

ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

Ford LTP

JOB NUMBER

240-224513-1

Eurofins Cleveland

Job Notes

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Authorization



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Definitions/Glossary

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

Job ID: 240-224513-1

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: 240-224513-1

Job ID: 240-224513-1

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Job Narrative 240-224513-1

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 5/15/2025 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 2.9°C and 3.1°C.

GC/MS VOA

Method 8260D: The MSD for batch 240-656461 was analyzed outside of the tune time. This is a batch QC sample; therefore, the data have been reported.

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: 240-224513-1

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: 240-224513-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-224513-1	TRIP BLANK_206	Water	05/13/25 00:00	05/15/25 08:00
240-224513-2	MW-66_051325	Water	05/13/25 10:05	05/15/25 08:00
240-224513-3	MW-65_051325	Water	05/13/25 11:20	05/15/25 08:00
240-224513-4	MW-49_051325	Water	05/13/25 12:50	05/15/25 08:00
240-224513-5	MW-21_051325	Water	05/13/25 13:55	05/15/25 08:00
240-224513-6	DUP-04	Water	05/13/25 00:00	05/15/25 08:00

Detection Summary

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

Job ID: 240-224513-1

Client Sample ID: TRIP BLANK_206

Lab Sample ID: 240-224513-1

No Detections.

Client Sample ID: MW-66_051325

Lab Sample ID: 240-224513-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.48	J	1.0	0.46	ug/L		1		8260D	Total/NA
Vinyl chloride	1.0		1.0	0.45	ug/L		1		8260D	Total/NA

Client Sample ID: MW-65_051325

Lab Sample ID: 240-224513-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2.7		1.0	0.46	ug/L		1		8260D	Total/NA
Vinyl chloride	9.8		1.0	0.45	ug/L		1		8260D	Total/NA

Client Sample ID: MW-49_051325

Lab Sample ID: 240-224513-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,4-Dioxane	10		2.0	0.86	ug/L		1		8260D SIM	Total/NA
1,1-Dichloroethene	48		1.0	0.49	ug/L		1		8260D	Total/NA
cis-1,2-Dichloroethene	34000		500	230	ug/L		500		8260D	Total/NA
Trichloroethene	0.64	J	1.0	0.44	ug/L		1		8260D	Total/NA
Vinyl chloride	8900		500	230	ug/L		500		8260D	Total/NA

Client Sample ID: MW-21_051325

Lab Sample ID: 240-224513-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,4-Dioxane	3.4		2.0	0.86	ug/L		1		8260D SIM	Total/NA
cis-1,2-Dichloroethene	2.2		1.0	0.46	ug/L		1		8260D	Total/NA
Vinyl chloride	5.6		1.0	0.45	ug/L		1		8260D	Total/NA

Client Sample ID: DUP-04

Lab Sample ID: 240-224513-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,4-Dioxane	10		2.0	0.86	ug/L		1		8260D SIM	Total/NA
1,1-Dichloroethene	47		1.0	0.49	ug/L		1		8260D	Total/NA
cis-1,2-Dichloroethene	35000		500	230	ug/L		500		8260D	Total/NA
Trichloroethene	0.59	J	1.0	0.44	ug/L		1		8260D	Total/NA
Vinyl chloride	8800		500	230	ug/L		500		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: 240-224513-1

Client Sample ID: TRIP BLANK_206

Lab Sample ID: 240-224513-1

Date Collected: 05/13/25 00:00

Matrix: Water

Date Received: 05/15/25 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			05/19/25 07:23	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/19/25 07:23	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/19/25 07:23	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/19/25 07:23	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/19/25 07:23	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/19/25 07:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	120		62 - 137		05/19/25 07:23	1
4-Bromofluorobenzene (Surr)	101		56 - 136		05/19/25 07:23	1
Toluene-d8 (Surr)	93		78 - 122		05/19/25 07:23	1
Dibromofluoromethane (Surr)	110		73 - 120		05/19/25 07:23	1

