

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kristoffer Hinskey ARCADIS US Inc 28550 Cabot Drive Suite 500 Novi, Michigan 48377 Generated 6/4/2023 10:41:32 PM

JOB DESCRIPTION

Ford LTP - On Site

JOB NUMBER

240-185816-1

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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

ww

Generated 6/4/2023 10:41:32 PM

Authorized for release by Michael DelMonico, Project Manager I Michael.DelMonico@et.eurofinsus.com (330)497-9396

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Method Summary	6
Sample Summary	7
Detection Summary	8
Client Sample Results	9
Surrogate Summary	12
QC Sample Results	13
QC Association Summary	15
Lab Chronicle	16
Certification Summary	17
Chain of Custody	18
Receipt Checklists	21

Project/Site: F	-ord LTP - On Site	
Qualifiers		3
GC/MS VOA Qualifier	Qualifier Description	4
U	Indicates the analyte was analyzed for but not detected.	
Glossary		5
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
a a a a a a a a a a a a a a a a a a a	Listed under the "D" column to designate that the result is reported on a dry weight basis	O
%R	Percent Recovery	
CFL	Contains Free Liquid	
CFU	Colony Forming Unit	
CNF	Contains No Free Liquid	8
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	9
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	

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

Job ID: 240-185816-1

Laboratory: Eurofins Cleveland

Project/Site: Ford LTP - On Site

Narrative

Job Narrative 240-185816-1

Case Narrative

Receipt

The samples were received on 5/23/2023 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.6° C

GC/MS VOA

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

Client: ARCADIS US Inc Project/Site: Ford LTP - On Site

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

Protocol References:

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

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: ARCADIS US Inc Project/Site: Ford LTP - On Site

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-185816-1	TRIP BLANK_185	Water	05/19/23 00:00	05/23/23 10:00
240-185816-2	MW-15-59D_051923	Water	05/19/23 11:55	05/23/23 10:00
240-185816-3	MW-15-60D_051923	Water	05/19/23 15:05	05/23/23 10:00

Detection Summary		1
Client: ARCADIS US Inc Project/Site: Ford LTP - On Site	Job ID: 240-185816-1	2
Client Sample ID: TRIP BLANK_185	Lab Sample ID: 240-185816-1	
No Detections.		
Client Sample ID: MW-15-59D_051923	Lab Sample ID: 240-185816-2	4
No Detections.		5
Client Sample ID: MW-15-60D_051923	Lab Sample ID: 240-185816-3	6
No Detections.		7 8 9 1(
		1
		1

Client Sample ID: TRIP BLANK_185

Date Collected: 05/19/23 00:00 Date Received: 05/23/23 10:00

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			05/27/23 15:45	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/27/23 15:45	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/27/23 15:45	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/27/23 15:45	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/27/23 15:45	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/27/23 15:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 128			-		05/27/23 15:45	1
Dibromofluoromethane (Surr)	94		77 - 124					05/27/23 15:45	1
Toluene-d8 (Surr)	98		80 - 120					05/27/23 15:45	1
4-Bromofluorobenzene	97		76 - 120					05/27/23 15:45	1

Job ID: 240-185816-1

Lab Sample ID: 240-185816-1

Matrix: Water

5

8 9

Client Sample ID: MW-15-59D_051923

Date Collected: 05/19/23 11:55 Date Received: 05/23/23 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			05/31/23 13:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		75 - 133			-		05/31/23 13:46	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			05/27/23 16:35	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/27/23 16:35	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/27/23 16:35	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/27/23 16:35	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/27/23 16:35	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/27/23 16:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 128			-		05/27/23 16:35	1
Dibromofluoromethane (Surr)	91		77 - 124					05/27/23 16:35	1
Toluene-d8 (Surr)	97		80 - 120					05/27/23 16:35	1
4-Bromofluorobenzene	91		76 - 120					05/27/23 16:35	1

