# PREPARED FOR

Attn: Ms. Megan Meckley Arcadis US Inc. 28550 Cabot Drive Suite 500 Novi, Michigan 48377

Generated 6/3/2025 7:31:13 AM

# **JOB DESCRIPTION**

Ford LTP

# **JOB NUMBER**

240-225263-1

Eurofins Cleveland 180 S. Van Buren Avenue Barberton OH 44203

# **Eurofins Cleveland**

### **Job Notes**

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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# Authorization

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

Laboratory Job ID: 240-225263-1

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### **Definitions/Glossary**

Client: Arcadis US Inc. Job ID: 240-225263-1

Project/Site: Ford LTP

**Qualifiers** 

GC/MS VOA
Qualifier Qualifier Description

F1 MS and/or MSD recovery exceeds control limits.

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

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### **Case Narrative**

Client: Arcadis US Inc. Project: Ford LTP

Job ID: 240-225263-1 Eurofins Cleveland

Job Narrative 240-225263-1

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 5/24/2025 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 0.7°C and 0.8°C.

### GC/MS VOA

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

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Job ID: 240-225263-1

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# **Method Summary**

Client: Arcadis US Inc.

Project/Site: Ford LTP

Job ID: 240-225263-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CLE
8260D SIM	Volatile Organic Compounds (GC/MS)	SW846	EET CLE
5030C	Purge and Trap	SW846	EET CLE

### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

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

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# **Sample Summary**

Client: Arcadis US Inc.

Project/Site: Ford LTP

Job ID: 240-225263-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-225263-1	TRIP BLANK_74	Water	05/21/25 00:00	05/24/25 08:00
240-225263-2	MW-199S_052125	Water	05/21/25 09:35	05/24/25 08:00
240-225263-3	MW-51_052125	Water	05/21/25 10:55	05/24/25 08:00
240-225263-4	PW-16-02 052125	Water	05/21/25 12:00	05/24/25 08:00

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# **Detection Summary**

Client: Arcadis US Inc.

Job ID: 240-225263-1

Project/Site: Ford LTP

Client Sample ID: TRIP BLANK\_74 Lab Sample ID: 240-225263-1

No Detections.

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D	Method	Prep Type
1,4-Dioxane	2.4	2.0	0.86 ug/L	1	8260D SIM	Total/NA
Vinyl chloride	0.84 J	1.0	0.45 ug/L	1	8260D	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,4-Dioxane	1.7	J	2.0	0.86	ug/L		1	_	8260D SIM	Total/NA

No Detections.

This Detection Summary does not include radiochemical test results.

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Client: Arcadis US Inc. Job ID: 240-225263-1

Project/Site: Ford LTP

Client Sample ID: TRIP BLANK\_74

Date Received: 05/24/25 08:00

Lab Sample ID: 240-225263-1 Date Collected: 05/21/25 00:00

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			05/29/25 17:39	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/29/25 17:39	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/29/25 17:39	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/29/25 17:39	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/29/25 17:39	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/29/25 17:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		62 - 137					05/29/25 17:39	1
4-Bromofluorobenzene (Surr)	83		56 <sub>-</sub> 136					05/29/25 17:39	1
Toluene-d8 (Surr)	97		78 - 122					05/29/25 17:39	1
Dibromofluoromethane (Surr)	103		73 - 120					05/29/25 17:39	1

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Client: Arcadis US Inc. Job ID: 240-225263-1

Project/Site: Ford LTP

Client Sample ID: MW-199S\_052125

Date Collected: 05/21/25 09:35 Date Received: 05/24/25 08:00 Lab Sample ID: 240-225263-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.4		2.0	0.86	ug/L			05/30/25 13:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		68 - 127			-		05/30/25 13:52	1
Method: SW846 8260D - Volat Analyte	•	ounds by G Qualifier	GC/MS	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	•	Qualifier			Unit ug/L	<u>D</u> -	Prepared	Analyzed 05/29/25 20:51	Dil Fac
Analyte	Result	Qualifier U	RL	0.49		<u>D</u> .	Prepared	- <u>-</u>	Dil Fac
Analyte 1,1-Dichloroethene	Result 1.0	Qualifier U	RL	0.49 0.46	ug/L	<u> </u>	Prepared	05/29/25 20:51	Dil Fac 1 1
Analyte 1,1-Dichloroethene cis-1,2-Dichloroethene	Result 1.0 1.0	Qualifier U U U	1.0 1.0	0.49 0.46 0.44	ug/L ug/L	<u> </u>	Prepared	05/29/25 20:51 05/29/25 20:51	Dil Fac 1 1 1
Analyte 1,1-Dichloroethene cis-1,2-Dichloroethene Tetrachloroethene	Result 1.0 1.0 1.0	Qualifier U U U U	1.0 1.0 1.0 1.0	0.49 0.46 0.44 0.51	ug/L ug/L ug/L	<u> </u>	Prepared	05/29/25 20:51 05/29/25 20:51 05/29/25 20:51	Dil Fac 1 1 1 1

Surrogate	%Recovery Qualifier	Limits	Prepared	l Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109	62 - 137		05/29/25 20:51	1
4-Bromofluorobenzene (Surr)	81	56 <sub>-</sub> 136		05/29/25 20:51	1
Toluene-d8 (Surr)	95	78 - 122		05/29/25 20:51	1
Dibromofluoromethane (Surr)	106	73 - 120		05/29/25 20:51	1

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Client: Arcadis US Inc. Job ID: 240-225263-1

Project/Site: Ford LTP

Toluene-d8 (Surr)

Dibromofluoromethane (Surr)

Client Sample ID: MW-51\_052125

Date Received: 05/24/25 08:00

Lab Sample ID: 240-225263-3 Date Collected: 05/21/25 10:55

106

115

**Matrix: Water** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.7	J	2.0	0.86	ug/L			05/30/25 14:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		68 - 127			•		05/30/25 14:15	1
- Method: SW846 8260D - Volat	ile Organic Comp	ounds by G	C/MS						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			05/29/25 21:15	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/29/25 21:15	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/29/25 21:15	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/29/25 21:15	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/29/25 21:15	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/29/25 21:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	120		62 - 137			-		05/29/25 21:15	1
4-Bromofluorobenzene (Surr)	91		56 <sub>-</sub> 136					05/29/25 21:15	1

78 - 122

73 - 120

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05/29/25 21:15

05/29/25 21:15

Client: Arcadis US Inc.

