

ANALYTICAL REPORT

PREPARED FOR

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Generated 5/31/2025 10:04:11 AM

JOB DESCRIPTION

Ford LTP

JOB NUMBER

240-224928-1

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



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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	15
QC Sample Results	16
QC Association Summary	22
Lab Chronicle	23
Certification Summary	24
Chain of Custody	25



Definitions/Glossary

Client: Arcadis US Inc.
Project/Site: Ford LTP

Job ID: 240-224928-1

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.
☼	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: Ford LTP

Job ID: 240-224928-1

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Job Narrative 240-224928-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 5/21/2025 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 2.8°C.

GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) analyzed in batch 240-657374 was outside the method criteria for the following analyte(s): 1,1-Dichloroethene. 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.

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Method Summary

Client: Arcadis US Inc.
Project/Site: Ford LTP

Job ID: 240-224928-1

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

Sample Summary

Client: Arcadis US Inc.
Project/Site: Ford LTP

Job ID: 240-224928-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-224928-1	TRIP BLANK_97	Water	05/16/25 00:00	05/21/25 08:00
240-224928-2	MW-196S_051625	Water	05/16/25 09:55	05/21/25 08:00
240-224928-3	MW-196_051625	Water	05/16/25 10:53	05/21/25 08:00
240-224928-4	MW-195S_051625	Water	05/16/25 12:17	05/21/25 08:00
240-224928-5	MW-221S_051625	Water	05/16/25 13:43	05/21/25 08:00
240-224928-6	DUP-06	Water	05/16/25 00:00	05/21/25 08:00

Detection Summary

Client: Arcadis US Inc.
Project/Site: Ford LTP

Job ID: 240-224928-1

Client Sample ID: TRIP BLANK_97

Lab Sample ID: 240-224928-1

No Detections.

Client Sample ID: MW-196S_051625

Lab Sample ID: 240-224928-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	48		1.0	0.46	ug/L		1		8260D	Total/NA
trans-1,2-Dichloroethene	1.5		1.0	0.51	ug/L		1		8260D	Total/NA
Trichloroethene	63		2.0	0.88	ug/L		2		8260D	Total/NA

Client Sample ID: MW-196_051625

Lab Sample ID: 240-224928-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	200		10	4.6	ug/L		10		8260D	Total/NA
trans-1,2-Dichloroethene	71		10	5.1	ug/L		10		8260D	Total/NA
Trichloroethene	340		10	4.4	ug/L		10		8260D	Total/NA

Client Sample ID: MW-195S_051625

Lab Sample ID: 240-224928-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	100		50	23	ug/L		50		8260D	Total/NA
trans-1,2-Dichloroethene	200		50	26	ug/L		50		8260D	Total/NA
Trichloroethene	3600		50	22	ug/L		50		8260D	Total/NA

Client Sample ID: MW-221S_051625

Lab Sample ID: 240-224928-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	4.8		1.0	0.46	ug/L		1		8260D	Total/NA
Trichloroethene	0.93	J	1.0	0.44	ug/L		1		8260D	Total/NA

Client Sample ID: DUP-06

Lab Sample ID: 240-224928-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	100		100	46	ug/L		100		8260D	Total/NA
trans-1,2-Dichloroethene	180		100	51	ug/L		100		8260D	Total/NA
Trichloroethene	2700		100	44	ug/L		100		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

Job ID: 240-224928-1

Client Sample ID: TRIP BLANK_97

Lab Sample ID: 240-224928-1

Date Collected: 05/16/25 00:00

Matrix: Water

Date Received: 05/21/25 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			05/25/25 03:13	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/25/25 03:13	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/25/25 03:13	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/25/25 03:13	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/25/25 03:13	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/25/25 03:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		62 - 137		05/25/25 03:13	1
4-Bromofluorobenzene (Surr)	88		56 - 136		05/25/25 03:13	1
Toluene-d8 (Surr)	91		78 - 122		05/25/25 03:13	1
Dibromofluoromethane (Surr)	103		73 - 120		05/25/25 03:13	1

