

# ANALYTICAL REPORT

## PREPARED FOR

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## JOB DESCRIPTION

Ford LTP

## JOB NUMBER

240-219636-1

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## Job Notes

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## Authorization



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## Definitions/Glossary

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

Job ID: 240-219636-1

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
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
SQL	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: 240-219636-1

**Job ID: 240-219636-1**

**Eurofins Cleveland**

### **Job Narrative 240-219636-1**

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 2/28/2025 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 1.1°C and 1.6°C.

#### **GC/MS VOA**

Method 8260D: The continuing calibration verification (CCV) analyzed in batch 240-647052 was outside the method criteria for the following analyte(s): Vinyl chloride. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260D: The continuing calibration verification (CCV) analyzed in batch 240-647219 was outside the method criteria for the following analyte(s): Vinyl chloride. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

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

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## Method Summary

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

Job ID: 240-219636-1

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: 240-219636-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-219636-1	TRIP BLANK_97	Water	02/26/25 00:00	02/28/25 08:00
240-219636-2	MW-40_022625	Water	02/26/25 13:35	02/28/25 08:00
240-219636-3	MW-41_022625	Water	02/26/25 12:25	02/28/25 08:00
240-219636-4	MW-42_022625	Water	02/26/25 11:10	02/28/25 08:00

## Detection Summary

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

Job ID: 240-219636-1

### Client Sample ID: TRIP BLANK\_97

Lab Sample ID: 240-219636-1

No Detections.

### Client Sample ID: MW-40\_022625

Lab Sample ID: 240-219636-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2.0		1.0	0.46	ug/L	1		8260D	Total/NA
Vinyl chloride	0.76	J	1.0	0.45	ug/L	1		8260D	Total/NA

### Client Sample ID: MW-41\_022625

Lab Sample ID: 240-219636-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	13		2.0	0.86	ug/L	1		8260D SIM	Total/NA
Vinyl chloride	0.98	J	1.0	0.45	ug/L	1		8260D	Total/NA

### Client Sample ID: MW-42\_022625

Lab Sample ID: 240-219636-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	1.2	J	2.0	0.86	ug/L	1		8260D SIM	Total/NA
Vinyl chloride	0.64	J	1.0	0.45	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

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

Job ID: 240-219636-1

Client Sample ID: TRIP BLANK\_97

Lab Sample ID: 240-219636-1

Date Collected: 02/26/25 00:00

Matrix: Water

Date Received: 02/28/25 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			03/06/25 18:58	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/06/25 18:58	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/06/25 18:58	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/06/25 18:58	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/06/25 18:58	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/06/25 18:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		62 - 137		03/06/25 18:58	1
4-Bromofluorobenzene (Surr)	95		56 - 136		03/06/25 18:58	1
Toluene-d8 (Surr)	103		78 - 122		03/06/25 18:58	1
Dibromofluoromethane (Surr)	100		73 - 120		03/06/25 18:58	1

# Client Sample Results

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

Job ID: 240-219636-1

Client Sample ID: MW-40\_022625

Lab Sample ID: 240-219636-2

Date Collected: 02/26/25 13:35

Matrix: Water

Date Received: 02/28/25 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			03/10/25 16:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		68 - 127					03/10/25 16:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			03/06/25 19:21	1
cis-1,2-Dichloroethene	2.0		1.0	0.46	ug/L			03/06/25 19:21	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/06/25 19:21	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/06/25 19:21	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/06/25 19:21	1
Vinyl chloride	0.76	J	1.0	0.45	ug/L			03/06/25 19:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		62 - 137					03/06/25 19:21	1
4-Bromofluorobenzene (Surr)	95		56 - 136					03/06/25 19:21	1
Toluene-d8 (Surr)	104		78 - 122					03/06/25 19:21	1
Dibromofluoromethane (Surr)	100		73 - 120					03/06/25 19:21	1