Job ID: 240-185816-1

Matrix: Water

Lab Sample ID: 240-185816-2

5 6 7

Client Sample ID: MW-15-60D_051923

Date Collected: 05/19/23 15:05 Date Received: 05/23/23 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			05/31/23 14:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		75 - 133			-		05/31/23 14:07	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			05/27/23 17:00	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/27/23 17:00	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/27/23 17:00	1
rans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/27/23 17:00	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/27/23 17:00	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/27/23 17:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 128			-		05/27/23 17:00	1
Dibromofluoromethane (Surr)	109		77 - 124					05/27/23 17:00	1
Toluene-d8 (Surr)	95		80 - 120					05/27/23 17:00	1
4-Bromofluorobenzene	93		76 - 120					05/27/23 17:00	1

Job ID: 240-185816-1

Eurofins Cleveland

Lab Sample ID: 240-185816-3 Matrix: Water 5 6 7

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

Matrix: Water

Prep Type: Total/NA

				Percent Sur	ogate Recovery (Acceptance Limits)	
		DCA	DBFM	TOL	BFB	
Lab Sample ID	Client Sample ID	(70-128)	(77-124)	(80-120)	(76-120)	
240-185816-1	TRIP BLANK_185	98	94	98	97	
240-185816-2	MW-15-59D_051923	96	91	97	91	
240-185816-3	MW-15-60D_051923	101	109	95	93	
LCS 460-911871/4	Lab Control Sample	98	107	97	103	
LCSD 460-911871/5	Lab Control Sample Dup	97	98	99	103	
MB 460-911871/11	Method Blank	106	115	102	100	
Surrogate Legend						

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

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

Matrix: Water

			Percent Surrogate Recovery (Acceptance Limits)	
		BFB		
Lab Sample ID	Client Sample ID	(75-133)		
240-185816-2	MW-15-59D_051923	94		
240-185816-3	MW-15-60D_051923	93		
LCS 460-912330/9	Lab Control Sample	94		
LCSD 460-912330/13	Lab Control Sample Dup	95		
MB 460-912330/7	Method Blank	90		
Surrogato Logond				
Surrogate Legend				

BFB = 4-Bromofluorobenzene

9

Prep Type: Total/NA

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

Lab Sample ID: MB 460-911871/11

Matrix: Water Analysis Batch: 911871

MB	МВ							
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1.0	U	1.0	0.49	ug/L			05/27/23 11:59	1
1.0	U	1.0	0.46	ug/L			05/27/23 11:59	1
1.0	U	1.0	0.44	ug/L			05/27/23 11:59	1
1.0	U	1.0	0.51	ug/L			05/27/23 11:59	1
1.0	U	1.0	0.44	ug/L			05/27/23 11:59	1
1.0	U	1.0	0.45	ug/L			05/27/23 11:59	1
	Result 1.0 1.0 1.0 1.0 1.0 1.0	MB MB Result Qualifier 1.0 U 1.0 U	Result Qualifier RL 1.0 U 1.0 1.0 U 1.0	Result Qualifier RL MDL 1.0 U 1.0 0.49 1.0 U 1.0 0.46 1.0 U 1.0 0.44 1.0 U 1.0 0.51 1.0 U 1.0 0.44	Result Qualifier RL MDL Unit 1.0 U 1.0 0.49 ug/L 1.0 U 1.0 0.44 ug/L 1.0 U 1.0 0.51 ug/L 1.0 U 1.0 0.44 ug/L	Result Qualifier RL MDL Unit D 1.0 U 1.0 0.49 ug/L - 1.0 U 1.0 0.46 ug/L - 1.0 U 1.0 0.44 ug/L - 1.0 U 1.0 0.51 ug/L - 1.0 U 1.0 0.44 ug/L -	Result Qualifier RL MDL Unit D Prepared 1.0 U 1.0 0.49 ug/L ug	Result Qualifier RL MDL Unit D Prepared Analyzed 1.0 U 1.0 0.49 ug/L 05/27/23 11:59 05/27/23 11:59 1.0 U 1.0 0.46 ug/L 05/27/23 11:59 1.0 U 1.0 0.44 ug/L 05/27/23 11:59 1.0 U 1.0 0.51 ug/L 05/27/23 11:59 1.0 U 1.0 0.51 ug/L 05/27/23 11:59 1.0 U 1.0 0.44 ug/L 05/27/23 11:59 1.0 U 1.0 0.44 ug/L 05/27/23 11:59

