID: LCS 240-595968/5
Matrix: Water
Analysis Batch: 595968

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

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
1,1-Dichloroethene	25.0	23.1		ug/L		92	63 - 134
cis-1,2-Dichloroethene	25.0	23.0		ug/L		92	77 - 123
Tetrachloroethene	25.0	21.7		ug/L		87	76 - 123
trans-1,2-Dichloroethene	25.0	23.1		ug/L		92	75 - 124
Trichloroethene	25.0	21.9		ug/L		88	70 - 122
Vinyl chloride	12.5	9.34		ug/L		75	60 - 144

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	112		62 - 137
4-Bromofluorobenzene (Surr)	107		56 - 136
Toluene-d8 (Surr)	105		78 - 122
Dibromofluoromethane (Surr)	106		73 - 120

Lab Sample ID: MB 240-596084/8
Matrix: Water
Analysis Batch: 596084

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			11/29/23 14:59	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/29/23 14:59	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/29/23 14:59	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/29/23 14:59	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/29/23 14:59	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/29/23 14:59	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	120		62 - 137		11/29/23 14:59	1
4-Bromofluorobenzene (Surr)	111		56 - 136		11/29/23 14:59	1
Toluene-d8 (Surr)	114		78 - 122		11/29/23 14:59	1

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QC Sample Results

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

Job ID: 240-195974-1

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

Lab Sample ID: MB 240-596084/8
Matrix: Water
Analysis Batch: 596084

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

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Dibromofluoromethane (Surr)</i>	110		73 - 120		11/29/23 14:59	1

Lab Sample ID: LCS 240-596084/5
Matrix: Water
Analysis Batch: 596084

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

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
1,1-Dichloroethene	25.0	23.9		ug/L		96	63 - 134
cis-1,2-Dichloroethene	25.0	22.6		ug/L		90	77 - 123
Tetrachloroethene	25.0	22.9		ug/L		92	76 - 123
trans-1,2-Dichloroethene	25.0	22.8		ug/L		91	75 - 124
Trichloroethene	25.0	22.1		ug/L		88	70 - 122
Vinyl chloride	12.5	8.98		ug/L		72	60 - 144

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	118		62 - 137
<i>4-Bromofluorobenzene (Surr)</i>	117		56 - 136
<i>Toluene-d8 (Surr)</i>	115		78 - 122
<i>Dibromofluoromethane (Surr)</i>	112		73 - 120

Lab Sample ID: 240-195974-4 MS
Matrix: Water
Analysis Batch: 596084

Client Sample ID: MW-03-MS_112123
Prep Type: Total/NA

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MS Result</i>	<i>MS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
1,1-Dichloroethene	1.0	U	25.0	22.8		ug/L		91	56 - 135
cis-1,2-Dichloroethene	1.0	U	25.0	23.0		ug/L		92	66 - 128
Tetrachloroethene	1.0	U	25.0	22.4		ug/L		90	62 - 131
trans-1,2-Dichloroethene	1.0	U	25.0	22.5		ug/L		90	56 - 136
Trichloroethene	1.0	U	25.0	21.6		ug/L		86	61 - 124
Vinyl chloride	1.0	U	12.5	9.26		ug/L		74	43 - 157

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	117		62 - 137
<i>4-Bromofluorobenzene (Surr)</i>	113		56 - 136
<i>Toluene-d8 (Surr)</i>	111		78 - 122
<i>Dibromofluoromethane (Surr)</i>	108		73 - 120

Lab Sample ID: 240-195974-4 MSD
Matrix: Water
Analysis Batch: 596084

Client Sample ID: MW-03-MSD_112123
Prep Type: Total/NA

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MSD Result</i>	<i>MSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
1,1-Dichloroethene	1.0	U	25.0	23.4		ug/L		94	56 - 135	3	26
cis-1,2-Dichloroethene	1.0	U	25.0	23.3		ug/L		93	66 - 128	1	14
Tetrachloroethene	1.0	U	25.0	23.0		ug/L		92	62 - 131	3	20
trans-1,2-Dichloroethene	1.0	U	25.0	22.5		ug/L		90	56 - 136	0	15
Trichloroethene	1.0	U	25.0	21.9		ug/L		87	61 - 124	1	15