Client Sample Results

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

Job ID: 240-224513-1

Client Sample ID: MW-66_051325

Lab Sample ID: 240-224513-2

Date Collected: 05/13/25 10:05

Matrix: Water

Date Received: 05/15/25 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			05/19/25 14:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	75		68 - 127					05/19/25 14:23	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			05/19/25 09:33	1
cis-1,2-Dichloroethene	0.48	J	1.0	0.46	ug/L			05/19/25 09:33	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/19/25 09:33	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/19/25 09:33	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/19/25 09:33	1
Vinyl chloride	1.0		1.0	0.45	ug/L			05/19/25 09:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		62 - 137					05/19/25 09:33	1
4-Bromofluorobenzene (Surr)	97		56 - 136					05/19/25 09:33	1
Toluene-d8 (Surr)	92		78 - 122					05/19/25 09:33	1
Dibromofluoromethane (Surr)	104		73 - 120					05/19/25 09:33	1

Client Sample Results

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

Job ID: 240-224513-1

Client Sample ID: MW-65_051325

Lab Sample ID: 240-224513-3

Date Collected: 05/13/25 11:20

Matrix: Water

Date Received: 05/15/25 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			05/19/25 14:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	74		68 - 127					05/19/25 14:46	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			05/19/25 09:59	1
cis-1,2-Dichloroethene	2.7		1.0	0.46	ug/L			05/19/25 09:59	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/19/25 09:59	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/19/25 09:59	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/19/25 09:59	1
Vinyl chloride	9.8		1.0	0.45	ug/L			05/19/25 09:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		62 - 137					05/19/25 09:59	1
4-Bromofluorobenzene (Surr)	98		56 - 136					05/19/25 09:59	1
Toluene-d8 (Surr)	94		78 - 122					05/19/25 09:59	1
Dibromofluoromethane (Surr)	108		73 - 120					05/19/25 09:59	1

Client Sample Results

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

Job ID: 240-224513-1

Client Sample ID: MW-49_051325

Lab Sample ID: 240-224513-4

Date Collected: 05/13/25 12:50

Matrix: Water

Date Received: 05/15/25 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	10		2.0	0.86	ug/L			05/19/25 15:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	74		68 - 127					05/19/25 15:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	48		1.0	0.49	ug/L			05/19/25 10:25	1
cis-1,2-Dichloroethene	34000		500	230	ug/L			05/21/25 18:45	500
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/19/25 10:25	1
trans-1,2-Dichloroethene	500	U	500	260	ug/L			05/21/25 18:45	500
Trichloroethene	0.64	J	1.0	0.44	ug/L			05/19/25 10:25	1
Vinyl chloride	8900		500	230	ug/L			05/21/25 18:45	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		62 - 137					05/19/25 10:25	1
1,2-Dichloroethane-d4 (Surr)	117		62 - 137					05/21/25 18:45	500
4-Bromofluorobenzene (Surr)	95		56 - 136					05/19/25 10:25	1
4-Bromofluorobenzene (Surr)	98		56 - 136					05/21/25 18:45	500
Toluene-d8 (Surr)	101		78 - 122					05/19/25 10:25	1
Toluene-d8 (Surr)	93		78 - 122					05/21/25 18:45	500
Dibromofluoromethane (Surr)	101		73 - 120					05/19/25 10:25	1
Dibromofluoromethane (Surr)	108		73 - 120					05/21/25 18:45	500

