

ANALYTICAL REPORT

PREPARED FOR

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Generated 2/28/2025 5:21:10 AM

JOB DESCRIPTION

Ford LTP

JOB NUMBER

240-219215-1

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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

Job ID: 240-219215-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.
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

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Job Narrative 240-219215-1

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 2/20/2025 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.1°C and 2.4°C.

GC/MS VOA

Method 8260D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 240-645935 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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: 240-219215-1

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: 240-219215-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-219215-1	TRIP BLANK_45	Water	02/17/25 00:00	02/20/25 08:00
240-219215-2	MW-24_021725	Water	02/17/25 12:15	02/20/25 08:00
240-219215-3	MW-22_021725	Water	02/17/25 14:10	02/20/25 08:00
240-219215-4	MW-33_021725	Water	02/17/25 16:35	02/20/25 08:00

Detection Summary

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

Job ID: 240-219215-1

Client Sample ID: TRIP BLANK_45

Lab Sample ID: 240-219215-1

No Detections.

Client Sample ID: MW-24_021725

Lab Sample ID: 240-219215-2

No Detections.

Client Sample ID: MW-22_021725

Lab Sample ID: 240-219215-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	62		2.0	0.86	ug/L	1		8260D SIM	Total/NA
Vinyl chloride	1500	F1	25	11	ug/L	25		8260D	Total/NA

Client Sample ID: MW-33_021725

Lab Sample ID: 240-219215-4

No Detections.

Client Sample Results

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

Job ID: 240-219215-1

Client Sample ID: TRIP BLANK_45

Lab Sample ID: 240-219215-1

Date Collected: 02/17/25 00:00

Matrix: Water

Date Received: 02/20/25 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			02/24/25 13:25	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			02/24/25 13:25	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			02/24/25 13:25	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			02/24/25 13:25	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			02/24/25 13:25	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			02/24/25 13:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		62 - 137		02/24/25 13:25	1
4-Bromofluorobenzene (Surr)	92		56 - 136		02/24/25 13:25	1
Toluene-d8 (Surr)	98		78 - 122		02/24/25 13:25	1
Dibromofluoromethane (Surr)	98		73 - 120		02/24/25 13:25	1

Client Sample Results

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

Job ID: 240-219215-1

Client Sample ID: MW-24_021725

Lab Sample ID: 240-219215-2

Date Collected: 02/17/25 12:15

Matrix: Water

Date Received: 02/20/25 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			02/21/25 16:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		68 - 127					02/21/25 16:57	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			02/24/25 15:22	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			02/24/25 15:22	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			02/24/25 15:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			02/24/25 15:22	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			02/24/25 15:22	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			02/24/25 15:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		62 - 137					02/24/25 15:22	1
4-Bromofluorobenzene (Surr)	87		56 - 136					02/24/25 15:22	1
Toluene-d8 (Surr)	93		78 - 122					02/24/25 15:22	1
Dibromofluoromethane (Surr)	93		73 - 120					02/24/25 15:22	1

Client Sample Results

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

Job ID: 240-219215-1

Client Sample ID: MW-22_021725

Lab Sample ID: 240-219215-3

Date Collected: 02/17/25 14:10

Matrix: Water

Date Received: 02/20/25 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	62		2.0	0.86	ug/L			02/21/25 17:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		68 - 127					02/21/25 17:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	25	U	25	12	ug/L			02/25/25 19:11	25
cis-1,2-Dichloroethene	25	U	25	12	ug/L			02/25/25 19:11	25
Tetrachloroethene	25	U	25	11	ug/L			02/25/25 19:11	25
trans-1,2-Dichloroethene	25	U	25	13	ug/L			02/25/25 19:11	25
Trichloroethene	25	U	25	11	ug/L			02/25/25 19:11	25
Vinyl chloride	1500	F1	25	11	ug/L			02/25/25 19:11	25
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	133		62 - 137					02/25/25 19:11	25
4-Bromofluorobenzene (Surr)	79		56 - 136					02/25/25 19:11	25
Toluene-d8 (Surr)	95		78 - 122					02/25/25 19:11	25
Dibromofluoromethane (Surr)	120		73 - 120					02/25/25 19:11	25