Client Sample Results

Client: Arcadis US Inc.
Project/Site: Ford LTP

Job ID: 240-224928-1

Client Sample ID: MW-196S_051625

Lab Sample ID: 240-224928-2

Date Collected: 05/16/25 09:55

Matrix: Water

Date Received: 05/21/25 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			05/30/25 03:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		68 - 127					05/30/25 03:03	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			05/23/25 17:47	1
cis-1,2-Dichloroethene	48		1.0	0.46	ug/L			05/23/25 17:47	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/23/25 17:47	1
trans-1,2-Dichloroethene	1.5		1.0	0.51	ug/L			05/23/25 17:47	1
Trichloroethene	63		2.0	0.88	ug/L			05/28/25 15:18	2
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/23/25 17:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		62 - 137					05/23/25 17:47	1
1,2-Dichloroethane-d4 (Surr)	93		62 - 137					05/28/25 15:18	2
4-Bromofluorobenzene (Surr)	85		56 - 136					05/23/25 17:47	1
4-Bromofluorobenzene (Surr)	87		56 - 136					05/28/25 15:18	2
Toluene-d8 (Surr)	101		78 - 122					05/23/25 17:47	1
Toluene-d8 (Surr)	104		78 - 122					05/28/25 15:18	2
Dibromofluoromethane (Surr)	91		73 - 120					05/23/25 17:47	1
Dibromofluoromethane (Surr)	97		73 - 120					05/28/25 15:18	2

Client Sample Results

Client: Arcadis US Inc.
Project/Site: Ford LTP

Job ID: 240-224928-1

Client Sample ID: MW-196_051625

Lab Sample ID: 240-224928-3

Date Collected: 05/16/25 10:53

Matrix: Water

Date Received: 05/21/25 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			05/30/25 03:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		68 - 127					05/30/25 03:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	10	U	10	4.9	ug/L			05/25/25 10:05	10
cis-1,2-Dichloroethene	200		10	4.6	ug/L			05/25/25 10:05	10
Tetrachloroethene	10	U	10	4.4	ug/L			05/25/25 10:05	10
trans-1,2-Dichloroethene	71		10	5.1	ug/L			05/25/25 10:05	10
Trichloroethene	340		10	4.4	ug/L			05/25/25 10:05	10
Vinyl chloride	10	U	10	4.5	ug/L			05/25/25 10:05	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	122		62 - 137					05/25/25 10:05	10
4-Bromofluorobenzene (Surr)	99		56 - 136					05/25/25 10:05	10
Toluene-d8 (Surr)	94		78 - 122					05/25/25 10:05	10
Dibromofluoromethane (Surr)	107		73 - 120					05/25/25 10:05	10

Client Sample Results

Client: Arcadis US Inc.
Project/Site: Ford LTP

Job ID: 240-224928-1

Client Sample ID: MW-195S_051625

Lab Sample ID: 240-224928-4

Date Collected: 05/16/25 12:17

Matrix: Water

Date Received: 05/21/25 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			05/30/25 03:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		68 - 127					05/30/25 03:50	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			05/25/25 08:48	50
cis-1,2-Dichloroethene	100		50	23	ug/L			05/25/25 08:48	50
Tetrachloroethene	50	U	50	22	ug/L			05/25/25 08:48	50
trans-1,2-Dichloroethene	200		50	26	ug/L			05/25/25 08:48	50
Trichloroethene	3600		50	22	ug/L			05/25/25 08:48	50
Vinyl chloride	50	U	50	23	ug/L			05/25/25 08:48	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	121		62 - 137					05/25/25 08:48	50
4-Bromofluorobenzene (Surr)	96		56 - 136					05/25/25 08:48	50
Toluene-d8 (Surr)	99		78 - 122					05/25/25 08:48	50
Dibromofluoromethane (Surr)	109		73 - 120					05/25/25 08:48	50

Client Sample Results

Client: Arcadis US Inc.
Project/Site: Ford LTP

Job ID: 240-224928-1

Client Sample ID: MW-221S_051625

Lab Sample ID: 240-224928-5

Date Collected: 05/16/25 13:43

Matrix: Water

Date Received: 05/21/25 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			05/30/25 04:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		68 - 127					05/30/25 04:13	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			05/23/25 18:11	1
cis-1,2-Dichloroethene	4.8		1.0	0.46	ug/L			05/23/25 18:11	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/23/25 18:11	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/23/25 18:11	1
Trichloroethene	0.93	J	1.0	0.44	ug/L			05/23/25 18:11	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/23/25 18:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		62 - 137					05/23/25 18:11	1
4-Bromofluorobenzene (Surr)	84		56 - 136					05/23/25 18:11	1
Toluene-d8 (Surr)	102		78 - 122					05/23/25 18:11	1
Dibromofluoromethane (Surr)	90		73 - 120					05/23/25 18:11	1