Client Sample Results

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

Job ID: 240-224513-1

Client Sample ID: MW-21_051325

Lab Sample ID: 240-224513-5

Date Collected: 05/13/25 13:55

Matrix: Water

Date Received: 05/15/25 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	3.4		2.0	0.86	ug/L			05/19/25 15:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	74		68 - 127					05/19/25 15:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1000	U	1000	490	ug/L			05/19/25 10:55	1000
cis-1,2-Dichloroethene	2.2		1.0	0.46	ug/L			05/22/25 20:26	1
Tetrachloroethene	1000	U	1000	440	ug/L			05/19/25 10:55	1000
trans-1,2-Dichloroethene	1000	U	1000	510	ug/L			05/19/25 10:55	1000
Trichloroethene	1000	U	1000	440	ug/L			05/19/25 10:55	1000
Vinyl chloride	5.6		1.0	0.45	ug/L			05/22/25 20:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		62 - 137					05/19/25 10:55	1000
1,2-Dichloroethane-d4 (Surr)	122		62 - 137					05/22/25 20:26	1
4-Bromofluorobenzene (Surr)	102		56 - 136					05/19/25 10:55	1000
4-Bromofluorobenzene (Surr)	98		56 - 136					05/22/25 20:26	1
Toluene-d8 (Surr)	96		78 - 122					05/19/25 10:55	1000
Toluene-d8 (Surr)	96		78 - 122					05/22/25 20:26	1
Dibromofluoromethane (Surr)	109		73 - 120					05/19/25 10:55	1000
Dibromofluoromethane (Surr)	108		73 - 120					05/22/25 20:26	1

Client Sample Results

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

Job ID: 240-224513-1

Client Sample ID: DUP-04

Lab Sample ID: 240-224513-6

Date Collected: 05/13/25 00:00

Matrix: Water

Date Received: 05/15/25 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	10		2.0	0.86	ug/L			05/19/25 15:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	76		68 - 127					05/19/25 15:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	47		1.0	0.49	ug/L			05/19/25 11:21	1
cis-1,2-Dichloroethene	35000		500	230	ug/L			05/21/25 19:36	500
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/19/25 11:21	1
trans-1,2-Dichloroethene	500	U	500	260	ug/L			05/21/25 19:36	500
Trichloroethene	0.59	J	1.0	0.44	ug/L			05/19/25 11:21	1
Vinyl chloride	8800		500	230	ug/L			05/21/25 19:36	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		62 - 137					05/19/25 11:21	1
1,2-Dichloroethane-d4 (Surr)	121		62 - 137					05/21/25 19:36	500
4-Bromofluorobenzene (Surr)	95		56 - 136					05/19/25 11:21	1
4-Bromofluorobenzene (Surr)	98		56 - 136					05/21/25 19:36	500
Toluene-d8 (Surr)	98		78 - 122					05/19/25 11:21	1
Toluene-d8 (Surr)	95		78 - 122					05/21/25 19:36	500
Dibromofluoromethane (Surr)	103		73 - 120					05/19/25 11:21	1
Dibromofluoromethane (Surr)	110		73 - 120					05/21/25 19:36	500

Surrogate Summary

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

Job ID: 240-224513-1

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)
240-224513-1	TRIP BLANK_206	120	101	93	110
240-224513-2	MW-66_051325	113	97	92	104
240-224513-3	MW-65_051325	116	98	94	108
240-224513-4	MW-49_051325	107	95	101	101
240-224513-4	MW-49_051325	117	98	93	108
240-224513-5	MW-21_051325	116	102	96	109
240-224513-5	MW-21_051325	122	98	96	108
240-224513-5 MS	MW-21_051325	115	99	98	107
240-224513-5 MSD	MW-21_051325	113	105	98	104
240-224513-6	DUP-04	109	95	98	103
240-224513-6	DUP-04	121	98	95	110
240-224764-B-2 MS	Matrix Spike	107	99	98	98
240-224764-B-2 MSD	Matrix Spike Duplicate	112	97	97	104
240-224793-B-35 MS	Matrix Spike	117	100	97	106
240-224793-B-35 MSD	Matrix Spike Duplicate	116	102	96	106
LCS 240-656461/3	Lab Control Sample	110	93	95	106
LCS 240-656892/5	Lab Control Sample	112	94	92	107
LCS 240-657105/5	Lab Control Sample	116	99	95	105
MB 240-656461/8	Method Blank	109	95	95	106
MB 240-656892/10	Method Blank	115	98	93	105
MB 240-657105/10	Method Blank	109	95	92	93
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)			
240-224507-D-8 MS	Matrix Spike	73			
240-224507-D-8 MSD	Matrix Spike Duplicate	75			
240-224513-2	MW-66_051325	75			
240-224513-3	MW-65_051325	74			
240-224513-4	MW-49_051325	74			
240-224513-5	MW-21_051325	74			
240-224513-6	DUP-04	76			
LCS 240-656497/5	Lab Control Sample	76			
MB 240-656497/7	Method Blank	76			
Surrogate Legend					
DCA = 1,2-Dichloroethane-d4 (Surr)					