Client Sample Results

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

Job ID: 240-219215-1

Client Sample ID: MW-33_021725

Lab Sample ID: 240-219215-4

Date Collected: 02/17/25 16:35

Matrix: Water

Date Received: 02/20/25 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			02/24/25 21:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		68 - 127					02/24/25 21:14	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			02/24/25 16:32	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			02/24/25 16:32	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			02/24/25 16:32	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			02/24/25 16:32	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			02/24/25 16:32	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			02/24/25 16:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		62 - 137					02/24/25 16:32	1
4-Bromofluorobenzene (Surr)	86		56 - 136					02/24/25 16:32	1
Toluene-d8 (Surr)	95		78 - 122					02/24/25 16:32	1
Dibromofluoromethane (Surr)	91		73 - 120					02/24/25 16:32	1

Surrogate Summary

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

Job ID: 240-219215-1

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)
240-219215-1	TRIP BLANK_45	93	92	98	98
240-219215-2	MW-24_021725	92	87	93	93
240-219215-2 MS	MW-24-MS_021725	90	99	97	93
240-219215-2 MSD	MW-24-MSD_021725	96	101	103	99
240-219215-3	MW-22_021725	133	79	95	120
240-219215-3 MS	MW-22_021725	115	88	89	102
240-219215-3 MSD	MW-22_021725	104	93	97	98
240-219215-4	MW-33_021725	90	86	95	91
240-219215-4 MS	MW-33-MS_021725	92	93	92	93
240-219215-4 MSD	MW-33-MSD_021725	95	101	101	99
LCS 240-645778/5	Lab Control Sample	101	106	104	99
LCS 240-645935/6	Lab Control Sample	101	98	103	98
MB 240-645778/9	Method Blank	90	88	94	91
MB 240-645935/12	Method Blank	124	77	95	113
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)			
240-219215-2	MW-24_021725	105			
240-219215-2 MS	MW-24-MS_021725	96			
240-219215-2 MSD	MW-24-MSD_021725	98			
240-219215-3	MW-22_021725	94			
240-219215-4	MW-33_021725	102			
240-219215-4 MS	MW-33-MS_021725	101			
240-219215-4 MSD	MW-33-MSD_021725	101			
LCS 240-645674/4	Lab Control Sample	95			
LCS 240-645906/4	Lab Control Sample	106			
MB 240-645674/6	Method Blank	98			
MB 240-645906/5	Method Blank	105			
Surrogate Legend					
DCA = 1,2-Dichloroethane-d4 (Surr)					

QC Sample Results

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

Job ID: 240-219215-1

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

Lab Sample ID: MB 240-645778/9

Matrix: Water

Analysis Batch: 645778

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			02/24/25 11:17	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			02/24/25 11:17	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			02/24/25 11:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			02/24/25 11:17	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			02/24/25 11:17	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			02/24/25 11:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		62 - 137		02/24/25 11:17	1
4-Bromofluorobenzene (Surr)	88		56 - 136		02/24/25 11:17	1
Toluene-d8 (Surr)	94		78 - 122		02/24/25 11:17	1
Dibromofluoromethane (Surr)	91		73 - 120		02/24/25 11:17	1

Lab Sample ID: LCS 240-645778/5

Matrix: Water

Analysis Batch: 645778

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	17.8		ug/L		89	63 - 134
cis-1,2-Dichloroethene	20.0	18.8		ug/L		94	77 - 123
Tetrachloroethene	20.0	18.8		ug/L		94	76 - 123
trans-1,2-Dichloroethene	20.0	18.7		ug/L		93	75 - 124
Trichloroethene	20.0	19.0		ug/L		95	70 - 122
Vinyl chloride	20.0	22.0		ug/L		110	60 - 144

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		62 - 137
4-Bromofluorobenzene (Surr)	106		56 - 136
Toluene-d8 (Surr)	104		78 - 122
Dibromofluoromethane (Surr)	99		73 - 120

