

ANALYTICAL REPORT

Eurofins Canton
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Barberton, OH 44203
Tel: (330)497-9396

Laboratory Job ID: 240-162965-1
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:
2/28/2022 3:47:27 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: 240-162965-1

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: 240-162965-1

Job ID: 240-162965-1

Laboratory: Eurofins Canton

Narrative

**Job Narrative
240-162965-1**

Comments

No additional comments.

Receipt

The samples were received on 2/23/2022 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 3 coolers at receipt time were 0.1° C, 0.2° C and 1.1° 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: 240-162965-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8260B SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
5030B	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: 240-162965-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-162965-1	TRIP BLANK_49	Water	02/19/22 00:00	02/23/22 08:00
240-162965-2	MW-30_021922	Water	02/19/22 10:58	02/23/22 08:00
240-162965-3	MW-209S_021922	Water	02/19/22 12:33	02/23/22 08:00
240-162965-4	MW-41_021922	Water	02/19/22 14:13	02/23/22 08:00

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- 5
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- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Detection Summary

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

Job ID: 240-162965-1

Client Sample ID: TRIP BLANK_49

Lab Sample ID: 240-162965-1

No Detections.

Client Sample ID: MW-30_021922

Lab Sample ID: 240-162965-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	14		2.0	0.86	ug/L	1		8260B SIM	Total/NA

Client Sample ID: MW-209S_021922

Lab Sample ID: 240-162965-3

No Detections.

Client Sample ID: MW-41_021922

Lab Sample ID: 240-162965-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	1.5	J	2.0	0.86	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	2.1		1.0	0.46	ug/L	1		8260B	Total/NA
Vinyl chloride	2.1		1.0	0.45	ug/L	1		8260B	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: 240-162965-1

Client Sample ID: TRIP BLANK_49

Lab Sample ID: 240-162965-1

Date Collected: 02/19/22 00:00

Matrix: Water

Date Received: 02/23/22 08:00

Method: 8260B - Volatile Organic Compounds (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			02/24/22 15:03	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			02/24/22 15:03	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			02/24/22 15:03	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			02/24/22 15:03	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			02/24/22 15:03	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			02/24/22 15:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		62 - 137		02/24/22 15:03	1
4-Bromofluorobenzene (Surr)	102		56 - 136		02/24/22 15:03	1
Toluene-d8 (Surr)	93		78 - 122		02/24/22 15:03	1
Dibromofluoromethane (Surr)	87		73 - 120		02/24/22 15:03	1

Client Sample Results

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

Job ID: 240-162965-1

Client Sample ID: MW-30_021922

Lab Sample ID: 240-162965-2

Date Collected: 02/19/22 10:58

Matrix: Water

Date Received: 02/23/22 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	14		2.0	0.86	ug/L			02/24/22 00:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		66 - 120		02/24/22 00:32	1

Method: 8260B - Volatile Organic Compounds (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			02/24/22 15:25	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			02/24/22 15:25	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			02/24/22 15:25	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			02/24/22 15:25	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			02/24/22 15:25	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			02/24/22 15:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		62 - 137		02/24/22 15:25	1
4-Bromofluorobenzene (Surr)	100		56 - 136		02/24/22 15:25	1
Toluene-d8 (Surr)	94		78 - 122		02/24/22 15:25	1
Dibromofluoromethane (Surr)	86		73 - 120		02/24/22 15:25	1

Client Sample Results

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

Job ID: 240-162965-1

Client Sample ID: MW-209S_021922

Lab Sample ID: 240-162965-3

Date Collected: 02/19/22 12:33

Matrix: Water

Date Received: 02/23/22 08:00

Method: 8260B 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			02/24/22 00:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		66 - 120		02/24/22 00:59	1

Method: 8260B - Volatile Organic Compounds (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			02/24/22 15:48	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			02/24/22 15:48	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			02/24/22 15:48	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			02/24/22 15:48	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			02/24/22 15:48	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			02/24/22 15:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		62 - 137		02/24/22 15:48	1
4-Bromofluorobenzene (Surr)	100		56 - 136		02/24/22 15:48	1
Toluene-d8 (Surr)	92		78 - 122		02/24/22 15:48	1
Dibromofluoromethane (Surr)	86		73 - 120		02/24/22 15:48	1