Eurofins Cleveland

QC Sample Results

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

Job ID: 240-195974-1

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

Lab Sample ID: 240-195974-4 MSD

Client Sample ID: MW-03-MSD_112123

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 596084

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Vinyl chloride	1.0	U	12.5	9.17		ug/L		73	43 - 157	1	24
Surrogate	%Recovery	MSD Qualifier	MSD Limits								
1,2-Dichloroethane-d4 (Surr)	117		62 - 137								
4-Bromofluorobenzene (Surr)	113		56 - 136								
Toluene-d8 (Surr)	110		78 - 122								
Dibromofluoromethane (Surr)	108		73 - 120								

Lab Sample ID: MB 240-596202/8

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 596202

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			11/30/23 16:28	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/30/23 16:28	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/30/23 16:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/30/23 16:28	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/30/23 16:28	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/30/23 16:28	1
Surrogate	%Recovery	MB Qualifier	MB Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		62 - 137					11/30/23 16:28	1
4-Bromofluorobenzene (Surr)	99		56 - 136					11/30/23 16:28	1
Toluene-d8 (Surr)	102		78 - 122					11/30/23 16:28	1
Dibromofluoromethane (Surr)	103		73 - 120					11/30/23 16:28	1

Lab Sample ID: LCS 240-596202/5

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 596202

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	25.0	23.6		ug/L		94	63 - 134
cis-1,2-Dichloroethene	25.0	22.7		ug/L		91	77 - 123
Tetrachloroethene	25.0	23.0		ug/L		92	76 - 123
trans-1,2-Dichloroethene	25.0	23.0		ug/L		92	75 - 124
Trichloroethene	25.0	21.6		ug/L		86	70 - 122
Vinyl chloride	12.5	8.82		ug/L		71	60 - 144
Surrogate	%Recovery	LCS Qualifier	LCS Limits				
1,2-Dichloroethane-d4 (Surr)	110		62 - 137				
4-Bromofluorobenzene (Surr)	107		56 - 136				
Toluene-d8 (Surr)	107		78 - 122				
Dibromofluoromethane (Surr)	104		73 - 120				

Eurofins Cleveland

QC Sample Results

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

Job ID: 240-195974-1

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

Lab Sample ID: 240-196062-C-4 MS

Matrix: Water
Analysis Batch: 596202

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

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
1,1-Dichloroethene	20	U	500	450		ug/L		90		56 - 135
cis-1,2-Dichloroethene	50		500	499		ug/L		90		66 - 128
Tetrachloroethene	20	U	500	431		ug/L		86		62 - 131
trans-1,2-Dichloroethene	20	U	500	446		ug/L		89		56 - 136
Trichloroethene	450		500	858		ug/L		82		61 - 124
Vinyl chloride	20	U	250	174		ug/L		70		43 - 157
MS MS										
Surrogate	%Recovery	Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)	112		62 - 137							
4-Bromofluorobenzene (Surr)	109		56 - 136							
Toluene-d8 (Surr)	107		78 - 122							
Dibromofluoromethane (Surr)	104		73 - 120							

Lab Sample ID: 240-196062-C-4 MSD

Matrix: Water
Analysis Batch: 596202

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

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	Limits	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier							
1,1-Dichloroethene	20	U	500	437		ug/L		87		56 - 135	3	26
cis-1,2-Dichloroethene	50		500	496		ug/L		89		66 - 128	1	14
Tetrachloroethene	20	U	500	428		ug/L		86		62 - 131	1	20
trans-1,2-Dichloroethene	20	U	500	444		ug/L		89		56 - 136	1	15
Trichloroethene	450		500	815		ug/L		73		61 - 124	5	15
Vinyl chloride	20	U	250	173		ug/L		69		43 - 157	1	24
MSD MSD												
Surrogate	%Recovery	Qualifier	Limits									
1,2-Dichloroethane-d4 (Surr)	111		62 - 137									
4-Bromofluorobenzene (Surr)	107		56 - 136									
Toluene-d8 (Surr)	102		78 - 122									
Dibromofluoromethane (Surr)	103		73 - 120									

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

Lab Sample ID: MB 240-596116/6

Matrix: Water
Analysis Batch: 596116

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			11/29/23 19:46	1
MB MB									
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	106		66 - 120						

Eurofins Cleveland

QC Sample Results

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

Job ID: 240-195974-1

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

Lab Sample ID: LCS 240-596116/4
Matrix: Water
Analysis Batch: 596116

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	10.0	9.93		ug/L		99	80 - 122
LCS LCS							
Surrogate	%Recovery	Qualifier	Limits				
1,2-Dichloroethane-d4 (Surr)	104		66 - 120				

Lab Sample ID: 240-195974-4 MS
Matrix: Water
Analysis Batch: 596116

Client Sample ID: MW-03-MS_112123
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	2.0	U	10.0	10.1		ug/L		101	51 - 153
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	109		66 - 120						

