

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
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North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-159636-1
Client Project/Site: Ford LTP - Off-Site

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

Attn: Kristoffer Hinskey



Authorized for release by:
11/23/2021 10:39:48 AM

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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 - Off-Site

Job ID: 240-159636-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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 - Off-Site

Job ID: 240-159636-1

Job ID: 240-159636-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative
240-159636-1

Comments

No additional comments.

Receipt

The samples were received on 11/9/2021 10:00 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 3.7° C and 3.8° 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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- 14

Method Summary

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

Job ID: 240-159636-1

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 TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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- 12
- 13
- 14

Sample Summary

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

Job ID: 240-159636-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-159636-1	TRIP BLANK_62	Water	11/05/21 00:00	11/09/21 10:00
240-159636-2	MW-141S_110521	Water	11/05/21 08:50	11/09/21 10:00
240-159636-3	MW-139S_110521	Water	11/05/21 13:40	11/09/21 10:00
240-159636-4	MW-140S_110521	Water	11/05/21 12:45	11/09/21 10:00
240-159636-5	MW-79SR_110521	Water	11/05/21 11:35	11/09/21 10:00
240-159636-6	MW-79D_110521	Water	11/05/21 10:35	11/09/21 10:00
240-159636-7	DUP-13	Water	11/05/21 00:00	11/09/21 10:00

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- 2
- 3
- 4
- 5
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- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Detection Summary

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

Job ID: 240-159636-1

Client Sample ID: TRIP BLANK_62

Lab Sample ID: 240-159636-1

No Detections.

Client Sample ID: MW-141S_110521

Lab Sample ID: 240-159636-2

No Detections.

Client Sample ID: MW-139S_110521

Lab Sample ID: 240-159636-3

No Detections.

Client Sample ID: MW-140S_110521

Lab Sample ID: 240-159636-4

No Detections.

Client Sample ID: MW-79SR_110521

Lab Sample ID: 240-159636-5

No Detections.

Client Sample ID: MW-79D_110521

Lab Sample ID: 240-159636-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	2.8		1.0	0.45	ug/L	1		8260B	Total/NA

Client Sample ID: DUP-13

Lab Sample ID: 240-159636-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	1.6	J	2.0	0.86	ug/L	1		8260B SIM	Total/NA
Vinyl chloride	2.4		1.0	0.45	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Client Sample Results

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

Job ID: 240-159636-1

Client Sample ID: TRIP BLANK_62

Lab Sample ID: 240-159636-1

Date Collected: 11/05/21 00:00

Matrix: Water

Date Received: 11/09/21 10:00

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			11/16/21 18:02	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/16/21 18:02	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/16/21 18:02	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/16/21 18:02	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/16/21 18:02	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/16/21 18:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		62 - 137		11/16/21 18:02	1
4-Bromofluorobenzene (Surr)	84		56 - 136		11/16/21 18:02	1
Toluene-d8 (Surr)	93		78 - 122		11/16/21 18:02	1
Dibromofluoromethane (Surr)	104		73 - 120		11/16/21 18:02	1

Client Sample Results

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

Job ID: 240-159636-1

Client Sample ID: MW-141S_110521

Lab Sample ID: 240-159636-2

Date Collected: 11/05/21 08:50

Matrix: Water

Date Received: 11/09/21 10:00

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 F1	2.0	0.86	ug/L			11/17/21 18:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		66 - 120		11/17/21 18:31	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			11/16/21 21:59	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/16/21 21:59	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/16/21 21:59	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/16/21 21:59	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/16/21 21:59	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/16/21 21:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		62 - 137		11/16/21 21:59	1
4-Bromofluorobenzene (Surr)	89		56 - 136		11/16/21 21:59	1
Toluene-d8 (Surr)	99		78 - 122		11/16/21 21:59	1
Dibromofluoromethane (Surr)	113		73 - 120		11/16/21 21:59	1

