PREPARED FOR

Attn: Kristoffer Hinskey Arcadis U.S., Inc. 28550 Cabot Drive Suite 500 Novi, Michigan 48377

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JOB DESCRIPTION

Ford LTP - On Site

JOB NUMBER

240-200747-1

Eurofins Cleveland 180 S. Van Buren Avenue Barberton OH 44203

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Job Notes

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Authorization

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Client: Arcadis U.S., Inc.

Laboratory Job ID: 240-200747-1

Project/Site: Ford LTP - On Site

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Definitions/Glossary

Client: Arcadis U.S., Inc. Job ID: 240-200747-1

Project/Site: Ford LTP - On Site

Qualifiers

GC/MS	VOA
Qualifier	

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.

Qualifier Description

Glossary

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)

Limit of Detection (DD/DOE)

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
POL Prostical Quantitation

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 U.S., Inc. Project: Ford LTP - On Site

Job ID: 240-200747-1 Eurofins Cleveland

Job Narrative 240-200747-1

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 are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample 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 3/8/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.3°C and 3.3°C.

GC/MS VOA

Method 8260D: The following sample(s) was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The sample was analyzed outside the 7-day holding time specified for unpreserved samples but within the 14-day holding time specified for preserved samples: MW-36 030624 (240-200747-2).

Method 8260D_SIM: An MS/MSD was prepared and analyzed with batch 240-605892, but is not reported due to the MS sample having a bad purge.

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: 240-200747-1

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Method Summary

Client: Arcadis U.S., Inc.

Job ID: 240-200747-1

Project/Site: Ford LTP - On Site

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

Collected

03/06/24 00:00

03/06/24 09:35

03/06/24 11:10

03/06/24 12:30

03/08/24 08:00

03/08/24 08:00

03/08/24 08:00

Matrix

Water

Water

Water

Water

Client: Arcadis U.S., Inc.

Client Sample ID

TRIP BLANK_14

MW-36_030624

MW-38_030624

MW-219S_030624

Lab Sample ID

240-200747-1

240-200747-2

240-200747-3

240-200747-4

Project/Site: Ford LTP - On Site

Received	

Job ID: 240-200747-1

Detection Summary

Client: Arcadis U.S., Inc. Job ID: 240-200747-1

Project/Site: Ford LTP - On Site

Client Sample ID: TRIP BLANK_14 Lab Sample ID: 240-200747-1

No Detections.

Client Sample ID: MW-36_030624 Lab Sample ID: 240-200747-2

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

Client Sample ID: MW-38_030624 Lab Sample ID: 240-200747-3

No Detections.

Client Sample ID: MW-219S_030624 Lab Sample ID: 240-200747-4

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Arcadis U.S., Inc. Job ID: 240-200747-1

Project/Site: Ford LTP - On Site

Date Received: 03/08/24 08:00

Dibromofluoromethane (Surr)

Client Sample ID: TRIP BLANK_14

Lab Sample ID: 240-200747-1 Date Collected: 03/06/24 00:00

Matrix: Water

03/13/24 22:14

Method: SW846 8260D - Volatile Organic Compounds by GC/MS Result Qualifier RLMDL Unit D Prepared Analyzed Dil Fac 1.0 1,1-Dichloroethene 1.0 U 0.49 ug/L 03/13/24 22:14 cis-1,2-Dichloroethene 1.0 U 1.0 0.46 ug/L 03/13/24 22:14 Tetrachloroethene 1.0 U 1.0 0.44 ug/L 03/13/24 22:14 trans-1,2-Dichloroethene 1.0 U 1.0 0.51 ug/L 03/13/24 22:14 Trichloroethene 1.0 U 1.0 0.44 ug/L 03/13/24 22:14 Vinyl chloride 1.0 U 1.0 0.45 ug/L 03/13/24 22:14 %Recovery Qualifier Surrogate Limits Prepared Analyzed Dil Fac 1,2-Dichloroethane-d4 (Surr) 102 62 - 137 03/13/24 22:14 4-Bromofluorobenzene (Surr) 90 03/13/24 22:14 56 - 136 98 78 - 122 03/13/24 22:14 Toluene-d8 (Surr)

73 - 120

Client: Arcadis U.S., Inc. Job ID: 240-200747-1

Project/Site: Ford LTP - On Site

Client Sample ID: MW-36_030624

Date Collected: 03/06/24 09:35

Lab Sample ID: 240-200747-2 Matrix: Water

Date Received: 03/08/24 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.0	J	2.0	0.86	ug/L			03/15/24 15:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		68 - 127			-		03/15/24 15:56	1

_ / (/									
Method: SW846 8260D - Volati		=				_			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			03/14/24 03:38	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/14/24 03:38	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/14/24 03:38	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/14/24 03:38	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/14/24 03:38	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/14/24 03:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		62 - 137			-		03/14/24 03:38	1
4-Bromofluorobenzene (Surr)	90		56 ₋ 136					03/14/24 03:38	1
Toluene-d8 (Surr)	97		78 - 122					03/14/24 03:38	1
Dibromofluoromethane (Surr)	96		73 - 120					03/14/24 03:38	1

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Client: Arcadis U.S., Inc. Job ID: 240-200747-1

Project/Site: Ford LTP - On Site

Client Sample ID: MW-38_030624

Lab Sample ID: 240-200747-3 **Matrix: Water**

Date Collected: 03/06/24 11:10 Date Received: 03/08/24 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			03/13/24 17:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		68 - 127			-		03/13/24 17:05	1
Method: SW846 8260D - Volati	le 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			03/14/24 04:03	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/14/24 04:03	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/14/24 04:03	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/14/24 04:03	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/14/24 04:03	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/14/24 04:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		62 - 137			-		03/14/24 04:03	1
4-Bromofluorobenzene (Surr)	91		56 ₋ 136					03/14/24 04:03	1
Toluene-d8 (Surr)	95		78 - 122					03/14/24 04:03	1
Dibromofluoromethane (Surr)	99		73 - 120					03/14/24 04:03	1

Client: Arcadis U.S., Inc. Job ID: 240-200747-1

Project/Site: Ford LTP - On Site

Client Sample ID: MW-219S_030624

Lab Sample ID: 240-200747-4 Date Collected: 03/06/24 12:30

Matrix: Water

Date Received: 03/08/24 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			03/13/24 17:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)			68 - 127			_		03/13/24 17:29	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			03/14/24 04:28	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/14/24 04:28	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/14/24 04:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/14/24 04:28	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/14/24 04:28	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/14/24 04:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		62 - 137			-		03/14/24 04:28	1
4-Bromofluorobenzene (Surr)	91		56 ₋ 136					03/14/24 04:28	1
Toluene-d8 (Surr)	96		78 - 122					03/14/24 04:28	1
Dibromofluoromethane (Surr)	98		73 - 120					03/14/24 04:28	1

Surrogate Summary

Client: Arcadis U.S., Inc. Job ID: 240-200747-1

Project/Site: Ford LTP - On Site

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

Matrix: Water Prep Type: Total/NA

				Percent Sui	rrogate Rec
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(62-137)	(56-136)	(78-122)	(73-120)
240-200747-1	TRIP BLANK_14	102	90	98	96
240-200747-2	MW-36_030624	104	90	97	96
240-200747-2 MS	MW-36-MS_030624	100	108	102	97
240-200747-2 MSD	MW-36-MSD_030624	99	106	100	96
240-200747-3	MW-38_030624	104	91	95	99
240-200747-4	MW-219S_030624	106	91	96	98
LCS 240-606002/5	Lab Control Sample	96	106	102	97
MB 240-606002/7	Method Blank	101	92	98	95

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

		DCA	Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	(68-127)	
240-200747-2	MW-36_030624	109	
240-200747-2 MS	MW-36-MS_030624	110	
240-200747-2 MSD	MW-36-MSD_030624	109	
240-200747-3	MW-38_030624	105	
240-200747-4	MW-219S_030624	112	
LCS 240-605892/5	Lab Control Sample	109	
LCS 240-606196/5	Lab Control Sample	109	
MB 240-605892/7	Method Blank	107	
MB 240-606196/7	Method Blank	105	

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

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Client: Arcadis U.S., Inc. Job ID: 240-200747-1

Project/Site: Ford LTP - On Site

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

Lab Sample ID: MB 240-606002/7

Matrix: Water

Analysis Batch: 606002

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

MB MB Dil Fac Analyte Result Qualifier RL MDL Unit D Prepared Analyzed 1,1-Dichloroethene 1.0 U 1.0 0.49 ug/L 03/13/24 20:09 cis-1,2-Dichloroethene 1.0 U 1.0 0.46 ug/L 03/13/24 20:09 1.0 U 03/13/24 20:09 Tetrachloroethene 1.0 0.44 ug/L trans-1,2-Dichloroethene 1.0 U 1.0 0.51 ug/L 03/13/24 20:09 Trichloroethene 1.0 U 1.0 0.44 ug/L 03/13/24 20:09 Vinyl chloride 1.0 U 1.0 03/13/24 20:09 0.45 ug/L

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		62 - 137		03/13/24 20:09	1
4-Bromofluorobenzene (Surr)	92		56 - 136		03/13/24 20:09	1
Toluene-d8 (Surr)	98		78 - 122		03/13/24 20:09	1
Dibromofluoromethane (Surr)	95		73 - 120		03/13/24 20:09	1

Lab Sample ID: LCS 240-606002/5

Matrix: Water

Analysis Batch: 606002

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits 85 63 - 134 1,1-Dichloroethene 25.0 21.4 ug/L cis-1,2-Dichloroethene 25.0 24.6 ug/L 99 77 - 123 Tetrachloroethene 25.0 23.5 ug/L 94 76 - 123 75 - 124 trans-1,2-Dichloroethene 25.0 24.1 96 ug/L Trichloroethene 25.0 23.8 95 ug/L 70 - 122 Vinyl chloride 12.5 13.8 ug/L 110 60 - 144

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		62 - 137
4-Bromofluorobenzene (Surr)	106		56 ₋ 136
Toluene-d8 (Surr)	102		78 - 122
Dibromofluoromethane (Surr)	97		73 - 120

Lab Sample ID: 240-200747-2 MS

Matrix: Water

Analysis Batch: 606002

Client Sample ID: MW-36-MS_030624

Prep Type: Total/NA

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,1-Dichloroethene	1.0	U	25.0	22.9		ug/L		92	56 - 135	
cis-1,2-Dichloroethene	1.0	U	25.0	24.4		ug/L		98	66 - 128	
Tetrachloroethene	1.0	U	25.0	23.9		ug/L		95	62 - 131	
trans-1,2-Dichloroethene	1.0	U	25.0	24.1		ug/L		96	56 - 136	
Trichloroethene	1.0	U	25.0	23.4		ug/L		94	61 - 124	
Vinyl chloride	1.0	U	12.5	11.9		ug/L		95	43 - 157	

MS MS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		62 - 137
4-Bromofluorobenzene (Surr)	108		56 - 136
Toluene-d8 (Surr)	102		78 ₋ 122

Project/Site: Ford LTP - On Site

Client: Arcadis U.S., Inc. Job ID: 240-200747-1

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

Lab Sample ID: 240-200747-2 MS Client Sample ID: MW-36-MS_030624 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 606002

MS MS

Surrogate %Recovery Qualifier Limits Dibromofluoromethane (Surr) 97 73 - 120

Lab Sample ID: 240-200747-2 MSD Client Sample ID: MW-36-MSD_030624 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 606002

,, c.c = a.c cccc=												
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
1,1-Dichloroethene	1.0	U	25.0	23.0		ug/L		92	56 - 135	0	26	
cis-1,2-Dichloroethene	1.0	U	25.0	24.6		ug/L		99	66 - 128	1	14	
Tetrachloroethene	1.0	U	25.0	23.5		ug/L		94	62 - 131	2	20	
trans-1,2-Dichloroethene	1.0	U	25.0	24.6		ug/L		98	56 - 136	2	15	
Trichloroethene	1.0	U	25.0	23.6		ug/L		94	61 - 124	1	15	
Vinyl chloride	1.0	U	12.5	13.6		ug/L		109	43 - 157	13	24	

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		62 - 137
4-Bromofluorobenzene (Surr)	106		56 - 136
Toluene-d8 (Surr)	100		78 - 122
Dibromofluoromethane (Surr)	96		73 - 120

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

Lab Sample ID: MB 240-605892/7

Matrix: Water

Analysis Batch: 605892

MR MR

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			03/13/24 10:20	1

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107	68 - 127		03/13/24 10:20	1

Lab Sample ID: LCS 240-605892/5

Matrix: Water

Analysis Batch: 605892

•	Spike	LCS I	LCS			%Rec	
Analyte	Added	Result (Qualifier Unit	D	%Rec	Limits	
1 4-Dioxane	10.0	8 28	ua/l		83	75 121	

LCS LCS

%Recovery Qualifier Surrogate Limits 1,2-Dichloroethane-d4 (Surr) 68 - 127 109

Lab Sample ID: MB 240-606196/7

Matrix: Water

Analysis Batch: 606196

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			03/15/24 11:45	1

Prep Type: Total/NA

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Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Type: Total/NA

Client: Arcadis U.S., Inc. Job ID: 240-200747-1

Project/Site: Ford LTP - On Site

	Λ	MB MB								
Surrogate	%Recove	ry Qualifier	Limits				F	Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4 (Surr)	1	05	68 - 127						03/15/24 11:45	
Lab Sample ID: LCS 240-600	6196/5						Client	t Sample	ID: Lab Control	Sample
Matrix: Water									Prep Type: 1	
Analysis Batch: 606196										
			Spike	LCS	LCS				%Rec	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,4-Dioxane			10.0	10.1		ug/L		101	75 - 121	
	LCS L	cs								
Surrogate	%Recovery Q	ualifier	Limits							
1,2-Dichloroethane-d4 (Surr)	109		68 - 127							
Lab Sample ID: 240-200747-	2 MS						Clie	nt Sampl	e ID: MW-36-MS	03062
Matrix: Water								_	Prep Type: 1	- Γotal/Ν
Analysis Batch: 606196										
	Sample S	ample	Spike	MS	MS				%Rec	
Analyte	Result Q	ualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,4-Dioxane	1.0 J		10.0	10.8		ug/L		97	20 - 180	
	MS M	ıs								
Surrogate	%Recovery Q	ualifier	Limits							
1,2-Dichloroethane-d4 (Surr)	110		68 - 127							

Lab Sample ID: 240-200747-2 MSD Client Sample ID: MW-36-MSD_030624 Prep Type: Total/NA **Matrix: Water**

Analysis Batch: 606196

1,2-Dichloroethane-d4 (Surr)

Analysis Batom 600 100											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,4-Dioxane	1.0	J	10.0	10.0		ug/L		90	20 - 180	7	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								

68 - 127

109

QC Association Summary

Client: Arcadis U.S., Inc. Job ID: 240-200747-1 Project/Site: Ford LTP - On Site

GC/MS VOA

Analysis Batch: 605892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200747-3	MW-38_030624	Total/NA	Water	8260D SIM	
240-200747-4	MW-219S_030624	Total/NA	Water	8260D SIM	
MB 240-605892/7	Method Blank	Total/NA	Water	8260D SIM	
LCS 240-605892/5	Lab Control Sample	Total/NA	Water	8260D SIM	

Analysis Batch: 606002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200747-1	TRIP BLANK_14	Total/NA	Water	8260D	
240-200747-2	MW-36_030624	Total/NA	Water	8260D	
240-200747-3	MW-38_030624	Total/NA	Water	8260D	
240-200747-4	MW-219S_030624	Total/NA	Water	8260D	
MB 240-606002/7	Method Blank	Total/NA	Water	8260D	
LCS 240-606002/5	Lab Control Sample	Total/NA	Water	8260D	
240-200747-2 MS	MW-36-MS_030624	Total/NA	Water	8260D	
240-200747-2 MSD	MW-36-MSD_030624	Total/NA	Water	8260D	

Analysis Batch: 606196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200747-2	MW-36_030624	Total/NA	Water	8260D SIM	
MB 240-606196/7	Method Blank	Total/NA	Water	8260D SIM	
LCS 240-606196/5	Lab Control Sample	Total/NA	Water	8260D SIM	
240-200747-2 MS	MW-36-MS_030624	Total/NA	Water	8260D SIM	
240-200747-2 MSD	MW-36-MSD_030624	Total/NA	Water	8260D SIM	

Lab Chronicle

Client: Arcadis U.S., Inc. Job ID: 240-200747-1

Project/Site: Ford LTP - On Site

Date Received: 03/08/24 08:00

Client Sample ID: TRIP BLANK_14

Lab Sample ID: 240-200747-1 Date Collected: 03/06/24 00:00

Matrix: Water

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number Analyst Lab or Analyzed 03/13/24 22:14 Total/NA Analysis 8260D 606002 CDG EET CLE

Client Sample ID: MW-36 030624 Lab Sample ID: 240-200747-2

Date Collected: 03/06/24 09:35 **Matrix: Water**

Date Received: 03/08/24 08:00

Batch Batch Dilution Batch Prepared Prep Type Method Run Factor Number Analyst or Analyzed Туре Lab Total/NA 8260D 606002 CDG EET CLE 03/14/24 03:38 Analysis Total/NA 8260D SIM 606196 MDH **EET CLE** 03/15/24 15:56 Analysis 1

Client Sample ID: MW-38 030624 Lab Sample ID: 240-200747-3

Date Collected: 03/06/24 11:10 **Matrix: Water**

Date Received: 03/08/24 08:00

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor **Number Analyst** or Analyzed Lab 03/14/24 04:03 8260D CDG Total/NA Analysis 606002 **EET CLE** 03/13/24 17:05 Total/NA Analysis 8260D SIM 605892 MDH **EET CLE** 1

Client Sample ID: MW-219S 030624 Lab Sample ID: 240-200747-4

Date Collected: 03/06/24 12:30 **Matrix: Water**

Date Received: 03/08/24 08:00

Batch Batch Dilution Batch Prepared Method or Analyzed Туре Factor Number **Prep Type** Run Analyst Lab 03/14/24 04:28 Total/NA 8260D 606002 CDG Analysis EET CLE Total/NA 8260D SIM 605892 MDH EET CLE 03/13/24 17:29 Analysis 1

Laboratory References:

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

Accreditation/Certification Summary

Client: Arcadis U.S., Inc.

Project/Site: Ford LTP - On Site

Job ID: 240-200747-1

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24 *
Illinois	NELAP	200004	07-31-24
lowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-01-24
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

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^{*} Accreditation/Certification renewal pending - accreditation/certification considered valid.

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Chain of Custody Record

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Client Contact	TestAmerica Labora Regulat	tory location: ory program:	Brighton	<u> 10</u>			ve, Si			Brighton, N	AI 4811	6 / 810 Oth	_	-2763						41	1 >	T	HE LEADER IN ENVIRONME	NTAL TESTIN
Company Name: Areadis												-	1										TestAmerica Labor	atories, Inc
Address: 28550 Cabot Drive, Suite 500		Manager: Kris I	liuskey							tina Weave	er					et: Mil							COC No:	
City/State/Zip: Novi, MI, 48377	Telephone: 248					Analysis Turnaround Time					Telephone: 330-497-9396 An allyses								1 of 1	COC2				
Phose: 248-994-2240	Email: kristoff	er.hiuskey@are	discom															1	For lab use only					
roject Name: Ford LTP On-Site	Sampler Name					TAT if different from below 3 weeks														Walk-in client				
Toject Number: 30167538.401.03	Method of Shipmens Carrier:						10 day 2 weeks							8			W S		Lab sampling					
O # 30167538.401.03	Skipping/Track	Shipping/Tracking No:						☐ 2 days ☐ 1 day ☐ ☐ ☐					82600	82600			8260D	82 60D S				Job/SDG No:		
			1 10	Matt	iz		Cost	aloca	& P.	reservatives		To Se	82600	SE 82	-DCE	8	QC	oride	ane 82					
Sample Identification	Sample Date	Sample Time	Air Aqs@sss	Sediment	Solid Other:	H2504	HNO3	нсі	NaOH	NeOH Uapres Other:		Composit	1,1-DCE 8260D	cis-1,2-DCE	Trans-1,2-DCE	PCE 8260D	TCE 8260D	Vinyl Chloride 82600	1,4-Dioxane				Sample Specific Special I ustruc	
TRIP BLANK_		eetr-	*	1				1			ı	٧G	Х	X	X	Х	Х	Х					1 Trip Blank	
MW-36_030624	3/6/24	135	6					6			Ņ	JA	X	X	×	X	X	X	X				3 VOAs for 826 3 VOAs for 826	
MW-36-MS_030624	3/6/24	935	6					6			N	JG	X	×	X	X	×	Х	X				RUN MS/M	50
MW-36-MSD_030624	3/6/24	935	6				(6			,	JG	X	X	^	X	Х	Х	X				1 2	•
MJ-38_030624	3/6/24	1110	6					6			1	VG	X	×	×	×	X	X	X					•
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Possible Hazard Identification						S				(A fee may	be a ss	essed if	sa emp	les a re				120 1 0		- 1		1	L	
Non-Hazard lammable an in pecial Instructions/QC Requirements & Comments:	ritant Poiso	n B	Inknow	1			F	Return	1 to C	llent -	, Dia	posal By	y Lab		A	achive	For I	_	Mon	ths				
Submit all results through Cadena at jtomalia@caden .evel IV Reporting requested.	aco.com. Cadena #E	203 728																						
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Relinquished Sun Sun	Company:			Time			53	9 F	Recei	ved by:	Z		<u>, , , , , , , , , , , , , , , , , , , </u>	-(-)		Comp	any	<u> </u>	ــــــ			Date/Time:	536
Relinquished by	Company LTA		Date	17		1600)	F	Recei	ved in Labo	oratory	by:							TNO				Date/Time:	8:00