Lab Sample ID: 240-219215-2 MS

Matrix: Water

Analysis Batch: 645778

Client Sample ID: MW-24-MS_021725

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	20.0	17.8		ug/L		89	56 - 135
cis-1,2-Dichloroethene	1.0	U	20.0	17.8		ug/L		89	66 - 128
Tetrachloroethene	1.0	U	20.0	18.9		ug/L		94	62 - 131
trans-1,2-Dichloroethene	1.0	U	20.0	17.7		ug/L		88	56 - 136
Trichloroethene	1.0	U	20.0	18.4		ug/L		92	61 - 124
Vinyl chloride	1.0	U	20.0	22.0		ug/L		110	43 - 157

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		62 - 137
4-Bromofluorobenzene (Surr)	99		56 - 136
Toluene-d8 (Surr)	97		78 - 122

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QC Sample Results

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

Job ID: 240-219215-1

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

Lab Sample ID: 240-219215-2 MS

Matrix: Water

Analysis Batch: 645778

Client Sample ID: MW-24-MS_021725

Prep Type: Total/NA

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
Dibromofluoromethane (Surr)	93		73 - 120

Lab Sample ID: 240-219215-2 MSD

Matrix: Water

Analysis Batch: 645778

Client Sample ID: MW-24-MSD_021725

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	20.0	18.6		ug/L		93	56 - 135	4	26
cis-1,2-Dichloroethene	1.0	U	20.0	18.4		ug/L		92	66 - 128	4	14
Tetrachloroethene	1.0	U	20.0	19.8		ug/L		99	62 - 131	5	20
trans-1,2-Dichloroethene	1.0	U	20.0	18.6		ug/L		93	56 - 136	5	15
Trichloroethene	1.0	U	20.0	18.8		ug/L		94	61 - 124	2	15
Vinyl chloride	1.0	U	20.0	23.3		ug/L		117	43 - 157	6	24

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		62 - 137
4-Bromofluorobenzene (Surr)	101		56 - 136
Toluene-d8 (Surr)	103		78 - 122
Dibromofluoromethane (Surr)	99		73 - 120

Lab Sample ID: 240-219215-4 MS

Matrix: Water

Analysis Batch: 645778

Client Sample ID: MW-33-MS_021725

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	1.0	U	20.0	18.8		ug/L		94	56 - 135		
cis-1,2-Dichloroethene	1.0	U	20.0	18.4		ug/L		92	66 - 128		
Tetrachloroethene	1.0	U	20.0	17.8		ug/L		89	62 - 131		
trans-1,2-Dichloroethene	1.0	U	20.0	18.5		ug/L		92	56 - 136		
Trichloroethene	1.0	U	20.0	18.4		ug/L		92	61 - 124		
Vinyl chloride	1.0	U	20.0	22.7		ug/L		113	43 - 157		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		62 - 137
4-Bromofluorobenzene (Surr)	93		56 - 136
Toluene-d8 (Surr)	92		78 - 122
Dibromofluoromethane (Surr)	93		73 - 120

Lab Sample ID: 240-219215-4 MSD

Matrix: Water

Analysis Batch: 645778

Client Sample ID: MW-33-MSD_021725

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	20.0	18.3		ug/L		92	56 - 135	3	26
cis-1,2-Dichloroethene	1.0	U	20.0	18.5		ug/L		92	66 - 128	0	14
Tetrachloroethene	1.0	U	20.0	18.2		ug/L		91	62 - 131	2	20
trans-1,2-Dichloroethene	1.0	U	20.0	18.1		ug/L		91	56 - 136	2	15
Trichloroethene	1.0	U	20.0	18.1		ug/L		91	61 - 124	1	15

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QC Sample Results

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

Job ID: 240-219215-1

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

Lab Sample ID: 240-219215-4 MSD

Matrix: Water

Analysis Batch: 645778

Client Sample ID: MW-33-MSD_021725

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Vinyl chloride	1.0	U	20.0	22.9		ug/L		115	43 - 157	1	24
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	95		62 - 137								
4-Bromofluorobenzene (Surr)	101		56 - 136								
Toluene-d8 (Surr)	101		78 - 122								
Dibromofluoromethane (Surr)	99		73 - 120								

