

## ANALYTICAL REPORT

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Laboratory Job ID: 240-126250-1  
Client Project/Site: Ford LTP On Site

For:  
ARCADIS U.S., Inc.  
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Attn: Kristoffer Hinskey



Authorized for release by:  
2/27/2020 10:13:03 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 On Site

Job ID: 240-126250-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
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.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

# Case Narrative

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

Job ID: 240-126250-1

**Job ID: 240-126250-1**

**Laboratory: Eurofins TestAmerica, Canton**

## Narrative

### CASE NARRATIVE

**Client: ARCADIS U.S., Inc.**

**Project: Ford LTP On Site**

**Report Number: 240-126250-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Eurofins TestAmerica, Canton attests to the validity of the laboratory data generated by Eurofins TestAmerica facilities reported herein. All analyses performed by Eurofins TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. Eurofins TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of Eurofins TestAmerica and its client.

#### **RECEIPT**

The samples were received on 2/13/2020 8:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.4° C.

#### **VOLATILE ORGANIC COMPOUNDS (GCMS)**

Samples TRIP BLANK (240-126250-1), MW-58\_021120 (240-126250-2), MW-55\_021120 (240-126250-3) and MW-56\_021120 (240-126250-4) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 02/18/2020.

Samples MW-58\_021120 (240-126250-2)[5X], MW-55\_021120 (240-126250-3)[5X] and MW-56\_021120 (240-126250-4)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: MW-58\_021120 (240-126250-2), MW-55\_021120 (240-126250-3) and MW-56\_021120 (240-126250-4). Elevated reporting limits (RLs) are provided.

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

#### **VOLATILE ORGANIC COMPOUNDS (GCMS SIM)**

Samples MW-58\_021120 (240-126250-2), MW-55\_021120 (240-126250-3) and MW-56\_021120 (240-126250-4) were analyzed for volatile organic compounds (GCMS SIM) in accordance with EPA SW-846 Method 8260B SIM. The samples were analyzed on 02/19/2020.

# Case Narrative

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

Job ID: 240-126250-1

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## Job ID: 240-126250-1 (Continued)

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### Laboratory: Eurofins TestAmerica, Canton (Continued)

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

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# Method Summary

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

Job ID: 240-126250-1

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



# Sample Summary

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

Job ID: 240-126250-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-126250-1	TRIP BLANK	Water	02/11/20 00:00	02/13/20 08:40	
240-126250-2	MW-58_021120	Water	02/11/20 10:10	02/13/20 08:40	
240-126250-3	MW-55_021120	Water	02/11/20 12:31	02/13/20 08:40	
240-126250-4	MW-56_021120	Water	02/11/20 14:55	02/13/20 08:40	

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- 9
- 10
- 11
- 12
- 13
- 14

# Detection Summary

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

Job ID: 240-126250-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-126250-1**

No Detections.

**Client Sample ID: MW-58\_021120**

**Lab Sample ID: 240-126250-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	4.1		2.0	0.86	ug/L	1		8260B SIM	Total/NA

**Client Sample ID: MW-55\_021120**

**Lab Sample ID: 240-126250-3**

No Detections.

**Client Sample ID: MW-56\_021120**

**Lab Sample ID: 240-126250-4**

No Detections.

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: 240-126250-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-126250-1**

**Date Collected: 02/11/20 00:00**

**Matrix: Water**

**Date Received: 02/13/20 08:40**

**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	0.19	ug/L			02/18/20 20:13	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			02/18/20 20:13	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			02/18/20 20:13	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			02/18/20 20:13	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			02/18/20 20:13	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			02/18/20 20:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	115		75 - 130		02/18/20 20:13	1
4-Bromofluorobenzene (Surr)	64		47 - 134		02/18/20 20:13	1
Toluene-d8 (Surr)	85		69 - 122		02/18/20 20:13	1
Dibromofluoromethane (Surr)	128		78 - 129		02/18/20 20:13	1