Job ID: 240-225263-1

Project/Site: Ford LTP

Client Sample ID: PW-16-02\_052125

Date Collected: 05/21/25 12:00

Matrix: Water

Lab Sample ID: 240-225263-4

Date Received: 05/24/25 08:00
Method: SW846 8260D SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			05/30/25 14:38	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1 2-Dichloroethane-d4 (Surr)	85	68 - 127		05/30/25 14:38	1

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

motiloui otto io ozooz i tolumo	and organic compounds by comic								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			05/30/25 22:47	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/30/25 22:47	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/30/25 22:47	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/30/25 22:47	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/30/25 22:47	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/30/25 22:47	1

Surrogate	%Recovery	Qualifier Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114	62 - 13	7	05/30/25 22:47	1
4-Bromofluorobenzene (Surr)	85	56 <sub>-</sub> 13	6	05/30/25 22:47	1
Toluene-d8 (Surr)	100	78 - 12	2	05/30/25 22:47	1
Dibromofluoromethane (Surr)	111	73 - 12	0	05/30/25 22:47	1

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# **Surrogate Summary**

Client: Arcadis US Inc.

Job ID: 240-225263-1

Project/Site: Ford LTP

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

Matrix: Water Prep Type: Total/NA

			Percent Sur	nt Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM		
Lab Sample ID	Client Sample ID	(62-137)	(56-136)	(78-122)	(73-120)		
240-225215-A-2 MS	Matrix Spike	104	104	108	105		
240-225215-B-2 MSD	Matrix Spike Duplicate	106	103	108	108		
240-225263-1	TRIP BLANK_74	107	83	97	103		
240-225263-2	MW-199S_052125	109	81	95	106		
240-225263-3	MW-51_052125	120	91	106	115		
240-225263-4	PW-16-02_052125	114	85	100	111		
480-229505-E-4 MS	Matrix Spike	98	101	103	100		
480-229505-E-4 MSD	Matrix Spike Duplicate	96	100	103	98		
LCS 240-657746/5	Lab Control Sample	97	99	103	100		
LCS 240-657981/5	Lab Control Sample	104	107	111	106		
MB 240-657746/10	Method Blank	115	91	105	111		
MB 240-657981/10	Method Blank	115	90	104	112		

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

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

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

Matrix: Water Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)
		DCA	
Lab Sample ID	Client Sample ID	(68-127)	
240-225263-2	MW-199S_052125	86	
240-225263-3	MW-51_052125	88	
240-225263-4	PW-16-02_052125	85	
240-225270-E-4 MS	Matrix Spike	89	
240-225270-E-4 MSD	Matrix Spike Duplicate	87	
LCS 240-658002/4	Lab Control Sample	86	
MB 240-658002/6	Method Blank	86	

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

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

Lab Sample ID: MB 240-657746/10

**Matrix: Water** 

Analyte

Project/Site: Ford LTP

Analysis Batch: 657746

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

MB MB Dil Fac Result Qualifier RLMDL Unit D Prepared Analyzed 1,1-Dichloroethene 1.0 U 1.0 0.49 ug/L 05/29/25 12:33 cis-1,2-Dichloroethene 1.0 U 1.0 0.46 ug/L 05/29/25 12:33 1.0 U 1.0 0.44 ug/L 05/29/25 12:33 Tetrachloroethene trans-1,2-Dichloroethene 1.0 U 05/29/25 12:33 1.0 0.51 ug/L Trichloroethene 1.0 U 1.0 0.44 ug/L 05/29/25 12:33 Vinyl chloride 1.0 U 1.0 0.45 ug/L 05/29/25 12:33

MB MB

1,2-Dichloroethane-d4 (Surr)       115       62 - 137       05/2         4-Bromofluorobenzene (Surr)       91       56 - 136       05/2         Toluene-d8 (Surr)       105       78 - 122       05/2							
4-Bromofluorobenzene (Surr)       91       56 - 136       05/2         Toluene-d8 (Surr)       105       78 - 122       05/2	Surro	gate %Recover	y Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr) 105 78 - 122 05/2	1,2-D	ichloroethane-d4 (Surr) 11	5	62 - 137		05/29/25 12:33	1
· · · · · · · · · · · · · · · · · · ·	4-Bro	mofluorobenzene (Surr) 9	1	56 - 136		05/29/25 12:33	1
Dibromofluoromethane (Surr)         111         73 - 120         05/2	Tolue	ne-d8 (Surr) 10	5	78 - 122		05/29/25 12:33	1
	Dibro	mofluoromethane (Surr) 11	1	73 - 120		05/29/25 12:33	1

Lab Sample ID: LCS 240-657746/5

**Matrix: Water** 

Analysis Batch: 657746

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	20.0	20.7	ug/L		103	63 - 134	
cis-1,2-Dichloroethene	20.0	19.7	ug/L		98	77 - 123	
Tetrachloroethene	20.0	19.8	ug/L		99	76 - 123	
trans-1,2-Dichloroethene	20.0	20.1	ug/L		101	75 - 124	
Trichloroethene	20.0	18.1	ug/L		91	70 - 122	
Vinyl chloride	20.0	17.2	ug/L		86	60 - 144	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		62 - 137
4-Bromofluorobenzene (Surr)	99		56 <sub>-</sub> 136
Toluene-d8 (Surr)	103		78 - 122
Dibromofluoromethane (Surr)	100		73 - 120

Lab Sample ID: 480-229505-E-4 MS

**Matrix: Water** 

Analysis Batch: 657746

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	110	J	4000	3670		ug/L		89	56 - 135	
cis-1,2-Dichloroethene	12000		4000	15500		ug/L		79	66 - 128	
Tetrachloroethene	4400		4000	8050		ug/L		92	62 - 131	
trans-1,2-Dichloroethene	170	J	4000	4010		ug/L		96	56 - 136	
Trichloroethene	7800		4000	10900		ug/L		78	61 - 124	
Vinyl chloride	1000		4000	4100		ug/L		77	43 - 157	

MS MS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		62 - 137
4-Bromofluorobenzene (Surr)	101		56 - 136
Toluene-d8 (Surr)	103		78 - 122