Lab Sample ID: MB 240-645935/12

Matrix: Water

Analysis Batch: 645935

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			02/25/25 12:10	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			02/25/25 12:10	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			02/25/25 12:10	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			02/25/25 12:10	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			02/25/25 12:10	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			02/25/25 12:10	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	124		62 - 137					02/25/25 12:10	1
4-Bromofluorobenzene (Surr)	77		56 - 136					02/25/25 12:10	1
Toluene-d8 (Surr)	95		78 - 122					02/25/25 12:10	1
Dibromofluoromethane (Surr)	113		73 - 120					02/25/25 12:10	1

Lab Sample ID: LCS 240-645935/6

Matrix: Water

Analysis Batch: 645935

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	22.4		ug/L		90	63 - 134
cis-1,2-Dichloroethene	25.0	23.8		ug/L		95	77 - 123
Tetrachloroethene	25.0	26.8		ug/L		107	76 - 123
trans-1,2-Dichloroethene	25.0	24.5		ug/L		98	75 - 124
Trichloroethene	25.0	22.7		ug/L		91	70 - 122
Vinyl chloride	25.0	26.2		ug/L		105	60 - 144
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1,2-Dichloroethane-d4 (Surr)	101		62 - 137				
4-Bromofluorobenzene (Surr)	98		56 - 136				
Toluene-d8 (Surr)	103		78 - 122				
Dibromofluoromethane (Surr)	98		73 - 120				

Eurofins Cleveland

QC Sample Results

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

Job ID: 240-219215-1

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

Lab Sample ID: 240-219215-3 MS

Matrix: Water

Analysis Batch: 645935

Client Sample ID: MW-22_021725

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	25	U	625	536		ug/L		86	56 - 135
cis-1,2-Dichloroethene	25	U	625	619		ug/L		99	66 - 128
Tetrachloroethene	25	U	625	539		ug/L		86	62 - 131
trans-1,2-Dichloroethene	25	U	625	553		ug/L		89	56 - 136
Trichloroethene	25	U	625	623		ug/L		100	61 - 124
Vinyl chloride	1500	F1	625	1910	E	ug/L		57	43 - 157

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	115		62 - 137
4-Bromofluorobenzene (Surr)	88		56 - 136
Toluene-d8 (Surr)	89		78 - 122
Dibromofluoromethane (Surr)	102		73 - 120

Lab Sample ID: 240-219215-3 MSD

Matrix: Water

Analysis Batch: 645935

Client Sample ID: MW-22_021725

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	25	U	625	516		ug/L		82	56 - 135	4	26
cis-1,2-Dichloroethene	25	U	625	591		ug/L		95	66 - 128	5	14
Tetrachloroethene	25	U	625	569		ug/L		91	62 - 131	5	20
trans-1,2-Dichloroethene	25	U	625	566		ug/L		91	56 - 136	2	15
Trichloroethene	25	U	625	564		ug/L		90	61 - 124	10	15
Vinyl chloride	1500	F1	625	1650	E F1	ug/L		17	43 - 157	14	24

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		62 - 137
4-Bromofluorobenzene (Surr)	93		56 - 136
Toluene-d8 (Surr)	97		78 - 122
Dibromofluoromethane (Surr)	98		73 - 120

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

Lab Sample ID: MB 240-645674/6

Matrix: Water

Analysis Batch: 645674

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			02/21/25 11:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		68 - 127		02/21/25 11:52	1

Eurofins Cleveland

QC Sample Results

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

Job ID: 240-219215-1

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

Lab Sample ID: LCS 240-645674/4

Matrix: Water

Analysis Batch: 645674

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	9.15		ug/L		92	75 - 121		
Surrogate		LCS %Recovery	LCS Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)		95		68 - 127							

Lab Sample ID: 240-219215-2 MS

Matrix: Water

Analysis Batch: 645674

Client Sample ID: MW-24-MS_021725

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	9.56		ug/L		96	20 - 180		
Surrogate		MS %Recovery	MS Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)		96		68 - 127							

Lab Sample ID: 240-219215-2 MSD

Matrix: Water

Analysis Batch: 645674

Client Sample ID: MW-24-MSD_021725

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	9.85		ug/L		99	20 - 180	3	20
Surrogate		MSD %Recovery	MSD Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)		98		68 - 127							