QC Sample Results

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

Job ID: 240-224513-1

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

Lab Sample ID: MB 240-656461/8

Matrix: Water

Analysis Batch: 656461

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			05/19/25 05:39	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/19/25 05:39	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/19/25 05:39	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/19/25 05:39	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/19/25 05:39	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/19/25 05:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		62 - 137		05/19/25 05:39	1
4-Bromofluorobenzene (Surr)	95		56 - 136		05/19/25 05:39	1
Toluene-d8 (Surr)	95		78 - 122		05/19/25 05:39	1
Dibromofluoromethane (Surr)	106		73 - 120		05/19/25 05:39	1

Lab Sample ID: LCS 240-656461/3

Matrix: Water

Analysis Batch: 656461

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	19.0		ug/L		95	63 - 134
cis-1,2-Dichloroethene	20.0	18.9		ug/L		94	77 - 123
Tetrachloroethene	20.0	17.5		ug/L		87	76 - 123
trans-1,2-Dichloroethene	20.0	19.0		ug/L		95	75 - 124
Trichloroethene	20.0	18.7		ug/L		93	70 - 122
Vinyl chloride	20.0	17.4		ug/L		87	60 - 144

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	110		62 - 137
4-Bromofluorobenzene (Surr)	93		56 - 136
Toluene-d8 (Surr)	95		78 - 122
Dibromofluoromethane (Surr)	106		73 - 120

Lab Sample ID: 240-224513-5 MS

Matrix: Water

Analysis Batch: 656461

Client Sample ID: MW-21_051325

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	1000	U	20000	17000		ug/L		85	56 - 135
Tetrachloroethene	1000	U	20000	17800		ug/L		89	62 - 131
trans-1,2-Dichloroethene	1000	U	20000	17300		ug/L		87	56 - 136
Trichloroethene	1000	U	20000	17700		ug/L		89	61 - 124

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	115		62 - 137
4-Bromofluorobenzene (Surr)	99		56 - 136
Toluene-d8 (Surr)	98		78 - 122
Dibromofluoromethane (Surr)	107		73 - 120

Eurofins Cleveland

QC Sample Results

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

Job ID: 240-224513-1

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

Lab Sample ID: 240-224513-5 MSD

Matrix: Water

Analysis Batch: 656461

Client Sample ID: MW-21_051325

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	1000	U	20000	18100		ug/L		90	56 - 135	6	26
Tetrachloroethene	1000	U	20000	18800		ug/L		94	62 - 131	5	20
trans-1,2-Dichloroethene	1000	U	20000	18300		ug/L		92	56 - 136	6	15
Trichloroethene	1000	U	20000	18700		ug/L		93	61 - 124	5	15

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	113		62 - 137
4-Bromofluorobenzene (Surr)	105		56 - 136
Toluene-d8 (Surr)	98		78 - 122
Dibromofluoromethane (Surr)	104		73 - 120

Lab Sample ID: MB 240-656892/10

Matrix: Water

Analysis Batch: 656892

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			05/21/25 16:09	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/21/25 16:09	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/21/25 16:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/21/25 16:09	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/21/25 16:09	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/21/25 16:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	115		62 - 137		05/21/25 16:09	1
4-Bromofluorobenzene (Surr)	98		56 - 136		05/21/25 16:09	1
Toluene-d8 (Surr)	93		78 - 122		05/21/25 16:09	1
Dibromofluoromethane (Surr)	105		73 - 120		05/21/25 16:09	1