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Project/Site: Ford LTP

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

Lab Sample ID: 480-229505-E-4 MS **Matrix: Water** 

Analysis Batch: 657746

Client Sample ID: Matrix Spike

Prep Type: Total/NA

MS MS

%Recovery Qualifier Surrogate Limits Dibromofluoromethane (Surr) 100 73 - 120

Lab Sample ID: 480-229505-E-4 MSD

**Matrix: Water** 

Analysis Batch: 657746

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1-Dichloroethene	110	J	4000	3770		ug/L		91	56 - 135	3	26
cis-1,2-Dichloroethene	12000		4000	15600		ug/L		82	66 - 128	1	14
Tetrachloroethene	4400		4000	7980		ug/L		90	62 - 131	1	20
trans-1,2-Dichloroethene	170	J	4000	4050		ug/L		97	56 - 136	1	15
Trichloroethene	7800		4000	10900		ug/L		78	61 - 124	0	15
Vinyl chloride	1000		4000	4160		ug/L		79	43 - 157	1	24

MSD MSD

Surrogate	%Recovery	Qualifier	Limits		
1,2-Dichloroethane-d4 (Surr)	96		62 - 137		
4-Bromofluorobenzene (Surr)	100		56 - 136		
Toluene-d8 (Surr)	103		78 - 122		
Dibromofluoromethane (Surr)	98		73 - 120		

Client Sample ID: Method Blank

Prep Type: Total/NA

Analysis Batch: 657981

**Matrix: Water** 

Lab Sample ID: MB 240-657981/10

	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			05/30/25 14:16	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/30/25 14:16	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/30/25 14:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/30/25 14:16	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/30/25 14:16	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/30/25 14:16	1

MB MB

Surrogate	%Recovery Qua	ualifier Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	115	62 - 137		05/30/25 14:16	1
4-Bromofluorobenzene (Surr)	90	56 <sub>-</sub> 136		05/30/25 14:16	1
Toluene-d8 (Surr)	104	78 - 122		05/30/25 14:16	1
Dibromofluoromethane (Surr)	112	73 - 120		05/30/25 14:16	1

Lab Sample ID: LCS 240-657981/5

**Matrix: Water** 

Analysis Batch: 657981

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	20.0	19.2		ug/L		96	63 - 134	
cis-1,2-Dichloroethene	20.0	19.8		ug/L		99	77 - 123	
Tetrachloroethene	20.0	20.1		ug/L		100	76 - 123	
trans-1,2-Dichloroethene	20.0	19.9		ug/L		99	75 - 124	
Trichloroethene	20.0	19.0		ug/L		95	70 - 122	

**Eurofins Cleveland** 

6/3/2025

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Project/Site: Ford LTP

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

Lab Sample ID: LCS 240-657981/5 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 657981

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Vinyl chloride	20.0	15.9		ug/L		79	60 - 144	

	LCS	LCS		
Surrogate	%Recovery	Qualifier	Limits	
1,2-Dichloroethane-d4 (Surr)	104		62 - 137	
4-Bromofluorobenzene (Surr)	107		56 - 136	
Toluene-d8 (Surr)	111		78 - 122	
Dibromofluoromethane (Surr)	106		73 - 120	

Lab Sample ID: 240-225215-A-2 MS

**Matrix: Water** 

Analysis Batch: 657981

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

Sample Sample Spike MS MS %Rec Result Qualifier Added Result Qualifier Limits Analyte %Rec Unit 20.0 cis-1,2-Dichloroethene 1.0 U 19.7 ug/L 99 66 - 128 1.0 U 20.0 19.5 98 trans-1,2-Dichloroethene ug/L 56 - 136 Trichloroethene 1.0 U 20.0 17.4 ug/L 87 61 - 124 Vinyl chloride 20.0 31.1 1.0 UF1 ug/L 155 43 - 157

Spike

Added

20.0

20.0

20.0

20.0

MSD MSD

Result

20.1

19.8

17.4

31.6 F1

Qualifier

ug/L

MS MS

Sample Sample

1.0 U

1.0 U

1.0 U

1.0 UF1

Result Qualifier

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		62 - 137
4-Bromofluorobenzene (Surr)	104		56 <sub>-</sub> 136
Toluene-d8 (Surr)	108		78 - 122
Dibromofluoromethane (Surr)	105		73 - 120

Lab Sample ID: 240-225215-B-2 MSD

**Matrix: Water** 

cis-1,2-Dichloroethene

Trichloroethene

Vinyl chloride

trans-1,2-Dichloroethene

Analyte

Analysis Batch: 657981

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

%Rec RPD Unit %Rec Limits Limit 100 66 - 128 14 ug/L ug/L 99 56 - 136 15 ug/L 87 61 - 124 0 15

158

43 - 157

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		62 - 137
4-Bromofluorobenzene (Surr)	103		56 - 136
Toluene-d8 (Surr)	108		78 - 122
Dibromofluoromethane (Surr)	108		73 - 120

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

Lab Sample ID: MB 240-658002/6 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 658002

мв мв Analyte Result Qualifier RL MDL Unit D Dil Fac Prepared Analyzed 2.0 1,4-Dioxane 2.0 U 05/30/25 12:41 0.86 ug/L

**Eurofins Cleveland** 

10

Project/Site: Ford LTP

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

Lab Sample ID: MB 240-658002/6 **Matrix: Water** 

Analysis Batch: 658002

MB MB

Dil Fac Surrogate %Recovery Qualifier Limits Prepared Analyzed 1,2-Dichloroethane-d4 (Surr) 86 68 - 127 05/30/25 12:41

Lab Sample ID: LCS 240-658002/4

**Matrix: Water** 

Analysis Batch: 658002

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits 1,4-Dioxane 10.0 8.43 ug/L 84 75 - 121

LCS LCS

Surrogate %Recovery Qualifier Limits 1,2-Dichloroethane-d4 (Surr) 86 68 - 127

Lab Sample ID: 240-225270-E-4 MS

**Matrix: Water** 

Analysis Batch: 658002

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

MS MS

Qualifier Limits Surrogate %Recovery 1,2-Dichloroethane-d4 (Surr) 89 68 - 127

Lab Sample ID: 240-225270-E-4 MSD

**Matrix: Water** 

Analysis Batch: 658002

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit 1,4-Dioxane U 10.0 8.87 20 2.0 ug/L 89 20 - 180

MSD MSD

Surrogate %Recovery Qualifier Limits 68 - 127 1,2-Dichloroethane-d4 (Surr) 87

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

10

**Eurofins Cleveland** 

# **QC Association Summary**

Client: Arcadis US Inc.