# Client Sample Results

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

Job ID: 240-219636-1

Client Sample ID: MW-41\_022625

Lab Sample ID: 240-219636-3

Date Collected: 02/26/25 12:25

Matrix: Water

Date Received: 02/28/25 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	13		2.0	0.86	ug/L			03/10/25 16:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		68 - 127					03/10/25 16:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			03/07/25 12:26	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/07/25 12:26	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/07/25 12:26	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/07/25 12:26	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/07/25 12:26	1
Vinyl chloride	0.98	J	1.0	0.45	ug/L			03/10/25 19:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		62 - 137					03/07/25 12:26	1
1,2-Dichloroethane-d4 (Surr)	119		62 - 137					03/10/25 19:41	1
4-Bromofluorobenzene (Surr)	94		56 - 136					03/07/25 12:26	1
4-Bromofluorobenzene (Surr)	97		56 - 136					03/10/25 19:41	1
Toluene-d8 (Surr)	103		78 - 122					03/07/25 12:26	1
Toluene-d8 (Surr)	104		78 - 122					03/10/25 19:41	1
Dibromofluoromethane (Surr)	94		73 - 120					03/07/25 12:26	1
Dibromofluoromethane (Surr)	102		73 - 120					03/10/25 19:41	1

# Client Sample Results

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

Job ID: 240-219636-1

Client Sample ID: MW-42\_022625

Lab Sample ID: 240-219636-4

Date Collected: 02/26/25 11:10

Matrix: Water

Date Received: 02/28/25 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	1.2	J	2.0	0.86	ug/L			03/10/25 16:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		68 - 127					03/10/25 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			03/07/25 12:49	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/07/25 12:49	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/07/25 12:49	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/07/25 12:49	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/07/25 12:49	1
Vinyl chloride	0.64	J	1.0	0.45	ug/L			03/07/25 12:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		62 - 137					03/07/25 12:49	1
4-Bromofluorobenzene (Surr)	94		56 - 136					03/07/25 12:49	1
Toluene-d8 (Surr)	105		78 - 122					03/07/25 12:49	1
Dibromofluoromethane (Surr)	91		73 - 120					03/07/25 12:49	1

# Surrogate Summary

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

Job ID: 240-219636-1

## 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)
240-219544-B-4 MS	Matrix Spike	103	97	105	96
240-219544-B-4 MSD	Matrix Spike Duplicate	102	102	107	95
240-219636-1	TRIP BLANK_97	112	95	103	100
240-219636-2	MW-40_022625	110	95	104	100
240-219636-3	MW-41_022625	107	94	103	94
240-219636-3	MW-41_022625	119	97	104	102
240-219636-4	MW-42_022625	106	94	105	91
240-219757-B-10 MS	Matrix Spike	93	96	106	90
240-219757-B-10 MSD	Matrix Spike Duplicate	99	97	104	94
240-219757-C-10 MS	Matrix Spike	115	99	105	101
240-219757-C-10 MSD	Matrix Spike Duplicate	117	101	107	101
LCS 240-647052/4	Lab Control Sample	99	98	101	95
LCS 240-647219/4	Lab Control Sample	105	92	101	93
LCS 240-647465/4	Lab Control Sample	119	98	103	98
MB 240-647052/7	Method Blank	110	96	102	97
MB 240-647219/7	Method Blank	100	95	101	92
MB 240-647465/7	Method Blank	117	97	103	100

### 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)			
240-219636-2	MW-40_022625	111			
240-219636-3	MW-41_022625	107			
240-219636-4	MW-42_022625	108			
500-264504-A-12 MSD	Matrix Spike Duplicate	102			
500-264504-C-12 MS	Matrix Spike	106			
LCS 240-647508/4	Lab Control Sample	111			
MB 240-647508/6	Method Blank	107			

### Surrogate Legend

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

# QC Sample Results

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

Job ID: 240-219636-1

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

Lab Sample ID: MB 240-647052/7

Matrix: Water

Analysis Batch: 647052

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			03/06/25 10:59	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/06/25 10:59	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/06/25 10:59	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/06/25 10:59	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/06/25 10:59	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/06/25 10:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		62 - 137		03/06/25 10:59	1
4-Bromofluorobenzene (Surr)	96		56 - 136		03/06/25 10:59	1
Toluene-d8 (Surr)	102		78 - 122		03/06/25 10:59	1
Dibromofluoromethane (Surr)	97		73 - 120		03/06/25 10:59	1

Lab Sample ID: LCS 240-647052/4

Matrix: Water

Analysis Batch: 647052

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	23.5		ug/L		94	77 - 123
Tetrachloroethene	25.0	23.8		ug/L		95	76 - 123
trans-1,2-Dichloroethene	25.0	23.6		ug/L		94	75 - 124
Trichloroethene	25.0	22.6		ug/L		90	70 - 122
Vinyl chloride	12.5	9.43		ug/L		75	60 - 144