Client Sample Results

Client: Arcadis US Inc.
Project/Site: Ford LTP

Job ID: 240-224928-1

Client Sample ID: DUP-06

Lab Sample ID: 240-224928-6

Date Collected: 05/16/25 00:00

Matrix: Water

Date Received: 05/21/25 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			05/30/25 04:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	81		68 - 127					05/30/25 04:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	100	U	100	49	ug/L			05/25/25 08:22	100
cis-1,2-Dichloroethene	100		100	46	ug/L			05/25/25 08:22	100
Tetrachloroethene	100	U	100	44	ug/L			05/25/25 08:22	100
trans-1,2-Dichloroethene	180		100	51	ug/L			05/25/25 08:22	100
Trichloroethene	2700		100	44	ug/L			05/25/25 08:22	100
Vinyl chloride	100	U	100	45	ug/L			05/25/25 08:22	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	127		62 - 137					05/25/25 08:22	100
4-Bromofluorobenzene (Surr)	102		56 - 136					05/25/25 08:22	100
Toluene-d8 (Surr)	100		78 - 122					05/25/25 08:22	100
Dibromofluoromethane (Surr)	112		73 - 120					05/25/25 08:22	100

Surrogate Summary

Client: Arcadis US Inc.
Project/Site: Ford LTP

Job ID: 240-224928-1

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)
240-224801-A-1 MS	Matrix Spike	88	87	102	93
240-224801-A-1 MSD	Matrix Spike Duplicate	89	86	102	95
240-224843-A-1 MS	Matrix Spike	88	89	103	90
240-224843-A-1 MSD	Matrix Spike Duplicate	86	90	104	90
240-224928-1	TRIP BLANK_97	109	88	91	103
240-224928-2	MW-196S_051625	90	85	101	91
240-224928-2	MW-196S_051625	93	87	104	97
240-224928-3	MW-196_051625	122	99	94	107
240-224928-4	MW-195S_051625	121	96	99	109
240-224928-5	MW-221S_051625	91	84	102	90
240-224928-6	DUP-06	127	102	100	112
240-224979-B-21 MS	Matrix Spike	116	96	99	103
240-224979-B-21 MSD	Matrix Spike Duplicate	122	102	103	104
LCS 240-657202/5	Lab Control Sample	86	88	103	90
LCS 240-657202/6	Lab Control Sample	87	89	101	88
LCS 240-657374/3	Lab Control Sample	110	96	101	101
LCS 240-657571/6	Lab Control Sample	87	92	105	94
LCS 240-657571/7	Lab Control Sample	85	91	101	91
MB 240-657202/9	Method Blank	90	85	102	89
MB 240-657374/8	Method Blank	115	99	96	109
MB 240-657571/11	Method Blank	87	87	100	91
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 (68-127)			
240-224928-2	MW-196S_051625	84			
240-224928-3	MW-196_051625	83			
240-224928-4	MW-195S_051625	80			
240-224928-5	MW-221S_051625	87			
240-224928-6	DUP-06	81			
240-224928-6 MS	DUP-06	82			
240-224928-6 MSD	DUP-06	84			
LCS 240-657870/3	Lab Control Sample	85			
MB 240-657870/5	Method Blank	86			
Surrogate Legend					
DCA = 1,2-Dichloroethane-d4 (Surr)					

QC Sample Results

Client: Arcadis US Inc.
Project/Site: Ford LTP

Job ID: 240-224928-1

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

Lab Sample ID: MB 240-657202/9

Matrix: Water

Analysis Batch: 657202

Client Sample ID: Method Blank

Prep Type: Total/NA

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			05/23/25 11:53	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/23/25 11:53	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/23/25 11:53	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/23/25 11:53	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/23/25 11:53	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/23/25 11:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		62 - 137		05/23/25 11:53	1
4-Bromofluorobenzene (Surr)	85		56 - 136		05/23/25 11:53	1
Toluene-d8 (Surr)	102		78 - 122		05/23/25 11:53	1
Dibromofluoromethane (Surr)	89		73 - 120		05/23/25 11:53	1

Lab Sample ID: LCS 240-657202/5

Matrix: Water

Analysis Batch: 657202

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	25.0	24.5		ug/L		98	63 - 134
cis-1,2-Dichloroethene	25.0	24.2		ug/L		97	77 - 123
Tetrachloroethene	25.0	25.8		ug/L		103	76 - 123
trans-1,2-Dichloroethene	25.0	24.5		ug/L		98	75 - 124
Trichloroethene	25.0	25.3		ug/L		101	70 - 122
Vinyl chloride	25.0	23.8		ug/L		95	60 - 144

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	86		62 - 137
4-Bromofluorobenzene (Surr)	88		56 - 136
Toluene-d8 (Surr)	103		78 - 122
Dibromofluoromethane (Surr)	90		73 - 120