Project/Site: Ford LTP

Job ID: 240-225263-1

### **GC/MS VOA**

### Analysis Batch: 657746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-225263-1	TRIP BLANK_74	Total/NA	Water	8260D	
240-225263-2	MW-199S_052125	Total/NA	Water	8260D	
240-225263-3	MW-51_052125	Total/NA	Water	8260D	
MB 240-657746/10	Method Blank	Total/NA	Water	8260D	
LCS 240-657746/5	Lab Control Sample	Total/NA	Water	8260D	
480-229505-E-4 MS	Matrix Spike	Total/NA	Water	8260D	
480-229505-E-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

### Analysis Batch: 657981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-225263-4	PW-16-02_052125	Total/NA	Water	8260D	
MB 240-657981/10	Method Blank	Total/NA	Water	8260D	
LCS 240-657981/5	Lab Control Sample	Total/NA	Water	8260D	
240-225215-A-2 MS	Matrix Spike	Total/NA	Water	8260D	
240-225215-B-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

### Analysis Batch: 658002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-225263-2	MW-199S_052125	Total/NA	Water	8260D SIM	
240-225263-3	MW-51_052125	Total/NA	Water	8260D SIM	
240-225263-4	PW-16-02_052125	Total/NA	Water	8260D SIM	
MB 240-658002/6	Method Blank	Total/NA	Water	8260D SIM	
LCS 240-658002/4	Lab Control Sample	Total/NA	Water	8260D SIM	
240-225270-E-4 MS	Matrix Spike	Total/NA	Water	8260D SIM	
240-225270-E-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D SIM	

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### Lab Chronicle

Client: Arcadis US Inc. Job ID: 240-225263-1

Project/Site: Ford LTP

Client Sample ID: TRIP BLANK\_74

Lab Sample ID: 240-225263-1 Date Collected: 05/21/25 00:00

**Matrix: Water** 

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor **Number Analyst** Lab or Analyzed 8260D 05/29/25 17:39 Total/NA Analysis 657746 AJS EET CLE

Client Sample ID: MW-199S\_052125 Lab Sample ID: 240-225263-2

Date Collected: 05/21/25 09:35 **Matrix: Water** 

Date Received: 05/24/25 08:00

Date Received: 05/24/25 08:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8260D		1	657746	AJS	EET CLE	05/29/25 20:51
Total/NA	Analysis	8260D SIM		1	658002	R5XG	EET CLE	05/30/25 13:52

Client Sample ID: MW-51\_052125 Lab Sample ID: 240-225263-3

Date Collected: 05/21/25 10:55 **Matrix: Water** 

Date Received: 05/24/25 08:00

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor **Number Analyst** or Analyzed Lab 05/29/25 21:15 Total/NA 8260D Analysis 657746 AJS **EET CLE** EET CLE 05/30/25 14:15 Total/NA Analysis 8260D SIM 658002 R5XG 1

Client Sample ID: PW-16-02\_052125 Lab Sample ID: 240-225263-4

Date Collected: 05/21/25 12:00 **Matrix: Water** 

Date Received: 05/24/25 08:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8260D			657981	AJS	EET CLE	05/30/25 22:47
Total/NA	Analysis	8260D SIM		1	658002	R5XG	EET CLE	05/30/25 14:38

**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. Job ID: 240-225263-1 Project/Site: Ford LTP

### **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
lowa	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

8/8

## Chain of Custody Record

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

Client Contact Company Name: Arcadis	Regulatory program: DW						NPI	DES		L 1	RCRA		Γ	Othe	r										TestAmerica Laboratories, Inc.					
	Telephone: 248-994-2240  Email: megan.meckley@arcadis.com						Site	Con	tact:	Sama	ntha	Szpa	ichler		-		Lab (	Contac	t: Mike DelMonico							COC No:				
ddress: 28550 Cabot Drive, Suite 500							Tel	ephor	ne: 24	8-994	-224	0	_			$\dashv$	Telep	hone:	330-497-9396											
ty/State/Zip: Novi, MI, 48377							Analysis Turnaround Time								Analyses					1 of 1 COCs										
none: 248-994-2240								ABAI	iyais i	ara a	roun	4 100	ic .				Audiyaes								Т	For lab v	sc only			
roject Name: Ford LTP	Sampler Name:					TA	Tifdif	lfcrcnt fi		low 3 wee	ks L														Walk-in	client	B.			
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				sno	ten	2	7.0					2 2	:	red 8	Composite	띯	,2-D	s-1,2	PCE 8260D	TCE 8260D	5	,4-Dioxane						cific Notes		
Sample Identification	Sample Date	Sample Time	44	Aque	StdIm	Othe	HISSC	HNO3	HCI	NaC	NAOH	Unpres		Filte	Соп	=	cis-1,	Train	PCE	TCE.	Viny	1,4-[					Special Instructions:			
TRIP BLANK_ 74				1					1					Ν	G	Х	Х	Х	Х	Х	Х					1 Ti	rip Blan	ık		
MW-1998_052125 MW-51_052125 PW-16-02_052125	5/21/25	0935		6					6					7	4	X	X	X	X	X	X	X					DAs for 8	8260D 8260D SI	IM	
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reservation Date/Time VOAs Frozen	VOA Sample Preservation
Preservative(s) added/Lot number(s)were further preserved in the laboratory	Sample(s) Time preserved.
SAMPLE PRESERVATION	20 SAMPLE
were received with bubble >6 mm in diameter (Notify PM)	Sample(s)
were received after the recommended holding time had expired.	Sample(s)
SAMPLE CONDITION	19 SAMPLE
CHAIN OF CUSTODY & SAMPLE DISCREPANCIES 12 additional next page   Labeled by   Labels Verified by	18 CHAIN O
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Date by via Verbal Voice Mail Other	Contacted PM_
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laboratory	
Sufficient quantity received to perform indicated analyses?  Are these work share samples and all listed on the COC?  Yes (No.)	11 Sufficient qu
72	. 0
with the COC?  (Yes)  (Yes)  (Yes)  (Yes)	
Was/were the person(s) who collected the samples clearly identified on the COC? Yes No  This all bottles arrays in good condition (Tinbroken)?	6 Was/were th
Z 2	
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	-Were tan
Ves ONO NA	Were the
Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity Yes No	2. Were tampe
Observed Cooler	IR GUN#
upon-recipi	I Cooler temp
Bubble Wrap F	Packing material used.
ox Client Cooler Box Oth	Eurofins Cooler#
Exp UPS FAS (Waypoint )Chent Drop Off E	Receipt After-h
(S-ルーンS Opened on S-エルーンS	Received
Site Name Cooler unpacked by:	Client COKA
Eurofins-Cleveland Sample Receipt Form/Narrative Login#	Eurofins—Clevela Barberton Facility