Client Sample Results

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

Job ID: 240-159636-1

Client Sample ID: MW-139S_110521

Lab Sample ID: 240-159636-3

Date Collected: 11/05/21 13:40

Matrix: Water

Date Received: 11/09/21 10:00

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			11/17/21 02:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		66 - 120					11/17/21 02:10	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			11/16/21 21:35	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/16/21 21:35	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/16/21 21:35	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/16/21 21:35	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/16/21 21:35	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/16/21 21:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		62 - 137					11/16/21 21:35	1
4-Bromofluorobenzene (Surr)	89		56 - 136					11/16/21 21:35	1
Toluene-d8 (Surr)	101		78 - 122					11/16/21 21:35	1
Dibromofluoromethane (Surr)	113		73 - 120					11/16/21 21:35	1

Client Sample Results

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

Job ID: 240-159636-1

Client Sample ID: MW-140S_110521

Lab Sample ID: 240-159636-4

Date Collected: 11/05/21 12:45

Matrix: Water

Date Received: 11/09/21 10:00

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			11/17/21 02:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		66 - 120		11/17/21 02:34	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			11/17/21 19:22	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/17/21 19:22	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/17/21 19:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/17/21 19:22	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/17/21 19:22	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/17/21 19:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		62 - 137		11/17/21 19:22	1
4-Bromofluorobenzene (Surr)	88		56 - 136		11/17/21 19:22	1
Toluene-d8 (Surr)	98		78 - 122		11/17/21 19:22	1
Dibromofluoromethane (Surr)	105		73 - 120		11/17/21 19:22	1

Client Sample Results

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

Job ID: 240-159636-1

Client Sample ID: MW-79SR_110521

Lab Sample ID: 240-159636-5

Date Collected: 11/05/21 11:35

Matrix: Water

Date Received: 11/09/21 10:00

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			11/17/21 02:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		66 - 120		11/17/21 02:58	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			11/17/21 19:45	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/17/21 19:45	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/17/21 19:45	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/17/21 19:45	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/17/21 19:45	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/17/21 19:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		62 - 137		11/17/21 19:45	1
4-Bromofluorobenzene (Surr)	87		56 - 136		11/17/21 19:45	1
Toluene-d8 (Surr)	95		78 - 122		11/17/21 19:45	1
Dibromofluoromethane (Surr)	105		73 - 120		11/17/21 19:45	1

Client Sample Results

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

Job ID: 240-159636-1

Client Sample ID: MW-79D_110521

Lab Sample ID: 240-159636-6

Date Collected: 11/05/21 10:35

Matrix: Water

Date Received: 11/09/21 10:00

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			11/17/21 03:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		66 - 120		11/17/21 03:22	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			11/17/21 20:09	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/17/21 20:09	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/17/21 20:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/17/21 20:09	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/17/21 20:09	1
Vinyl chloride	2.8		1.0	0.45	ug/L			11/17/21 20:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		62 - 137		11/17/21 20:09	1
4-Bromofluorobenzene (Surr)	91		56 - 136		11/17/21 20:09	1
Toluene-d8 (Surr)	98		78 - 122		11/17/21 20:09	1
Dibromofluoromethane (Surr)	110		73 - 120		11/17/21 20:09	1

Client Sample Results

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

Job ID: 240-159636-1

Client Sample ID: DUP-13

Lab Sample ID: 240-159636-7

Date Collected: 11/05/21 00:00

Matrix: Water

Date Received: 11/09/21 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.6	J	2.0	0.86	ug/L			11/17/21 03:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		66 - 120					11/17/21 03:46	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			11/17/21 20:33	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/17/21 20:33	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/17/21 20:33	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/17/21 20:33	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/17/21 20:33	1
Vinyl chloride	2.4		1.0	0.45	ug/L			11/17/21 20:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		62 - 137					11/17/21 20:33	1
4-Bromofluorobenzene (Surr)	89		56 - 136					11/17/21 20:33	1
Toluene-d8 (Surr)	95		78 - 122					11/17/21 20:33	1
Dibromofluoromethane (Surr)	110		73 - 120					11/17/21 20:33	1