Lab Sample ID: LCS 240-657202/6

Matrix: Water

Analysis Batch: 657202

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		62 - 137
4-Bromofluorobenzene (Surr)	89		56 - 136
Toluene-d8 (Surr)	101		78 - 122
Dibromofluoromethane (Surr)	88		73 - 120

Lab Sample ID: 240-224843-A-1 MS

Matrix: Water

Analysis Batch: 657202

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	5.0	U	125	117		ug/L		94	56 - 135
cis-1,2-Dichloroethene	50		125	168		ug/L		94	66 - 128

Eurofins Cleveland

QC Sample Results

Client: Arcadis US Inc.
Project/Site: Ford LTP

Job ID: 240-224928-1

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

Lab Sample ID: 240-224843-A-1 MS

Matrix: Water

Analysis Batch: 657202

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Tetrachloroethene	5.0	U	125	120		ug/L		96	62 - 131
trans-1,2-Dichloroethene	42		125	160		ug/L		94	56 - 136
Trichloroethene	130		125	249		ug/L		92	61 - 124
Vinyl chloride	23		125	136		ug/L		91	43 - 157

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	88		62 - 137
4-Bromofluorobenzene (Surr)	89		56 - 136
Toluene-d8 (Surr)	103		78 - 122
Dibromofluoromethane (Surr)	90		73 - 120

Lab Sample ID: 240-224843-A-1 MSD

Matrix: Water

Analysis Batch: 657202

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	5.0	U	125	119		ug/L		95	56 - 135	2	26
cis-1,2-Dichloroethene	50		125	171		ug/L		97	66 - 128	2	14
Tetrachloroethene	5.0	U	125	121		ug/L		97	62 - 131	1	20
trans-1,2-Dichloroethene	42		125	159		ug/L		94	56 - 136	0	15
Trichloroethene	130		125	249		ug/L		92	61 - 124	0	15
Vinyl chloride	23		125	137		ug/L		92	43 - 157	1	24

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	86		62 - 137
4-Bromofluorobenzene (Surr)	90		56 - 136
Toluene-d8 (Surr)	104		78 - 122
Dibromofluoromethane (Surr)	90		73 - 120

Lab Sample ID: MB 240-657374/8

Matrix: Water

Analysis Batch: 657374

Client Sample ID: Method Blank

Prep Type: Total/NA

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			05/25/25 02:47	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/25/25 02:47	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/25/25 02:47	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/25/25 02:47	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/25/25 02:47	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/25/25 02:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	115		62 - 137		05/25/25 02:47	1
4-Bromofluorobenzene (Surr)	99		56 - 136		05/25/25 02:47	1
Toluene-d8 (Surr)	96		78 - 122		05/25/25 02:47	1
Dibromofluoromethane (Surr)	109		73 - 120		05/25/25 02:47	1

Eurofins Cleveland

QC Sample Results

Client: Arcadis US Inc.
Project/Site: Ford LTP

Job ID: 240-224928-1

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

Lab Sample ID: LCS 240-657374/3

Matrix: Water

Analysis Batch: 657374

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.0	17.7		ug/L		88	63 - 134
cis-1,2-Dichloroethene	20.0	17.9		ug/L		89	77 - 123
Tetrachloroethene	20.0	17.7		ug/L		88	76 - 123
trans-1,2-Dichloroethene	20.0	17.9		ug/L		89	75 - 124
Trichloroethene	20.0	17.7		ug/L		89	70 - 122
Vinyl chloride	20.0	17.1		ug/L		85	60 - 144

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	110		62 - 137
4-Bromofluorobenzene (Surr)	96		56 - 136
Toluene-d8 (Surr)	101		78 - 122
Dibromofluoromethane (Surr)	101		73 - 120

Lab Sample ID: 240-224979-B-21 MS

Matrix: Water

Analysis Batch: 657374

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
cis-1,2-Dichloroethene	33		100	115		ug/L		82	66 - 128
Tetrachloroethene	5.0	U	100	70.4		ug/L		70	62 - 131
trans-1,2-Dichloroethene	3.1	J	100	82.6		ug/L		80	56 - 136
Trichloroethene	5.0	U	100	76.8		ug/L		77	61 - 124
Vinyl chloride	95		100	162		ug/L		68	43 - 157

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	116		62 - 137
4-Bromofluorobenzene (Surr)	96		56 - 136
Toluene-d8 (Surr)	99		78 - 122
Dibromofluoromethane (Surr)	103		73 - 120