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W1-NC-099-052125 Cooler Receipt Form.doc

Cooler Description   IR Gint #   Contracted   Contracte	Wel Ice Blue Ice Dry Ice Water Name						
Color (Gircle)         IR GINI #         Chreseved Corrected Corrected Colored box other         Corrected Colored Corrected Colored box other         R GINI # - 32         O 2         O 3         O 8           Clear Lox Other R GINI # Clear Lox Other R GINI # - Clear Lox Other R GI	Wdier None			IR GUN #:	1		EC.
Ooler (Circle)         IR GUN#         Observed Temp*C         Corrected Temp*C           Citient box Other         IR GUN#*         3         G 2         O 7           Citient box Other         IR GUN #*         3         G 2         O 7           Citient box Other         IR GUN #*         3         G 3         G 8           Citient box Other         IR GUN #*         3         G 3         G 8           Citient box Other         IR GUN #*         3         G 8         G 8           Citient box Other         IR GUN #*         4         G 9 <t< td=""><td>Wet Ice Blue Ice Dry Ice</td><td></td><td></td><td>R GUN #:</td><td>)</td><td></td><td>EC</td></t<>	Wet Ice Blue Ice Dry Ice			R GUN #:	)		EC
Ooler Description         IR Gun#         Observed Circle         Corrected Circle           Client Nox Oher         IR GUN #: 1/3         0/3         0/3           Client Nox Oher         IR GUN #: 1/3         0/3         0/3           Client Nox Oher         IR GUN #: 1/3         0/3         0/3           Client Nox Oher         IR GUN #: 1/3         0/3         0/3           Client Nox Oher         IR GUN #: 1/3         0/3         0/3           Client Nox Oher         IR GUN #: 1/3         0/3         0/3           Client Nox Oher         IR GUN #: 1/3         0/3         0/3           Client Nox Oher         IR GUN #: 1/3         0/3         0/3           Client Nox Oher         IR GUN #: 1/3         0/3         0/3           Client Nox Oher         IR GUN #: 1/3         0/3         0/3           Client Nox Oher         IR GUN #: 1/3         0/3         0/3           Client Nox Oher         IR GUN #: 1/3         0/3         0/3           Client Nox Oher         IR GUN #: 1/3         0/3         0/3           Client Nox Oher         IR GUN #: 1/3         0/3         0/3           Client Nox Oher         IR GUN #: 1/3         0/3         0/3           Cl	Wel Ice Blue Ice Dry Ice Water Nane			R GUN #		1	£C
Ooler   Description         IR GIN #         Observed Client         Corrected Client           Client   Dox Other   R GUN #   T3   G 2         C 7         C 7           Client   Dox Other   R GUN #   T3   G 2         C 7         C 7           Client   Dox Other   R GUN #   T3   G 2         C 7         C 7           Client   Dox Other   R GUN #   T3   G 2         C 7         C 7           Client   Dox Other   R GUN #   T4   G 2         C 7         C 7           Client   Dox Other   R GUN #   T4   G 2         C 7         C 7           Client   Dox Other   R GUN #   T4   G 2         C 7         C 7           Client   Dox Other   R GUN #   T4   G 2         C 7         C 7           Client   Dox Other   R GUN #   T4   G 2         C 7         C 7           Client   Dox Other   R GUN #   T4   G 2         C 7         C 7           Client   Dox Other   R GUN #   T4   G 2         C 7         C 7           Client   Dox Other   R GUN #   T4   G 2         C 7         C 7           Client   Dox Other   R GUN #   T4   G 2         C 7         C 7           Client   Dox Other   R GUN #   T4   G 2         C 7         C 7           Client   Dox Other   R GUN #   T4   G 2         C 7         C 7           Client   Dox Other   R GUN #   T4   G 2         C 7         C 7 <tr< td=""><td>Wet Ice Blue Ice Dry Ice</td><td></td><td></td><td>IR GUN #</td><td> </td><td></td><td>53</td></tr<>	Wet Ice Blue Ice Dry Ice			IR GUN #			53
Ooler Description         IR GIN #         Observed Circle)         Corrected Temp ©           Citlent box Other         IR GIN #	Wellice Bluelice Drylice Water None			R GUN #:			£C.
Collect Cel         Loun #         Observed Temp *C         Corrected Temp *C           Cilent Lox Other         IR GUN #: 1/3         O 2         O 7           Cilent Lox Other         IR GUN #: 1/3         O 2         O 7           Cilent Lox Other         IR GUN #:         O .3         O &           Cilent Lox Other         IR GUN #:         O .3         O &           Cilent Lox Other         IR GUN #:         O .3         O &           Cilent Lox Other         IR GUN #:         O .3         O &           Cilent Lox Other         IR GUN #:         O .3         O &           Cilent Lox Other         IR GUN #:         O .3         O &           Cilent Lox Other         IR GUN #:         O .3         O &           Cilent Lox Other         IR GUN #:         O .3         O &           Cilent Lox Other         IR GUN #:         O .3         O .3         O .3           Cilent Lox Other         IR GUN #:         O .3         O .	Wellce Bluelce Drylce Water None			IR GUN #·			£C
coler Description         IR Gun #         Observed Temp *C         Corrected Temp *C           Cilent box Other         IR GUN *: 1/3         O 2         O 3           Cilent box Other         IR GUN *: 1/3         O 2         O 3           Cilent box Other         IR GUN *: 1/3         O 3         O 8           Cilent box Other         IR GUN *: 1/3         O 3         O 8           Cilent box Other         IR GUN *: 1/3         O 3         O 8           Cilent box Other         IR GUN *: 1/3         O 3         O 8           Cilent box Other         IR GUN *: 1/4         O 3         O 3           Cilent box Other         IR GUN *: 1/4         O 3         O 3           Cilent box Other         IR GUN *: 1/4         O 3         O 3           Cilent box Other         IR GUN *: 1/4         O 3         O 3           Cilent box Other         IR GUN *: 1/4         O 3         O 3           Cilent box Other         IR GUN *: 1/4         O 3         O 3           Cilent box Other         IR GUN *: 1/4         O 3         O 3           Cilent box Other         IR GUN *: 1/4         O 3         O 3           Cilent box Other         IR GUN *: 1/4         O 3         O 3      <	Wel Ice Blue Ice Dry Ice Water None			IR GUN #:			EC.
Collect Description         IR Gun # (Circle)         Observed Femp *C         Corrected Femp *C           Cilient Box Other         IR GUN *: 1/3         G 2         G 3           Cilient Box Other         IR GUN *: 1/3         G 3         G 3           Cilient Box Other         IR GUN *: 1/3         G 3         G 3           Cilient Box Other         IR GUN *: 1/3         G 3         G 3           Cilient Box Other         IR GUN *: 1/3         G 3         G 3           Cilient Box Other         IR GUN *: 1/3         G 3         G 3           Cilient Box Other         IR GUN *: 1/3         G 3         G 3           Cilient Box Other         IR GUN *: 1/4         G 3         G 3           Cilient Box Other         IR GUN *: 1/4         G 3         G 3           Cilient Box Other         IR GUN *: 1/4         G 3         G 3           Cilient Box Other         IR GUN *: 1/4         G 3         G 3           Cilient Box Other         IR GUN *: 1/4         G 3         G 3           Cilient Box Other         IR GUN *: 1/4         G 3         G 3           Cilient Box Other         IR GUN *: 1/4         G 3         G 3           Cilient Box Other         IR GUN *: 1/4         G 3 <t< td=""><td>Wet Ice Blue Ice Dry Ice Water Name</td><td></td><td></td><td>GUN</td><td></td><td></td><td>En En</td></t<>	Wet Ice Blue Ice Dry Ice Water Name			GUN			En En
coler Description         IR Gun #         Observed Femp oc F	Wellice Bluelice Drylice Water None			IR GUN #			FC.
coler Description         IR Gun #         Observed Temp oc T	Wellce Bluelce Drylce Waler None			R GUN #:			<del>ا</del> ت
Ooler Description         IR Gun #         Observed Temp °C         Corrected Temp °C           Cilent box Other         IR Gun #: 1/3         C         Temp °C         Temp °C           Cilent box Other         IR Gun #: 1/3         C         C         C           Cilent box Other         IR Gun #: 1         C         C         C         C           Cilent box Other         IR Gun #: 1         C	Wet Ice Blue Ice Dry Ice Water None			IR GUN *:			ec.
Ooler Description         IR Gun #         Observed Temp °C         Corrected Temp °C           Cilent box Other         IR Gun #: 1/3         C         Temp °C         Temp °C           Cilent box Other         IR Gun #: 1/3         C         C         C           Cilent box Other         IR Gun #: 1/3         C         C         C           Cilent box Other         IR Gun #: 1/3         C         C         C           Cilent box Other         IR Gun #: 1/3         C         C         C           Cilent box Other         IR Gun #: 1/3         C         C         C           Cilent box Other         IR Gun #: 1/4         C         C         C           Cilent box Other         IR Gun #: 1/4         C	Wet Ice Blue Ice Dry Ice Water None			IR GUN #:			77
Colert Description         IR Gun #         Observed Corrected Temp °C         Corrected Temp °C           Client box Other         IR GuN #: 13         0.3         0.8           Client box Other         IR GUN #: 13         0.3         0.8           Client box Other         IR GUN #: 13         0.3         0.8           Client box Other         IR GUN #: 13         0.3         0.8           Client box Other         IR GUN #: 13         0.3         0.8           Client box Other         IR GUN #: 13         0.3         0.8           Client box Other         IR GUN #: 14         0.8         0.8           Client box Other         IR GUN #: 18         0.8         0.8           Client box Other         IR GUN #: 18         0.8         0.8           Client box Other         IR GUN #: 18         0.8         0.8           Client box Other         IR GUN #: 18         0.8         0.8           Client box Other         IR GUN #: 18         0.8         0.8           Client box Other         IR GUN #: 18         0.8         0.8           Client box Other         IR GUN #: 18         0.8         0.8           Client box Other         IR GUN #: 18         0.8         0.8	Wet Ice Blue Ice Dry Ice Water None			IR GUN #:			EC
Collect Description         IR Gun#         Observed Temp °C         Corrected Temp °C           Client box Other Direction         IR GUN#: 1/3         0.3         0.6           Client box Other Direction         IR GUN#: 1/3         0.3         0.6           Client box Other Direction         IR GUN#: 1/3         0.3         0.6           Client box Other Direction         IR GUN#: 1/3         0.3         0.6           Client box Other Direction         IR GUN#: 1/3         0.3         0.6           Client box Other Direction         IR GUN#: 1/3         0.3         0.6           Client box Other Direction         IR GUN#: 1/3         0.3         0.6           Client box Other Direction         IR GUN#: 1/3         0.3         0.6           Client box Other Direction         IR GUN#: 1/3         0.3         0.6           Client box Other Direction         IR GUN#: 1/3         0.6         0.6           Client box Other Direction         IR GUN#: 1/3         0.6         0.6           Client box Other Direction         IR GUN#: 1/3         0.6         0.6           Client box Other Direction         IR GUN#: 1/3         0.6         0.6           Client box Other Direction         IR GUN#: 1/3         0.6         0.6	Wet Ice Blue Ice Dry Ice Water None			IR GUN #			ద
Collect Description         IR Gun# (Circle)         Observed Temp °C         Corrected Temp °C           Client box Other Direction         IR GuN *: 1/3         Q.3         Q.8           Client box Other Direction         IR GUN *:         Q.3         Q.8           Client box Other Direction         IR GUN *:         Q.3         Q.8           Client box Other Direction         IR GUN *:         Q.3         Q.8           Client box Other Direction         IR GUN *:         Q.3         Q.3           Client box Other Direction         IR GUN *:         Q.3         Q.8           Client box Other Direction         IR GUN *:	Wet Ice Bive ice Dry Ice Water None			IR GUN #:			77
Ooler Description         IR Gun # (Circle)         Observed Temp °C         Corrected Temp °C           Client Box Other         IR GuN #: 1/3         G 2         O 7           Client Box Other         IR GUN #: 1/3         G 3         G 8           Client Box Other         IR GUN #: 1/3         G 3         G 8           Client Box Other         IR GUN #: 1/3         G 3         G 8           Client Box Other         IR GUN #: 1/4         G 3         G 8           Client Box Other         IR GUN #: 1/4         G 3         G 8           Client Box Other         IR GUN #: 1/4         G 3         G 3         G 8           Client Box Other         IR GUN #: 1/4         G 3         G 3         G 3         G 3           Client Box Other         IR GUN #: 1/4         G 3	Wet Ice Blue Ice Dry Ice Water None			IR GUN #:			r G
Ooler Description         IR Gun # (Circle)         Observed Temp °C         Corrected Temp °C           Client box Other         IR GuN *: 13         C 2         C) 7           Client box Other         IR GUN *: 13         C 3         C 2           Client box Other         IR GUN *: 13         C 3         C 3           Client box Other         IR GUN *: 14         C 3         C 3           Client box Other         IR GUN *: 14         C 3         C 3           Client box Other         IR GUN *: 14         C 3         C 3           Client box Other         IR GUN *: 14         C 3         C 3           Client box Other         IR GUN *: 14         C 3         C 3           Client box Other         IR GUN *: 14         C 3         C 3           Client box Other         IR GUN *: 14         C 3         C 3           Client box Other         IR GUN *: 14         C 3         C 3           Client box Other         IR GUN *: 14         C 3         C 3           Client box Other         IR GUN *: 14         C 3         C 3           Client box Other         IR GUN *: 14         C 3         C 3           Client box Other         IR GUN *: 14         C 3         C 3	Wet Ice Blue Ice Dry Ice Water None			IR GUN ₹:		İ	E C
Ooler Description         IR Gun # (Circle)         Observed Temp °C         Corrected Temp °C           Client box Other         IR GUN #: 13         G 2         G 7           Client box Other         IR GUN #: 13         G 3         G 3           Client box Other         IR GUN #:	Wet ice Blue ice Dry ice Water None			IR GUN #:			EC