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		62 - 137
4-Bromofluorobenzene (Surr)	98		56 - 136
Toluene-d8 (Surr)	101		78 - 122
Dibromofluoromethane (Surr)	95		73 - 120

Lab Sample ID: 240-219544-B-4 MS

Matrix: Water

Analysis Batch: 647052

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		62 - 137
4-Bromofluorobenzene (Surr)	97		56 - 136
Toluene-d8 (Surr)	105		78 - 122
Dibromofluoromethane (Surr)	96		73 - 120

Lab Sample ID: 240-219544-B-4 MSD

Matrix: Water

Analysis Batch: 647052

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		62 - 137

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# QC Sample Results

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

Job ID: 240-219636-1

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

Lab Sample ID: 240-219544-B-4 MSD

Matrix: Water

Analysis Batch: 647052

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		56 - 136
Toluene-d8 (Surr)	107		78 - 122
Dibromofluoromethane (Surr)	95		73 - 120

Lab Sample ID: MB 240-647219/7

Matrix: Water

Analysis Batch: 647219

Client Sample ID: Method Blank

Prep Type: Total/NA

	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			03/07/25 12:04	1	
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/07/25 12:04	1	
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/07/25 12:04	1	
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/07/25 12:04	1	
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/07/25 12:04	1	
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/07/25 12:04	1	

	MB	MB								
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil	Fac			
1,2-Dichloroethane-d4 (Surr)	100		62 - 137		03/07/25 12:04	1				
4-Bromofluorobenzene (Surr)	95		56 - 136		03/07/25 12:04	1				
Toluene-d8 (Surr)	101		78 - 122		03/07/25 12:04	1				
Dibromofluoromethane (Surr)	92		73 - 120		03/07/25 12:04	1				

Lab Sample ID: LCS 240-647219/4

Matrix: Water

Analysis Batch: 647219

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	Spike	LCS	LCS						%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits			
1,1-Dichloroethene	25.0	22.6		ug/L		90	63 - 134			
cis-1,2-Dichloroethene	25.0	22.8		ug/L		91	77 - 123			
Tetrachloroethene	25.0	22.9		ug/L		92	76 - 123			
trans-1,2-Dichloroethene	25.0	22.4		ug/L		90	75 - 124			
Trichloroethene	25.0	21.1		ug/L		84	70 - 122			
Vinyl chloride	12.5	9.55		ug/L		76	60 - 144			

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105		62 - 137
4-Bromofluorobenzene (Surr)	92		56 - 136
Toluene-d8 (Surr)	101		78 - 122
Dibromofluoromethane (Surr)	93		73 - 120

Lab Sample ID: 240-219757-B-10 MS

Matrix: Water

Analysis Batch: 647219

Client Sample ID: Matrix Spike

Prep Type: Total/NA

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,1-Dichloroethene	1.6		25.0	22.2		ug/L		82	56 - 135	
cis-1,2-Dichloroethene	25		25.0	45.1		ug/L		81	66 - 128	
Tetrachloroethene	11		25.0	33.7		ug/L		91	62 - 131	

Eurofins Cleveland

# QC Sample Results

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

Job ID: 240-219636-1

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

Lab Sample ID: 240-219757-B-10 MS

Matrix: Water

Analysis Batch: 647219

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
trans-1,2-Dichloroethene	0.76	J	25.0	21.4		ug/L		83	56 - 136
Trichloroethene	1200	E	25.0	1100	E 4	ug/L		-192	61 - 124
Vinyl chloride	6.4		12.5	12.4		ug/L		48	43 - 157
Surrogate	MS %Recovery	MS Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	93		62 - 137						
4-Bromofluorobenzene (Surr)	96		56 - 136						
Toluene-d8 (Surr)	106		78 - 122						
Dibromofluoromethane (Surr)	90		73 - 120						

Lab Sample ID: 240-219757-B-10 MSD

Matrix: Water

Analysis Batch: 647219

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	1.6		25.0	23.4		ug/L		87	56 - 135	5	26
cis-1,2-Dichloroethene	25		25.0	46.2		ug/L		85	66 - 128	2	14
Tetrachloroethene	11		25.0	33.7		ug/L		91	62 - 131	0	20
trans-1,2-Dichloroethene	0.76	J	25.0	22.0		ug/L		85	56 - 136	3	15
Trichloroethene	1200	E	25.0	1120	E 4	ug/L		-124	61 - 124	2	15
Vinyl chloride	6.4		12.5	14.8		ug/L		67	43 - 157	18	24
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	99		62 - 137								
4-Bromofluorobenzene (Surr)	97		56 - 136								
Toluene-d8 (Surr)	104		78 - 122								
Dibromofluoromethane (Surr)	94		73 - 120								