Surrogate Summary

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

Job ID: 240-159636-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (62-137)	BFB (56-136)	TOL (78-122)	DBFM (73-120)
240-159636-1	TRIP BLANK_62	95	84	93	104
240-159636-2	MW-141S_110521	102	89	99	113
240-159636-2 MS	MW-141S-MS_110521	93	93	102	105
240-159636-2 MSD	MW-141S-MSD_110521	93	94	103	105
240-159636-3	MW-139S_110521	103	89	101	113
240-159636-4	MW-140S_110521	95	88	98	105
240-159636-5	MW-79SR_110521	93	87	95	105
240-159636-6	MW-79D_110521	98	91	98	110
240-159636-7	DUP-13	98	89	95	110
240-160104-A-1 MS	Matrix Spike	89	90	100	100
240-160104-A-1 MSD	Matrix Spike Duplicate	86	91	101	99
LCS 240-513208/5	Lab Control Sample	86	91	100	101
LCS 240-513357/12	Lab Control Sample	93	92	100	104
MB 240-513208/8	Method Blank	91	87	98	108
MB 240-513357/8	Method Blank	101	91	99	115

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		DCA (66-120)
240-159546-G-2 MS	Matrix Spike	82
240-159546-M-2 MSD	Matrix Spike Duplicate	85
240-159636-2	MW-141S_110521	77
240-159636-2 MS	MW-141S-MS_110521	77
240-159636-2 MSD	MW-141S-MSD_110521	77
240-159636-3	MW-139S_110521	85
240-159636-4	MW-140S_110521	84
240-159636-5	MW-79SR_110521	87
240-159636-6	MW-79D_110521	85
240-159636-7	DUP-13	84
LCS 240-513286/4	Lab Control Sample	82
LCS 240-513479/4	Lab Control Sample	78
MB 240-513286/5	Method Blank	85
MB 240-513479/5	Method Blank	77

Surrogate Legend

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

QC Sample Results

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

Job ID: 240-159636-1

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

Lab Sample ID: MB 240-513208/8
Matrix: Water
Analysis Batch: 513208

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			11/16/21 14:06	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/16/21 14:06	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/16/21 14:06	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/16/21 14:06	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/16/21 14:06	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/16/21 14:06	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	91		62 - 137		11/16/21 14:06	1
4-Bromofluorobenzene (Surr)	87		56 - 136		11/16/21 14:06	1
Toluene-d8 (Surr)	98		78 - 122		11/16/21 14:06	1
Dibromofluoromethane (Surr)	108		73 - 120		11/16/21 14:06	1

Lab Sample ID: LCS 240-513208/5
Matrix: Water
Analysis Batch: 513208

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	25.0	28.3		ug/L		113	63 - 134
cis-1,2-Dichloroethene	25.0	26.1		ug/L		104	77 - 123
Tetrachloroethene	25.0	29.3		ug/L		117	76 - 123
trans-1,2-Dichloroethene	25.0	27.4		ug/L		110	75 - 124
Trichloroethene	25.0	27.4		ug/L		110	70 - 122
Vinyl chloride	25.0	24.0		ug/L		96	60 - 144

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	86		62 - 137
4-Bromofluorobenzene (Surr)	91		56 - 136
Toluene-d8 (Surr)	100		78 - 122
Dibromofluoromethane (Surr)	101		73 - 120

Lab Sample ID: 240-159636-2 MS
Matrix: Water
Analysis Batch: 513208

Client Sample ID: MW-141S-MS_110521
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	25.0	25.8		ug/L		103	56 - 135
cis-1,2-Dichloroethene	1.0	U	25.0	24.8		ug/L		99	66 - 128
Tetrachloroethene	1.0	U	25.0	28.9		ug/L		116	62 - 131
trans-1,2-Dichloroethene	1.0	U	25.0	25.3		ug/L		101	56 - 136
Trichloroethene	1.0	U	25.0	25.4		ug/L		101	61 - 124
Vinyl chloride	1.0	U	25.0	22.2		ug/L		89	43 - 157