Lab Sample ID: MB 240-645906/5

Matrix: Water

Analysis Batch: 645906

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			02/24/25 18:02	1
Surrogate		MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)		105		68 - 127				02/24/25 18:02	1

Lab Sample ID: LCS 240-645906/4

Matrix: Water

Analysis Batch: 645906

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	9.39		ug/L		94	75 - 121		
Surrogate		LCS %Recovery	LCS Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)		106		68 - 127							

Eurofins Cleveland

QC Sample Results

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

Job ID: 240-219215-1

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

Lab Sample ID: 240-219215-4 MS

Matrix: Water

Analysis Batch: 645906

Client Sample ID: MW-33-MS_021725

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	10.3		ug/L		103	20 - 180		
Surrogate	MS %Recovery	MS Qualifier	MS Limits								
1,2-Dichloroethane-d4 (Surr)	101		68 - 127								

Lab Sample ID: 240-219215-4 MSD

Matrix: Water

Analysis Batch: 645906

Client Sample ID: MW-33-MSD_021725

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	9.72		ug/L		97	20 - 180	6	20
Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits								
1,2-Dichloroethane-d4 (Surr)	101		68 - 127								

QC Association Summary

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

Job ID: 240-219215-1

GC/MS VOA

Analysis Batch: 645674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-219215-2	MW-24_021725	Total/NA	Water	8260D SIM	
240-219215-3	MW-22_021725	Total/NA	Water	8260D SIM	
MB 240-645674/6	Method Blank	Total/NA	Water	8260D SIM	
LCS 240-645674/4	Lab Control Sample	Total/NA	Water	8260D SIM	
240-219215-2 MS	MW-24-MS_021725	Total/NA	Water	8260D SIM	
240-219215-2 MSD	MW-24-MSD_021725	Total/NA	Water	8260D SIM	

Analysis Batch: 645778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-219215-1	TRIP BLANK_45	Total/NA	Water	8260D	
240-219215-2	MW-24_021725	Total/NA	Water	8260D	
240-219215-4	MW-33_021725	Total/NA	Water	8260D	
MB 240-645778/9	Method Blank	Total/NA	Water	8260D	
LCS 240-645778/5	Lab Control Sample	Total/NA	Water	8260D	
240-219215-2 MS	MW-24-MS_021725	Total/NA	Water	8260D	
240-219215-2 MSD	MW-24-MSD_021725	Total/NA	Water	8260D	
240-219215-4 MS	MW-33-MS_021725	Total/NA	Water	8260D	
240-219215-4 MSD	MW-33-MSD_021725	Total/NA	Water	8260D	

Analysis Batch: 645906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-219215-4	MW-33_021725	Total/NA	Water	8260D SIM	
MB 240-645906/5	Method Blank	Total/NA	Water	8260D SIM	
LCS 240-645906/4	Lab Control Sample	Total/NA	Water	8260D SIM	
240-219215-4 MS	MW-33-MS_021725	Total/NA	Water	8260D SIM	
240-219215-4 MSD	MW-33-MSD_021725	Total/NA	Water	8260D SIM	

Analysis Batch: 645935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-219215-3	MW-22_021725	Total/NA	Water	8260D	
MB 240-645935/12	Method Blank	Total/NA	Water	8260D	
LCS 240-645935/6	Lab Control Sample	Total/NA	Water	8260D	
240-219215-3 MS	MW-22_021725	Total/NA	Water	8260D	
240-219215-3 MSD	MW-22_021725	Total/NA	Water	8260D	

Lab Chronicle

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

Job ID: 240-219215-1

Client Sample ID: TRIP BLANK_45

Lab Sample ID: 240-219215-1

Date Collected: 02/17/25 00:00

Matrix: Water

Date Received: 02/20/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	645778	AJS	EET CLE	02/24/25 13:25

Client Sample ID: MW-24_021725

Lab Sample ID: 240-219215-2

Date Collected: 02/17/25 12:15

Matrix: Water

Date Received: 02/20/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	645778	AJS	EET CLE	02/24/25 15:22
Total/NA	Analysis	8260D SIM		1	645674	R5XG	EET CLE	02/21/25 16:57