Lab Sample ID: MB 240-647465/7

Matrix: Water

Analysis Batch: 647465

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			03/10/25 12:48	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/10/25 12:48	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/10/25 12:48	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/10/25 12:48	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/10/25 12:48	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/10/25 12:48	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		62 - 137					03/10/25 12:48	1
4-Bromofluorobenzene (Surr)	97		56 - 136					03/10/25 12:48	1
Toluene-d8 (Surr)	103		78 - 122					03/10/25 12:48	1
Dibromofluoromethane (Surr)	100		73 - 120					03/10/25 12:48	1

Eurofins Cleveland



# QC Sample Results

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

Job ID: 240-219636-1

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

Lab Sample ID: LCS 240-647465/4

Matrix: Water

Analysis Batch: 647465

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	24.9		ug/L		99	63 - 134
cis-1,2-Dichloroethene	25.0	23.1		ug/L		92	77 - 123
Tetrachloroethene	25.0	25.0		ug/L		100	76 - 123
trans-1,2-Dichloroethene	25.0	23.3		ug/L		93	75 - 124
Trichloroethene	25.0	24.1		ug/L		96	70 - 122
Vinyl chloride	12.5	11.1		ug/L		89	60 - 144

Surrogate	%Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	119		62 - 137
4-Bromofluorobenzene (Surr)	98		56 - 136
Toluene-d8 (Surr)	103		78 - 122
Dibromofluoromethane (Surr)	98		73 - 120

Lab Sample ID: 240-219757-C-10 MS

Matrix: Water

Analysis Batch: 647465

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	25	U	625	557		ug/L		89	56 - 135
cis-1,2-Dichloroethene	26		625	588		ug/L		90	66 - 128
Tetrachloroethene	14	J	625	539		ug/L		84	62 - 131
trans-1,2-Dichloroethene	25	U	625	528		ug/L		85	56 - 136
Trichloroethene	1200		625	1600	E	ug/L		69	61 - 124
Vinyl chloride	25	U	313	234		ug/L		75	43 - 157

Surrogate	%Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	115		62 - 137
4-Bromofluorobenzene (Surr)	99		56 - 136
Toluene-d8 (Surr)	105		78 - 122
Dibromofluoromethane (Surr)	101		73 - 120

Lab Sample ID: 240-219757-C-10 MSD

Matrix: Water

Analysis Batch: 647465

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
1,1-Dichloroethene	25	U	625	596		ug/L		95	56 - 135	7	26
cis-1,2-Dichloroethene	26		625	599		ug/L		92	66 - 128	2	14
Tetrachloroethene	14	J	625	585		ug/L		91	62 - 131	8	20
trans-1,2-Dichloroethene	25	U	625	578		ug/L		92	56 - 136	9	15
Trichloroethene	1200		625	1620	E	ug/L		71	61 - 124	1	15
Vinyl chloride	25	U	313	267		ug/L		85	43 - 157	13	24

Surrogate	%Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	117		62 - 137
4-Bromofluorobenzene (Surr)	101		56 - 136
Toluene-d8 (Surr)	107		78 - 122

Eurofins Cleveland

# QC Sample Results

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

Job ID: 240-219636-1

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

Lab Sample ID: 240-219757-C-10 MSD

Matrix: Water

Analysis Batch: 647465

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
Dibromofluoromethane (Surr)	101		73 - 120

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

Lab Sample ID: MB 240-647508/6

Matrix: Water

Analysis Batch: 647508

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			03/10/25 13:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		68 - 127					03/10/25 13:25	1

Lab Sample ID: LCS 240-647508/4

Matrix: Water

Analysis Batch: 647508

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
1,4-Dioxane	10.0	10.2		ug/L		102	75 - 121
Surrogate	%Recovery	Qualifier	Limits				
1,2-Dichloroethane-d4 (Surr)	111		68 - 127				

Lab Sample ID: 500-264504-A-12 MSD

Matrix: Water

Analysis Batch: 647508

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
1,4-Dioxane	5500		500	5750	4	ug/L		46	20 - 180	3	20
Surrogate	%Recovery	Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	102		68 - 127								