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

QC Sample Results

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

Job ID: 240-159636-1

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

Lab Sample ID: 240-159636-2 MS
Matrix: Water
Analysis Batch: 513208

Client Sample ID: MW-141S-MS_110521
Prep Type: Total/NA

<i>Surrogate</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
<i>Dibromofluoromethane (Surr)</i>	105		73 - 120

Lab Sample ID: 240-159636-2 MSD
Matrix: Water
Analysis Batch: 513208

Client Sample ID: MW-141S-MSD_110521
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>
1,1-Dichloroethene	1.0	U	25.0	25.9		ug/L		104	56 - 135	0	26
cis-1,2-Dichloroethene	1.0	U	25.0	25.0		ug/L		100	66 - 128	1	14
Tetrachloroethene	1.0	U	25.0	29.5		ug/L		118	62 - 131	2	20
trans-1,2-Dichloroethene	1.0	U	25.0	25.1		ug/L		100	56 - 136	1	15
Trichloroethene	1.0	U	25.0	25.3		ug/L		101	61 - 124	0	15
Vinyl chloride	1.0	U	25.0	22.3		ug/L		89	43 - 157	1	24

<i>Surrogate</i>	<i>%Recovery</i>	<i>MSD MSD Qualifier</i>	<i>Limits</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	93		62 - 137
<i>4-Bromofluorobenzene (Surr)</i>	94		56 - 136
<i>Toluene-d8 (Surr)</i>	103		78 - 122
<i>Dibromofluoromethane (Surr)</i>	105		73 - 120

Lab Sample ID: MB 240-513357/8
Matrix: Water
Analysis Batch: 513357

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

<i>Analyte</i>	<i>MB Result</i>	<i>MB Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			11/17/21 14:12	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/17/21 14:12	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/17/21 14:12	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/17/21 14:12	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/17/21 14:12	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/17/21 14:12	1

<i>Surrogate</i>	<i>%Recovery</i>	<i>MB MB Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	101		62 - 137		11/17/21 14:12	1
<i>4-Bromofluorobenzene (Surr)</i>	91		56 - 136		11/17/21 14:12	1
<i>Toluene-d8 (Surr)</i>	99		78 - 122		11/17/21 14:12	1
<i>Dibromofluoromethane (Surr)</i>	115		73 - 120		11/17/21 14:12	1

Lab Sample ID: LCS 240-513357/12
Matrix: Water
Analysis Batch: 513357

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

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>
1,1-Dichloroethene	25.0	29.1		ug/L		116	63 - 134
cis-1,2-Dichloroethene	25.0	28.2		ug/L		113	77 - 123
Tetrachloroethene	25.0	30.5		ug/L		122	76 - 123
trans-1,2-Dichloroethene	25.0	28.7		ug/L		115	75 - 124
Trichloroethene	25.0	29.7		ug/L		119	70 - 122

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-159636-1

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

Lab Sample ID: LCS 240-513357/12
Matrix: Water
Analysis Batch: 513357

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	25.0	25.2		ug/L		101	60 - 144

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		62 - 137
4-Bromofluorobenzene (Surr)	92		56 - 136
Toluene-d8 (Surr)	100		78 - 122
Dibromofluoromethane (Surr)	104		73 - 120

Lab Sample ID: 240-160104-A-1 MS
Matrix: Water
Analysis Batch: 513357

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
1,1-Dichloroethene	40	U	1000	1170		ug/L		117	56 - 135
cis-1,2-Dichloroethene	40	U	1000	1100		ug/L		110	66 - 128
Tetrachloroethene	40	U	1000	1220		ug/L		122	62 - 131
trans-1,2-Dichloroethene	40	U	1000	1110		ug/L		111	56 - 136
Trichloroethene	40	U	1000	1140		ug/L		114	61 - 124
Vinyl chloride	110		1000	1070		ug/L		96	43 - 157