Client Sample Results

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

Job ID: 240-162965-1

Client Sample ID: MW-41_021922

Lab Sample ID: 240-162965-4

Date Collected: 02/19/22 14:13

Matrix: Water

Date Received: 02/23/22 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.5	J	2.0	0.86	ug/L			02/24/22 01:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	78		66 - 120					02/24/22 01:26	1

Method: 8260B - Volatile Organic Compounds (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			02/24/22 16:10	1
cis-1,2-Dichloroethene	2.1		1.0	0.46	ug/L			02/24/22 16:10	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			02/24/22 16:10	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			02/24/22 16:10	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			02/24/22 16:10	1
Vinyl chloride	2.1		1.0	0.45	ug/L			02/24/22 16:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		62 - 137					02/24/22 16:10	1
4-Bromofluorobenzene (Surr)	98		56 - 136					02/24/22 16:10	1
Toluene-d8 (Surr)	91		78 - 122					02/24/22 16:10	1
Dibromofluoromethane (Surr)	85		73 - 120					02/24/22 16:10	1

Surrogate Summary

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

Job ID: 240-162965-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA	BFB	TOL	DBFM
		(62-137)	(56-136)	(78-122)	(73-120)
240-162961-A-2 MS	Matrix Spike	84	102	93	83
240-162961-F-2 MSD	Matrix Spike Duplicate	81	101	93	82
240-162965-1	TRIP BLANK_49	86	102	93	87
240-162965-2	MW-30_021922	88	100	94	86
240-162965-3	MW-209S_021922	87	100	92	86
240-162965-4	MW-41_021922	85	98	91	85
LCS 240-518646/5	Lab Control Sample	88	104	93	89
MB 240-518646/8	Method Blank	88	102	91	86

Surrogate Legend

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

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

Method: 8260B 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)
240-162965-2	MW-30_021922	80
240-162965-3	MW-209S_021922	80
240-162965-4	MW-41_021922	78
240-162970-H-4 MS	Matrix Spike	79
240-162970-N-4 MSD	Matrix Spike Duplicate	79
LCS 240-518603/4	Lab Control Sample	79
MB 240-518603/5	Method Blank	78

Surrogate Legend

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

QC Sample Results

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

Job ID: 240-162965-1

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

Lab Sample ID: MB 240-518646/8
Matrix: Water
Analysis Batch: 518646

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			02/24/22 11:42	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			02/24/22 11:42	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			02/24/22 11:42	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			02/24/22 11:42	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			02/24/22 11:42	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			02/24/22 11:42	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	88		62 - 137		02/24/22 11:42	1
4-Bromofluorobenzene (Surr)	102		56 - 136		02/24/22 11:42	1
Toluene-d8 (Surr)	91		78 - 122		02/24/22 11:42	1
Dibromofluoromethane (Surr)	86		73 - 120		02/24/22 11:42	1

Lab Sample ID: LCS 240-518646/5
Matrix: Water
Analysis Batch: 518646

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	19.7		ug/L		98	63 - 134
cis-1,2-Dichloroethene	20.0	18.7		ug/L		93	77 - 123
Tetrachloroethene	20.0	18.3		ug/L		92	76 - 123
trans-1,2-Dichloroethene	20.0	18.0		ug/L		90	75 - 124
Trichloroethene	20.0	18.2		ug/L		91	70 - 122
Vinyl chloride	20.0	19.4		ug/L		97	60 - 144

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	88		62 - 137
4-Bromofluorobenzene (Surr)	104		56 - 136
Toluene-d8 (Surr)	93		78 - 122
Dibromofluoromethane (Surr)	89		73 - 120

Lab Sample ID: 240-162961-A-2 MS
Matrix: Water
Analysis Batch: 518646

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	1.0	U	20.0	16.8		ug/L		84	56 - 135
cis-1,2-Dichloroethene	1.0	U	20.0	16.9		ug/L		84	66 - 128
Tetrachloroethene	1.0	U	20.0	17.8		ug/L		89	62 - 131
trans-1,2-Dichloroethene	1.0	U	20.0	16.6		ug/L		83	56 - 136
Trichloroethene	1.0	U	20.0	16.4		ug/L		82	61 - 124
Vinyl chloride	1.0	U	20.0	17.7		ug/L		88	43 - 157