	MB	МВ				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 128		05/27/23 11:59	1
Dibromofluoromethane (Surr)	115		77 - 124		05/27/23 11:59	1
Toluene-d8 (Surr)	102		80 - 120		05/27/23 11:59	1
4-Bromofluorobenzene	100		76 - 120		05/27/23 11:59	1

Lab Sample ID: LCS 460-911871/4 Matrix: Water Analysis Batch: 911871

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,1-Dichloroethene	20.0	23.0		ug/L		115	68 - 133	
cis-1,2-Dichloroethene	20.0	22.6		ug/L		113	78 - 121	
Tetrachloroethene	20.0	20.5		ug/L		102	70 - 127	
trans-1,2-Dichloroethene	20.0	21.7		ug/L		108	74 - 126	
Trichloroethene	20.0	20.6		ug/L		103	71 - 121	
Vinyl chloride	20.0	20.2		ug/L		101	55 - 144	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 128
Dibromofluoromethane (Surr)	107		77 - 124
Toluene-d8 (Surr)	97		80 - 120
4-Bromofluorobenzene	103		76 - 120

Lab Sample ID: LCSD 460-911871/5 Matrix: Water Analysis Batch: 911871

s	Spike	LCSD	LCSD				%Rec		RPD
Analyte A	dded	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1-Dichloroethene	20.0	22.0		ug/L		110	68 - 133	4	30
cis-1,2-Dichloroethene	20.0	22.3		ug/L		111	78 - 121	2	30
Tetrachloroethene	20.0	19.8		ug/L		99	70 - 127	3	30
trans-1,2-Dichloroethene	20.0	21.4		ug/L		107	74 - 126	1	30
Trichloroethene	20.0	20.4		ug/L		102	71 - 121	1	30
Vinyl chloride	20.0	19.5		ug/L		98	55 - 144	3	30

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 128
Dibromofluoromethane (Surr)	98		77 - 124
Toluene-d8 (Surr)	99		80 - 120

Prep Type: Total/NA

Client Sample ID: Lab Control Sample

Job ID: 240-185816-1

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Surrogate

4-Bromofluorobenzene

10

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued) Lab Sample ID: LCSD 460-911871/5 Client Sample ID: Lab Control Sample Dup Matrix: Water Prep Type: Total/NA Analysis Batch: 911871 LCSD LCSD Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene 103 76 - 120 Method: 8260D SIM - Volatile Organic Compounds (GC/MS) Lab Sample ID: MB 460-912330/7 **Client Sample ID: Method Blank** Matrix: Water Prep Type: Total/NA Analysis Batch: 912330 MB MB Analyte Result Qualifier RL MDL Unit D Analyzed Dil Fac Prepared 2.0 1,4-Dioxane 2.0 U 0.86 ug/L 05/31/23 08:59 1 MB MB Surrogate %Recovery Qualifier Limits Dil Fac Prepared Analyzed 4-Bromofluorobenzene 90 75 - 133 05/31/23 08:59 1 Lab Sample ID: LCS 460-912330/9 **Client Sample ID: Lab Control Sample** Matrix: Water Prep Type: Total/NA Analysis Batch: 912330 Spike LCS LCS %Rec Analyte Added **Result Qualifier** Limits Unit D %Rec 1,4-Dioxane 5.00 5.09 102 57 - 124 ug/L LCS LCS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene 94 75 - 133 Lab Sample ID: LCSD 460-912330/13 **Client Sample ID: Lab Control Sample Dup** Matrix: Water Prep Type: Total/NA Analysis Batch: 912330 Spike RPD LCSD LCSD %Rec Analyte Added Result Qualifier Unit %Rec Limits RPD Limit D 1,4-Dioxane 5.00 5.02 100 57 - 124 30 ug/L 1 LCSD LCSD