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		62 - 137
4-Bromofluorobenzene (Surr)	90		56 - 136
Toluene-d8 (Surr)	100		78 - 122
Dibromofluoromethane (Surr)	100		73 - 120

Lab Sample ID: 240-160104-A-1 MSD
Matrix: Water
Analysis Batch: 513357

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	40	U	1000	1170		ug/L		117	56 - 135	1	26
cis-1,2-Dichloroethene	40	U	1000	1080		ug/L		108	66 - 128	2	14
Tetrachloroethene	40	U	1000	1240		ug/L		124	62 - 131	2	20
trans-1,2-Dichloroethene	40	U	1000	1100		ug/L		110	56 - 136	1	15
Trichloroethene	40	U	1000	1130		ug/L		113	61 - 124	1	15
Vinyl chloride	110		1000	1080		ug/L		97	43 - 157	1	24

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	86		62 - 137
4-Bromofluorobenzene (Surr)	91		56 - 136
Toluene-d8 (Surr)	101		78 - 122
Dibromofluoromethane (Surr)	99		73 - 120

QC Sample Results

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

Job ID: 240-159636-1

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

Lab Sample ID: MB 240-513286/5
Matrix: Water
Analysis Batch: 513286

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			11/16/21 19:44	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		66 - 120					11/16/21 19:44	1

Lab Sample ID: LCS 240-513286/4
Matrix: Water
Analysis Batch: 513286

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	9.78		ug/L		98	80 - 122
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1,2-Dichloroethane-d4 (Surr)	82		66 - 120				

Lab Sample ID: 240-159546-G-2 MS
Matrix: Water
Analysis Batch: 513286

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 F1	10.0	11.0		ug/L		110	51 - 153
Surrogate	MS %Recovery	MS Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	82		66 - 120						

Lab Sample ID: 240-159546-M-2 MSD
Matrix: Water
Analysis Batch: 513286

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	Limit
1,4-Dioxane	2.0	U F1	10.0	9.83		ug/L		98	51 - 153	11	16
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	85		66 - 120								

Lab Sample ID: MB 240-513479/5
Matrix: Water
Analysis Batch: 513479

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			11/17/21 17:41	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		66 - 120					11/17/21 17:41	1

QC Sample Results

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

Job ID: 240-159636-1

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

Lab Sample ID: LCS 240-513479/4
Matrix: Water
Analysis Batch: 513479

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	11.9		ug/L		119	80 - 122
Surrogate							
	%Recovery	LCS Qualifier	LCS Limits				
1,2-Dichloroethane-d4 (Surr)	78		66 - 120				

Lab Sample ID: 240-159636-2 MS
Matrix: Water
Analysis Batch: 513479

Client Sample ID: MW-141S-MS_110521
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 F1	10.0	10.6		ug/L		106	51 - 153
Surrogate									
	%Recovery	MS Qualifier	MS Limits						
1,2-Dichloroethane-d4 (Surr)	77		66 - 120						

Lab Sample ID: 240-159636-2 MSD
Matrix: Water
Analysis Batch: 513479

Client Sample ID: MW-141S-MSD_110521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	2.0	U F1	10.0	10.6		ug/L		106	51 - 153	0	16
Surrogate											
	%Recovery	MSD Qualifier	MSD Limits								
1,2-Dichloroethane-d4 (Surr)	77		66 - 120								

QC Association Summary

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

Job ID: 240-159636-1

GC/MS VOA

Analysis Batch: 513208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-159636-1	TRIP BLANK_62	Total/NA	Water	8260B	
240-159636-2	MW-141S_110521	Total/NA	Water	8260B	
240-159636-3	MW-139S_110521	Total/NA	Water	8260B	
MB 240-513208/8	Method Blank	Total/NA	Water	8260B	
LCS 240-513208/5	Lab Control Sample	Total/NA	Water	8260B	
240-159636-2 MS	MW-141S-MS_110521	Total/NA	Water	8260B	
240-159636-2 MSD	MW-141S-MSD_110521	Total/NA	Water	8260B	

