

ANALYTICAL REPORT

Eurofins Canton
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Tel: (330)497-9396

Laboratory Job ID: 240-163304-1
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:
3/18/2022 10:02:36 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: 240-163304-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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: 240-163304-1

Job ID: 240-163304-1

Laboratory: Eurofins Canton

Narrative

Job Narrative 240-163304-1

Comments

No additional comments.

Receipt

The samples were received on 3/4/2022 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 1.6° C, 2.2° C and 2.8° C.

GC/MS VOA

Method 8260B: The continuing calibration verification (CCV) associated with batch 519393 recovered above the upper control limit for multiple analytes. The samples associated with this CCV were non-detect for the affected analytes; therefore, the data have been reported. The associated samples are impacted: TRIP BLANK_111 (240-163304-1), MW-100S_022822 (240-163304-2), MW-76S_022822 (240-163304-3) and MW-76_022822 (240-163304-4).

Method 8260B: The laboratory control sample (LCS) for 519393 recovered outside control limits for multiple analytes. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported: TRIP BLANK_111 (240-163304-1), MW-100S_022822 (240-163304-2), MW-76S_022822 (240-163304-3), MW-76_022822 (240-163304-4) and (LCS 240-519393/5).

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

VOA Prep

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



Method Summary

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

Job ID: 240-163304-1

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



Sample Summary

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

Job ID: 240-163304-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-163304-1	TRIP BLANK_111	Water	02/28/22 00:00	03/04/22 08:00
240-163304-2	MW-100S_022822	Water	02/28/22 14:36	03/04/22 08:00
240-163304-3	MW-76S_022822	Water	02/28/22 16:11	03/04/22 08:00
240-163304-4	MW-76_022822	Water	02/28/22 17:31	03/04/22 08:00

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Detection Summary

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

Job ID: 240-163304-1

Client Sample ID: TRIP BLANK_111

Lab Sample ID: 240-163304-1

No Detections.

Client Sample ID: MW-100S_022822

Lab Sample ID: 240-163304-2

No Detections.

Client Sample ID: MW-76S_022822

Lab Sample ID: 240-163304-3

No Detections.

Client Sample ID: MW-76_022822

Lab Sample ID: 240-163304-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.65	J	1.0	0.46	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 - Off Site

Job ID: 240-163304-1

Client Sample ID: TRIP BLANK_111

Lab Sample ID: 240-163304-1

Date Collected: 02/28/22 00:00

Matrix: Water

Date Received: 03/04/22 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			03/08/22 19:00	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/08/22 19:00	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/08/22 19:00	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/08/22 19:00	1
Trichloroethene	1.0	U *+	1.0	0.44	ug/L			03/08/22 19:00	1
Vinyl chloride	1.0	U *+	1.0	0.45	ug/L			03/08/22 19:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		62 - 137		03/08/22 19:00	1
4-Bromofluorobenzene (Surr)	108		56 - 136		03/08/22 19:00	1
Toluene-d8 (Surr)	79		78 - 122		03/08/22 19:00	1
Dibromofluoromethane (Surr)	99		73 - 120		03/08/22 19:00	1

Client Sample Results

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

Job ID: 240-163304-1

Client Sample ID: MW-100S_022822

Lab Sample ID: 240-163304-2

Date Collected: 02/28/22 14:36

Matrix: Water

Date Received: 03/04/22 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			03/07/22 23:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		66 - 120		03/07/22 23:43	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			03/08/22 19:24	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/08/22 19:24	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/08/22 19:24	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/08/22 19:24	1
Trichloroethene	1.0	U *	1.0	0.44	ug/L			03/08/22 19:24	1
Vinyl chloride	1.0	U **	1.0	0.45	ug/L			03/08/22 19:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	72		62 - 137		03/08/22 19:24	1
4-Bromofluorobenzene (Surr)	113		56 - 136		03/08/22 19:24	1
Toluene-d8 (Surr)	81		78 - 122		03/08/22 19:24	1
Dibromofluoromethane (Surr)	95		73 - 120		03/08/22 19:24	1