Client Sample ID: MW-22_021725

Lab Sample ID: 240-219215-3

Date Collected: 02/17/25 14:10

Matrix: Water

Date Received: 02/20/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		25	645935	MS	EET CLE	02/25/25 19:11
Total/NA	Analysis	8260D SIM		1	645674	R5XG	EET CLE	02/21/25 17:20

Client Sample ID: MW-33_021725

Lab Sample ID: 240-219215-4

Date Collected: 02/17/25 16:35

Matrix: Water

Date Received: 02/20/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	645778	AJS	EET CLE	02/24/25 16:32
Total/NA	Analysis	8260D SIM		1	645906	CS	EET CLE	02/24/25 21:14

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

Job ID: 240-219215-1

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	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kansas	NELAP	E-10336	01-31-26
Kentucky (UST)	State	112225	02-27-25
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	04-02-25
Ohio	State	8303	11-04-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
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

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

Client Contact			Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other															TestAmerica Laboratories, Inc.									
Company Name: Arcadis			Client Project Manager: Megan Meckley					Site Contact: Samantha Szpachler					Lab Contact: Mike DelMonico					COC No:									
Address: 28550 Cabot Drive, Suite 500			Telephone: 248-994-2240					Telephone: 248-994-2240					Telephone: 330-497-9396					1 of 1 COCs									
City/State/Zip: Novi, MI, 48377			Email: kristoffer.hinskey@arcadis.com					Analysis Turnaround Time					Analyses					For lab use only									
Phone: 248-994-2240			Sampler Name: Kent Kesper					TAT if different from below 10 day ☒ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day					☐ Filtered Sample (V/N) ☐ Composite-C / Grab-G ☐ 1,1-DCE 8260D ☐ cis-1,2-DCE 8260D ☐ Trans-1,2-DCE 8260D ☐ PCE 8260D ☐ TCE 8260D ☐ Vinyl Chloride 8260D ☐ 1,4-Dioxane 8260D SIM					Walk-in client									
Project Name: Ford LTP			Method of Shipment/Carrier:															Lab sampling									
Project Number: 30206169.0401.03			Shipping/Tracking No:															Job/SDG No:									
PO # US3460021848																		Sample Specific Notes / Special Instructions:									
Sample Identification			Sample Date		Sample Time		Matrix					Containers & Preservatives															
							Air Aqueous Sediment Solid Other:					H2SO4 HNO3 HCl NaOH Zinc Soil Unpres Other:															
TRIP BLANK 45			---		---		1					1					NG X X X X X X					1 Trip Blank					
MW-24-021725			2/17/25		1215		6					6					NG X X X X X X					3 VOAs for 8260D 3 VOAs for 8260D SIM					
MW-24-MS-021725			2/17/25		1215		6					6					NG X X X X X X					Run ms/msn					
MW-24-MSD-021725			2/17/25		1215		6					6					NG X X X X X X					Run ms/msn					
MW-22-021725			2/17/25		1410		6					6					NG X X X X X X					Run					
MW-33-021725			2/17/25		1635		6					6					NG X X X X X X					Run ms/msn					
MW-33-MS-021725			2/17/25		1635		6					6					NG X X X X X X					Run ms/msn					
MW-33-MSD-021725			2/17/25		1635		6					6					NG X X X X X X					Run ms/msn					
Possible Hazard Identification			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																								
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown			☐ Return to Client ☒ Disposal By Lab ☐ Archive For ☐ More																								
Special Instructions/QC Requirements & Comments:																											
Submit all results through Cadena at jtomalia@cadenaco.com. Cadena #E203728																		Onsite SD									
Level IV Reporting requested.																											
Relinquished by: [Signature]			Company: Arcadis			Date/Time: 2/17/25 1742			Received by: Nov, Cold Storage			Company: Arcadis			Date/Time: 2/17/25 1742												
Relinquished by: [Signature]			Company: Arcadis			Date/Time: 2/19/25 1700			Received by: Jilly Mc			Company: EEM			Date/Time: 2/18/25 1700												
Relinquished by: [Signature]			Company: EETA			Date/Time: 2/19/25 1126			Received by: J Collins			Company: EWR			Date/Time: 2/20/25 800												