Analysis Batch: 513286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-159636-3	MW-139S_110521	Total/NA	Water	8260B SIM	
240-159636-4	MW-140S_110521	Total/NA	Water	8260B SIM	
240-159636-5	MW-79SR_110521	Total/NA	Water	8260B SIM	
240-159636-6	MW-79D_110521	Total/NA	Water	8260B SIM	
240-159636-7	DUP-13	Total/NA	Water	8260B SIM	
MB 240-513286/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-513286/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-159546-G-2 MS	Matrix Spike	Total/NA	Water	8260B SIM	
240-159546-M-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B SIM	

Analysis Batch: 513357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-159636-4	MW-140S_110521	Total/NA	Water	8260B	
240-159636-5	MW-79SR_110521	Total/NA	Water	8260B	
240-159636-6	MW-79D_110521	Total/NA	Water	8260B	
240-159636-7	DUP-13	Total/NA	Water	8260B	
MB 240-513357/8	Method Blank	Total/NA	Water	8260B	
LCS 240-513357/12	Lab Control Sample	Total/NA	Water	8260B	
240-160104-A-1 MS	Matrix Spike	Total/NA	Water	8260B	
240-160104-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 513479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-159636-2	MW-141S_110521	Total/NA	Water	8260B SIM	
MB 240-513479/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-513479/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-159636-2 MS	MW-141S-MS_110521	Total/NA	Water	8260B SIM	
240-159636-2 MSD	MW-141S-MSD_110521	Total/NA	Water	8260B SIM	

Lab Chronicle

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

Job ID: 240-159636-1

Client Sample ID: TRIP BLANK_62

Lab Sample ID: 240-159636-1

Date Collected: 11/05/21 00:00

Matrix: Water

Date Received: 11/09/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	513208	11/16/21 18:02	SAM	TAL CAN

Client Sample ID: MW-141S_110521

Lab Sample ID: 240-159636-2

Date Collected: 11/05/21 08:50

Matrix: Water

Date Received: 11/09/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	513208	11/16/21 21:59	SAM	TAL CAN
Total/NA	Analysis	8260B SIM		1	513479	11/17/21 18:31	CS	TAL CAN

Client Sample ID: MW-139S_110521

Lab Sample ID: 240-159636-3

Date Collected: 11/05/21 13:40

Matrix: Water

Date Received: 11/09/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	513208	11/16/21 21:35	SAM	TAL CAN
Total/NA	Analysis	8260B SIM		1	513286	11/17/21 02:10	CS	TAL CAN

Client Sample ID: MW-140S_110521

Lab Sample ID: 240-159636-4

Date Collected: 11/05/21 12:45

Matrix: Water

Date Received: 11/09/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	513357	11/17/21 19:22	SAM	TAL CAN
Total/NA	Analysis	8260B SIM		1	513286	11/17/21 02:34	CS	TAL CAN

Client Sample ID: MW-79SR_110521

Lab Sample ID: 240-159636-5

Date Collected: 11/05/21 11:35

Matrix: Water

Date Received: 11/09/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	513357	11/17/21 19:45	SAM	TAL CAN
Total/NA	Analysis	8260B SIM		1	513286	11/17/21 02:58	CS	TAL CAN

Client Sample ID: MW-79D_110521

Lab Sample ID: 240-159636-6

Date Collected: 11/05/21 10:35

Matrix: Water

Date Received: 11/09/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	513357	11/17/21 20:09	SAM	TAL CAN
Total/NA	Analysis	8260B SIM		1	513286	11/17/21 03:22	CS	TAL CAN