Lab Sample ID: LCS 240-656892/5

Matrix: Water

Analysis Batch: 656892

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	19.5		ug/L		97	63 - 134
cis-1,2-Dichloroethene	20.0	20.1		ug/L		100	77 - 123
Tetrachloroethene	20.0	18.9		ug/L		94	76 - 123
trans-1,2-Dichloroethene	20.0	19.8		ug/L		99	75 - 124
Trichloroethene	20.0	19.5		ug/L		97	70 - 122
Vinyl chloride	20.0	15.4		ug/L		77	60 - 144

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	112		62 - 137
4-Bromofluorobenzene (Surr)	94		56 - 136
Toluene-d8 (Surr)	92		78 - 122
Dibromofluoromethane (Surr)	107		73 - 120

Eurofins Cleveland

QC Sample Results

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

Job ID: 240-224513-1

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

Lab Sample ID: 240-224764-B-2 MS

Matrix: Water

Analysis Batch: 656892

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	20.0	18.0		ug/L		90	56 - 135
cis-1,2-Dichloroethene	1.0	U	20.0	17.4		ug/L		87	66 - 128
Tetrachloroethene	1.0	U	20.0	19.7		ug/L		98	62 - 131
trans-1,2-Dichloroethene	1.0	U	20.0	18.1		ug/L		91	56 - 136
Trichloroethene	1.0	U	20.0	18.2		ug/L		91	61 - 124
Vinyl chloride	1.0	U	20.0	14.5		ug/L		72	43 - 157

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		62 - 137
4-Bromofluorobenzene (Surr)	99		56 - 136
Toluene-d8 (Surr)	98		78 - 122
Dibromofluoromethane (Surr)	98		73 - 120

Lab Sample ID: 240-224764-B-2 MSD

Matrix: Water

Analysis Batch: 656892

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	20.0	19.1		ug/L		95	56 - 135	6	26
cis-1,2-Dichloroethene	1.0	U	20.0	18.8		ug/L		94	66 - 128	8	14
Tetrachloroethene	1.0	U	20.0	19.5		ug/L		97	62 - 131	1	20
trans-1,2-Dichloroethene	1.0	U	20.0	19.0		ug/L		95	56 - 136	5	15
Trichloroethene	1.0	U	20.0	19.1		ug/L		95	61 - 124	5	15
Vinyl chloride	1.0	U	20.0	16.0		ug/L		80	43 - 157	10	24

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	112		62 - 137
4-Bromofluorobenzene (Surr)	97		56 - 136
Toluene-d8 (Surr)	97		78 - 122
Dibromofluoromethane (Surr)	104		73 - 120

Lab Sample ID: MB 240-657105/10

Matrix: Water

Analysis Batch: 657105

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			05/22/25 16:08	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/22/25 16:08	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/22/25 16:08	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/22/25 16:08	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/22/25 16:08	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/22/25 16:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		62 - 137		05/22/25 16:08	1
4-Bromofluorobenzene (Surr)	95		56 - 136		05/22/25 16:08	1
Toluene-d8 (Surr)	92		78 - 122		05/22/25 16:08	1

Eurofins Cleveland

QC Sample Results

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

Job ID: 240-224513-1

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

Lab Sample ID: MB 240-657105/10

Matrix: Water

Analysis Batch: 657105

Client Sample ID: Method Blank

Prep Type: Total/NA

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	93		73 - 120		05/22/25 16:08	1

Lab Sample ID: LCS 240-657105/5

Matrix: Water

Analysis Batch: 657105

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	18.8		ug/L		94	63 - 134
cis-1,2-Dichloroethene	20.0	19.3		ug/L		97	77 - 123
Tetrachloroethene	20.0	18.9		ug/L		95	76 - 123
trans-1,2-Dichloroethene	20.0	19.6		ug/L		98	75 - 124
Trichloroethene	20.0	18.8		ug/L		94	70 - 122
Vinyl chloride	20.0	17.4		ug/L		87	60 - 144