# Client Sample Results

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

Job ID: 240-126250-1

**Client Sample ID: MW-58\_021120**

**Lab Sample ID: 240-126250-2**

Date Collected: 02/11/20 10:10

Matrix: Water

Date Received: 02/13/20 08:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	4.1		2.0	0.86	ug/L			02/19/20 07:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 133		02/19/20 07:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	5.0	U	5.0	0.95	ug/L			02/18/20 20:37	5
cis-1,2-Dichloroethene	5.0	U	5.0	0.80	ug/L			02/18/20 20:37	5
Tetrachloroethene	5.0	U	5.0	0.75	ug/L			02/18/20 20:37	5
trans-1,2-Dichloroethene	5.0	U	5.0	0.95	ug/L			02/18/20 20:37	5
Trichloroethene	5.0	U	5.0	0.50	ug/L			02/18/20 20:37	5
Vinyl chloride	5.0	U	5.0	1.0	ug/L			02/18/20 20:37	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		75 - 130		02/18/20 20:37	5
4-Bromofluorobenzene (Surr)	68		47 - 134		02/18/20 20:37	5
Toluene-d8 (Surr)	87		69 - 122		02/18/20 20:37	5
Dibromofluoromethane (Surr)	120		78 - 129		02/18/20 20:37	5

# Client Sample Results

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

Job ID: 240-126250-1

**Client Sample ID: MW-55\_021120**

**Lab Sample ID: 240-126250-3**

Date Collected: 02/11/20 12:31

Matrix: Water

Date Received: 02/13/20 08:40

**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	-		02/19/20 08:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 133					02/19/20 08:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	5.0	U	5.0	0.95	ug/L	-		02/18/20 21:01	5
cis-1,2-Dichloroethene	5.0	U	5.0	0.80	ug/L	-		02/18/20 21:01	5
Tetrachloroethene	5.0	U	5.0	0.75	ug/L	-		02/18/20 21:01	5
trans-1,2-Dichloroethene	5.0	U	5.0	0.95	ug/L	-		02/18/20 21:01	5
Trichloroethene	5.0	U	5.0	0.50	ug/L	-		02/18/20 21:01	5
Vinyl chloride	5.0	U	5.0	1.0	ug/L	-		02/18/20 21:01	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		75 - 130					02/18/20 21:01	5
4-Bromofluorobenzene (Surr)	67		47 - 134					02/18/20 21:01	5
Toluene-d8 (Surr)	84		69 - 122					02/18/20 21:01	5
Dibromofluoromethane (Surr)	124		78 - 129					02/18/20 21:01	5

# Client Sample Results

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

Job ID: 240-126250-1

**Client Sample ID: MW-56\_021120**

**Lab Sample ID: 240-126250-4**

Date Collected: 02/11/20 14:55

Matrix: Water

Date Received: 02/13/20 08:40

**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			02/19/20 09:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 133					02/19/20 09:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	5.0	U	5.0	0.95	ug/L			02/18/20 22:12	5
cis-1,2-Dichloroethene	5.0	U	5.0	0.80	ug/L			02/18/20 22:12	5
Tetrachloroethene	5.0	U	5.0	0.75	ug/L			02/18/20 22:12	5
trans-1,2-Dichloroethene	5.0	U	5.0	0.95	ug/L			02/18/20 22:12	5
Trichloroethene	5.0	U	5.0	0.50	ug/L			02/18/20 22:12	5
Vinyl chloride	5.0	U	5.0	1.0	ug/L			02/18/20 22:12	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		75 - 130					02/18/20 22:12	5
4-Bromofluorobenzene (Surr)	71		47 - 134					02/18/20 22:12	5
Toluene-d8 (Surr)	93		69 - 122					02/18/20 22:12	5
Dibromofluoromethane (Surr)	111		78 - 129					02/18/20 22:12	5

# Surrogate Summary

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

Job ID: 240-126250-1

## 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 (75-130)	BFB (47-134)	TOL (69-122)	DBFM (78-129)
240-126250-1	TRIP BLANK	115	64	85	128
240-126250-2	MW-58_021120	112	68	87	120
240-126250-3	MW-55_021120	116	67	84	124
240-126250-3 MS	MW-55-MS_021120	94	96	96	101
240-126250-3 MSD	MW-55-MSD_021120	91	92	93	94
240-126250-4	MW-56_021120	109	71	93	111
LCS 240-423223/4	Lab Control Sample	91	93	96	103
MB 240-423223/7	Method Blank	108	69	88	116

#### 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 (70-133)
240-126250-2	MW-58_021120	98
240-126250-3	MW-55_021120	98
240-126250-3 MS	MW-55-MS_021120	100
240-126250-3 MSD	MW-55-MSD_021120	101
240-126250-4	MW-56_021120	102
LCS 240-423320/4	Lab Control Sample	104
MB 240-423320/5	Method Blank	97