%Recovery Qualifier

95

Limits

75 - 133

8260D SIM

8260D SIM

GC/MS VOA Analysis Batch: 911871

LCS 460-912330/9

LCSD 460-912330/13

Lab Control Sample

Lab Control Sample Dup

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-185816-1	TRIP BLANK_185	Total/NA	Water	8260D	
240-185816-2	MW-15-59D_051923	Total/NA	Water	8260D	
240-185816-3	MW-15-60D_051923	Total/NA	Water	8260D	
MB 460-911871/11	Method Blank	Total/NA	Water	8260D	
LCS 460-911871/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 460-911871/5	Lab Control Sample Dup	Total/NA	Water	8260D	
Analysis Batch: 9123	30				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-185816-2	MW-15-59D_051923	Total/NA	Water	8260D SIM	
240-185816-3	MW-15-60D_051923	Total/NA	Water	8260D SIM	
MB 460-912330/7	Method Blank	Total/NA	Water	8260D SIM	

Total/NA

Total/NA

Water

Water

Client Samp	le ID: TRIP E	BLANK_185						Lab Sample ID:	: 240-185816-1
Date Collected	: 05/19/23 00:0	0 —							Matrix: Water
Date Received	: 05/23/23 10:0	D							
_	Batch	Batch		Dilution	Batch			Prepared	
Prep Type		Method	Run	Factor		Analyst	Lab	or Analyzed	
Total/NA	Analysis	8260D	Kuii	_ <u></u>	911871	MZS		05/27/23 15:45	
	Analysis	8200D		1	911071	IVIZO		00/21/20 10.40	
Client Samp	le ID: MW-15	5-59D_051923						Lab Sample ID:	: 240-185816-2
Date Collected	: 05/19/23 11:5	5							Matrix: Wate
Date Received	: 05/23/23 10:0	D							
_	Batch	Batch		Dilution	Batch			Prepared	
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	
Total/NA	Analysis	8260D		1	911871	MZS	EET EDI	05/27/23 16:35	
Total/NA	Analysis	8260D SIM		1	912330	SZD	EET EDI	05/31/23 13:46	
Client Samp	le ID: MW-15	5-60D_051923						Lab Sample ID:	: 240-185816-3
Date Collected	: 05/19/23 15:0	5						-	Matrix: Water
Date Received	: 05/23/23 10:0	D							
_		Batch		Dilution	Batch			Prepared	
	Batch	Duton							
Prep Type	Batch Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	

1

912330 SZD

EET EDI

05/31/23 14:07

Laboratory References:

Analysis

Total/NA

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

8260D SIM

Accreditation/Certification Summary

Client: ARCADIS US Inc Project/Site: Ford LTP - On Site

Laboratory: Eurofins Edison

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-0818	01-30-24
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	01-01-24
Georgia	State	12028 (NJ)	06-30-23
Massachusetts	State	M-NJ312	06-30-23
New Jersey	NELAP	12028	06-30-23
New York	NELAP	11452	04-01-24
Pennsylvania	NELAP	68-00522	03-01-24
Rhode Island	State	LAO00376	12-30-23
USDA	US Federal Programs	P330-20-00244	11-03-23