240-219215 COC

Eurofins - Cleveland Sample Receipt Form/Narrative		Login # : _____
Barberton Facility		
Client <u>ATCOG15</u>	Site Name _____	Cooler unpacked by: <u>JC</u>
Cooler Received on <u>2-20-25</u>	Opened on <u>2-20-25</u>	
FedEx: 1 st Grd Exp <u>UPS</u> <u>FAS</u> <u>Waypoint</u>	Client Drop Off _____	Eurofins Courier _____ Other _____
Receipt After-hours Drop-off Date/Time _____ Storage Location _____		
Eurofins Cooler # <u>EC</u>	Foam Box _____	Client Cooler _____ Box _____ Other _____
Packing material used: <u>Bubble Wrap</u>	Foam _____	Plastic Bag _____ None _____ Other _____
<u>COOLANT</u> <u>Water Ice</u> <u>Blue Ice</u> <u>Dry Ice</u> <u>Water</u> <u>None</u>		
1 Cooler temperature upon receipt ☒ See Multiple Cooler Form		
IR GUN # <u>13</u> (CF) <u>0.0</u> °C	Observed Cooler Temp _____ °C	Corrected Cooler Temp _____ °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity <u>1</u> Tests that are not checked for pH by Receiving. VOA's Oil and Grease TOC		
-Were the seals on the outside of the cooler(s) signed & dated? <u>Yes</u> <u>No</u> <u>NA</u>		
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? <u>Yes</u> <u>No</u> <u>NA</u>		
-Were tamper/custody seals intact and uncompromised? <u>Yes</u> <u>No</u> <u>NA</u>		
3 Shippers' packing slip attached to the cooler(s)? <u>Yes</u> <u>No</u> <u>NA</u>		
4 Did custody papers accompany the sample(s)? <u>Yes</u> <u>No</u> <u>NA</u>		
5 Were the custody papers relinquished & signed in the appropriate place? <u>Yes</u> <u>No</u> <u>NA</u>		
6 Was/were the person(s) who collected the samples clearly identified on the COC? <u>Yes</u> <u>No</u> <u>NA</u>		
7 Did all bottles arrive in good condition (Unbroken)? <u>Yes</u> <u>No</u> <u>NA</u>		
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC? <u>Yes</u> <u>No</u> <u>NA</u>		
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? <u>Yes</u> <u>No</u> <u>NA</u>		
10 Were correct bottle(s) used for the test(s) indicated? <u>Yes</u> <u>No</u> <u>NA</u>		
11 Sufficient quantity received to perform indicated analyses? <u>Yes</u> <u>No</u> <u>NA</u>		
12 Are these work share samples and all listed on the COC? <u>Yes</u> <u>No</u> <u>NA</u>		
13 If yes, Questions 13-17 have been checked at the originating laboratory		
14 Were all preserved sample(s) at the correct pH upon receipt? <u>Yes</u> <u>No</u> <u>NA</u>		
15 Were VOA's on the COC? <u>Yes</u> <u>No</u> <u>NA</u>		
16 Were air bubbles >6 mm in any VOA vials? <u>Yes</u> <u>No</u> <u>NA</u>		
17 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # <u>01256015</u> <u>Yes</u> <u>No</u> <u>NA</u>		
17 Was a LL Hg or Me Hg trip blank present? <u>Yes</u> <u>No</u> <u>NA</u>		
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 VOA's Frozen _____		