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	84		62 - 137
4-Bromofluorobenzene (Surr)	102		56 - 136
Toluene-d8 (Surr)	93		78 - 122

QC Sample Results

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

Job ID: 240-162965-1

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

Lab Sample ID: 240-162961-A-2 MS
Matrix: Water
Analysis Batch: 518646

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

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Dibromofluoromethane (Surr)	83		73 - 120

Lab Sample ID: 240-162961-F-2 MSD
Matrix: Water
Analysis Batch: 518646

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

Analyte	Sample	Sample	Spike	MSD MSD		Unit	D	%Rec	%Rec.		RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits	RPD		
1,1-Dichloroethene	1.0	U	20.0	17.5		ug/L		87	56 - 135	4	26	
cis-1,2-Dichloroethene	1.0	U	20.0	17.3		ug/L		86	66 - 128	2	14	
Tetrachloroethene	1.0	U	20.0	18.3		ug/L		92	62 - 131	3	20	
trans-1,2-Dichloroethene	1.0	U	20.0	17.0		ug/L		85	56 - 136	2	15	
Trichloroethene	1.0	U	20.0	17.0		ug/L		85	61 - 124	3	15	
Vinyl chloride	1.0	U	20.0	17.9		ug/L		90	43 - 157	1	24	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	81		62 - 137
4-Bromofluorobenzene (Surr)	101		56 - 136
Toluene-d8 (Surr)	93		78 - 122
Dibromofluoromethane (Surr)	82		73 - 120

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

Lab Sample ID: MB 240-518603/5
Matrix: Water
Analysis Batch: 518603

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,4-Dioxane	2.0	U	2.0	0.86	ug/L		02/23/22 20:58	1	

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	78		66 - 120	02/23/22 20:58	1	

Lab Sample ID: LCS 240-518603/4
Matrix: Water
Analysis Batch: 518603

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

Analyte	Spike	LCS LCS		Unit	D	%Rec	%Rec.
		Result	Qualifier				
1,4-Dioxane	10.0	10.6		ug/L		106	80 - 122

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	79		66 - 120

Lab Sample ID: 240-162970-H-4 MS
Matrix: Water
Analysis Batch: 518603

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

Analyte	Sample	Sample	Spike	MS MS		Unit	D	%Rec	%Rec.
	Result	Qualifier		Result	Qualifier				
1,4-Dioxane	2.0	U	10.0	11.0		ug/L		110	51 - 153

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QC Sample Results

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

Job ID: 240-162965-1

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

<i>Surrogate</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	79		66 - 120

Lab Sample ID: 240-162970-N-4 MSD
Matrix: Water
Analysis Batch: 518603

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

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MSD Result</i>	<i>MSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
1,4-Dioxane	2.0	U	10.0	10.7		ug/L		107	51 - 153	3	16

<i>Surrogate</i>	<i>%Recovery</i>	<i>MSD MSD Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	79		66 - 120

QC Association Summary

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

Job ID: 240-162965-1

GC/MS VOA

Analysis Batch: 518603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-162965-2	MW-30_021922	Total/NA	Water	8260B SIM	
240-162965-3	MW-209S_021922	Total/NA	Water	8260B SIM	
240-162965-4	MW-41_021922	Total/NA	Water	8260B SIM	
MB 240-518603/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-518603/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-162970-H-4 MS	Matrix Spike	Total/NA	Water	8260B SIM	
240-162970-N-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B SIM	

Analysis Batch: 518646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-162965-1	TRIP BLANK_49	Total/NA	Water	8260B	
240-162965-2	MW-30_021922	Total/NA	Water	8260B	
240-162965-3	MW-209S_021922	Total/NA	Water	8260B	
240-162965-4	MW-41_021922	Total/NA	Water	8260B	
MB 240-518646/8	Method Blank	Total/NA	Water	8260B	
LCS 240-518646/5	Lab Control Sample	Total/NA	Water	8260B	
240-162961-A-2 MS	Matrix Spike	Total/NA	Water	8260B	
240-162961-F-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Lab Chronicle

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

Job ID: 240-162965-1

Client Sample ID: TRIP BLANK_49

Lab Sample ID: 240-162965-1

Date Collected: 02/19/22 00:00

Matrix: Water

Date Received: 02/23/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	518646	02/24/22 15:03	TJL1	TAL CAN