Lab Sample ID: 240-195974-4 MSD
Matrix: Water
Analysis Batch: 596116

Client Sample ID: MW-03-MSD_112123
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	2.0	U	10.0	10.7		ug/L		107	51 - 153	5	16
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	108		66 - 120								

QC Association Summary

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

Job ID: 240-195974-1

GC/MS VOA

Analysis Batch: 595968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-195974-1	TRIP BLANK_109	Total/NA	Water	8260D	
MB 240-595968/8	Method Blank	Total/NA	Water	8260D	
LCS 240-595968/5	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 596084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-195974-2	MW-04_112123	Total/NA	Water	8260D	
240-195974-3	MW-10_112123	Total/NA	Water	8260D	
240-195974-4	MW-03_112123	Total/NA	Water	8260D	
240-195974-5	MW-56_112123	Total/NA	Water	8260D	
MB 240-596084/8	Method Blank	Total/NA	Water	8260D	
LCS 240-596084/5	Lab Control Sample	Total/NA	Water	8260D	
240-195974-4 MS	MW-03-MS_112123	Total/NA	Water	8260D	
240-195974-4 MSD	MW-03-MSD_112123	Total/NA	Water	8260D	

Analysis Batch: 596116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-195974-2	MW-04_112123	Total/NA	Water	8260D SIM	
240-195974-3	MW-10_112123	Total/NA	Water	8260D SIM	
240-195974-4	MW-03_112123	Total/NA	Water	8260D SIM	
240-195974-5	MW-56_112123	Total/NA	Water	8260D SIM	
MB 240-596116/6	Method Blank	Total/NA	Water	8260D SIM	
LCS 240-596116/4	Lab Control Sample	Total/NA	Water	8260D SIM	
240-195974-4 MS	MW-03-MS_112123	Total/NA	Water	8260D SIM	
240-195974-4 MSD	MW-03-MSD_112123	Total/NA	Water	8260D SIM	

Analysis Batch: 596202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-195974-3	MW-10_112123	Total/NA	Water	8260D	
MB 240-596202/8	Method Blank	Total/NA	Water	8260D	
LCS 240-596202/5	Lab Control Sample	Total/NA	Water	8260D	
240-196062-C-4 MS	Matrix Spike	Total/NA	Water	8260D	
240-196062-C-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

Lab Chronicle

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

Job ID: 240-195974-1

Client Sample ID: TRIP BLANK_109

Lab Sample ID: 240-195974-1

Date Collected: 11/21/23 00:00

Matrix: Water

Date Received: 11/25/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	595968	CDG	EET CLE	11/28/23 17:57

Client Sample ID: MW-04_112123

Lab Sample ID: 240-195974-2

Date Collected: 11/21/23 11:52

Matrix: Water

Date Received: 11/25/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		200	596084	CDG	EET CLE	11/29/23 17:24
Total/NA	Analysis	8260D SIM		1	596116	TJL2	EET CLE	11/30/23 00:18

Client Sample ID: MW-10_112123

Lab Sample ID: 240-195974-3

Date Collected: 11/21/23 10:36

Matrix: Water

Date Received: 11/25/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		50	596084	CDG	EET CLE	11/29/23 17:48
Total/NA	Analysis	8260D		100	596202	CDG	EET CLE	11/30/23 17:40
Total/NA	Analysis	8260D SIM		1	596116	TJL2	EET CLE	11/30/23 00:42

Client Sample ID: MW-03_112123

Lab Sample ID: 240-195974-4

Date Collected: 11/21/23 12:52

Matrix: Water

Date Received: 11/25/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	596084	CDG	EET CLE	11/29/23 18:12
Total/NA	Analysis	8260D SIM		1	596116	TJL2	EET CLE	11/30/23 01:06

Client Sample ID: MW-56_112123

Lab Sample ID: 240-195974-5

Date Collected: 11/21/23 15:11

Matrix: Water

Date Received: 11/25/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	596084	CDG	EET CLE	11/29/23 19:25
Total/NA	Analysis	8260D SIM		1	596116	TJL2	EET CLE	11/30/23 02:17

Laboratory References:

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

Accreditation/Certification Summary

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

Job ID: 240-195974-1

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	08-31-24
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-23

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

Eurofins - Cleveland Sample Receipt Form/Narrative

Login # : _____

Barberton Facility

Client Arcadis Site Name Ford LTP

Cooler unpacked by: (Signature)

Cooler Received on 11-25-23 Opened on 11-27-23

FedEx: 1st Grd (Exp) UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # 2 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 See Multiple Cooler Form

IR GUN # 21 (CF +0.2 °C) Observed Cooler Temp. 2.5 °C Corrected Cooler Temp. 2.7 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No

-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA

-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA

-Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No

4. Did custody papers accompany the sample(s)? Yes No

5. Were the custody papers relinquished & signed in the appropriate place? Yes No

6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No

7. Did all bottles arrive in good condition (Unbroken)? Yes No

8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No

9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?