Lab Sample ID: 240-224979-B-21 MSD

Matrix: Water

Analysis Batch: 657374

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
cis-1,2-Dichloroethene	33		100	115		ug/L		82	66 - 128	0	14
Tetrachloroethene	5.0	U	100	73.9		ug/L		74	62 - 131	5	20
trans-1,2-Dichloroethene	3.1	J	100	82.8		ug/L		80	56 - 136	0	15
Trichloroethene	5.0	U	100	78.0		ug/L		78	61 - 124	1	15
Vinyl chloride	95		100	163		ug/L		68	43 - 157	0	24

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	122		62 - 137
4-Bromofluorobenzene (Surr)	102		56 - 136
Toluene-d8 (Surr)	103		78 - 122
Dibromofluoromethane (Surr)	104		73 - 120

Eurofins Cleveland

QC Sample Results

Client: Arcadis US Inc.
Project/Site: Ford LTP

Job ID: 240-224928-1

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

Lab Sample ID: MB 240-657571/11

Matrix: Water

Analysis Batch: 657571

Client Sample ID: Method Blank

Prep Type: Total/NA

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			05/28/25 11:46	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/28/25 11:46	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/28/25 11:46	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/28/25 11:46	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/28/25 11:46	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/28/25 11:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		62 - 137		05/28/25 11:46	1
4-Bromofluorobenzene (Surr)	87		56 - 136		05/28/25 11:46	1
Toluene-d8 (Surr)	100		78 - 122		05/28/25 11:46	1
Dibromofluoromethane (Surr)	91		73 - 120		05/28/25 11:46	1

Lab Sample ID: LCS 240-657571/6

Matrix: Water

Analysis Batch: 657571

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	25.0	24.7		ug/L		99	63 - 134
cis-1,2-Dichloroethene	25.0	25.0		ug/L		100	77 - 123
Tetrachloroethene	25.0	27.0		ug/L		108	76 - 123
trans-1,2-Dichloroethene	25.0	24.8		ug/L		99	75 - 124
Trichloroethene	25.0	26.5		ug/L		106	70 - 122
Vinyl chloride	25.0	26.7		ug/L		107	60 - 144

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		62 - 137
4-Bromofluorobenzene (Surr)	92		56 - 136
Toluene-d8 (Surr)	105		78 - 122
Dibromofluoromethane (Surr)	94		73 - 120

Lab Sample ID: LCS 240-657571/7

Matrix: Water

Analysis Batch: 657571

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		62 - 137
4-Bromofluorobenzene (Surr)	91		56 - 136
Toluene-d8 (Surr)	101		78 - 122
Dibromofluoromethane (Surr)	91		73 - 120

Lab Sample ID: 240-224801-A-1 MS

Matrix: Water

Analysis Batch: 657571

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	1.0	U	25.0	21.9		ug/L		88	56 - 135
cis-1,2-Dichloroethene	14		25.0	37.8		ug/L		95	66 - 128

Eurofins Cleveland

QC Sample Results

Client: Arcadis US Inc.
Project/Site: Ford LTP

Job ID: 240-224928-1

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

Lab Sample ID: 240-224801-A-1 MS

Matrix: Water

Analysis Batch: 657571

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Tetrachloroethene	1.0	U	25.0	24.5		ug/L		98	62 - 131
trans-1,2-Dichloroethene	2.2		25.0	25.3		ug/L		92	56 - 136
Trichloroethene	1.0	U	25.0	24.2		ug/L		97	61 - 124
Vinyl chloride	1.0		25.0	26.2		ug/L		101	43 - 157

Surrogate	MS %Recovery	MS Qualifier	MS Limits
1,2-Dichloroethane-d4 (Surr)	88		62 - 137
4-Bromofluorobenzene (Surr)	87		56 - 136
Toluene-d8 (Surr)	102		78 - 122
Dibromofluoromethane (Surr)	93		73 - 120

Lab Sample ID: 240-224801-A-1 MSD

Matrix: Water

Analysis Batch: 657571

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	1.0	U	25.0	22.4		ug/L		90	56 - 135	2	26
cis-1,2-Dichloroethene	14		25.0	38.2		ug/L		96	66 - 128	1	14
Tetrachloroethene	1.0	U	25.0	24.2		ug/L		97	62 - 131	1	20
trans-1,2-Dichloroethene	2.2		25.0	25.7		ug/L		94	56 - 136	2	15
Trichloroethene	1.0	U	25.0	24.6		ug/L		98	61 - 124	2	15
Vinyl chloride	1.0		25.0	26.9		ug/L		103	43 - 157	3	24