9,0/10,6		Chain of Custody Record		TestAmerica
Client Contact	I ESIA METICA L'ADUTATOLY IOCATION: DIGITUDI 10440 CITATI Regulatory orostam: C DW	10440 Citation Drive, Suite 2007 Brighton, MI 48116 / 810-229-2763 DW F NDMFS F DC DA F Advin-	2/63	IME LEADER IN ENVIRONMENTAL TISTING
Company Name: Arcadis	-4	NUNA		TestAmerica Laboratories. Inc.
Address: 28550 Cabot Drive, Suite 500	Client Project Manager: Kris Hinskey	Site Contact: Christina Weaver	Lab Contact: Mike DelMonico	COC No:
City/State/Zip: Novi, MI, 48377	Telephone: 248-994-2240	Telephone: 248-994-2240	Telephone: 330-497-9396	
Phone: 748-004-7340	Email: kristoffer.hinskey@arcadis.com	Analysis Turnaround Time	Analyses	For lab use only
Project Name: Ford L.P.P.On-Stic Project Number: 30167538,401.03	Sampler Name: Samaurthe Separicher Method of Shipment Carrier:	()		Walk-in client Lab sampling
PO # 30167538.401.03	Shipping/Iracking No:	\ CLap=	82608 E 82601	Job/SDG No:
Sample Identification	Sediment Sediment Aqueur Any Aqueur Air Any Aqueur	1'1-DCE 8560 Combosite C Bilteted Samp Composite C Composite C Samp Composite C Composite C	cis-1,2-DCE 8 Trans-1,2-DCE PCE 8260B TCE 8260B Vinyl Chloride Vinyl Chloride Vinyl Chloride Vinyl Chloride Vinyl Chloride Vinyl Chloride	Sample Specific Notes / Special Instructions:
W TRIP BLANK_ 185	5/19/23 1	1 NG X		1 Trip Blank
0 171W-15-59 D. 051923	5/19/23 /1.55 6	6 NGX	XXXXXX	3 VOAs for 8260B 3 VOAs for 8260B SIM
MW-15-600 051923	5/19/23 1505 6	x 9x 7	XXXXXX	11 17
ge 18 d				
of 21				
	240-185816 Chain of	lain of Custody		
Possible Hazard Identification Non-Hazard Immable anility Special Instructions/QC Requirements & Comments:	at Poison B Liknown	Sample Disposal (A fee may be assessed if samples are Return to Chent 💎 Disposal By Lab	es are retained longer than 1 month) Archive For Months	
Submit all results through Cadena at jtomalia@cadenaco.com. Cadena #£203728 Level IV Reporting requested.	.com. Cadena #E203728			
Relinquished by MWW Reput	radis Bar	15:30 RECEIVED IN CANADA U	HOLDER COMPANY	Date/Time: 5119123 15.30
Relinquished by	1111 12 12 2	Level .	Company: Company:	Date/Jime. 5/22/13/1000 Date/Time: 5/34/3
9 With TetMoneta Laboratoria Inc. Ali 1914 (rearved TetMoneta Laboratoria Inc. Ali 1914 (rearved	al cha	A WAY WAY AND A		2001 (1000

