

ANALYTICAL REPORT

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Tel: (330)497-9396

Laboratory Job ID: 240-166947-1
Client Project/Site: Ford LTP - On Site

For:
ARCADIS U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, Michigan 48377

Attn: Kristoffer Hinskey



Authorized for release by:
5/31/2022 2:55:13 PM

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Results relate only to the items tested and the sample(s) as received by the laboratory.



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Definitions/Glossary

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

Job ID: 240-166947-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

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

Job ID: 240-166947-1

Job ID: 240-166947-1

Laboratory: Eurofins Canton

Narrative

Job Narrative 240-166947-1

Comments

No additional comments.

Receipt

The samples were received on 5/20/2022 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 0.8° C and 1.9° C.

GC/MS VOA

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

VOA Prep

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

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Method Summary

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

Job ID: 240-166947-1

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

Protocol References:

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

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

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Sample Summary

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

Job ID: 240-166947-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-166947-1	TRIP BLANK_134	Water	05/18/22 00:00	05/20/22 08:00
240-166947-2	MW-195S_051822	Water	05/18/22 10:15	05/20/22 08:00
240-166947-3	MW-194S_051822	Water	05/18/22 11:15	05/20/22 08:00
240-166947-4	MW-194_051822	Water	05/18/22 12:18	05/20/22 08:00

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Detection Summary

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

Job ID: 240-166947-1

Client Sample ID: TRIP BLANK_134

Lab Sample ID: 240-166947-1

No Detections.

Client Sample ID: MW-195S_051822

Lab Sample ID: 240-166947-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	84		50	23	ug/L	50		8260D	Total/NA
trans-1,2-Dichloroethene	140		50	26	ug/L	50		8260D	Total/NA
Trichloroethene	2600		50	22	ug/L	50		8260D	Total/NA

Client Sample ID: MW-194S_051822

Lab Sample ID: 240-166947-3

No Detections.

Client Sample ID: MW-194_051822

Lab Sample ID: 240-166947-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.95	J	2.0	0.86	ug/L	1		8260D SIM	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 240-166947-1

Client Sample ID: TRIP BLANK_134

Lab Sample ID: 240-166947-1

Date Collected: 05/18/22 00:00

Matrix: Water

Date Received: 05/20/22 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			05/27/22 17:09	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/27/22 17:09	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/27/22 17:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/27/22 17:09	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/27/22 17:09	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/27/22 17:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		62 - 137		05/27/22 17:09	1
4-Bromofluorobenzene (Surr)	90		56 - 136		05/27/22 17:09	1
Toluene-d8 (Surr)	88		78 - 122		05/27/22 17:09	1
Dibromofluoromethane (Surr)	100		73 - 120		05/27/22 17:09	1

Client Sample Results

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

Job ID: 240-166947-1

Client Sample ID: MW-195S_051822

Lab Sample ID: 240-166947-2

Date Collected: 05/18/22 10:15

Matrix: Water

Date Received: 05/20/22 08:00

Method: 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			05/28/22 04:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		66 - 120					05/28/22 04:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	50	U	50	25	ug/L			05/27/22 17:34	50
cis-1,2-Dichloroethene	84		50	23	ug/L			05/27/22 17:34	50
Tetrachloroethene	50	U	50	22	ug/L			05/27/22 17:34	50
trans-1,2-Dichloroethene	140		50	26	ug/L			05/27/22 17:34	50
Trichloroethene	2600		50	22	ug/L			05/27/22 17:34	50
Vinyl chloride	50	U	50	23	ug/L			05/27/22 17:34	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		62 - 137					05/27/22 17:34	50
4-Bromofluorobenzene (Surr)	93		56 - 136					05/27/22 17:34	50
Toluene-d8 (Surr)	92		78 - 122					05/27/22 17:34	50
Dibromofluoromethane (Surr)	100		73 - 120					05/27/22 17:34	50