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
1,2-Dichloroethane-d4 (Surr)	89		62 - 137
4-Bromofluorobenzene (Surr)	86		56 - 136
Toluene-d8 (Surr)	102		78 - 122
Dibromofluoromethane (Surr)	95		73 - 120

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

Lab Sample ID: MB 240-657870/5

Matrix: Water

Analysis Batch: 657870

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			05/30/25 00:42	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		68 - 127		05/30/25 00:42	1

Lab Sample ID: LCS 240-657870/3

Matrix: Water

Analysis Batch: 657870

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	8.90		ug/L		89	75 - 121

Eurofins Cleveland

QC Sample Results

Client: Arcadis US Inc.
Project/Site: Ford LTP

Job ID: 240-224928-1

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

Lab Sample ID: LCS 240-657870/3

Matrix: Water

Analysis Batch: 657870

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		68 - 127

Lab Sample ID: 240-224928-6 MS

Matrix: Water

Analysis Batch: 657870

Client Sample ID: DUP-06

Prep Type: Total/NA

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,4-Dioxane	2.0	U	10.0	9.52		ug/L		95	20 - 180	

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	82		68 - 127

Lab Sample ID: 240-224928-6 MSD

Matrix: Water

Analysis Batch: 657870

Client Sample ID: DUP-06

Prep Type: Total/NA

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
1,4-Dioxane	2.0	U	10.0	9.28		ug/L		93	20 - 180	3	20	

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	84		68 - 127

QC Association Summary

Client: Arcadis US Inc.
Project/Site: Ford LTP

Job ID: 240-224928-1

GC/MS VOA

Analysis Batch: 657202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-224928-2	MW-196S_051625	Total/NA	Water	8260D	
240-224928-5	MW-221S_051625	Total/NA	Water	8260D	
MB 240-657202/9	Method Blank	Total/NA	Water	8260D	
LCS 240-657202/5	Lab Control Sample	Total/NA	Water	8260D	
LCS 240-657202/6	Lab Control Sample	Total/NA	Water	8260D	
240-224843-A-1 MS	Matrix Spike	Total/NA	Water	8260D	
240-224843-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

Analysis Batch: 657374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-224928-1	TRIP BLANK_97	Total/NA	Water	8260D	
240-224928-3	MW-196_051625	Total/NA	Water	8260D	
240-224928-4	MW-195S_051625	Total/NA	Water	8260D	
240-224928-6	DUP-06	Total/NA	Water	8260D	
MB 240-657374/8	Method Blank	Total/NA	Water	8260D	
LCS 240-657374/3	Lab Control Sample	Total/NA	Water	8260D	
240-224979-B-21 MS	Matrix Spike	Total/NA	Water	8260D	
240-224979-B-21 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

Analysis Batch: 657571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-224928-2	MW-196S_051625	Total/NA	Water	8260D	
MB 240-657571/11	Method Blank	Total/NA	Water	8260D	
LCS 240-657571/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 240-657571/7	Lab Control Sample	Total/NA	Water	8260D	
240-224801-A-1 MS	Matrix Spike	Total/NA	Water	8260D	
240-224801-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

Analysis Batch: 657870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-224928-2	MW-196S_051625	Total/NA	Water	8260D SIM	
240-224928-3	MW-196_051625	Total/NA	Water	8260D SIM	
240-224928-4	MW-195S_051625	Total/NA	Water	8260D SIM	
240-224928-5	MW-221S_051625	Total/NA	Water	8260D SIM	
240-224928-6	DUP-06	Total/NA	Water	8260D SIM	
MB 240-657870/5	Method Blank	Total/NA	Water	8260D SIM	
LCS 240-657870/3	Lab Control Sample	Total/NA	Water	8260D SIM	
240-224928-6 MS	DUP-06	Total/NA	Water	8260D SIM	
240-224928-6 MSD	DUP-06	Total/NA	Water	8260D SIM	

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: Ford LTP

Job ID: 240-224928-1

Client Sample ID: TRIP BLANK_97

Lab Sample ID: 240-224928-1

Date Collected: 05/16/25 00:00

Matrix: Water

Date Received: 05/21/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	657374	MS	EET CLE	05/25/25 03:13

Client Sample ID: MW-196S_051625

Lab Sample ID: 240-224928-2

Date Collected: 05/16/25 09:55

Matrix: Water

Date Received: 05/21/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	657202	MS	EET CLE	05/23/25 17:47
Total/NA	Analysis	8260D		2	657571	MS	EET CLE	05/28/25 15:18
Total/NA	Analysis	8260D SIM		1	657870	MDH	EET CLE	05/30/25 03:03