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As Frozen.	VOA Sample Preservation Date/Time VOAs Frozen.
Preservative(s) added/Lot number(s) were further preserved in the laboratory	Sample(s)Preservative
	20. SAMPLE PRESERVATION
were received after the recommended holding time had expired. Were received in a broken container were received with bubble >6 mm in diameter (Notify PM)	Sample(s) Sample(s) Sample(s)
DISCREPANCIES 🔲 additional next page Samples processed by:	18 CHAIN OF CUSTODY & SAMPLE DISCREPANCIES
	Concerning
by via Verbal Voice Mail Other	Contacted PM Date
(s)? Trip Blank Lot # 622014 Yes No	
	13 Were all preserved sample(s) at the correct pH upon receipt? 14 Were VOAs on the COC? 15 Were air highles >6 mm in any VOA wate?
ting laboratory	12. Are these work share samples and all listed on the COC? If yes, Questions 13-17 have been checked at the originating laboratory
Were correct bottle(s) used for the test(s) indicated? Sufficient quantity received to perform indicated analyses? Sufficient quantity received to perform indicated analyses?	1
Unbroken)? Cer No e reconciled with the COC? The Continue Conti	7 Did all bottles arrive in good condition (Unbroken)? 8 Could all bottle labels (ID/Date/Time) be reconciled with the COC? 9 For each sample, does the COC specify preservatives (WNN) # of co
Were the custody papers relinquished & signed in the appropriate place? Was/were the person(s) who collected the samples clearly identified on the COC? Ves No	
Yes (a)	 Shippers' packing slip attached to the cooler(s)? Did custody papers accompany the sample(s)?
	 Were the seals on the outside of the cooler(s) signed & dated? Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Were tamper/custody seals intact and uncommonised?
No Trump.	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity
ved Cooler T	IR GUN # 22 (CF)
Plastic Bag None	Packing material used. Bubble Wrap. Ecam COOLANT: Wet to Blue Ice Dr.
Storage Location X Client Cooler Box Other	Eurofins Cooler # E Foam Box
p Off E	xp / UP6 FAS
Opened on 3/X/24	
	Client ArCadis
orm/Narrative Table 1	-Eurofins = Cleveland Sample Receipt Form/Narrative :

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3/20/2024

Login Sample Receipt Checklist

Client: Arcadis U.S., Inc. Job Number: 240-200747-1

Login Number: 200747 List Source: Eurofins Cleveland

List Number: 1 Creator: Loar, Malissa

Question Answer Comment

Radioactivity wasn't checked or is </= background as measured by a survey

The cooler's custody seal, if present, is intact.

Sample custody seals, if present, are intact.

The cooler or samples do not appear to have been compromised or

tampered with.