Client Sample Results

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

Job ID: 240-163304-1

Client Sample ID: MW-76S_022822

Lab Sample ID: 240-163304-3

Date Collected: 02/28/22 16:11

Matrix: Water

Date Received: 03/04/22 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			03/08/22 00:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		66 - 120					03/08/22 00:33	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			03/08/22 19:48	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/08/22 19:48	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/08/22 19:48	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/08/22 19:48	1
Trichloroethene	1.0	U *+	1.0	0.44	ug/L			03/08/22 19:48	1
Vinyl chloride	1.0	U *+	1.0	0.45	ug/L			03/08/22 19:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		62 - 137					03/08/22 19:48	1
4-Bromofluorobenzene (Surr)	113		56 - 136					03/08/22 19:48	1
Toluene-d8 (Surr)	81		78 - 122					03/08/22 19:48	1
Dibromofluoromethane (Surr)	94		73 - 120					03/08/22 19:48	1

Client Sample Results

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

Job ID: 240-163304-1

Client Sample ID: MW-76_022822

Lab Sample ID: 240-163304-4

Date Collected: 02/28/22 17:31

Matrix: Water

Date Received: 03/04/22 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			03/08/22 00:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		66 - 120					03/08/22 00:08	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			03/08/22 20:12	1
cis-1,2-Dichloroethene	0.65	J	1.0	0.46	ug/L			03/08/22 20:12	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/08/22 20:12	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/08/22 20:12	1
Trichloroethene	1.0	U *+	1.0	0.44	ug/L			03/08/22 20:12	1
Vinyl chloride	1.0	U *+	1.0	0.45	ug/L			03/08/22 20:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	75		62 - 137					03/08/22 20:12	1
4-Bromofluorobenzene (Surr)	112		56 - 136					03/08/22 20:12	1
Toluene-d8 (Surr)	83		78 - 122					03/08/22 20:12	1
Dibromofluoromethane (Surr)	92		73 - 120					03/08/22 20:12	1

Surrogate Summary

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

Job ID: 240-163304-1

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)
240-163304-1	TRIP BLANK_111	80	108	79	99
240-163304-2	MW-100S_022822	72	113	81	95
240-163304-3	MW-76S_022822	82	113	81	94
240-163304-4	MW-76_022822	75	112	83	92
240-163304-4 MS	MW-76-MS_022822	70	113	79	87
240-163304-4 MSD	MW-76-MSD_022822	78	114	81	91
LCS 240-519393/5	Lab Control Sample	71	117	82	92
MB 240-519393/8	Method Blank	80	110	83	92

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)
240-163304-2	MW-100S_022822	77
240-163304-3	MW-76S_022822	77
240-163304-4	MW-76_022822	79
240-163304-4 MS	MW-76-MS_022822	77
240-163304-4 MSD	MW-76-MSD_022822	81
LCS 240-519341/4	Lab Control Sample	80
MB 240-519341/5	Method Blank	80

Surrogate Legend

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

QC Sample Results

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

Job ID: 240-163304-1

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

Lab Sample ID: MB 240-519393/8
Matrix: Water
Analysis Batch: 519393

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	0.49	ug/L			03/08/22 12:57	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/08/22 12:57	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/08/22 12:57	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/08/22 12:57	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/08/22 12:57	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/08/22 12:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		62 - 137		03/08/22 12:57	1
4-Bromofluorobenzene (Surr)	110		56 - 136		03/08/22 12:57	1
Toluene-d8 (Surr)	83		78 - 122		03/08/22 12:57	1
Dibromofluoromethane (Surr)	92		73 - 120		03/08/22 12:57	1

Lab Sample ID: LCS 240-519393/5
Matrix: Water
Analysis Batch: 519393

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	20.0	24.3		ug/L		121	63 - 134
cis-1,2-Dichloroethene	20.0	23.4		ug/L		117	77 - 123
Tetrachloroethene	20.0	19.2		ug/L		96	76 - 123
trans-1,2-Dichloroethene	20.0	24.8		ug/L		124	75 - 124
Trichloroethene	20.0	24.9	*+	ug/L		125	70 - 122
Vinyl chloride	20.0	29.2	*+	ug/L		146	60 - 144

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	71		62 - 137
4-Bromofluorobenzene (Surr)	117		56 - 136
Toluene-d8 (Surr)	82		78 - 122
Dibromofluoromethane (Surr)	92		73 - 120