Ooler Description         IR Gun # (Gircle)         Observed Temp °C         Corrected Temp °C           Client box Other         IR GUN *: 13         C 2         C 3           Client box Other         IR GUN *: 13         C 3         C 3           Client box Other         IR GUN *: 12         C 3         C 3           Client box Other         IR GUN *: 12         C 3         C 3           Client box Other         IR GUN *: 12         C 3         C 3           Client box Other         IR GUN *: 12         C 3         C 3           Client box Other         IR GUN *: 12         C 3         C 3           Client box Other         IR GUN *: 12         C 3         C 3           Client box Other         IR GUN *: 12         C 3         C 3           Client box Other         IR GUN *: 12         C 3         C 3           Client box Other         IR GUN *: 12         C 3         C 3           Client box Other         IR GUN *: 12         C 3         C 3           Client box Other         IR GUN *: 12         C 3         C 3	Wetice Blueice Dryice Water None			IR GUN #:	ļ		EC
Ooler Description         IR Gun # (Circle)         Observed Temp °C         Corrected Temp °C           Client box Other         IR GUN #: 1/3         O 2         O 7           Client box Other         IR GUN #: 1/3         O 3         O 8           Client box Other         IR GUN #:         O 3         O 8           Client box Other         IR GUN #:         O 3         O 8           Client box Other         IR GUN #:         O 3         O 8           Client box Other         IR GUN #:         O 3         O 8           Client box Other         IR GUN #:         O 3         O 8           Client box Other         IR GUN #:         O 3         O 3           Client box Other         IR GUN #:         O 3         O 3           Client box Other         IR GUN #:         O 3         O 3           Client box Other         IR GUN #:         O 3         O 3           Client box Other         IR GUN #:         O 3         O 3           Client box Other         IR GUN #:	Wetice Blueice Dryice Water None			IR GUN *-			EC.
Ooler Description         IR Gun # (Circle)         Observed Temp °C         Corrected Temp °C           Client box Other         IR GuN *: 13         G 2         G 7           Client box Other         IR GUN *: 13         G 3         G 8           Client box Other         IR GUN *:         G 3         G 8           Client box Other         IR GUN *:         G 3         G 8           Client box Other         IR GUN *:         G 3         G 8           Client box Other         IR GUN *:         G 3         G 8           Client box Other         IR GUN *:         G 3         G 8           Client box Other         IR GUN *:         G 3         G 4           Client box Other         IR GUN *:         G 5         G 6           Client box Other         IR GUN *:	Wetice Blueice Dryice Water None			R GUN #:			r
Ooler Description         IR Gun # (Circle)         Observed Temp °C         Corrected Temp °C           Client box Other         IR GuN *: 1/3         C 2         C 7           Client box Other         IR GUN *: 1/3         C 3         C 7           Client box Other         IR GUN *: 1/3         C 3         C 7           Client box Other         IR GUN *: 1/3         C 3         C 7           Client box Other         IR GUN *: 1/3         C 7         C 7           Client box Other         IR GUN *: 1/4         C 7         C 7           Client box Other         IR GUN *: 1/4         C 7         C 7           Client box Other         IR GUN *: 1/4         C 7         C 7           Client box Other         IR GUN *: 1/4         C 7         C 7           Client box Other         IR GUN *: 1/4         C 7         C 7	Wellice Bluelice Drylice Water None			IR GUN #			EC.
Ooler Description         IR Gun # (Circle)         Observed Temp °C         Corrected Temp °C           Client box Other         IR GUN #: 1/3         C 2         C) Temp °C           Client box Other         IR GUN #: 1/3         C 3         C) Temp °C           Client box Other         IR GUN #: 1/3         C 3         C) Temp °C           Client box Other         IR GUN #: 1/3         C 3         C) Temp °C           Client box Other         IR GUN #: 1/3         C 3         C) Temp °C           Client box Other         IR GUN #: 1/3         C 3         C) Temp °C           Client box Other         IR GUN #: 1/3         C 3         C 3         C 3           Client box Other         IR GUN #: 1/4         C 3	Wetice Blueice Dryice Water None			IR GUN#			£C
Ooler Description         IR Gun # (Circle)         Observed Temp °C         Corrected Temp °C           Client box Other         IR GUN #: 13         C C         C         Temp °C           Client box Other         IR GUN #: 13         C C         C <t< td=""><td>Wetice Blue ice Dry Ice Water None</td><td></td><td></td><td>IR GUN #</td><td>   </td><td></td><td>EC</td></t<>	Wetice Blue ice Dry Ice Water None			IR GUN #			EC
Ooler Description         IR Gun # (Circle)         Observed Temp °C         Corrected Temp °C           Client box Other         IR GUN #: 13         O 2         O 7         Wet to 0           Client box Other         IR GUN #: 13         O 3         O 8         Wet to 0         Wet to 0           Client box Other         IR GUN #: 10         Wet to 0         Wet to 0         Wet to 0         Wet to 0           Client box Other         IR GUN #: 10         Wet to 0         Wet to 0         Wet to 0         Wet to 0           Client box Other         IR GUN #: 10         Wet to 0           Client box Other         IR GUN #: 10         Wet to 0         <	Wetice Bive ice Dry Ice Water None			IR GUN #			ñ
Ooler Description         IR Gun # (Circle)         Observed Corrected Temp °C         Corrected Temp °C         Weilp           Client box Other         IR GUN #: 1/3         C 2         C 7         Weilp           Client box Other         IR GUN #: 1/3         C 3         Weilp           Client box Other         IR GUN #: 1/3         Weilc           Client box Other         IR GUN #: 1/4         Weilc	Wetice Blueice Dryice Water None			IR GUN *·			КĊ
ooler Description         IR Gun # (Circle)         Observed Temp °C Temp °C         Corrected Temp °C           Client box Other R GUN #:	Wellice Bluelice Drylice Water None			JR GUN #:			1
Ooler Description IR Gun # Observed Corrected (Circle) Temp °C Temp °C  Client box Other IR GUN #: 13 0.3 0.8 Wet loc Client box Other IR GUN #: 14 0.3 0.3 Wet loc Client box Other IR GUN #: 15 0.3 0.8 Wet loc Client box Other IR GUN #: 15 0.3 Wet loc Client box Other IR GUN #: 15 0.3 Wet loc Client box Other IR GUN #: 16 0.5 0.5 Wet loc Client box Other IR GUN #: 17 0.5 0.5 Wet loc Client box Other IR GUN #: 18 0.5 0.5 0.5 0.5 Wet loc Client box Other IR GUN #: 18 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	Wellice Bluelice Drylice Water None			IR GUN #:			ì
Ooler Description IR Gun # Observed Corrected (Circle) (Circle) Temp °C Temp °C  Client box Other IR GUN #: 1/3 G.3 G.8  Client box Other IR GUN #: — Wel Ic  Client box Other IR GUN #: — Wel Ic  Client box Other IR GUN #: — Wel Ic  Wel Ic	Wet Ice Sive Ice Dry Ice Water Name			IR GUN #:			
ooler Description IR Gun # Observed Corrected  (Gircle) Temp °C Temp °C  Client Box Other IR GUN # 3 0.3 (Well Decomple)  Client Box Other IR GUN #: 3 0.3 (Well Decomple)  Client Box Other IR GUN #: 4 0.3 (Well Decomple)  Well Decomple  Well Deco	Wet Ice Blue Ice Dry Ice Water None			IR GUN #:			
ooler Description IR Gun # Observed Corrected Coolant (Circle) (Circle) Temp °C Temp °C (Circle)  Circle) O O Other IR GUN # 13 O OTHER IR GUN # 14 O OTHER IR GUN # 15 O OTHER IR GUN #			- Maria - Mari	IR GUN #:			
ooler Description   IR Gun # Observed Corrected Coolant (Circle)   Temp °C Temp °C (Circle)	Blue Ice sier None	3.0		li			
IR Gun # Observed Corrected (Circle) Temp °C Temp °C	Blue Ice ster Nońe	L 0	02				
		Corrected Temp °C	Observed Temp °C	IR Gun # (Circle)	ription )	ler Desc (Circle	Coo