Lab Sample ID: 500-264504-C-12 MS

Matrix: Water

Analysis Batch: 647508

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec		
1,4-Dioxane	5500		500	5900	4	ug/L		76	20 - 180		
Surrogate	%Recovery	Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	106		68 - 127								

Eurofins Cleveland

# QC Association Summary

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

Job ID: 240-219636-1

## GC/MS VOA

### Analysis Batch: 647052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-219636-1	TRIP BLANK_97	Total/NA	Water	8260D	
240-219636-2	MW-40_022625	Total/NA	Water	8260D	
MB 240-647052/7	Method Blank	Total/NA	Water	8260D	
LCS 240-647052/4	Lab Control Sample	Total/NA	Water	8260D	
240-219544-B-4 MS	Matrix Spike	Total/NA	Water	8260D	
240-219544-B-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

### Analysis Batch: 647219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-219636-3	MW-41_022625	Total/NA	Water	8260D	
240-219636-4	MW-42_022625	Total/NA	Water	8260D	
MB 240-647219/7	Method Blank	Total/NA	Water	8260D	
LCS 240-647219/4	Lab Control Sample	Total/NA	Water	8260D	
240-219757-B-10 MS	Matrix Spike	Total/NA	Water	8260D	
240-219757-B-10 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

### Analysis Batch: 647465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-219636-3	MW-41_022625	Total/NA	Water	8260D	
MB 240-647465/7	Method Blank	Total/NA	Water	8260D	
LCS 240-647465/4	Lab Control Sample	Total/NA	Water	8260D	
240-219757-C-10 MS	Matrix Spike	Total/NA	Water	8260D	
240-219757-C-10 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

### Analysis Batch: 647508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-219636-2	MW-40_022625	Total/NA	Water	8260D SIM	
240-219636-3	MW-41_022625	Total/NA	Water	8260D SIM	
240-219636-4	MW-42_022625	Total/NA	Water	8260D SIM	
MB 240-647508/6	Method Blank	Total/NA	Water	8260D SIM	
LCS 240-647508/4	Lab Control Sample	Total/NA	Water	8260D SIM	
500-264504-A-12 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D SIM	
500-264504-C-12 MS	Matrix Spike	Total/NA	Water	8260D SIM	

# Lab Chronicle

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

Job ID: 240-219636-1

**Client Sample ID: TRIP BLANK\_97**

**Lab Sample ID: 240-219636-1**

Date Collected: 02/26/25 00:00

Matrix: Water

Date Received: 02/28/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	647052	LEE	EET CLE	03/06/25 18:58

**Client Sample ID: MW-40\_022625**

**Lab Sample ID: 240-219636-2**

Date Collected: 02/26/25 13:35

Matrix: Water

Date Received: 02/28/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	647052	LEE	EET CLE	03/06/25 19:21
Total/NA	Analysis	8260D SIM		1	647508	R5XG	EET CLE	03/10/25 16:10

**Client Sample ID: MW-41\_022625**

**Lab Sample ID: 240-219636-3**

Date Collected: 02/26/25 12:25

Matrix: Water

Date Received: 02/28/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	647219	LEE	EET CLE	03/07/25 12:26
Total/NA	Analysis	8260D		1	647465	LEE	EET CLE	03/10/25 19:41
Total/NA	Analysis	8260D SIM		1	647508	R5XG	EET CLE	03/10/25 16:33

**Client Sample ID: MW-42\_022625**

**Lab Sample ID: 240-219636-4**

Date Collected: 02/26/25 11:10

Matrix: Water

Date Received: 02/28/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	647219	LEE	EET CLE	03/07/25 12:49
Total/NA	Analysis	8260D SIM		1	647508	R5XG	EET CLE	03/10/25 16:57

## 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: 240-219636-1

### 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 (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	04-01-25
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
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  
Barberton Facility