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	116		62 - 137
4-Bromofluorobenzene (Surr)	99		56 - 136
Toluene-d8 (Surr)	95		78 - 122
Dibromofluoromethane (Surr)	105		73 - 120

Lab Sample ID: 240-224793-B-35 MS

Matrix: Water

Analysis Batch: 657105

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	40	U	800	772		ug/L		97	56 - 135
cis-1,2-Dichloroethene	690		800	1420		ug/L		91	66 - 128
Tetrachloroethene	40	U	800	775		ug/L		97	62 - 131
trans-1,2-Dichloroethene	40	U	800	785		ug/L		98	56 - 136
Trichloroethene	40	U	800	769		ug/L		96	61 - 124
Vinyl chloride	40	U	800	617		ug/L		77	43 - 157

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	117		62 - 137
4-Bromofluorobenzene (Surr)	100		56 - 136
Toluene-d8 (Surr)	97		78 - 122
Dibromofluoromethane (Surr)	106		73 - 120

Lab Sample ID: 240-224793-B-35 MSD

Matrix: Water

Analysis Batch: 657105

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	40	U	800	759		ug/L		95	56 - 135	2	26
cis-1,2-Dichloroethene	690		800	1460		ug/L		97	66 - 128	3	14
Tetrachloroethene	40	U	800	735		ug/L		92	62 - 131	5	20
trans-1,2-Dichloroethene	40	U	800	788		ug/L		98	56 - 136	0	15
Trichloroethene	40	U	800	734		ug/L		92	61 - 124	5	15

Eurofins Cleveland

QC Sample Results

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

Job ID: 240-224513-1

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

Lab Sample ID: 240-224793-B-35 MSD

Matrix: Water

Analysis Batch: 657105

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
Vinyl chloride	40	U	800	694		ug/L		87	43 - 157	12	24
Surrogate	%Recovery	Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	116		62 - 137								
4-Bromofluorobenzene (Surr)	102		56 - 136								
Toluene-d8 (Surr)	96		78 - 122								
Dibromofluoromethane (Surr)	106		73 - 120								

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

Lab Sample ID: MB 240-656497/7

Matrix: Water

Analysis Batch: 656497

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			05/19/25 10:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	76		68 - 127					05/19/25 10:52	1

Lab Sample ID: LCS 240-656497/5

Matrix: Water

Analysis Batch: 656497

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	9.18		ug/L		92	75 - 121
Surrogate	%Recovery	Qualifier	Limits				
1,2-Dichloroethane-d4 (Surr)	76		68 - 127				

Lab Sample ID: 240-224507-D-8 MS

Matrix: Water

Analysis Batch: 656497

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
1,4-Dioxane	2.0	U	10.0	9.77		ug/L		98	20 - 180
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	73		68 - 127						

Lab Sample ID: 240-224507-D-8 MSD

Matrix: Water

Analysis Batch: 656497

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
1,4-Dioxane	2.0	U	10.0	10.5		ug/L		105	20 - 180	7	20

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QC Sample Results

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

Job ID: 240-224513-1

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

Lab Sample ID: 240-224507-D-8 MSD
Matrix: Water
Analysis Batch: 656497

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

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	75		68 - 127

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- 10
- 11
- 12
- 13
- 14

QC Association Summary

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

Job ID: 240-224513-1

GC/MS VOA

Analysis Batch: 656461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-224513-1	TRIP BLANK_206	Total/NA	Water	8260D	
240-224513-2	MW-66_051325	Total/NA	Water	8260D	
240-224513-3	MW-65_051325	Total/NA	Water	8260D	
240-224513-4	MW-49_051325	Total/NA	Water	8260D	
240-224513-5	MW-21_051325	Total/NA	Water	8260D	
240-224513-6	DUP-04	Total/NA	Water	8260D	
MB 240-656461/8	Method Blank	Total/NA	Water	8260D	
LCS 240-656461/3	Lab Control Sample	Total/NA	Water	8260D	
240-224513-5 MS	MW-21_051325	Total/NA	Water	8260D	
240-224513-5 MSD	MW-21_051325	Total/NA	Water	8260D	