5/24/2025

240-225263

6/3/2025

# Login Container Summary Report

MW-51\_052125 MW-51\_052125 MW-51\_052125 MW-199S\_052125 MW-199S\_052125 MW-199S\_052125 MW-199S\_052125 PW-16-02\_052125 MW-51\_052125 MW-51\_052125 MW-51\_052125 MW-199S\_052125 MW-199S\_052125 TRIP BLANK\_74 Client Sample ID Temperature readings 240-225263-B-2 240-225263-A-1 Lab ID 240-225263-B-3 240-225263-G-2 240-225263-E-2 240-225263-D-2 240-225263-C-2 240-225263-A-2 240-225263-A-4 240-225263 F-3 240-225263-E-3 240-225263-D-3 240-225263-C-3 240-225263-A-3 Voa Vial 40ml - Hydrochloric Acid Voa Vıal 40ml Hydrochloric Acıd Voa Vial 40ml - Hydrochloric Acid Voa Vial 40ml · Hydrochloric Acıd Voa Vial 40ml - Hydrochloric Acid Voa Vial 40ml - Hydrochloric Acid Voa Vial 40ml - Hydrochloric Acid Voa Vial 40ml - Hydrochloric Acıd Voa Vial 40ml Hydrochloric Acid Voa Vial 40ml - Hydrochloric Acid Voa Vıal 40ml - Hydrochloric Acid Container Type Container pH Temp Temp Added Preservation Preservation Lot Number

PW-16-02\_052125 PW-16-02\_052125 PW-16-02\_052125 PW-16-02\_052125 PW-16-02\_052125

240-225263-F-4 240-225263-E-4 240-225263-D-4 240-225263-C-4 240-225263-B-4

Voa Vial 40ml - Hydrochloric Acid Voa Vıal 40ml - Hydrochlorıc Acid Voa Vial 40ml - Hydrochloric Acid Voa Vial 40ml - Hydrochloric Acıd Voa Vial 40ml - Hydrochloric Acid

# DATA VERIFICATION REPORT



June 03, 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: 225263-1 Sample date: 2025-05-21

Report received by CADENA: 2025-06-03

Initial Data Verification completed by CADENA: 2025-06-03

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 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.
В	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 contaminates) 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.
Е	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 contaminates) 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: 225263-1

		Sample Name:	TRIP BL	ANK_74			MW-19	9S_0521	25		MW-51	_052125		PW-16-02_052125					
		Lab Sample ID:	240225	2631		2402252632					240225	2633		2402252634					
		Sample Date:	5/21/20	)25			5/21/2025				5/21/20	25			5/21/20	25			
				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	
GC/MS VOC																			
OSW-8	3260D																		
	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		ND	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		0.84	1.0	ug/l	J	ND	1.0	ug/l		ND	1.0	ug/l		
OSW-8	3260DSIM																		
	1,4-Dioxane	123-91-1					2.4	2.0	ug/l		1.7	2.0	ug/l	J	ND	2.0	ug/l		