Client Sample ID: MW-196_051625

Lab Sample ID: 240-224928-3

Date Collected: 05/16/25 10:53

Matrix: Water

Date Received: 05/21/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		10	657374	MS	EET CLE	05/25/25 10:05
Total/NA	Analysis	8260D SIM		1	657870	MDH	EET CLE	05/30/25 03:26

Client Sample ID: MW-195S_051625

Lab Sample ID: 240-224928-4

Date Collected: 05/16/25 12:17

Matrix: Water

Date Received: 05/21/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		50	657374	MS	EET CLE	05/25/25 08:48
Total/NA	Analysis	8260D SIM		1	657870	MDH	EET CLE	05/30/25 03:50

Client Sample ID: MW-221S_051625

Lab Sample ID: 240-224928-5

Date Collected: 05/16/25 13:43

Matrix: Water

Date Received: 05/21/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	657202	MS	EET CLE	05/23/25 18:11
Total/NA	Analysis	8260D SIM		1	657870	MDH	EET CLE	05/30/25 04:13

Client Sample ID: DUP-06

Lab Sample ID: 240-224928-6

Date Collected: 05/16/25 00:00

Matrix: Water

Date Received: 05/21/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		100	657374	MS	EET CLE	05/25/25 08:22
Total/NA	Analysis	8260D SIM		1	657870	MDH	EET CLE	05/30/25 04:37

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

Job ID: 240-224928-1

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
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-26
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kansas	NELAP	E-10336	01-31-26
Kentucky (UST)	State	112225	02-28-26
Kentucky (WW)	State	KY98016	12-31-25
Minnesota	NELAP	039-999-348	12-31-25
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-01-26
North Dakota	State	R-244	02-27-26
Ohio	State	8303	11-04-25
Ohio VAP	State	ORELAP 4062	02-28-26
Oregon	NELAP	4062	02-27-26
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
US Fish & Wildlife	US Federal Programs	A26406	02-28-26
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-25
Wisconsin	State	399167560	08-31-25

TestAmerica Laboratory location: Farmington Hills — 38855 Hills Tech Drive, Suite 600, Farmington Hills 48331

[illegible]

Eurofins - Cleveland Sample Receipt Form/Narrative Log in # _____

Client ARCADIS Site Name _____

Cooler Received on 5.21.25 Opened on 5.21.25 Cooler unpacked by MALISSA LOAR

RedEx: 1st Grd Exp UPS FAS Maypoint Client Drop Off _____ Eurofins Courier _____ Other _____

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

Eurofins Cooler # CC 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 # 13 (CF 60.5 °C) Observed Cooler Temp. 2.3 °C Corrected Cooler Temp 2.8 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____

-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 ☐ NA

4 Did custody papers accompany the sample(s)? Yes ☒ No ☐ NA

5 Were the custody papers relinquished & signed in the appropriate place? Yes ☒ No ☐ NA

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

7 Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐ NA

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

9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes ☒ No ☐ NA

10 Were correct bottle(s) used for the test(s) indicated? Yes ☒ No ☐ NA

11 Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐ NA

12. Are these work share samples and all listed on the COC? Yes ☒ No ☐ 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? Yes ☒ No ☐ NA pH Strp Lot# HC457151