10. Were correct bottle(s) used for the test(s) indicated? Yes No

11. Sufficient quantity received to perform indicated analyses? Yes No

12. Are these work share samples and all listed on the COC? Yes No

If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC316719

14. Were VOAs on the COC? Yes No

15. Were air bubbles >6 mm in any VOA vials? Yes No NA



← Larger than this.

16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # Covered Yes No

17. Was a LL Hg or Me Hg trip blank present? Yes No

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) 2x40 for MW-04, 3x40 for MW-01 were received with bubble >6 mm in diameter. (Notify PM)

10x40 for MW-03/MS/MSD

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



December 04, 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: 195974-1

Sample date: 2023-11-21

Report received by CADENA: 2023-12-04

Initial Data Verification completed by CADENA: 2023-12-04

Number of Samples:5

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:

SRN - Sample Receipt Non-conformance(headspace) - Samples -003 and -005 results for GCMS VOC should be considered to be estimated and qualified with J flags if detected and UJ flags if non-detect due to sample receipt non-conformance that affects the integrity of the sample. See laboratory submittal sample receipt forms for details.

Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, MS/MSD Recovery, MS/MSD RPD, 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 contaminants) 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 contaminants) 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: 195974-1

Sample Name:	MW-10_112123	MW-56_112123
Lab Sample ID:	2401959743	2401959745
Sample Date:	11/21/2023	11/21/2023

Analyte	Cas No.	Report		Units	Valid	Report		Units	Valid
		Result	Limit		Qualifier	Result	Limit		Qualifier

GC/MS VOC

OSW-8260D

1,1-Dichloroethene	75-35-4	ND	50	ug/l	UJ	ND	1.0	ug/l	UJ
cis-1,2-Dichloroethene	156-59-2	ND	50	ug/l	UJ	1.3	1.0	ug/l	J
Tetrachloroethene	127-18-4	ND	50	ug/l	UJ	ND	1.0	ug/l	UJ
trans-1,2-Dichloroethene	156-60-5	ND	50	ug/l	UJ	ND	1.0	ug/l	UJ
Trichloroethene	79-01-6	ND	50	ug/l	UJ	ND	1.0	ug/l	UJ
Vinyl chloride	75-01-4	4600	100	ug/l	J	ND	1.0	ug/l	UJ

Analytical Results Summary

CADENA Project ID: E203728

Laboratory: Eurofins Environment Testing LLC - Cleveland

Laboratory Submittal: 195974-1

Analyte	Cas No.	Sample Name: TRIP BLANK_109				Sample Name: MW-04_112123				Sample Name: MW-10_112123				Sample Name: MW-03_112123				Sample Name: MW-56_112123			
		Result	Limit	Units	Valid Qualifier	Result	Limit	Units	Valid Qualifier	Result	Limit	Units	Valid Qualifier	Result	Limit	Units	Valid Qualifier	Result	Limit	Units	Valid Qualifier
GC/MS VOC																					
<u>OSW-8260D</u>																					
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	200	ug/l	---	ND	50	ug/l	UJ	ND	1.0	ug/l	---	ND	1.0	ug/l	UJ
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	8200	200	ug/l	---	ND	50	ug/l	UJ	ND	1.0	ug/l	---	1.3	1.0	ug/l	J
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	200	ug/l	---	ND	50	ug/l	UJ	ND	1.0	ug/l	---	ND	1.0	ug/l	UJ
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	230	200	ug/l	---	ND	50	ug/l	UJ	ND	1.0	ug/l	---	ND	1.0	ug/l	UJ
Trichloroethene	79-01-6	ND	1.0	ug/l	---	430	200	ug/l	---	ND	50	ug/l	UJ	ND	1.0	ug/l	---	ND	1.0	ug/l	UJ
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	1600	200	ug/l	---	4600	100	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	UJ
<u>OSW-8260DSIM</u>																					
1,4-Dioxane	123-91-1					1.3	2.0	ug/l	J	4.4	2.0	ug/l	---	ND	2.0	ug/l	---	0.89	2.0	ug/l	J