Temperature readings

Client Sample ID	Lab ID	Container Type	Container pH	Preservation Temp	Preservation Added	Preservation Lot Number
TRJP BLANK_45	240-219215-A-1	Voa Vial 40ml - Hydrochloric Acid				
MW-24_021725	240-219215-A-2	Voa Vial 40ml - Hydrochloric Acid				
MW-24_MS_021725	240-219215-A-2 MS	Voa Vial 40ml - Hydrochloric Acid				
MW-24_MSD_021725	240-219215-A-2 MSD	Voa Vial 40ml - Hydrochloric Acid				
MW-24_021725	240-219215-B-2	Voa Vial 40ml - Hydrochloric Acid				
MW-24_MS_021725	240-219215-B-2 MS	Voa Vial 40ml - Hydrochloric Acid				
MW-24_MSD_021725	240-219215-B-2 MSD	Voa Vial 40ml - Hydrochloric Acid				
MW-24_021725	240-219215-C-2	Voa Vial 40ml - Hydrochloric Acid				
MW-24_MS_021725	240-219215-C-2 MS	Voa Vial 40ml - Hydrochloric Acid				
MW-24_MSD_021725	240-219215-C-2 MSD	Voa Vial 40ml - Hydrochloric Acid				
MW-24_021725	240-219215-D-2	Voa Vial 40ml - Hydrochloric Acid				
MW-24_MS_021725	240-219215-D-2 MS	Voa Vial 40ml - Hydrochloric Acid				
MW-24_MSD_021725	240-219215-D-2 MSD	Voa Vial 40ml - Hydrochloric Acid				
MW-24_021725	240-219215-E-2	Voa Vial 40ml - Hydrochloric Acid				
MW-24_MS_021725	240-219215-E-2 MS	Voa Vial 40ml - Hydrochloric Acid				
MW-24_MSD_021725	240-219215-E-2 MSD	Voa Vial 40ml - Hydrochloric Acid				
MW-24_MS_021725	240-219215-F-2 MS	Voa Vial 40ml - Hydrochloric Acid				
MW-24_MSD_021725	240-219215-F-2 MSD	Voa Vial 40ml - Hydrochloric Acid				
MW-24_021725	240-219215-G-2	Voa Vial 40ml - Hydrochloric Acid				
MW-22_021725	240-219215-A-3	Voa Vial 40ml - Hydrochloric Acid				
MW-22_021725	240-219215-B-3	Voa Vial 40ml - Hydrochloric Acid				
MW-22_021725	240-219215-C-3	Voa Vial 40ml - Hydrochloric Acid				
MW-22_021725	240-219215-D-3	Voa Vial 40ml - Hydrochloric Acid				
MW-22_021725	240-219215-E-3	Voa Vial 40ml - Hydrochloric Acid				
MW-22_021725	240-219215-G-3	Voa Vial 40ml - Hydrochloric Acid				
MW-33_021725	240-219215-A-4	Voa Vial 40ml - Hydrochloric Acid				
MW-33_021725	240-219215-B-4	Voa Vial 40ml - Hydrochloric Acid				
MW-33_021725	240-219215-C-4	Voa Vial 40ml - Hydrochloric Acid				
MW-33_021725	240-219215-D-4	Voa Vial 40ml - Hydrochloric Acid				
MW-33_021725	240-219215-E-4	Voa Vial 40ml - Hydrochloric Acid				
MW-33_021725	240-219215-F-4	Voa Vial 40ml - Hydrochloric Acid				

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Client Sample ID

Lab ID

Container Type

Container
pH Temp Preservation Added Lot Number

DATA VERIFICATION REPORT



February 28, 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) 30206169.0401.04

Event Specific Scope of Work References: Sample COC

Laboratory: Eurofins Environment Testing LLC - Cleveland

Laboratory submittal: 219215-1

Sample date: 2025-02-17

Report received by CADENA: 2025-02-28

Initial Data Verification completed by CADENA: 2025-02-28

Number of Samples:4

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 sample -003 MS or MSD recoveries but not both or RPD only were outliers for VINYL CHLORIDE so client sample results were not qualified based on this QC outliers alone.

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.

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: 219215-1

Sample Name: TRIP BLANK_45

Lab Sample ID: 2402192151

Sample Date: 2/17/2025

MW-24_021725

2402192152

2/17/2025

MW-22_021725

2402192153

2/17/2025

MW-33_021725

2402192154

2/17/2025

Analyte	Cas No.	Report				Valid				Report				Valid				Report				Valid			
		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	25	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	25	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	25	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	25	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	25	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	1500	25	ug/l	---	ND	1.0	ug/l	---

OSW-8260DSIM

1,4-Dioxane	123-91-1					ND	2.0	ug/l	---	62	2.0	ug/l	---	ND	2.0	ug/l	---
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