Lab Sample ID: 240-163304-4 MS
Matrix: Water
Analysis Batch: 519393

Client Sample ID: MW-76-MS_022822
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	1.0	U	20.0	23.3		ug/L		117	56 - 135
cis-1,2-Dichloroethene	0.65	J	20.0	21.9		ug/L		106	66 - 128
Tetrachloroethene	1.0	U	20.0	17.3		ug/L		86	62 - 131
trans-1,2-Dichloroethene	1.0	U	20.0	22.5		ug/L		113	56 - 136
Trichloroethene	1.0	U *+	20.0	21.8		ug/L		109	61 - 124
Vinyl chloride	1.0	U *+	20.0	26.8		ug/L		134	43 - 157

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	70		62 - 137
4-Bromofluorobenzene (Surr)	113		56 - 136
Toluene-d8 (Surr)	79		78 - 122

QC Sample Results

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

Job ID: 240-163304-1

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

Lab Sample ID: 240-163304-4 MS
Matrix: Water
Analysis Batch: 519393

Client Sample ID: MW-76-MS_022822
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
Dibromofluoromethane (Surr)	87		73 - 120

Lab Sample ID: 240-163304-4 MSD
Matrix: Water
Analysis Batch: 519393

Client Sample ID: MW-76-MSD_022822
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	1.0	U	20.0	24.2		ug/L		121	56 - 135	4	26
cis-1,2-Dichloroethene	0.65	J	20.0	23.5		ug/L		114	66 - 128	7	14
Tetrachloroethene	1.0	U	20.0	17.5		ug/L		87	62 - 131	1	20
trans-1,2-Dichloroethene	1.0	U	20.0	24.4		ug/L		122	56 - 136	8	15
Trichloroethene	1.0	U *+	20.0	23.1		ug/L		115	61 - 124	6	15
Vinyl chloride	1.0	U *+	20.0	26.6		ug/L		133	43 - 157	1	24

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	78		62 - 137
4-Bromofluorobenzene (Surr)	114		56 - 136
Toluene-d8 (Surr)	81		78 - 122
Dibromofluoromethane (Surr)	91		73 - 120

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

Lab Sample ID: MB 240-519341/5
Matrix: Water
Analysis Batch: 519341

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			03/07/22 18:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		66 - 120		03/07/22 18:28	1

Lab Sample ID: LCS 240-519341/4
Matrix: Water
Analysis Batch: 519341

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	9.77		ug/L		98	80 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	80		66 - 120

Lab Sample ID: 240-163304-4 MS
Matrix: Water
Analysis Batch: 519341

Client Sample ID: MW-76-MS_022822
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	10.4		ug/L		104	51 - 153

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QC Sample Results

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

Job ID: 240-163304-1

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)	77		66 - 120

Lab Sample ID: 240-163304-4 MSD
Matrix: Water
Analysis Batch: 519341

Client Sample ID: MW-76-MSD_022822
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	10.3		ug/L		103	51 - 153	1	16

<i>Surrogate</i>	<i>%Recovery</i>	<i>MSD MSD Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	81		66 - 120

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QC Association Summary

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

Job ID: 240-163304-1

GC/MS VOA

Analysis Batch: 519341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-163304-2	MW-100S_022822	Total/NA	Water	8260B SIM	
240-163304-3	MW-76S_022822	Total/NA	Water	8260B SIM	
240-163304-4	MW-76_022822	Total/NA	Water	8260B SIM	
MB 240-519341/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-519341/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-163304-4 MS	MW-76-MS_022822	Total/NA	Water	8260B SIM	
240-163304-4 MSD	MW-76-MSD_022822	Total/NA	Water	8260B SIM	

Analysis Batch: 519393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-163304-1	TRIP BLANK_111	Total/NA	Water	8260B	
240-163304-2	MW-100S_022822	Total/NA	Water	8260B	
240-163304-3	MW-76S_022822	Total/NA	Water	8260B	
240-163304-4	MW-76_022822	Total/NA	Water	8260B	
MB 240-519393/8	Method Blank	Total/NA	Water	8260B	
LCS 240-519393/5	Lab Control Sample	Total/NA	Water	8260B	
240-163304-4 MS	MW-76-MS_022822	Total/NA	Water	8260B	
240-163304-4 MSD	MW-76-MSD_022822	Total/NA	Water	8260B	