6/4/2023

Eurofins - Canton Sample Receipt Form/Narrative Barberton Facility	Login # :85816
Client ARCADIS Site Name	Gooler unpacked by:
Cooler Received on 5 23 23 Opened on 5	23 23 KAchelle Hardet
FedEx: 1 st Grd(Exp) UPS FAS Clipper Client Drop Off	Eurofins Courier Other
Receipt After-hours: Drop-off Date/Time	Storage Location
Eurofins Cooler # C Foam Box Client Cooler	Box Other
Packing material used Bubble Wrap Foam Plastic Ba	g None Other
COOLANT: Wet Ice Blue Ice Dry Ice Wat	
1. Cooler temperature upon receipt	See Multiple Cooler Form
IR GUN # 13 (CF + 2°C) Observed Coo	er Temp. O'+ °C Corrected Cooler Temp. O · O °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Y	es Quantity Ves No
-Were the seals on the outside of the cooler(s) signed & dated	Yes No NA checked for pH by
-Were tamper/custody seals on the bottle(s) or bottle kits (LL	Ig/MeHg)? Yes No Receiving:
-Were tamper/custody seals intact and uncompromised?	Ves No NA Ves No VOAs
3. Shippers' packing slip attached to the cooler(s)?	
4. Did custody papers accompany the sample(s)?5. Were the custody papers relinquished & signed in the appropriate	TOC
6. Was/were the person(s) who collected the samples clearly identi	
7. Did all bottles arrive in good condition (Unbroken)?	Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the CO	
9. For each sample, does the COC specify preservatives (YD), # o	
10. Were correct bottle(s) used for the test(s) indicated?	(Yes No
11. Sufficient quantity received to perform indicated analyses?	(Yes) No
12. Are these work share samples and all listed on the COC?	Yes No
If yes, Questions 13-17 have been checked at the originating lat 13. Were all preserved sample(s) at the correct pH upon receipt?	Ves No NA pH Strip Lot# HC208070
14. Were VOAs on the COC?	Ves. No
15. Were air bubbles >6 mm in any VOA vials? 🛑 🖕 Larger	
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot	
17. Was a LL Hg or Me Hg trip blank present?	Yes (No
Contacted PM Date by	via Verbal Voice Mail Other
Concerning	
19 CHAIN OF CUSTORY & SAMPLE DISCREPANCIES	
18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES	additional next page Samples processed by:
·	
19. SAMPLE CONDITION	
Sample(s) were received after	r the recommended holding time had expired.
Sample(s)	were received in a broken container
Sample(s) 6- MLD-15-59D-0519 Dere recei	ved with bubble >6 mm in diameter. (Notify PM)
Q-MW-15-1,0D-05192-	3
20. SAMPLE PRESERVATION	
Sample(s)	were further preserved in the laboratory.
Sample(s) Time preserved: Preservative(s) added/Lot number(s)	reference protection and incomments.
	:

and	
Clevela	
ins (•
urof	
щ	

180 S. Van Buren Avenue Barberton, OH 44203

Chain of Custody Record



🕉 eurofins | Environment Testing

Barbertont, UH 44203 Phone: 330-497-9396 Fax: 330-497-0772				1						ы				0	
Client Information (Sub Contract Lab)	Sampier			Lab PM: DelMor	Lab PM: DelMonico, Michael	chael			Carrier	Carrier Tracking No(s)	40(s);		COC No: 240-168478.1		
Client Contact: Shipping/Receiving	Phone:			E-Mail: Michae	.DeiMo	nico@e	E-Mail: Michael.DeiMonico@et.eurofinsus.com	s.com	State of Origin: Michigan	Origin: Jan		1	Page 1 of 1		
Company: Eurofins Environment Testing Northeast.				Ac	creditation	is Requir	Accreditations Required (See note):						Job #: 240-185816-1		
	Due Date Requested: 6/5/2023	÷					Anal	Analysis Requested	questi	p			Preservation Cod A HCL	;; ≥ ;	
	TAT Requested (days):	ys):										<u>' societati da</u>	B NaOH C Zn Acetate	N None O AsNaO2 P Na204S	
State, Zpr. NJ, 08817		i										<u></u>	D NITC ACIO E NaHSO4 F MeOH		
Phone: 732-549-3900(Tei) 732-549-3679(Fax)	PO #			(0)	()\$)	роц						<u>p</u>		S H2SO4 T TSP Dodecahydrate	
Erraak	# OM				musicili/Mitercom	iem leo						\$16		V MCAA	
Project Name: Ford LTP - On Site	Project #: 24015353			<u>• A) 91</u>	000000000000000000000000000000000000000	יס) (סנ						onlejn	L EDA		
	SSOW#:				ar a said (fellage reser	00 (WC						00 JO J	Other		
on Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=orrab)	Matrix (www. Secold. Coversion. Bit-Texus ArAki)	8560D/5030C (F	85600 SIW/603		,,,				edmuN lejoT	Special Ir	Special Instructions/Note:	
ge	N	X	Preservation Code:	Code: X	X							X			
0 TRIP BLANK_185 (240-185816-1)	5/19/23	Eastern		Water	×]	÷			
0 MW 15-59D_051923 (240-185816-2)	5/19/23	11:55 Eastern		Water	×	×						9			
MW-15-60D_051923 (240-185816-3)	5/19/23	15:05 Eastern		Water	×	×						6			
												<u></u>			
						_									
					_										
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory accreditation in the State of Origin listed above for analysis/leasts/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC aboratory accreditation status should be brought to Eurofins Environment Testing North Central, LLC aboratory accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.	nt Testing North Centr bove for analysis/tests intral, LLC attention in	al, LLC places imatrix being a mediately. If a	the ownership of nalyzed, the sam il requested accn	method, analyt ples must be st editations are c	s & accre ipped bac urrent to c	ditation c ck to the late, retu	ompliance upo Eurofins Envir m the signed (n our subor onment Tes Chain of Cu	ontract lab ting North stody atte	oratories. Central, I sting to se	This sam LC labors id complia	ple shipme ttory or oth ince to Eun	nt is forwarded unde er instructions will be ofins Environment Te	r chain-of-custody. If the provided. Any changes to esting North Central, LLC.	
Possible Hazard Identification					Sampl	e Disp	sal (A fee	may be	assess	ed if sa	mples a	re retain	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	1 month)	_
Unconfirmed	: 4	•			Ĵ	Return	Return To Client] [Disposal By Lab	i By La		₹]	Archive For	Months	
Deliverable Requested 1, 11, 11, 1V Other (specify)	Primary Deliverable Rank: 2	ble Rank: 2			Specia	unstru	Special Instructions/QC Requirements.	kequirem.							
Employed Relinquished by:		Date:			Time:				2	Method of Shipment:	hipment:	Ľ	Feder		
Prove ce Narech	C C C	5		Company EFT N	88 2	Received by	- 3	مبادلاهم				Date Time:	10, 20	Company	
Rélinquisted by:	Date/Time:		<u>8</u>	company	å L	Received by:					Date/Time			Сотрату	
Relinquished by:	Date/Time:		<u>8</u>	Company	82 	Received by:					Date/Time:			Company	
Custody Seals Intact: Custody Seal No.					<u>ğ</u>	iler Temp	Cooler Temperature(s) ^a C and Other Remarks.	and Other F		1.					
					14		5 F 2 C			9	8	7	5 6	2 3 4	

Client: ARCADIS US Inc

Login Number: 185816 List Number: 2

Creator: Rivera, Kenneth

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.2°C, IR #9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Job Number: 240-185816-1

List Source: Eurofins Edison

List Creation: 05/25/23 10:46 AM

DATA VERIFICATION REPORT



June 05, 2023

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- onsite groundwater Event Specific Scope of Work References: Sample COC Laboratory: Eurofins Environment Testing LLC - Cleveland Laboratory submittal: 185816-1 Sample date: 2023-05-19 Report received by CADENA: 2023-06-05 Initial Data Verification completed by CADENA: 2023-06-05 Number of Samples:3 Sample Matrices:Water Test Categories:GCMS VOC **Please see attached criteria report or sample result/qualified analytical result summary for qualifier flags assigned to sample data.**

There were no significant QC anomalies or exceptions to report.

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

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

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

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

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: 185816-1

		Sample Name: Lab Sample ID: Sample Date:	TRIP BLA 2401858 5/19/20	- 3161	5		MW-15-59D_051923 2401858162 5/19/2023				MW-15-60D_051923 2401858163 5/19/2023				
			Report		Valid	Report			Valid		Report		Valid		
	Analyte	Cas No.	Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier	
GC/MS VOC															
<u>OSW-82</u>	60D														
	1,1-Dichloroethene	75-35-4	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		
	Tetrachloroethene	127-18-4	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		
	Trichloroethene	79-01-6	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		ND	1.0	ug/l		ND	1.0	ug/l		
<u>OSW-82</u>	60DSIM														
	1,4-Dioxane	123-91-1					ND	2.0	ug/l		ND	2.0	ug/l		