Samples were received on ice.

Cooler Temperature is acceptable.

Cooler Temperature is recorded.

COC is present.

COC is filled out in ink and legible.

COC is filled out with all pertinent information.

Is the Field Sampler's name present on COC?

There are no discrepancies between the containers received and the COC.

Samples are received within Holding Time (excluding tests with immediate

HTs)

Sample containers have legible labels.

Containers are not broken or leaking.

Sample collection date/times are provided.

Appropriate sample containers are used.

Sample bottles are completely filled.

Sample Preservation Verified.

There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs

Containers requiring zero headspace have no headspace or bubble is

<6mm (1/4").

Multiphasic samples are not present.

Samples do not require splitting or compositing.

Residual Chlorine Checked.

DATA VERIFICATION REPORT



March 20, 2024

Kris Hinskey Arcadis of Michigan 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: 30167538.401.03

Event Specific Scope of Work References: Sample COC Laboratory: Eurofins Environment Testing LLC - Cleveland

Laboratory submittal: 200747-1 Sample date: 2024-03-06

Report received by CADENA: 2024-03-20

Initial Data Verification completed by CADENA: 2024-03-20

Number of Samples:4

Sample Matrices: Water and trip blank

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-SIM QC batch 605892 did not include MS/MSD analysis results due to a bad purge on the instrument according to the laboratory submittal case narrative.

HTQ - GCMS VOC preservation was outside of referenced criteria (pH greater than 2) for the following client water matrix samples. VOC GCMS analyses for these samples were NOT analyzed within the holding time for unpreserved GCMS VOC water samples (7 days) so qualification was required for the following sample results. GCMS VOC sample -02 - UJ flags - all results.

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

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

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

Qualifiers added during verification have been added to the electronic data which is available for download from the CADENA CLMS. Refer to the attached table of analytical results that have been qualified during verification.

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.

Qualified Results Summary

CADENA Project ID: E203728

Laboratory: Eurofins Environment Testing LLC - Cleveland

Laboratory Submittal: 200747-1

 Sample Name:
 MW-36_030624

 Lab Sample ID:
 2402007472

 Sample Date:
 3/6/2024

 Report

		Sample Date:	3/6/2024	ļ.		
				Report		Valid
	Analyte	Cas No.	Result	Limit	Units	Qualifier
GC/MS VOC						
OSW-8260	<u>)D</u>					
	1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	UJ
	cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	UJ
	Tetrachloroethene	127-18-4	ND	1.0	ug/l	UJ
	trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	UJ
	Trichloroethene	79-01-6	ND	1.0	ug/l	UJ
	Vinyl chloride	75-01-4	ND	1.0	ug/l	UJ

Analytical Results Summary

CADENA Project ID: E203728

Laboratory: Eurofins Environment Testing LLC - Cleveland

Laboratory Submittal: 200747-1

		Sample Name: Lab Sample ID:		P BLANK_14 02007471			MW-36_				MW-38_							
		Sample Date:	3/6/2024				3/6/2024				3/6/2024				2402007 3/6/2024			
				Report Valid		Valid		Report		Valid Report			Valid	Valid Repo			Valid	
	Analyte	Cas No.	Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier
GC/MS VOC																		
OSW-826	<u>60D</u>																	
	1,1-Dichloroethene	75-35-4	ND	1.0	ug/l		ND	1.0	ug/l	UJ	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	UJ	ND	1.0	ug/l		ND	1.0	ug/l	
	Tetrachloroethene	127-18-4	ND	1.0	ug/l		ND	1.0	ug/l	UJ	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	UJ	ND	1.0	ug/l		ND	1.0	ug/l	
	Trichloroethene	79-01-6	ND	1.0	ug/l		ND	1.0	ug/l	UJ	ND	1.0	ug/l		ND	1.0	ug/l	
	Vinyl chloride	75-01-4	ND	1.0	ug/l		ND	1.0	ug/l	UJ	ND	1.0	ug/l		ND	1.0	ug/l	
OSW-826	<u>SODSIM</u>																	
	1.4-Dioxane	123-91-1					1.0	2.0	ug/l	J	ND	2.0	ug/l		ND	2.0	ug/l	