Lab Chronicle

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

Job ID: 240-159636-1

Client Sample ID: DUP-13

Lab Sample ID: 240-159636-7

Date Collected: 11/05/21 00:00

Matrix: Water

Date Received: 11/09/21 10:00

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Analysis	8260B		1	513357	11/17/21 20:33	SAM	TAL CAN
Total/NA	Analysis	8260B SIM		1	513286	11/17/21 03:46	CS	TAL CAN

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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Accreditation/Certification Summary

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

Job ID: 240-159636-1

Laboratory: Eurofins TestAmerica, 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	12-31-21
Minnesota	NELAP	OH00048	12-31-21
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-22
New York	NELAP	10975	03-31-22
Ohio VAP	State	CL0024	12-21-23
Oregon	NELAP	4062	02-23-22
Pennsylvania	NELAP	68-00340	08-31-22
Texas	NELAP	T104704517-18-10	08-31-22
Virginia	NELAP	11570	09-14-22
Washington	State	C971	01-12-22
West Virginia DEP	State	210	12-31-21

Chain of Custody Record

MICHIGAN
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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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


Regulatory program: DW NPDES RCRA Other

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 OTE-Site	
Project Number: 30080642.402.04		PO # 30080642.402.04	
Client Project Manager: Kris Hlinsky		Site Contact: Julia McClafferty	
Telephone: 248-994-2240		Telephone: 330-497-9396	
Email: kristoffer.hlinsky@arcadis.com		Lab Contact: Mike DeMonico	
COC No: 1 of 1		COCs	
Sampler Name: <u>Seth Turner</u>		Walk-in client	
Method of Shipment/Carrier:		Lab sampling	
Shipping/Tracking No:		Job/SDG No:	

Sample Identification	Sample Date	Sample Time	Matrix					Filtered Sample (Y/N)	Composite=C/Grab=G	Analysis						Sample Specific Notes / Special Instructions:				
			Air	Aqueous	Sediment	Solid	Other:			H2SO4	HNO3	HCl	NaOH	ZnAc	LiPres:		Other:	1-DCE 8260B	Cis-1,2-DCE 8260B	Trans-1,2-DCE 8260B
TRIP BLANK_62	---	---	X							X	X	X	X	X	X	X	X	X	X	1 Trip Blank
MW-1415-110521	11/5/21	850	X	X					NG	X	X	X	X	X	X	X	X	X	X	3 VOAs for 8260B 3 VOAs for 8260B SIM
MW-1415-MSD-110521	11/5/21	850	X	X					NG	X	X	X	X	X	X	X	X	X	X	RUN MS/MSD
MW-139S-110521	11/5/21	1340	X	X					NG	X	X	X	X	X	X	X	X	X	X	RUN MS/MSD
MW-140S-110521	11/5/21	1245	X	X					NG	X	X	X	X	X	X	X	X	X	X	
MW-79SR-110521	11/5/21	1135	X	X					NG	X	X	X	X	X	X	X	X	X	X	
MW-79D-110521	11/5/21	1035	X	X					NG	X	X	X	X	X	X	X	X	X	X	
DUP-13	11/5/21	---	X	X					NG	X	X	X	X	X	X	X	X	X	X	

Possible Hazard Identification: Non-Hazard Flammable Irritant Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 mo): Return to Client Disposal By Lab Archive For



240-159636 Chain of Custody

Relinquished by: <u>Seth Turner</u>	Company: Arcadis	Date/Time: 11/5/21 / 1600	Received by: <u>NOV Cold Storage</u>	Company: Arcadis	Date/Time: 11/5/21 / 1600
Relinquished by: <u>Julia McClafferty</u>	Company: Arcadis	Date/Time: 11/8/21 / 1200	Received by: <u>Edy M</u>	Company: ETA	Date/Time: 11/8/21 / 1200
Relinquished by: <u>Edy M</u>	Company: ETA	Date/Time: 11/8/21	Received in Laboratory by: <u>Amy Rose</u>	Company: ETA	Date/Time: 11/9/21 1000