Analysis Batch: 656497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-224513-2	MW-66_051325	Total/NA	Water	8260D SIM	
240-224513-3	MW-65_051325	Total/NA	Water	8260D SIM	
240-224513-4	MW-49_051325	Total/NA	Water	8260D SIM	
240-224513-5	MW-21_051325	Total/NA	Water	8260D SIM	
240-224513-6	DUP-04	Total/NA	Water	8260D SIM	
MB 240-656497/7	Method Blank	Total/NA	Water	8260D SIM	
LCS 240-656497/5	Lab Control Sample	Total/NA	Water	8260D SIM	
240-224507-D-8 MS	Matrix Spike	Total/NA	Water	8260D SIM	
240-224507-D-8 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D SIM	

Analysis Batch: 656892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-224513-4	MW-49_051325	Total/NA	Water	8260D	
240-224513-6	DUP-04	Total/NA	Water	8260D	
MB 240-656892/10	Method Blank	Total/NA	Water	8260D	
LCS 240-656892/5	Lab Control Sample	Total/NA	Water	8260D	
240-224764-B-2 MS	Matrix Spike	Total/NA	Water	8260D	
240-224764-B-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

Analysis Batch: 657105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-224513-5	MW-21_051325	Total/NA	Water	8260D	
MB 240-657105/10	Method Blank	Total/NA	Water	8260D	
LCS 240-657105/5	Lab Control Sample	Total/NA	Water	8260D	
240-224793-B-35 MS	Matrix Spike	Total/NA	Water	8260D	
240-224793-B-35 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

Lab Chronicle

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

Job ID: 240-224513-1

Client Sample ID: TRIP BLANK_206

Lab Sample ID: 240-224513-1

Date Collected: 05/13/25 00:00

Matrix: Water

Date Received: 05/15/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	656461	HMB	EET CLE	05/19/25 07:23

Client Sample ID: MW-66_051325

Lab Sample ID: 240-224513-2

Date Collected: 05/13/25 10:05

Matrix: Water

Date Received: 05/15/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	656461	HMB	EET CLE	05/19/25 09:33
Total/NA	Analysis	8260D SIM		1	656497	R5XG	EET CLE	05/19/25 14:23

Client Sample ID: MW-65_051325

Lab Sample ID: 240-224513-3

Date Collected: 05/13/25 11:20

Matrix: Water

Date Received: 05/15/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	656461	HMB	EET CLE	05/19/25 09:59
Total/NA	Analysis	8260D SIM		1	656497	R5XG	EET CLE	05/19/25 14:46

Client Sample ID: MW-49_051325

Lab Sample ID: 240-224513-4

Date Collected: 05/13/25 12:50

Matrix: Water

Date Received: 05/15/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	656461	HMB	EET CLE	05/19/25 10:25
Total/NA	Analysis	8260D		500	656892	AJS	EET CLE	05/21/25 18:45
Total/NA	Analysis	8260D SIM		1	656497	R5XG	EET CLE	05/19/25 15:10

Client Sample ID: MW-21_051325

Lab Sample ID: 240-224513-5

Date Collected: 05/13/25 13:55

Matrix: Water

Date Received: 05/15/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1000	656461	HMB	EET CLE	05/19/25 10:55
Total/NA	Analysis	8260D		1	657105	AJS	EET CLE	05/22/25 20:26
Total/NA	Analysis	8260D SIM		1	656497	R5XG	EET CLE	05/19/25 15:33