14 Were VOAs on the COC? Yes ☒ No ☐ NA

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

16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____

17 Was a LL Hg or Me Hg trip blank present? Yes ☒ No ☐ NA

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

Concerning _____

18 CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Labeled by: _____

Labels Verified 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. _____

Temperature readings

Client Sample ID	Lab ID	Container Type	Container pH	Preservation Temp	Preservation Added	Preservation Lot Number
TRIP BLANK_97	240-224928-A-1	Voa Vial 40ml - Hydrochloric Acid				
MW-196S_051625	240-224928-A-2	Voa Vial 40ml - Hydrochloric Acid				
MW-196S_051625	240-224928-B-2	Voa Vial 40ml - Hydrochloric Acid				
MW-196S_051625	240-224928-C-2	Voa Vial 40ml - Hydrochloric Acid				
MW-196S_051625	240-224928-D-2	Voa Vial 40ml - Hydrochloric Acid				
MW-196S_051625	240-224928-E-2	Voa Vial 40ml - Hydrochloric Acid				
MW-196S_051625	240-224928-F-2	Voa Vial 40ml - Hydrochloric Acid				
MW-196_051625	240-224928-A-3	Voa Vial 40ml - Hydrochloric Acid				
MW-196_051625	240-224928-B-3	Voa Vial 40ml - Hydrochloric Acid				
MW-196_051625	240-224928-C-3	Voa Vial 40ml - Hydrochloric Acid				
MW-196_051625	240-224928-D-3	Voa Vial 40ml - Hydrochloric Acid				
MW-196_051625	240-224928-E-3	Voa Vial 40ml - Hydrochloric Acid				
MW-196_051625	240-224928-F-3	Voa Vial 40ml - Hydrochloric Acid				
MW-195S_051625	240-224928-A-4	Voa Vial 40ml - Hydrochloric Acid				
MW-195S_051625	240-224928-B-4	Voa Vial 40ml - Hydrochloric Acid				
MW-195S_051625	240-224928-C-4	Voa Vial 40ml - Hydrochloric Acid				
MW-195S_051625	240-224928-D-4	Voa Vial 40ml - Hydrochloric Acid				
MW-195S_051625	240-224928-E-4	Voa Vial 40ml - Hydrochloric Acid				
MW-195S_051625	240-224928-F-4	Voa Vial 40ml - Hydrochloric Acid				
MW-221S_051525	240-224928-A-5	Voa Vial 40ml - Hydrochloric Acid				
MW-221S_051525	240-224928-B-5	Voa Vial 40ml - Hydrochloric Acid				
MW-221S_051525	240-224928-C-5	Voa Vial 40ml - Hydrochloric Acid				
MW-221S_051525	240-224928-D-5	Voa Vial 40ml - Hydrochloric Acid				
MW-221S_051525	240-224928-E-5	Voa Vial 40ml - Hydrochloric Acid				
MW-221S_051525	240-224928-F-5	Voa Vial 40ml - Hydrochloric Acid				
DUP-06	240-224928-A-6	Voa Vial 40ml - Hydrochloric Acid				
DUP-06	240-224928-B-6	Voa Vial 40ml - Hydrochloric Acid				
DUP-06	240-224928-C-6	Voa Vial 40ml - Hydrochloric Acid				
DUP-06	240-224928-D-6	Voa Vial 40ml - Hydrochloric Acid				
DUP-06	240-224928-E-6	Voa Vial 40ml - Hydrochloric Acid				
DUP-06	240-224928-F-6	Voa Vial 40ml - Hydrochloric Acid				

DATA VERIFICATION REPORT



May 31, 2025

Megan Meckley
Arcadis
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: 30251157.401.04 (vapor 301.04)

Event Specific Scope of Work References: Sample COC

Laboratory: Eurofins Environment Testing LLC - Cleveland

Laboratory submittal: 224928-1

Sample date: 2025-05-16

Report received by CADENA: 2025-05-31

Initial Data Verification completed by CADENA: 2025-05-31

Number of Samples:6

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:

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, 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.

Analytical Results Summary

CADENA Project ID: E203728
Laboratory: Eurofins Environment Testing LLC - Cleveland
Laboratory Submittal: 224928-1

		Sample Name: TRIP BLANK_97					MW-196S_051625				MW-196_051625				MW-195S_051625				MW-221S_051625				DUP-06			
		Lab Sample ID: 2402249281					2402249282				2402249283				2402249284				2402249285				2402249286			
		Sample Date: 5/16/2025					5/16/2025				5/16/2025				5/16/2025				5/16/2025				5/16/2025			
		Report			Valid		Report			Valid		Report			Valid		Report			Valid		Report			Valid	
Analyte	Cas No.	Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier	
GC/MS VOC																										
OSW-8260D																										
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	10	ug/l	---	ND	50	ug/l	---	ND	1.0	ug/l	---	ND	100	ug/l	---	
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	48	1.0	ug/l	---	200	10	ug/l	---	100	50	ug/l	---	4.8	1.0	ug/l	---	100	100	ug/l	---	
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	10	ug/l	---	ND	50	ug/l	---	ND	1.0	ug/l	---	ND	100	ug/l	---	
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	1.5	1.0	ug/l	---	71	10	ug/l	---	200	50	ug/l	---	ND	1.0	ug/l	---	180	100	ug/l	---	
Trichloroethene	79-01-6	ND	1.0	ug/l	---	63	2.0	ug/l	---	340	10	ug/l	---	3600	50	ug/l	---	0.93	1.0	ug/l	J	2700	100	ug/l	---	
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	10	ug/l	---	ND	50	ug/l	---	ND	1.0	ug/l	---	ND	100	ug/l	---	
OSW-8260DSIM																										
1,4-Dioxane	123-91-1					ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---	