Lab Chronicle

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

Job ID: 240-163304-1

Client Sample ID: TRIP BLANK_111

Lab Sample ID: 240-163304-1

Date Collected: 02/28/22 00:00

Matrix: Water

Date Received: 03/04/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	519393	03/08/22 19:00	LEE	TAL CAN

Client Sample ID: MW-100S_022822

Lab Sample ID: 240-163304-2

Date Collected: 02/28/22 14:36

Matrix: Water

Date Received: 03/04/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	519393	03/08/22 19:24	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	519341	03/07/22 23:43	CS	TAL CAN

Client Sample ID: MW-76S_022822

Lab Sample ID: 240-163304-3

Date Collected: 02/28/22 16:11

Matrix: Water

Date Received: 03/04/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	519393	03/08/22 19:48	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	519341	03/08/22 00:33	CS	TAL CAN

Client Sample ID: MW-76_022822

Lab Sample ID: 240-163304-4

Date Collected: 02/28/22 17:31

Matrix: Water

Date Received: 03/04/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	519393	03/08/22 20:12	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	519341	03/08/22 00:08	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 - Off Site

Job ID: 240-163304-1

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	02-27-23
Oregon	NELAP	4062	02-27-23
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.



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

Company Name: Arcadis	Regulatory program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other
Address: 28550 Cabot Drive, Suite 500	Client Project Manager: Kris Hinskey
City/State/Zip: Novi, MI, 48377	Telephone: 248-994-2240
Phone: 248-994-2240	Email: kristoffer.hinskey@arcadis.com
Project Name: Ford LTP Off-Site	Site Contact: Julia McClafferty
Project Number: 30080642.402.04	Telephone: 734-644-5131
PO # 30080642.402.04	Lab Contact: Mike DeMontico
	Telephone: 330-497-9396

Sample Identification	Sample Date	Sample Time	Matrix				Containers & Preservatives	Analysis							Sample Specific Notes / Special Instructions		
			Matrix					Filtered Sample (Y/N)	Composite C/Grab=C	1-DCE 8260B	0s-1,2-DCE 8260B	Trans-1,2-DCE 8260B	PCE 8260B	TCE 8260B		Vinyl Chloride 8260B	1,4-Dioxane 8260B SIM
			Air	Aqueous	Sediment	Solid											
TRIP BLANK_ 111																1 Trip Blank	
MW-1025-022822	02/08/22	14:36		X					1							3 VOAs for 8260B 3 VOAs for 8260B SIM	
MW-76S-022822	02/08/22	16:11		X					6								
MW-76-022822	02/08/22	17:31		X					6								
MW-76-MS-022822	02/08/22	17:31		X					6							RUNNING MTD	
MW-76-MSD-022822	02/08/22	17:31		X					6								



Possible Hazard Identification:
 Non-Hazard
 Flammable
 Skin Irritant

Special Instructions/QC Requirements & Comments: Submit all results through Cadena at jtomalita@cadenaco.com, Cadena #E203631

Level IV Reporting requested

Relinquished by: *[Signature]* Date/Time: 2/1/22 8:05 Company: Arcadis
 Relinquished by: *[Signature]* Date/Time: 2/8/22 1315 Company: Arcadis
 Relinquished by: *[Signature]* Date/Time: 2-3-22 1354 Company: EEA

Received in Laboratory by: *[Signature]* Date/Time: 3/1/22 8:05 Company: Arcadis
 Received by: *[Signature]* Date/Time: 5-3-22 1316 Company: EEA
 Received in Laboratory by: *[Signature]* Date/Time: 3-4-22 8:00 Company: EEA

Sample Disposal (A fee may be assess): Return to Client Disposal By Lab Archive For Months

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Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 1163304

Client ArCADIS Site Name _____ Cooler unpacked by Adam James
 Cooler Received on 3-4-22 Opened on 3-4-22
 FedEx. 1st Grd Exp UPS FAS Chipp 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 122 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)?
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
 If yes, Questions 13-17 have been checked at the originating laboratory
13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC157842
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Yes No NA  ← Larger than this
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 01042016 Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

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

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

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

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

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

Login # : _____

Eurofins TestAmerica Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)				IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)		
TA	Client	Box	Other	IR-14	3-0	2.8	Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14	1.8	1.6	Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14	2.4	2.2	Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-14			Wet Ice	Blue Ice	Dry Ice
							Water	None	

See Temperature Excursion Form