Client Sample ID: DUP-04

Lab Sample ID: 240-224513-6

Date Collected: 05/13/25 00:00

Matrix: Water

Date Received: 05/15/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	656461	HMB	EET CLE	05/19/25 11:21
Total/NA	Analysis	8260D		500	656892	AJS	EET CLE	05/21/25 19:36
Total/NA	Analysis	8260D SIM		1	656497	R5XG	EET CLE	05/19/25 15:57

Eurofins Cleveland

Lab Chronicle

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

Job ID: 240-224513-1

Laboratory References:

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

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Accreditation/Certification Summary

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

Job ID: 240-224513-1

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

[illegible]

Client Acadus Site Name _____ Cooler unpacked by: DS

Cooler Received on 5/15/25 Opened on 5/15/25

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

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

Eurofins Cooler # E Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Peen Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form

IR GUN # _____ (CF _____ °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

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

-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/MHg)? 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 Strip 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 # NA Yes No NA

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: _____

Login #: _____

5/26/2025

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

[illegible]

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservation Temp	Preservation Added	Preservation Lot Number
TRIP BLANK_206	240-224513-A-1	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-66_051325	240-224513-A-2	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-66_051325	240-224513-B-2	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-66_051325	240-224513-C-2	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-66_051325	240-224513-D-2	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-66_051325	240-224513-E-2	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-66_051325	240-224513-G-2	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-65_051325	240-224513-A-3	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-65_051325	240-224513-B-3	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-65_051325	240-224513-C-3	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-65_051325	240-224513-D-3	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-65_051325	240-224513-E-3	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-65_051325	240-224513-F-3	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-49_051325	240-224513-A-4	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-49_051325	240-224513-B-4	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-49_051325	240-224513-C-4	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-49_051325	240-224513-D-4	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-49_051325	240-224513-E-4	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-49_051325	240-224513-F-4	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-21_051325	240-224513-A-5	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-21_051325	240-224513-B-5	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-21_051325	240-224513-C-5	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-21_051325	240-224513-D-5	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-21_051325	240-224513-E-5	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-21_051325	240-224513-F-5	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
DUP-04	240-224513-A-6	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
DUP-04	240-224513-B-6	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
DUP-04	240-224513-C-6	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
DUP-04	240-224513-D-6	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
DUP-04	240-224513-E-6	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
DUP-04	240-224513-F-6	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____

DATA VERIFICATION REPORT



May 27, 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: 224513-1

Sample date: 2025-05-13

Report received by CADENA: 2025-05-27

Initial Data Verification completed by CADENA: 2025-05-27

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.

There were no significant QC anomalies or exceptions to report.

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: 224513-1

		Sample Name: TRIP BLANK_206				MW-66_051325				MW-65_051325				MW-49_051325				MW-21_051325				DUP-04			
		Lab Sample ID: 2402245131				2402245132				2402245133				2402245134				2402245135				2402245136			
		Sample Date: 5/13/2025				5/13/2025				5/13/2025				5/13/2025				5/13/2025				5/13/2025			
		Report		Valid		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	1.0	ug/l	---	48	1.0	ug/l	---	ND	1000	ug/l	---	47	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	0.48	1.0	ug/l	J	2.7	1.0	ug/l	---	34000	500	ug/l	---	2.2	1.0	ug/l	---	35000	500	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1000	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	1.0	ug/l	---	ND	500	ug/l	---	ND	1000	ug/l	---	ND	500	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	0.64	1.0	ug/l	J	ND	1000	ug/l	---	0.59	1.0	ug/l	J
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	1.0	1.0	ug/l	---	9.8	1.0	ug/l	---	8900	500	ug/l	---	5.6	1.0	ug/l	---	8800	500	ug/l	---
OSW-8260DSIM																									
1,4-Dioxane	123-91-1					ND	2.0	ug/l	---	ND	2.0	ug/l	---	10	2.0	ug/l	---	3.4	2.0	ug/l	---	10	2.0	ug/l	---