#### Surrogate Legend

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

# QC Sample Results

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

Job ID: 240-126250-1

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

**Lab Sample ID: MB 240-423223/7**  
**Matrix: Water**  
**Analysis Batch: 423223**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			02/18/20 14:40	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			02/18/20 14:40	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			02/18/20 14:40	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			02/18/20 14:40	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			02/18/20 14:40	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			02/18/20 14:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		75 - 130		02/18/20 14:40	1
4-Bromofluorobenzene (Surr)	69		47 - 134		02/18/20 14:40	1
Toluene-d8 (Surr)	88		69 - 122		02/18/20 14:40	1
Dibromofluoromethane (Surr)	116		78 - 129		02/18/20 14:40	1

**Lab Sample ID: LCS 240-423223/4**  
**Matrix: Water**  
**Analysis Batch: 423223**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	10.0	11.1		ug/L		111	73 - 129
cis-1,2-Dichloroethene	10.0	10.7		ug/L		107	75 - 124
Tetrachloroethene	10.0	10.2		ug/L		102	70 - 125
trans-1,2-Dichloroethene	10.0	11.4		ug/L		114	74 - 130
Trichloroethene	10.0	10.9		ug/L		109	71 - 121
Vinyl chloride	10.0	7.20		ug/L		72	61 - 134

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		75 - 130
4-Bromofluorobenzene (Surr)	93		47 - 134
Toluene-d8 (Surr)	96		69 - 122
Dibromofluoromethane (Surr)	103		78 - 129

**Lab Sample ID: 240-126250-3 MS**  
**Matrix: Water**  
**Analysis Batch: 423223**

**Client Sample ID: MW-55-MS\_021120**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	5.0	U	50.0	49.8		ug/L		100	64 - 132
cis-1,2-Dichloroethene	5.0	U	50.0	52.4		ug/L		105	68 - 121
Tetrachloroethene	5.0	U	50.0	48.9		ug/L		98	52 - 129
trans-1,2-Dichloroethene	5.0	U	50.0	60.0		ug/L		120	69 - 126
Trichloroethene	5.0	U	50.0	51.3		ug/L		103	56 - 124
Vinyl chloride	5.0	U	50.0	34.6		ug/L		69	49 - 136

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		75 - 130
4-Bromofluorobenzene (Surr)	96		47 - 134
Toluene-d8 (Surr)	96		69 - 122

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# QC Sample Results

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

Job ID: 240-126250-1

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

Lab Sample ID: 240-126250-3 MS  
Matrix: Water  
Analysis Batch: 423223

Client Sample ID: MW-55-MS\_021120  
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
Dibromofluoromethane (Surr)	101		78 - 129

Lab Sample ID: 240-126250-3 MSD  
Matrix: Water  
Analysis Batch: 423223

Client Sample ID: MW-55-MSD\_021120  
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	5.0	U	50.0	51.4		ug/L		103	64 - 132	3	35
cis-1,2-Dichloroethene	5.0	U	50.0	50.6		ug/L		101	68 - 121	3	35
Tetrachloroethene	5.0	U	50.0	48.1		ug/L		96	52 - 129	2	35
trans-1,2-Dichloroethene	5.0	U	50.0	55.2		ug/L		110	69 - 126	8	35
Trichloroethene	5.0	U	50.0	50.2		ug/L		100	56 - 124	2	35
Vinyl chloride	5.0	U	50.0	35.4		ug/L		71	49 - 136	2	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		75 - 130
4-Bromofluorobenzene (Surr)	92		47 - 134
Toluene-d8 (Surr)	93		69 - 122
Dibromofluoromethane (Surr)	94		78 - 129

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

Lab Sample ID: MB 240-423320/5  
Matrix: Water  
Analysis Batch: 423320

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			02/19/20 05:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 133		02/19/20 05:48	1

Lab Sample ID: LCS 240-423320/4  
Matrix: Water  
Analysis Batch: 423320

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	8.53		ug/L		85	80 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		70 - 133

Lab Sample ID: 240-126250-3 MS  
Matrix: Water  
Analysis Batch: 423320

Client Sample ID: MW-55-MS\_021120  
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	10.9		ug/L		109	46 - 170

Eurofins TestAmerica, Canton

# QC Sample Results

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

Job ID: 240-126250-1

## Method: 8260B 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)	100		70 - 133

Lab Sample ID: 240-126250-3 MSD  
 Matrix: Water  
 Analysis Batch: 423320

Client Sample ID: MW-55-MSD\_021120  
 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	10.4		ug/L		104	46 - 170	5	26

<i>Surrogate</i>	<i>MSD</i> <i>%Recovery</i>	<i>MSD</i> <i>Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	101		70 - 133