Client Sample Results

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

Job ID: 240-166947-1

Client Sample ID: MW-194S_051822

Lab Sample ID: 240-166947-3

Date Collected: 05/18/22 11:15

Matrix: Water

Date Received: 05/20/22 08:00

Method: 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			05/28/22 05:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		66 - 120		05/28/22 05:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			05/27/22 17:58	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/27/22 17:58	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/27/22 17:58	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/27/22 17:58	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/27/22 17:58	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/27/22 17:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		62 - 137		05/27/22 17:58	1
4-Bromofluorobenzene (Surr)	92		56 - 136		05/27/22 17:58	1
Toluene-d8 (Surr)	89		78 - 122		05/27/22 17:58	1
Dibromofluoromethane (Surr)	99		73 - 120		05/27/22 17:58	1

Client Sample Results

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

Job ID: 240-166947-1

Client Sample ID: MW-194_051822
Date Collected: 05/18/22 12:18
Date Received: 05/20/22 08:00

Lab Sample ID: 240-166947-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.95	J	2.0	0.86	ug/L			05/28/22 05:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		66 - 120					05/28/22 05:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			05/27/22 18:22	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/27/22 18:22	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/27/22 18:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/27/22 18:22	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/27/22 18:22	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/27/22 18:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		62 - 137					05/27/22 18:22	1
4-Bromofluorobenzene (Surr)	94		56 - 136					05/27/22 18:22	1
Toluene-d8 (Surr)	92		78 - 122					05/27/22 18:22	1
Dibromofluoromethane (Surr)	104		73 - 120					05/27/22 18:22	1

Surrogate Summary

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

Job ID: 240-166947-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (62-137)	BFB (56-136)	TOL (78-122)	DBFM (73-120)
240-166947-1	TRIP BLANK_134	97	90	88	100
240-166947-2	MW-195S_051822	97	93	92	100
240-166947-3	MW-194S_051822	96	92	89	99
240-166947-4	MW-194_051822	102	94	92	104
240-166950-B-3 MS	Matrix Spike	95	96	93	99
240-166950-B-3 MSD	Matrix Spike Duplicate	95	99	96	100
LCS 240-528245/5	Lab Control Sample	93	93	91	98
MB 240-528245/8	Method Blank	98	93	91	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
 BFB = 4-Bromofluorobenzene (Surr)
 TOL = Toluene-d8 (Surr)
 DBFM = Dibromofluoromethane (Surr)

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA
		(66-120)
240-166933-H-2 MS	Matrix Spike	91
240-166933-N-2 MSD	Matrix Spike Duplicate	88
240-166947-2	MW-195S_051822	89
240-166947-3	MW-194S_051822	92
240-166947-4	MW-194_051822	92
LCS 240-528362/3	Lab Control Sample	88
MB 240-528362/4	Method Blank	93

Surrogate Legend

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

QC Sample Results

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

Job ID: 240-166947-1

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

Lab Sample ID: MB 240-528245/8
Matrix: Water
Analysis Batch: 528245

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			05/27/22 11:50	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/27/22 11:50	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/27/22 11:50	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/27/22 11:50	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/27/22 11:50	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/27/22 11:50	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	98		62 - 137		05/27/22 11:50	1
4-Bromofluorobenzene (Surr)	93		56 - 136		05/27/22 11:50	1
Toluene-d8 (Surr)	91		78 - 122		05/27/22 11:50	1
Dibromofluoromethane (Surr)	100		73 - 120		05/27/22 11:50	1

Lab Sample ID: LCS 240-528245/5
Matrix: Water
Analysis Batch: 528245

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
1,1-Dichloroethene	20.0	20.3		ug/L		101	63 - 134
cis-1,2-Dichloroethene	20.0	19.4		ug/L		97	77 - 123
Tetrachloroethene	20.0	17.4		ug/L		87	76 - 123
trans-1,2-Dichloroethene	20.0	19.0		ug/L		95	75 - 124
Trichloroethene	20.0	19.2		ug/L		96	70 - 122
Vinyl chloride	20.0	18.8		ug/L		94	60 - 144