Client ARCADIS Site Name \_\_\_\_\_ Login # \_\_\_\_\_  
Cooler Received on 2/28/25 Opened on 2/28/25 Cooler unpacked by: J MOROSKO  
FedEx 1<sup>st</sup> Grd Exp UPS FAS W/Print Client Drop Off Eurofins Courier Other \_\_\_\_\_  
Receipt After-hours Drop-off Date/Time \_\_\_\_\_ Storage Location \_\_\_\_\_  
Eurofins Cooler # 2C 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 TD °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  
-Were the seals on the outside of the cooler(s) signed & dated? ☒ Yes ☒ No ☒ NA  
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? ☒ Yes ☒ No ☒ NA  
-Were tamper/custody seals intact and uncompromised? ☒ Yes ☒ No ☒ NA  
3 Shippers' packing slip attached to the cooler(s)? ☒ Yes ☒ No  
4 Did custody papers accompany the sample(s)? ☒ Yes ☒ No  
5 Were the custody papers relinquished & signed in the appropriate place? ☒ Yes ☒ No  
6 Was/were the person(s) who collected the samples clearly identified on the COC? ☒ Yes ☒ No  
7 Did all bottles arrive in good condition (Unbroken)? ☒ Yes ☒ No  
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC? ☒ Yes ☒ No  
9 For each sample, does the COC specify preservative (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? ☒ Yes ☒ No  
10 Were correct bottle(s) used for the test(s) indicated? ☒ Yes ☒ No  
11 Sufficient quantity received to perform indicated analyses? ☒ Yes ☒ No  
12 Are these work share samples and all listed on the COC? ☒ Yes ☒ No  
If yes, Questions 13-17 have been checked at the originating laboratory  
13 Were all preserved sample(s) at the correct pH upon receipt? ☒ Yes ☒ No ☒ NA pH Strip Lot# HC448976  
14 Were VOAs on the COC? ☒ Yes ☒ No  
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 # covered  
17 Was a LL Hg or Me Hg trip blank present? ☒ Yes ☒ No  
Contacted PM \_\_\_\_\_ Date \_\_\_\_\_ by \_\_\_\_\_ via Verbal Voice Mail Other \_\_\_\_\_  
Concerning \_\_\_\_\_  
18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page Samples processed by: \_\_\_\_\_  
19 SAMPLE CONDITION  
Sample(s) \_\_\_\_\_ were received after the recommended holding time had expired  
Sample(s) \_\_\_\_\_ were received in a broken container  
Sample(s) \_\_\_\_\_ 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. \_\_\_\_\_







2/28/2025

Login Container Summary Report

240-219636

3/12/2025

Temperature readings

Client Sample ID	Lab ID	Container Type	Container			Preservation	Preservation
			pH	Temp	Added		Lot Number
TRJP BLANK_97	240-219636-A-1	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____	_____
MW-40_022625	240-219636-A-2	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____	_____
MW-40_022625	240-219636-B-2	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____	_____
MW-40_022625	240-219636-C-2	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____	_____
MW-40_022625	240-219636-D-2	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____	_____
MW-40_022625	240-219636-E-2	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____	_____
MW-40_022625	240-219636-F-2	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____	_____
MW-41_022625	240-219636-A-3	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____	_____
MW-41_022625	240-219636-B-3	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____	_____
MW-41_022625	240-219636-C-3	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____	_____
MW-41_022625	240-219636-D-3	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____	_____
MW-41_022625	240-219636-E-3	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____	_____
MW-41_022625	240-219636-F-3	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____	_____
MW-42_022625	240-219636-A-4	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____	_____
MW-42_022625	240-219636-B-4	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____	_____
MW-42_022625	240-219636-C-4	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____	_____
MW-42_022625	240-219636-D-4	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____	_____
MW-42_022625	240-219636-E-4	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____	_____
MW-42_022625	240-219636-F-4	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____	_____

# DATA VERIFICATION REPORT



March 12, 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: 219636-1

Sample date: 2025-02-26

Report received by CADENA: 2025-03-12

Initial Data Verification completed by CADENA: 2025-03-12

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

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

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

Data verification for the report specified above was completed using the Ford Motor Company Environmental Laboratory Technical Specification, the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

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

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

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

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

## CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab 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:** 219636-1

**Sample Name:** TRIP BLANK\_97

**Lab Sample ID:** 2402196361

**Sample Date:** 2/26/2025

MW-40\_022625

2402196362

2/26/2025

MW-41\_022625

2402196363

2/26/2025

MW-42\_022625

2402196364

2/26/2025

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	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	2.0	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	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	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	0.76	1.0	ug/l	J	0.98	1.0	ug/l	J	0.64	1.0	ug/l	J

#### OSW-8260DSIM

1,4-Dioxane	123-91-1					ND	2.0	ug/l	---	13	2.0	ug/l	---	1.2	2.0	ug/l	J
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