Client Sample ID: MW-30_021922

Lab Sample ID: 240-162965-2

Date Collected: 02/19/22 10:58

Matrix: Water

Date Received: 02/23/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	518646	02/24/22 15:25	TJL1	TAL CAN
Total/NA	Analysis	8260B SIM		1	518603	02/24/22 00:32	CS	TAL CAN

Client Sample ID: MW-209S_021922

Lab Sample ID: 240-162965-3

Date Collected: 02/19/22 12:33

Matrix: Water

Date Received: 02/23/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	518646	02/24/22 15:48	TJL1	TAL CAN
Total/NA	Analysis	8260B SIM		1	518603	02/24/22 00:59	CS	TAL CAN

Client Sample ID: MW-41_021922

Lab Sample ID: 240-162965-4

Date Collected: 02/19/22 14:13

Matrix: Water

Date Received: 02/23/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	518646	02/24/22 16:10	TJL1	TAL CAN
Total/NA	Analysis	8260B SIM		1	518603	02/24/22 01:26	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: 240-162965-1

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	02-23-22 *
Connecticut	State	PH-0590	12-31-21 *
Florida	NELAP	E87225	06-30-22
Georgia	State	4062	02-23-22 *
Illinois	NELAP	200004	07-31-22
Iowa	State	421	06-01-23
Kansas	NELAP	E-10336	04-30-22
Kentucky (UST)	State	112225	02-23-22 *
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	11-06-22
New York	NELAP	10975	03-31-22
Ohio	State	8303	02-23-23
Ohio VAP	State	CL0024	12-21-23
Pennsylvania	NELAP	68-00340	08-31-22
Texas	NELAP	T104704517-21-14	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.

Chain of Custody Record

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

THE LEADER IN ENVIRONMENTAL TESTING

Client Contact 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		Regulatory program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other	
Client Project Manager: Kris Hinskey Telephone: 248-994-2240 Email: kristoffer.hinskey@arcadis.com Sampler Name: <i>Kris Hinskey</i> Method of Shipment/Carrier: <i>UPS</i> Shipping/Tracking No.:		Site Contact: Mike DeMonico Telephone: 330-497-9396	
Analysis Turnaround Time TAT if different from below 10 day <input checked="" type="checkbox"/> 3 weeks <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Analyses 1-DCE 8260B cis-1,2-DCE 8260B Trans-1,2-DCE 8260B PCE 8260B TCE 8260B Vinyl Chloride 8260B 1,4-Dioxane 8260B SIM	
Matrix Air <input type="checkbox"/> Aqueous <input type="checkbox"/> Sediment <input type="checkbox"/> Solid <input type="checkbox"/> Other:		Containers & Preservatives H2SO4 <input type="checkbox"/> HNO3 <input type="checkbox"/> HCl <input type="checkbox"/> NaOH <input type="checkbox"/> ZnO <input type="checkbox"/> Lupres <input type="checkbox"/> Other:	
Sample Identification TRIP BLANK_49 MW-30-021922 MW-2095-021922 MW-41-021922	Sample Date 2/19/22 1/23/22 1/13/22	Sample Time 1058 1233 1413	Filtered Sample (Y/N) Composite = C / Grab = G 1-DCE 8260B cis-1,2-DCE 8260B Trans-1,2-DCE 8260B PCE 8260B TCE 8260B Vinyl Chloride 8260B 1,4-Dioxane 8260B SIM



Possible Hazard Identification
 Non-Hazard Inflammable Corrosive Irritant Unknown

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

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
<i>[Signature]</i>	Arcadis	2/19/22 1540	Novi Cold Storage	Arcadis	2/19/22 1540
<i>[Signature]</i>	Arcadis	2/22/22 1000	Novi Cold Storage	Arcadis	2/22/22 1000
<i>[Signature]</i>	FFA	2-22-22 1400	Novi Cold Storage	FFA	2-22-22 1400



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Eurofins TestAmerica Canton Sample Receipt Form/Narrative Login # : 162965
Canton Facility

Client Arcadis Site Name _____ Cooler unpacked by: Rachelle Harvitt
Cooler Received on 2-23-22 Opened on 2-23-22
FedEx: 1st Grd Exp UPS FAS Clipper 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-14 (CF -0.2 °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 _____ 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
-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)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC157842
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials?  ← Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

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

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

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

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