Eurofins TestAmerica Canton Sample Receipt Form/Narrative

Login # : 159436

Canton Facility

Client ARCADIS Site Name _____

Cooler unpacked by: Nancy Page

Cooler Received on 11-9-21 Opened on 11-9-21

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After (hours) Drop-off Date/Time Storage Location

TestAmerica Cooler # _____ 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 +0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN #IR-15 (CF +0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 2 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

14. Were VOAs on the COC? Yes No NA

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 # 60358 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: _____

TB is not logged for SIM due to insufficient volume, per corrected COC. me 11/11/21 me 11-9-21

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: _____

Eurofins TestAmerica Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)				IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)		
<input checked="" type="radio"/> TA	<input type="radio"/> Client	<input type="radio"/> Box	<input type="radio"/> Other	<input checked="" type="radio"/> IR-14 <input type="radio"/> IR-15	3.6	3-7	<input checked="" type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
<input checked="" type="radio"/> TA	<input type="radio"/> Client	<input type="radio"/> Box	<input type="radio"/> Other	<input checked="" type="radio"/> IR-14 <input type="radio"/> IR-15	3.7	3-8	<input checked="" type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
<input type="radio"/> TA	<input type="radio"/> Client	<input type="radio"/> Box	<input type="radio"/> Other	<input type="radio"/> IR-14 <input type="radio"/> IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
<input type="radio"/> TA	<input type="radio"/> Client	<input type="radio"/> Box	<input type="radio"/> Other	<input type="radio"/> IR-14 <input type="radio"/> IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
<input type="radio"/> TA	<input type="radio"/> Client	<input type="radio"/> Box	<input type="radio"/> Other	<input type="radio"/> IR-14 <input type="radio"/> IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
<input type="radio"/> TA	<input type="radio"/> Client	<input type="radio"/> Box	<input type="radio"/> Other	<input type="radio"/> IR-14 <input type="radio"/> IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
<input type="radio"/> TA	<input type="radio"/> Client	<input type="radio"/> Box	<input type="radio"/> Other	<input type="radio"/> IR-14 <input type="radio"/> IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
<input type="radio"/> TA	<input type="radio"/> Client	<input type="radio"/> Box	<input type="radio"/> Other	<input type="radio"/> IR-14 <input type="radio"/> IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
<input type="radio"/> TA	<input type="radio"/> Client	<input type="radio"/> Box	<input type="radio"/> Other	<input type="radio"/> IR-14 <input type="radio"/> IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
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<input type="radio"/> TA	<input type="radio"/> Client	<input type="radio"/> Box	<input type="radio"/> Other	<input type="radio"/> IR-14 <input type="radio"/> IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
<input type="radio"/> TA	<input type="radio"/> Client	<input type="radio"/> Box	<input type="radio"/> Other	<input type="radio"/> IR-14 <input type="radio"/> IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
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<input type="radio"/> TA	<input type="radio"/> Client	<input type="radio"/> Box	<input type="radio"/> Other	<input type="radio"/> IR-14 <input type="radio"/> IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
<input type="radio"/> TA	<input type="radio"/> Client	<input type="radio"/> Box	<input type="radio"/> Other	<input type="radio"/> IR-14 <input type="radio"/> IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
<input type="radio"/> TA	<input type="radio"/> Client	<input type="radio"/> Box	<input type="radio"/> Other	<input type="radio"/> IR-14 <input type="radio"/> IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
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<input type="radio"/> TA	<input type="radio"/> Client	<input type="radio"/> Box	<input type="radio"/> Other	<input type="radio"/> IR-14 <input type="radio"/> IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
<input type="radio"/> TA	<input type="radio"/> Client	<input type="radio"/> Box	<input type="radio"/> Other	<input type="radio"/> IR-14 <input type="radio"/> IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
<input type="radio"/> TA	<input type="radio"/> Client	<input type="radio"/> Box	<input type="radio"/> Other	<input type="radio"/> IR-14 <input type="radio"/> IR-15			<input type="radio"/> Wet Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice

See Temperature Excursion Form