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	93		62 - 137
4-Bromofluorobenzene (Surr)	93		56 - 136
Toluene-d8 (Surr)	91		78 - 122
Dibromofluoromethane (Surr)	98		73 - 120

Lab Sample ID: 240-166950-B-3 MS
Matrix: Water
Analysis Batch: 528245

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

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier		Result	Qualifier				
1,1-Dichloroethene	330	U	6670	6230		ug/L		93	56 - 135
cis-1,2-Dichloroethene	6900		6670	12400		ug/L		83	66 - 128
Tetrachloroethene	330	U	6670	5210		ug/L		78	62 - 131
trans-1,2-Dichloroethene	220	J	6670	6080		ug/L		88	56 - 136
Trichloroethene	2500		6670	8250		ug/L		86	61 - 124
Vinyl chloride	2400		6670	7680		ug/L		79	43 - 157

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	95		62 - 137
4-Bromofluorobenzene (Surr)	96		56 - 136
Toluene-d8 (Surr)	93		78 - 122

QC Sample Results

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

Job ID: 240-166947-1

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

Lab Sample ID: 240-166950-B-3 MS
Matrix: Water
Analysis Batch: 528245

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

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
Dibromofluoromethane (Surr)	99		73 - 120

Lab Sample ID: 240-166950-B-3 MSD
Matrix: Water
Analysis Batch: 528245

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	330	U	6670	6810		ug/L		102	56 - 135	9	26
cis-1,2-Dichloroethene	6900		6670	13100		ug/L		92	66 - 128	5	14
Tetrachloroethene	330	U	6670	5790		ug/L		87	62 - 131	11	20
trans-1,2-Dichloroethene	220	J	6670	6590		ug/L		96	56 - 136	8	15
Trichloroethene	2500		6670	8790		ug/L		94	61 - 124	6	15
Vinyl chloride	2400		6670	8320		ug/L		88	43 - 157	8	24

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		62 - 137
4-Bromofluorobenzene (Surr)	99		56 - 136
Toluene-d8 (Surr)	96		78 - 122
Dibromofluoromethane (Surr)	100		73 - 120

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

Lab Sample ID: MB 240-528362/4
Matrix: Water
Analysis Batch: 528362

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			05/27/22 19:56	1

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,2-Dichloroethane-d4 (Surr)	93		66 - 120		05/27/22 19:56	1			

Lab Sample ID: LCS 240-528362/3
Matrix: Water
Analysis Batch: 528362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	10.0	10.1		ug/L		101	80 - 122

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	88		66 - 120

Lab Sample ID: 240-166933-H-2 MS
Matrix: Water
Analysis Batch: 528362

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	2.0	U	10.0	10.0		ug/L		100	51 - 153

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QC Sample Results

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

Job ID: 240-166947-1

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

<i>Surrogate</i>	<i>MS</i> <i>%Recovery</i>	<i>MS</i> <i>Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	91		66 - 120

Lab Sample ID: 240-166933-N-2 MSD
Matrix: Water
Analysis Batch: 528362

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

<i>Analyte</i>	<i>Sample</i> <i>Result</i>	<i>Sample</i> <i>Qualifier</i>	<i>Spike</i> <i>Added</i>	<i>MSD</i> <i>Result</i>	<i>MSD</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i> <i>Limits</i>	<i>RPD</i>	<i>RPD</i> <i>Limit</i>
1,4-Dioxane	2.0	U	10.0	11.1		ug/L		111	51 - 153	10	16

<i>Surrogate</i>	<i>MSD</i> <i>%Recovery</i>	<i>MSD</i> <i>Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	88		66 - 120

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QC Association Summary

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

Job ID: 240-166947-1

GC/MS VOA

Analysis Batch: 528245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-166947-1	TRIP BLANK_134	Total/NA	Water	8260D	
240-166947-2	MW-195S_051822	Total/NA	Water	8260D	
240-166947-3	MW-194S_051822	Total/NA	Water	8260D	
240-166947-4	MW-194_051822	Total/NA	Water	8260D	
MB 240-528245/8	Method Blank	Total/NA	Water	8260D	
LCS 240-528245/5	Lab Control Sample	Total/NA	Water	8260D	
240-166950-B-3 MS	Matrix Spike	Total/NA	Water	8260D	
240-166950-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

Analysis Batch: 528362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-166947-2	MW-195S_051822	Total/NA	Water	8260D SIM	
240-166947-3	MW-194S_051822	Total/NA	Water	8260D SIM	
240-166947-4	MW-194_051822	Total/NA	Water	8260D SIM	
MB 240-528362/4	Method Blank	Total/NA	Water	8260D SIM	
LCS 240-528362/3	Lab Control Sample	Total/NA	Water	8260D SIM	
240-166933-H-2 MS	Matrix Spike	Total/NA	Water	8260D SIM	
240-166933-N-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D SIM	

Lab Chronicle

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

Job ID: 240-166947-1

Client Sample ID: TRIP BLANK_134

Lab Sample ID: 240-166947-1

Date Collected: 05/18/22 00:00

Matrix: Water

Date Received: 05/20/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	528245	05/27/22 17:09	HMB	TAL CAN

Client Sample ID: MW-195S_051822

Lab Sample ID: 240-166947-2

Date Collected: 05/18/22 10:15

Matrix: Water

Date Received: 05/20/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		50	528245	05/27/22 17:34	HMB	TAL CAN
Total/NA	Analysis	8260D SIM		1	528362	05/28/22 04:40	CS	TAL CAN

Client Sample ID: MW-194S_051822

Lab Sample ID: 240-166947-3

Date Collected: 05/18/22 11:15

Matrix: Water

Date Received: 05/20/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	528245	05/27/22 17:58	HMB	TAL CAN
Total/NA	Analysis	8260D SIM		1	528362	05/28/22 05:04	CS	TAL CAN

Client Sample ID: MW-194_051822

Lab Sample ID: 240-166947-4

Date Collected: 05/18/22 12:18

Matrix: Water

Date Received: 05/20/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	528245	05/27/22 18:22	HMB	TAL CAN
Total/NA	Analysis	8260D SIM		1	528362	05/28/22 05:28	CS	TAL CAN

Laboratory References:

TAL CAN = Eurofins Canton, 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: 240-166947-1

Laboratory: Eurofins Canton

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	02-27-23
Connecticut	State	PH-0590	12-31-23
Florida	NELAP	E87225	06-30-22
Georgia	State	4062	02-23-22 *
Illinois	NELAP	200004	07-31-22
Iowa	State	421	06-01-23
Kentucky (UST)	State	112225	02-27-23
Kentucky (WW)	State	KY98016	12-31-22
Minnesota	NELAP	039-999-348	12-31-22
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-22
New York	NELAP	10975	04-01-23
Ohio	State	8303	02-23-23
Ohio VAP	State	CL0024	02-27-23
Oregon	NELAP	4062	02-27-23
Pennsylvania	NELAP	68-00340	08-31-22
Texas	NELAP	T104704517-22-16	08-31-22
Virginia	NELAP	11570	09-14-22
Washington	State	C971	01-12-23
West Virginia DEP	State	210	12-31-22

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

TestAmerica Laboratory location: Brighton --- 10448 Citation Drive, Suite 200 / Brighton, MI 48116 / 810-229-2763

Regulatory program: DW NPDES RCRA Other


Client Project Manager: **Kris Hinskey**
 Telephone: 269-832-7478
 Email: Kris.Hinskey@arcadis.com

Site Contact: **Christina Weaver**
 Telephone: 248-994-2329

Lab Contact: **Mike DelMontico**
 Telephone: 330-966-9783

Company Name: Arcadis
 Address: 28550 Cabot Drive, Suite 500
 City/State/Zip: Novi, MI, 48377
 Phone: 248-994-2240

Project Name: Ford LTP On-Site
 Project Number: 30080642.401.03
 PO # 30080642.401.03

Sample Identification	Sample Date	Sample Time	Matrix				Containers & Preservatives				Filtered Sample (Y/N)	Composite=C / Grab=G	Analyses							Sample Specific Notes / Special Instructions:						
			Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl			NaOH	ZnAc	NuOH	Other:	1-DCE 8260D	cis-1,2-DCE 8260D	Trans-1,2-DCE 8260D		PCE 8260D	TCE 8260D	Vinyl Chloride 8260D	1,4-Dioxane 8260D SIM		
TRIP BLANK_134	5/18/22	---	1																					1 Trip Blank		
MW-195S-051822	5/18/22	1015	6																						3 VOAs for 8260D 3 VOAs for 8260D SIM	
MW-194S-051822	5/18/22	1115	6																						" "	
MW-194-051822	5/18/22	1218	6																						" "	
 240-166947 Chain of Custody																										

Possible Hazard Identification
 Non-Hazard Irritant Poison B Unknown

Special Instructions/QC Requirements & Comments:
 Submit all results through Cadena at tomalia@cadenaco.com, Cadena #E203728
 Level IV Reporting requested.

Relinquished by: Sommer Guy	Company: Arcadis	Date/Time: 5/18/22 1400	Received by: Novi Cold Storage	Company: Arcadis	Date/Time: 5/18/22 1400
Relinquished by: <i>[Signature]</i>	Company: Arcadis	Date/Time: 5/18/22 0930	Received by: July Jr	Company: EEXA	Date/Time: 5/19/22 0930
Relinquished by: July Jr	Company: EEXA	Date/Time: 5/19/22	Received in Laboratory by: <i>[Signature]</i>	Company: BESTAC	Date/Time: 5-20-22 0800



Eurofins TestAmerica Canton Sample Receipt Form/Narrative Login # : 166947
Canton Facility

Client Arcadis Site Name Ford-LTP Cooler unpacked by: OME
 Cooler Received on 5-20-22 Opened on 5-20-22

FedEx: 1st Grd Exp UPS FAS (Clippe) Client Drop Off TestAmerica Courier Other _____

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

TestAmerica Cooler # TA Foam Box Client Cooler Box _____ Other _____
 Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
 COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
 IR GUN# IR-13 (CF 0.0 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 IR GUN #IR-15 (CF -0.7 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 ea Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
 -Were tamper/custody seals intact and uncompromised? Yes No NA
 3. Shippers' packing slip attached to the cooler(s)? Yes No
 4. Did custody papers accompany the sample(s)? Yes No
 5. Were the custody papers relinquished & signed in the appropriate place? Yes No
 6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
 7. Did all bottles arrive in good condition (Unbroken)? Yes No
 8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
 9. For each sample, does the COC specify preservatives (Y/ N), # of containers (Y/ N), and sample type of grab/comp (Y/ N)?
 10. Were correct bottle(s) used for the test(s) indicated? Yes No
 11. Sufficient quantity received to perform indicated analyses? Yes No
 12. Are these work share samples and all listed on the COC? Yes No
- If yes, Questions 13-17 have been checked at the originating laboratory.
13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC157842
 14. Were VOAs on the COC? Yes No
 15. Were air bubbles >6 mm in any VOA vials? Yes No NA ● ← Larger than this.
 16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # Covered Yes No
 17. Was a LL Hg or Me Hg trip blank present? Yes No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____
 Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

19. SAMPLE CONDITION
 Sample(s) _____ were received after the recommended holding time had expired.
 Sample(s) _____ were received in a broken container.
 Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION
 Sample(s) _____ were further preserved in the laboratory.
 Time preserved: _____ Preservative(s) added/Lot number(s): _____
 VOA Sample Preservation - Date/Time VOAs Frozen: _____

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Login #: 166947

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)				IR Gun # (Circle)		Observed Temp °C	Corrected Temp °C	Coolant (Circle)		
TA	Client	Box	Other	IR-13	IR-15	0.8	0.8	<input checked="" type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15	1.9	1.9	<input checked="" type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
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TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
TA	Client	Box	Other	IR-13	IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice

See Temperature Excursion Form

WI-NC-099 Cooler Receipt Form Page 2 - Multiple Coolers