# QC Association Summary

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

Job ID: 240-126250-1

## GC/MS VOA

### Analysis Batch: 423223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-126250-1	TRIP BLANK	Total/NA	Water	8260B	
240-126250-2	MW-58_021120	Total/NA	Water	8260B	
240-126250-3	MW-55_021120	Total/NA	Water	8260B	
240-126250-4	MW-56_021120	Total/NA	Water	8260B	
MB 240-423223/7	Method Blank	Total/NA	Water	8260B	
LCS 240-423223/4	Lab Control Sample	Total/NA	Water	8260B	
240-126250-3 MS	MW-55-MS_021120	Total/NA	Water	8260B	
240-126250-3 MSD	MW-55-MSD_021120	Total/NA	Water	8260B	

### Analysis Batch: 423320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-126250-2	MW-58_021120	Total/NA	Water	8260B SIM	
240-126250-3	MW-55_021120	Total/NA	Water	8260B SIM	
240-126250-4	MW-56_021120	Total/NA	Water	8260B SIM	
MB 240-423320/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-423320/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-126250-3 MS	MW-55-MS_021120	Total/NA	Water	8260B SIM	
240-126250-3 MSD	MW-55-MSD_021120	Total/NA	Water	8260B SIM	

# Lab Chronicle

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

Job ID: 240-126250-1

## Client Sample ID: TRIP BLANK

Date Collected: 02/11/20 00:00

Date Received: 02/13/20 08:40

Lab Sample ID: 240-126250-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	423223	02/18/20 20:13	LRW	TAL CAN

## Client Sample ID: MW-58\_021120

Date Collected: 02/11/20 10:10

Date Received: 02/13/20 08:40

Lab Sample ID: 240-126250-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	423223	02/18/20 20:37	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	423320	02/19/20 07:57	TJL2	TAL CAN

## Client Sample ID: MW-55\_021120

Date Collected: 02/11/20 12:31

Date Received: 02/13/20 08:40

Lab Sample ID: 240-126250-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	423223	02/18/20 21:01	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	423320	02/19/20 08:23	TJL2	TAL CAN

## Client Sample ID: MW-56\_021120

Date Collected: 02/11/20 14:55

Date Received: 02/13/20 08:40

Lab Sample ID: 240-126250-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	423223	02/18/20 22:12	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	423320	02/19/20 09:40	TJL2	TAL CAN

### Laboratory References:

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

# Accreditation/Certification Summary

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

Job ID: 240-126250-1

## 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	02-23-20 *
Connecticut	State	PH-0590	12-31-19 *
Florida	NELAP	E87225	06-30-20
Georgia	State	4062	02-23-20 *
Illinois	NELAP	004498	07-31-20
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-20
Kentucky (UST)	State	112225	02-23-20
Kentucky (WW)	State	KY98016	12-31-20
Minnesota	NELAP	OH00048	12-31-20
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-20
New York	NELAP	10975	03-31-20
Ohio VAP	State	CL0024	06-05-21
Oregon	NELAP	4062	02-23-20 *
Pennsylvania	NELAP	68-00340	08-31-20
Texas	NELAP	T104704517-18-10	08-31-20
USDA	US Federal Programs	P330-16-00404	12-28-19 *
Virginia	NELAP	010101	09-14-20
Washington	State	C971	01-12-21
West Virginia DEP	State	210	12-31-20

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





Eurofins TestAmerica Canton Sample Receipt Form/Narrative

Login #: 126230

Canton Facility

Client Arcadis Site Name Cooler unpacked by: Ryan C
Cooler Received on 2-13-20 Opened on 2-15-20 840
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

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

TestAmerica Cooler # 7A 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 IR GUN# IR-10 (CF +0.7 °C) Observed Cooler Temp. 4.7 °C Corrected Cooler Temp. 5.4 °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes/No
3. Shippers' packing slip attached to the cooler(s)?
4. Did custody papers accompany the sample(s)?
5. Were the custody papers relinquished & signed in the appropriate place?
6. Was/were the person(s) who collected the samples clearly identified on the COC?
7. Did all bottles arrive in good condition (Unbroken)?
8. Could all bottle labels be reconciled with the COC?
9. Were correct bottle(s) used for the test(s) indicated?
10. Sufficient quantity received to perform indicated analyses?
11. Are these work share samples?
12. Were all preserved sample(s) at the correct pH upon receipt?
13. Were VOAs on the COC?
14. Were air bubbles >6 mm in any VOA vials? Larger than this.
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #
16. Was a LL Hg or Me Hg trip blank present?

Tests that are not checked for pH by Receiving: VOAs Oil and Grease TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: AG

18. 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)

19. 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: