🛟 eurofins

Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 240-126006-1

Client Project/Site: Ford LTP Off Site

For:

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

Attn: Kristoffer Hinskey

Mole Del your

Authorized for release by: 2/19/2020 3:47:01 PM

Michael DelMonico, Project Manager I (330)497-9396 michael.delmonico@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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



Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Method Summary	5
Sample Summary	6
Detection Summary	7
Client Sample Results	8
Surrogate Summary	10
QC Sample Results	11
QC Association Summary	15
Lab Chronicle	16
Certification Summary	17
Chain of Custody	18

Qualifiers

G	C/MS	VOA	
-			

Qualifiers		3
GC/MS VOA		
Qualifier	Qualifier Description	4
U	Indicates the analyte was analyzed for but not detected.	
Glossary		5
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	0
DER	Duplicate Error Ratio (normalized absolute difference)	Ο
Dil Fac	Dilution Factor	
DL	Detection Limit (DoD/DOE)	9
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	13
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)

Job ID: 240-126006-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Ford LTP Off Site

Report Number: 240-126006-1

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 2/8/2020 9:35 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TRIP BLANK (240-126006-1) and MW-147S_020620 (240-126006-2) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 02/12/2020 and 02/13/2020.

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

VOLATILE ORGANIC COMPOUNDS (GCMS SIM)

Sample MW-147S_020620 (240-126006-2) was analyzed for volatile organic compounds (GCMS SIM) in accordance with EPA SW-846 Method 8260B SIM. The sample was analyzed on 02/12/2020.

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

Method Summary

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

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 Off Site

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-126006-1	TRIP BLANK	Water	02/06/20 00:00	02/08/20 09:35	
240-126006-2	MW-147S_020620	Water	02/06/20 12:15	02/08/20 09:35	

Eurofins TestAmerica, Canton

Detection	Summary
-----------	---------

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

Client Sample ID: TRIP BLANK

No Detections.

Client Sample ID: MW-147S_020620

No Detections.

Job ID: 240-126006-1

000 ID: 240-120000-1

Lab Sample ID: 240-126006-1

Lab Sample ID: 240-126006-2



This Detection Summary does not include radiochemical test results.

Client Sample ID: TRIP BLANK Date Collected: 02/06/20 00:00 Date Received: 02/08/20 09:35

Lab Sample ID: 240-126006-1

Matrix: Water

5 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			02/12/20 20:47	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			02/12/20 20:47	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			02/12/20 20:47	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			02/12/20 20:47	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			02/12/20 20:47	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			02/12/20 20:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		75 - 130			-		02/12/20 20:47	1
4-Bromofluorobenzene (Surr)	102		47 - 134					02/12/20 20:47	1
Toluene-d8 (Surr)	92		69 - 122					02/12/20 20:47	1
Dibromofluoromethane (Surr)	85		78 - 129					02/12/20 20:47	1

Eurofins TestAmerica, Canton

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

Client Sample ID: MW-147S_020620 Date Collected: 02/06/20 12:15 Date Received: 02/08/20 09:35

Lab	Samp	le	D:	24

Job ID: 240-126006-1

Matrix: Water

nalyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
,4-Dioxane	2.0	U	2.0	0.86	ug/L			02/12/20 21:27	1
urrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
,2-Dichloroethane-d4 (Surr)	98		70 - 133					02/12/20 21:27	1
Method: 8260B - Volatile O	rganic Compo	unds (GC/	MS)						
Analyte	-	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			02/13/20 20:16	1
is-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			02/13/20 20:16	1
etrachloroethene	1.0	U	1.0	0.15	ug/L			02/13/20 20:16	1
rans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			02/13/20 20:16	1
Frichloroethene	1.0	U	1.0	0.10	ug/L			02/13/20 20:16	1
/inyl chloride	1.0	U	1.0	0.20	ug/L			02/13/20 20:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
,2-Dichloroethane-d4 (Surr)	97		75 - 130					02/13/20 20:16	1
-Bromofluorobenzene (Surr)	107		47 - 134					02/13/20 20:16	1
Toluene-d8 (Surr)	94		69 - 122					02/13/20 20:16	1
Dibromofluoromethane (Surr)	87		78 - 129					02/13/20 20:16	1

Surrogate Summary

BFB

(47-134)

110

103

103

107

102

107

100

104

103

107

DCA

(75-130)

92

79

87

78

77

97

94

94

93

95

Lab Sample ID

240-126006-1

240-126006-2

LCS 240-422520/4

LCS 240-422714/4

MB 240-422520/7

MB 240-422714/7

Surrogate Legend

TOL = Toluene-d8 (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr) BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

240-126004-A-4 MS

240-126004-D-3 MS

240-126004-D-4 MSD

240-126004-E-3 MSD

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

Client Sample ID

Matrix Spike Duplicate

Matrix Spike Duplicate

MW-147S 020620

Lab Control Sample

Lab Control Sample

Matrix Spike

Matrix Spike

TRIP BLANK

Method Blank

Method Blank

D (Prep Type: Total/NA
Pe	TOL	ogate Recovery (Ac DBFM	ceptance Limits)
)	(69-122)		
_	93	83	
	93	87	
	93	88	
	93	89	
	92	85	
	94	87	
	95	87	
	91	90	
	96	88	
	95	91	

Prep Type: Total/NA

9

5

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

			Percent Surrogate Recovery (Acceptance Limits)
		DCA	
Lab Sample ID	Client Sample ID	(70-133)	
240-126004-C-3 MS	Matrix Spike	100	
240-126004-C-3 MSD	Matrix Spike Duplicate	100	
240-126006-2	MW-147S_020620	98	
LCS 240-422563/4	Lab Control Sample	97	
MB 240-422563/5	Method Blank	96	

Surrogate Legend

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

Job ID: 240-126006-1

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

Lab Sample ID: MB 240-422520/7 **Matrix: Water**

Analysis Batch: 422520

	МВ	МВ							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			02/12/20 16:38	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			02/12/20 16:38	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			02/12/20 16:38	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			02/12/20 16:38	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			02/12/20 16:38	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			02/12/20 16:38	1

	MB	МВ				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		75 - 130		02/12/20 16:38	1
4-Bromofluorobenzene (Surr)	103		47 - 134		02/12/20 16:38	1
Toluene-d8 (Surr)	96		69 - 122		02/12/20 16:38	1
Dibromofluoromethane (Surr)	88		78 - 129		02/12/20 16:38	1

Lab Sample ID: LCS 240-422520/4 Matrix: Water Analysis Batch: 422520

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,1-Dichloroethene	10.0	9.66		ug/L		97	73 - 129	
cis-1,2-Dichloroethene	10.0	10.2		ug/L		102	75 - 124	
Tetrachloroethene	10.0	9.32		ug/L		93	70 - 125	
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	74 - 130	
Trichloroethene	10.0	9.09		ug/L		91	71 - 121	
Vinyl chloride	10.0	9.69		ug/L		97	61 - 134	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		75 - 130
4-Bromofluorobenzene (Surr)	100		47 - 134
Toluene-d8 (Surr)	95		69 - 122
Dibromofluoromethane (Surr)	87		78 - 129

93

Lab Sample ID: 240-126004-D-3 MS **Matrix: Water** Analysis Batch: 422520

Toluene-d8 (Surr)

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1-Dichloroethene	1.0	U	10.0	9.19		ug/L		92	64 - 132
cis-1,2-Dichloroethene	1.0	U	10.0	9.76		ug/L		98	68 - 121
Tetrachloroethene	1.0	U	10.0	8.21		ug/L		82	52 - 129
trans-1,2-Dichloroethene	1.0	U	10.0	9.95		ug/L		100	69 - 126
Trichloroethene	1.0	U	10.0	8.18		ug/L		82	56 - 124
Vinyl chloride	1.0	U	10.0	10.2		ug/L		102	49 - 136
	MS	MS							
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	79		75 - 130						
4-Bromofluorobenzene (Surr)	103		47 - 134						

Client Sample ID: Matrix Spike

Prep Type: Total/NA

69 - 122

Prep Type: Total/NA

Client Sample ID: Method Blank

Prep Type: Total/NA

Client Sample ID: Lab Control Sample

2/19/2020

Job ID: 240-126006-1

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

Lab Sample ID: 240-126004-D-3 MS **Matrix: Water** Analysis Batch: 422520

	MS MS	
Surrogate	%Recovery Qualifier	Limits
Dibromofluoromethane (Surr)	87	78 - 129

Lab Sample ID: 240-126004-E-3 MSD **Matrix: Water** Analysis Batch: 422520

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1-Dichloroethene	1.0	U	10.0	8.85		ug/L		88	64 - 132	4	35
cis-1,2-Dichloroethene	1.0	U	10.0	9.43		ug/L		94	68 - 121	3	35
Tetrachloroethene	1.0	U	10.0	8.42		ug/L		84	52 - 129	3	35
trans-1,2-Dichloroethene	1.0	U	10.0	9.14		ug/L		91	69 - 126	9	35
Trichloroethene	1.0	U	10.0	7.83		ug/L		78	56 - 124	4	35
Vinyl chloride	1.0	U	10.0	10.9		ug/L		109	49 - 136	6	35
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	78		75 - 130								
4-Bromofluorobenzene (Surr)	107		47 - 134								
Toluene-d8 (Surr)	93		69 - 122								
Dibromofluoromethane (Surr)	89		78 - 129								

Lab Sample ID: MB 240-422714/7 **Matrix: Water** Analysis Batch: 422714

Prep Type: Total/NA MB MB **Result Qualifier** Analyte RL MDL Unit D Prepared Analyzed 1,1-Dichloroethene 1.0 U 1.0 0.19 ug/L 02/13/20 19:01 cis-1,2-Dichloroethene 1.0 U 1.0 0.16 ug/L 02/13/20 19:01

		MВ	МВ					
	Vinyl chloride	1.0	U	1.0	0.20	ug/L	02/13/20 19:01	1
	Trichloroethene	1.0	U	1.0	0.10	ug/L	02/13/20 19:01	1
	trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L	02/13/20 19:01	1
	Tetrachloroethene	1.0	U	1.0	0.15	ug/L	02/13/20 19:01	1
L			-			*9-		

Surrogate	%Recovery Qual	lifier Limits	Prepared A	nalyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95	75 - 130	02/1	13/20 19:01	1
4-Bromofluorobenzene (Surr)	107	47 - 134	02/1	13/20 19:01	1
Toluene-d8 (Surr)	95	69 - 122	02/1	13/20 19:01	1
Dibromofluoromethane (Surr)	91	78 - 129	02/1	13/20 19:01	1

Lab Sample ID: LCS 240-422714/4 **Matrix: Water** Analysis Batch: 422714

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,1-Dichloroethene	10.0	10.9		ug/L		109	73 - 129	
cis-1,2-Dichloroethene	10.0	10.3		ug/L		103	75 - 124	
Tetrachloroethene	10.0	9.81		ug/L		98	70 - 125	
trans-1,2-Dichloroethene	10.0	10.6		ug/L		106	74 - 130	
Trichloroethene	10.0	9.46		ug/L		95	71 - 121	

Eurofins TestAmerica, Canton

Prep Type: Total/NA

Client Sample ID: Lab Control Sample

10

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

Client Sample ID: Method Blank

Dil Fac

1

Page	12 of	19	

QC Sample Results

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

Lab Sample ID: LCS 240- Matrix: Water Analysis Batch: 422714	422714/4					Clie	ent Sar	nple ID	: Lab Control Sample Prep Type: Total/NA
			Spike	LCS	LCS				%Rec.
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits
Vinyl chloride			10.0	9.91		ug/L		99	61 - 134
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	94		75 - 130						
4-Bromofluorobenzene (Surr)	104		47 - 134						
Toluene-d8 (Surr)	91		69 - 122						
Dibromofluoromethane (Surr)	90		78_129						

Lab Sample ID: 240-126004-A-4 MS **Matrix: Water** Analysis Batch: 422714

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1-Dichloroethene	1.0	U	10.0	9.64		ug/L		96	64 - 132
cis-1,2-Dichloroethene	1.0	U	10.0	9.89		ug/L		99	68 - 121
Tetrachloroethene	1.0	U	10.0	9.52		ug/L		95	52 - 129
trans-1,2-Dichloroethene	1.0	U	10.0	9.90		ug/L		99	69 - 126
Trichloroethene	1.0	U	10.0	8.96		ug/L		90	56 - 124
Vinyl chloride	1.0	U	10.0	11.3		ug/L		113	49 - 136

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		75 - 130
4-Bromofluorobenzene (Surr)	110		47 - 134
Toluene-d8 (Surr)	93		69 - 122
Dibromofluoromethane (Surr)	83		78 - 129

Lab Sample ID: 240-126004-D-4 MSD Matrix: Water Analysis Batch: 422714

Analysis Batch. 4227 14	Sample	Sample	Spike	мер	MSD				%Rec.		RPD
Analyte	•	Qualifier	Added	-	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1-Dichloroethene	1.0	U	10.0	9.41		ug/L		94	64 - 132	2	35
cis-1,2-Dichloroethene	1.0	U	10.0	9.94		ug/L		99	68 - 121	0	35
Tetrachloroethene	1.0	U	10.0	8.31		ug/L		83	52 - 129	14	35
trans-1,2-Dichloroethene	1.0	U	10.0	9.91		ug/L		99	69 - 126	0	35
Trichloroethene	1.0	U	10.0	8.73		ug/L		87	56 - 124	3	35
Vinyl chloride	1.0	U	10.0	11.9		ug/L		119	49 - 136	5	35
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		75 - 130
4-Bromofluorobenzene (Surr)	103		47 - 134
Toluene-d8 (Surr)	93		69 - 122
Dibromofluoromethane (Surr)	88		78 - 129

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

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Eurofins TestAmerica, Canton

Job ID: 240-126006-1

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

Lab Sample ID: MB 240-42	2563/5								Cli	ient Sa	mple ID:	Method	l Blan
Matrix: Water											Prep 1	'ype: To	otal/N/
Analysis Batch: 422563													
-		MB	MB										
Analyte	Re		Qualifier	RL		MDL		C)	Prepare	d Ana	lyzed	Dil Fa
1,4-Dioxane		2.0	U	2.0		0.86	ug/L				02/12/2	20 14:10	
		ΜВ	МВ										
Surrogate	% Poco		Qualifier	Limits						Prepare	d Ana	lyzed	Dil Fa
1,2-Dichloroethane-d4 (Surr)	/////////////////////////////////	96	Quaimer							riepare		20 14:10	DIIFa
1,2-Dichloroethane-04 (Sull)		90		70 - 733							02/12/	20 14.10	
Lab Sample ID: LCS 240-4	22563/4							Clier	nt Sa	mnle	ID: Lab C	ontrol S	amnl
Matrix: Water	22000/4							oner		mpic		ype: To	
Analysis Batch: 422563											i i op i	J P0. IC	
				Spike	LCS	LCS					%Rec.		
Analyte				Added	Result	Qual	ifier	Unit	D	%Red	: Limits		
1,4-Dioxane				10.0	9.83			ug/L		98		5	
								0					
	LCS												
Surrogate	%Recovery	Qua	lifier	Limits									
1,2-Dichloroethane-d4 (Surr)	97			70 - 133									
Lab Sample ID: 240 42600	4.0.2 MG								~	Nient C	Semale ID	Motrix	Child
Lab Sample ID: 240-12600 Matrix: Water	4-0-3 1013								, C	ment a	Sample ID	ype: To	
											Prepr	ype. It	JIal/IN
Analysis Batch: 422563	Sample	Sam	nlo	Spike	MS	MS					%Rec.		
Analyte	Result		-	Added	Result	-	ifior	Unit	D	%Rec			
1,4-Dioxane	2.0			10.0	9.76	Qua	mer	ug/L		98)	
	2.0	0		10.0	5.70			ug/L		50		,	
	MS	MS											
Surrogate	%Recovery	Qua	lifier	Limits									
1,2-Dichloroethane-d4 (Surr)	100			70 - 133									
Lab Sample ID: 240-12600	4-C-3 MSD							Client S	Sam	ple ID:	Matrix S		
Matrix: Water											Prep 1	ype: To	otal/N
Analysis Batch: 422563													
	Sample		-	Spike		MSD			_	~ -	%Rec.	-	RP
Analyte	Result		lifier	Added	Result	Qual	itier	Unit	D				
1,4-Dioxane	2.0	U		10.0	9.19			ug/L		92	2 46 - 170) 6	6 2
	MSD	MSD)										
Surrogate	%Recovery	Qua	lifior	Limits									

Surrogate %Recovery Qualifier 1,2-Dichloroethane-d4 (Surr) 100

10

70 - 133

GC/MS VOA

Analysis Batch: 422520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
240-126006-1	TRIP BLANK	Total/NA	Water	8260B		
MB 240-422520/7	Method Blank	Total/NA	Water	8260B		
LCS 240-422520/4	Lab Control Sample	Total/NA	Water	8260B		
240-126004-D-3 MS	Matrix Spike	Total/NA	Water	8260B		
240-126004-E-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B		
Analysis Batch: 4228	563					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
240-126006-2	MW-147S_020620	Total/NA	Water	8260B SIM		
MB 240-422563/5	Method Blank	Total/NA	Water	8260B SIM		
LCS 240-422563/4	Lab Control Sample	Total/NA	Water	8260B SIM		
240-126004-C-3 MS	Matrix Spike	Total/NA	Water	8260B SIM		
240-126004-C-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B SIM		2
Analysis Batch: 4227	714					1
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
240-126006-2	MW-147S_020620	Total/NA	Water	8260B		
MB 240-422714/7	Method Blank	Total/NA	Water	8260B		
LCS 240-422714/4	Lab Control Sample	Total/NA	Water	8260B		
240-126004-A-4 MS	Matrix Spike	Total/NA	Water	8260B		
240-126004-D-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B		

Job ID: 240-126006-1

Matrix: Water

Lab Sample ID: 240-126006-1

Client Sample ID: TRIP BLANK Date Collected: 02/06/20 00:00 Date Received: 02/08/20 09:35

_	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	8260B			422520	02/12/20 20:47	LRW	TAL CAN	
Client Sam	ple ID: MW	-147S_02062	20				Lab Sa	mple ID:	240-126006-
Date Collecte	d: 02/06/20 1	2:15							Matrix: Wate
Date Receive	d: 02/08/20 0	9:35							

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	422714	02/13/20 20:16	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	422563	02/12/20 21:27	SAM	TAL CAN

Laboratory References:

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

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

Job ID: 240-126006-1

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.

Cardination	Client Contact Company Name: Arcadis Address: 28550 Cabot Drive, Suite 500	I estAmerica Laboratory locanon: mignum								111	
0 Contraction Sectored Actionation Acti	Company Name: Arcadis Address: 28550 Cabat Drive, Suite 500	Regulatory program:	PW -	NPDES	L	Other				2	
00 Пормители политист Пормители политист <th>Address: 28550 Cabot Drive, Suite 500</th> <th>Climit Besied Manager Vels Hard</th> <th></th> <th>Sita Contact: Infla Mod</th> <th>Claffords</th> <th></th> <th>Tab Contact</th> <th>Mide DelW</th> <th>antea</th> <th></th> <th>TestAmerica Laboratories</th>	Address: 28550 Cabot Drive, Suite 500	Climit Besied Manager Vels Hard		Sita Contact: Infla Mod	Claffords		Tab Contact	Mide DelW	antea		TestAmerica Laboratories
Telefone: Telefone: Telefone: Telefone: Telefone: Telefone: Finite, training: Entite, training:		Circuit reoject, Manager, Kris IIIIISK	5	one Compete Juna (NC)	C INTELLE		Lab Contact	VIDE DELV	03000		COCC 1405
Desite transmer Desite transmer Ampter America Ampler Ampler America Ampler America <t< td=""><td>Presidential North Mill Against</td><td>Telephone: 248-994-2240</td><td></td><td>Telephone: 734-644-51.</td><td>31</td><td></td><td>Telephone: 3</td><td>30-497-939</td><td>5</td><td></td><td></td></t<>	Presidential North Mill Against	Telephone: 248-994-2240		Telephone: 734-644-51.	31		Telephone: 3	30-497-939	5		
Number Num	CH3/STARE CAPS, 2400, 211, 400 / 7	Email: kristoffer.hinskey@arcadis.	com	Analysis Turnarou	nd Time	H		ΨV	alyses		
Internation Control Contro Control Control	Phone: 248-994-2240	Constant Name		Poor from							Walk-in client
Mutual Alignment Currier: I total I tot	Project Name: Ford LTP Off-Site		7		ceks eks	1					1 ab sampling
Appendit Fredue Appendit Fredue No. Total Total Market No. Mar	Project Number: 30042006.0402.02	Method of Shipment/Carrier:		LL		_	8			-	Sundance care
Mutrix Continue A Processions Elitered all intensions Second all of the second all	PO#30042006.0402.02	Shipping/Tracking No:		- 1 day		(Grab					Job/SDG No:
P P <td>Sample Identification</td> <td></td> <td>Matrix Sediment bilo2</td> <td></td> <td>Other: Bives</td> <td>D=91i20qm0D</td> <td></td> <td></td> <td></td> <td></td> <td>Sample Specific Notes / Special Instructions:</td>	Sample Identification		Matrix Sediment bilo2		Other: Bives	D=91i20qm0D					Sample Specific Notes / Special Instructions:
5 X <td>TRIP BLANK</td> <td>(</td> <td></td> <td></td> <td>3</td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td>	TRIP BLANK	(3		1				
3 3 <td></td> <td></td> <td>></td> <td>9</td> <td>1</td> <td>1</td> <td>Ĩ</td> <td>11/1</td> <td>1</td> <td></td> <td>for</td>			>	9	1	1	Ĩ	11/1	1		for
Date Time Date Time Date Time Date Time Date Time Date Time Date Time Date Time	0		0	Ð		-	to	+	-		618
Date:Time Second bit Company Date:Time Second bit Company Date:Time Second bit Company Date:Time Received bit Company Date:Time Received bit Company											
Sample Disposal (A fer may be acceed if samples are related longer fhan 1 month) 240-126006 Chain of Custody 240-12600 Custody 240-12600 Custody 240-12600 Custody 240-12600 Custody Custody 240-126000 240-126000 240-12700									-	-	
240-126006 Chain of Custody 240-126006 Chain of Custody 240-126006 Chain of Custody 240-126006 Chain of Custody 240-126006 Chain of Custody Ample Disposal to the most be assessed if samples are retained longer than 1 month Cubicore Sample Disposal to the most be assessed if samples are retained longer than 1 month Cubicore Sample Disposal to the most be assessed if samples are retained longer than 1 month Cubicore Sample Disposal to the most be assessed if samples are retained longer than 1 month Cubicore Sample Disposal to the most be assessed if samples are retained longer than 1 month Cubicore Sample Disposal to the most be assessed if samples are retained longer than 1 month Cubicore Sample Disposal to the most be assessed if samples are retained longer than 1 month Disposal Displace Disposal Displace Displace Displace											
240-126006 Chain of Custody 240-126006 Chain of Custody 240-126006 Chain of Custody 240-126006 Chain of Custody 240-126006 Chain of Custody 240-126006 Chain of Custody 250-126006 Chain of Custody 240-12600 Chain of Custody 250-126006 Chain of Custody 250-12600 Chain of Custody 250-126006 Chain of Custody 250-12600 Chain of Custody 261-1 260-12600 Chain of Custody 2712000 Chain 2712000 Chain of Custody 201-1 20-12600 Chain of Custody 21-1200 Log 20-1270 Chain of Custody 21-1200 Log 20-1270 Chain of Custody			1					-			
Date Time: Sample Disposal (A fee may be accessed if samples are retained longer than 1 month) Cuhanown Sample Disposal (A fee may be accessed if samples are retained longer than 1 month) Sample Disposal (A fee may be accessed if samples are retained longer than 1 month) Date Time: Second Disposal (A fee may be accessed if samples are retained longer than 1 month) Date Time: Date Time: Date Time: Date Time: Date Time: Date Time: Date Time: Received in 1 Juby atory by:			240-126	Chain of							
Date Time: Sample Bisposal (A fee may be ascessed if samples are retained longer than 1 month) Sample Bisposal (A fee may be ascessed if samples are retained longer than 1 month) Sample Bisposal (A fee may be ascessed if samples are retained longer than 1 month) Date Time: Sample Bisposal (A fee may be ascessed if samples are retained longer than 1 month) Date Time: Second By Lab Date Time: Date Time:											
Unknown Sample Bisposal (A fee may be axcessed if samples are retained longer than 1 month) Unknown Return to Client Disposal By Lah Archive For Months Bate Time: Disposal By Lah Company: Archive For Disposal By Lah Company: Archive For Disposal By Lah Archive For Disposal By Lah Archive For Disposal By Lah Company: Archive For Disposal By Lah Company: <licompany:< li=""> Company:<</licompany:<>											
Date Time: 15 ic Received by: Curl Curl Curl Curl Curl Curl Curl Date Time: Acc But Time: Acc 2673 15 ic Received by: WUMBU Company: Actual 247120 0 217120 1030 Received in Laboratory by: MUMBU Company: Actual 217470 10 Date Time: Accession Accession Accession Accession Accession 27720		Poison B	uwou	Sample Disposal (A	the may be asse ut I Dispo	ssed if samp osal By Lab	oles are retais	ed longer th	uan 1 month) Month	15	
Date Time: 15 w Received by: Out Contrany: Company: Date Time: Date Time: 24575 15 w 10 30 10 30 10 30 10 30 10 30 10 30 10 30 24713 20 7130 10 30 10 30 10 30 10 30 10 30 10 30 Date Time: 21 7130 10 30 Received in Leby atory by: 10 0 0 Date Time: 21 7120 1445 Received in Leby atory by: 10 0 0	Special Instructions/QC Requirements & Comments:										
And the company for the pretime 1500 theory of all Stars company. It was been the contrant of the star	Submit all results through Cadena at Jtomalla@caden: Level IV Reporting requested.	iaco.com. Cadena #E203631									
Min WW Company Company Arcadis Date Time Company Arcadis 217/2020/1030 Received in 1. Jun WWW Company 217/20103 Du Haster Company Arcadis Date Time Date Time 217/20103 Du Haster Mill 217/20145 Received in 1. Jun March Company Mill Company 777 27-30	Relinquished by:	Approved	Date Time: 2600			Cord	Stor		my. Arcu	dis	
Du HORBU Company Bate Time Date Time Received in Langatory by MM Company TTR Date Time 2-8-2.0	Relinquished by Min Will Bolles	Arradiss	Date Time: 24 71 2630	10.00	A MULLI A	Jupu	N	entro Sentro	V-141	1	Date/Time
	Relinquistred by: / United by Parts	I	Date/Time: 7174/7/0 14			il in		Comp	11	2	Date/Time:
			100			-	-		1.10		

2/19/2020

- 1

ient	anton Facility	Login # :
soler Received on 2 - 3 - 20 Opened on A - 3 - 20 Other odfx: 1 ¹ Grd G_0 UPS FAS Clipper Client Drop Off TestAmerica Courier Other edity: 1 ¹ Grd G_0 UPS FAS Clipper Client Drop Off TestAmerica Courier Other Packing materia lock? UPS Fas Clipper Client Drop Off TestAmerica Courier Other Packing material used? UPS Fam Cligate Bab None Other Other Cooler temprative upon receipt Des Multiple Cooler Form 3 - 4 C IR GUN# IR-10 (CF +0.7 °C) Observed Cooler Temp. - 7 C Were tamper/custody seals intact and uncompromised? Yes No NA -Were tamper/custody seals intact and uncompromised? Yes No No Shippers' packing slip attached to the cooler(9? Yes No No Vere tamper/custody seals intact and uncompromised? Yes No Yes No Vas/were the person(s) who collected the samples clearly identified on the COC? Yes No Yes No Uras study papers relinquished & signed in the appropriate place? Yes No Yes No Was were the costoldy papers accompany the sample(3)? Yes No Yes No Yes No Sufficient quantity received to perform indicated analyses? Yes No Yes No Yes No		Cooler unpacked by
Add::: 1" Group off Date Time Storage Location Storage Location Storage Location Storage Location Storage Location Storage Location Storage Location COLANT: MELL Foam Box Client Cooler Box Other Cooler Box Other Cooler temperature upon receipt Box Entrol Cooler Temp Core Corected Cooler Temp Cooler Temp IR GUN#IR-11 (CF +0.9°C) Observed Cooler Temp Corected Cooler Temp Core Corected Cooler Temp Cooler tempercustody seals on the outside of the cooler(s)? No Were tamper/custody seals on the outside of the cooler(s)? Test shat are not the test signed that add? No NA Were tamper/custody seals intact and uncompromised? Yes No NA Were tamper/custody seals intact and uncompromised? Yes No NA Were to corect dough papers alcoarding (Unbroken)? Yes No Na Could all bottle labels be reconciled with the COC? Yes No Na Were correct batt(s) used for the coler(s)? Test shat are not the coler(s)? Yes No Sufficient quantity received to perform indicated analyses? Yes No Na		111110
Storage Location Storage Location stAmerica Cooler #		er Other
sixAmerica Cooler # Image:	ALLA I OID THE THE I	
Packing material used: Debter Person of Chaine Bage None Other	cecipit inter nouron and a	
- Were the seals on the outside of the cooler(s) signed & dated? - Were tamper/custody seals intact and uncompromised? - Were tamper/custody seals intact and uncompromised? Were the custody papers acompany the sample(s)? Were the exotody papers relinquished & signed in the appropriate place? Were the exotody papers relinquished & signed in the appropriate place? Were the service in good condition (Unbroken)? Could all bottle labels be reconciled with the COC? Were correct bottle(s) used for the test(s) indicated? Sufficient quantity received to perform indicated analyses? If yes, Questions 12-16 have been checked at the originating laboratory. Were a VOAs on the COC? Were any preserved sample(s)? Were all preserved sample(s)? Were all preserved sample(s)? Trip Blank Lot # Were all the plank present in the cooler(s)? Trip Blank Lot # Yes No Sumples processed by: Method the plank present? CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: Method were received after the recommended holding time had expired. ample(s) were received with bubble >6 mm in diameter. (Notify PM) SAMPLE PRESERVATION ample(s) SAMPLE PRESERVATION	COOLANT: Set Loc Blue Ice Dry Ice Water None Cooler temperature upon receipt □ See Multiple Cooler IR GUN# IR-10 (CF +0.7 °C) Observed Cooler Temp. 2.7°C Corrected Cooler IR GUN #IR-11 (CF +0.9°C) Observed Cooler Temp. °C Corrected Cooler Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 7.7°C	er Form Iler Temp. <u>3. %</u> °C Iler Temp. <u>°C</u>
Did totatoly papers accompany in the samples? Were the custody papers accompany into samples? Tests that are not custody papers accompany into samples? Was/were the person(s) who collected the samples clearly identified on the COC? Wes No Tests that are not custody papers accompany into analyzed signed in the appropriate place? Wo No Tests that are not custody papers accompany into analyzed signed in the appropriate place? Wo No Tests that are not custody papers accompany into analyzed signed in the appropriate place? Wo No Tests that are not custody papers accompany into analyzed signed in the appropriate place? Wo No Tests that are not custody papers accompany into analyzed signed in the appropriate place? Wo No Tests that are not custody papers accompany into analyzed signed in the appropriate place? Wo No Tests that are not custody papers accompany into analyzed signed in the appropriate place? No Yes No Tests that are not custody papers accompany into analyzed signed in the appropriate place? No No Yes No Yes No No Yes No No No No Yes No No No No No No	 -Were the seals on the outside of the cooler(s) signed & dated? -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? -Were tamper/custody seals intact and uncompromised? Shippers' packing slip attached to the cooler(s)? 	Yes No Yes No NA Yes No
Was/were the person(s) who collected the samples clearly identified on the COC? Yes ND Was/were the person(s) who collected the samples clearly identified on the COC? Yes No Did all bottles arrive in good condition (Unbroken)? Yes No Could all bottles labels be reconciled with the COC? Yes No Were correct bottle(s) used for the test(s) indicated? Yes No Sufficient quantity received to perform indicated analyses? Yes No If yes, Questions 12-16 have been checked at the originating laboratory. Yes No Were air bubbles >6 mm in any VOA vials? Larger than this. Yes No Yes No Were air bubbles >6 mm in any VOA vials? Larger than this. Yes No Yes No Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # Yes No Mas a VOA trip blank present in the cooler(s)? Yes No To concerning	Did custody papers accompany the sample(s)?	Tests that are not
Did all bottles arrive in good condition (Unbroken)? Yes No Yes No Could all bottle bales be reconciled with the COC? Yes No VOAs Output and the set (s) indicated? Yes No Yes No Distriction quantity received to perform indicated analyses? Yes No Yes No I. Are these work share samples? Yes No Yes No Yes No If yes, Questions 12-16 have been checked at the originating laboratory. Were all preserved sample(s) at the correct pH upon receipt? Yes No Yes No Were air bubbles >6 mm in any VOA vials? If and Grease Yes No Yes No S. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #Yes No Yes No Yes No S. Was a VA trip blank present? Yes No Yes No Yes No ontacted PM Date by via Verbal Voice Mail Other oncerning	Were the custody papers relinquished & signed in the appropriate place?	Checked for ph by
Could all bottle labels be reconciled with the COC? Vors Vors Were correct bottle(s) used for the test(s) indicated? Vors No O: Sufficient quantity received to perform indicated analyses? Ves No If yes, Questions 12-16 have been checked at the originating laboratory. Ves No Were all preserved sample(s) at the correct pH upon receipt? Yes No Were all bottle beta so mm in any VOA vials? Larger than this. Yes Yes No Was a VOA trip blank present in the coler(s)? Trip Blank Lot # Yes Yes No S. Was a VOA trip blank present? by via Verbal Voice Mail Other No ontacted PM Date by via Verbal Voice Mail Other oncerning	Was/were the person(s) who collected the samples clearly identified of the COC: Did all bottles arrive in good condition (Unbroken)?	
Were correct bottle(s) used for the test(s) indicated? Yes No Toc 3. Sufficient quantity received to perform indicated analyses? Yes No Yes No 1. Are these work share samples? If yes, Questions 12-16 have been checked at the originating laboratory. Yes No Yes No 2. Were all preserved sample(s) at the correct pH upon receipt? Yes No Yes No Yes No 3. Were air bubbles >6 mm in any VOA vials? Image: Larger than this. Yes No Yes No 5. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # Yes No Yes No 6. Was a LL Hg or Me Hg trip blank present? yes No Yes No Yes No 7. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: M-5 8. SAMPLE CONDITION ample(s) were received after the recommended holding time had expired. ample(s) were received after the recommended holding time had expired. ample(s) were received with bubble >6 mm in diameter. (Notify PM) 9. SAMPLE PRESERVATION aample(s) were further preserved in the laboratory. maple(s) Preservative(s) added/Lot number(s): were further preserved in the laboratory.	Could all bottle labels be reconciled with the COC?	Yes No VOAs
D. Sufficient quantity received to perform indicated analyses? Are these work share samples? If yes, Questions 12-16 have been checked at the originating laboratory. Were all preserved sample(s) at the correct pH upon receipt? Were air bubbles >6 mm in any VOA vials? Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #Yes No Was a VOA trip blank present? Yes No Yes No No Yes No Yes No No No Yes No No No Yes No No Yes No		YES NO II
Are these work share samples? Yes Yes If yes, Questions 12-16 have been checked at the originating laboratory. Yes Were all preserved sample(s) at the correct pH upon receipt? Yes Were air bubbles >6 mm in any VOA vials? Image: the cooler(s)? Were air bubbles >6 mm in any VOA vials? Image: the cooler(s)? Was a VOA trip blank present in the cooler(s)? Yes Was a UL Hg or Me Hg trip blank present? Yes Dottacted PM Date by wia verbal Voice Mail Other concerning Samples processed by: M-5 R. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: M-5 Were received after the recommended holding time had expired. ample(s) were received with bubble >6 mm in diameter. (Notify PM) O. SAMPLE PRESERVATION were further preserved in the laboratory. ample(s) were further preserved in the laboratory.). Sufficient quantity received to perform indicated analyses?	Yes No
If yes, Questions 12-16 have been checked at the originating laboratory. Were all preserved sample(s) at the correct pH upon receipt? Yes No MD pH Strip Lot# HC995364 Were air bubbles >6 mm in any VOA vials? Larger than this. Yes No Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #Yes No Yes No Yes No Was a LL Hg or Me Hg trip blank present? Yes No Yes No ontacted PMDatebyvia Verbal Voice Mail Other		Yes
Were Volume and pictor and pictor for the content program of	If yes, Questions 12-16 have been checked at the originating laboratory.	
A Were air bubbles >6 mm in any VOA vials? A Were air bubbles >6 mm in any VOA vials? A Were air bubbles >6 mm in any VOA vials? A Were air bubbles >6 mm in any VOA vials? A Were air bubbles >6 mm in any VOA vials? A Were air bubbles >6 mm in any VOA vials? A Were air bubbles >6 mm in any VOA vials? A Were air bubbles >6 mm in any VOA vials? A Were air bubbles >6 mm in any VOA vials? A Were air bubbles >6 mm in any VOA vials? A Were air bubbles >6 mm in any VOA vials? A Were air bubble >6 mm in any VOA vials? A Were further preserved in the laboratory. A Were air bubbles >6 mm in any VOA vials? A Were air bubbles >6 mm in any VOA vials? A Were further preserved in the laboratory. A Were air bubble >6 mm in diameter. A Were further preserved in the laboratory. A Were air bubble >6 mm in diameter. A Were further preserved in the laboratory. A Were further preserved in the laboratory. A Were air bubble >6 mm in diameter. A Were further preserved in the laboratory. A Were furt	2. Wele an preserved sample(s) at the context pri apont to op	
We the true of true of the true of	, were voris on the coort	and the second s
Was a UL Hg or Me Hg trip blank present? Yes Mo Ontacted PM Date by via Verbal Voice Mail Other oncerning		
by was a being of nicking on and product ontacted PM Date by via Verbal Voice Mail Other oncerning 7. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: M. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES		YES NO
oncerning	, was a vort tip blank present in the booten (b).	
7. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: M_5 8. SAMPLE CONDITION ample(s)	5. Was a LL Hg or Me Hg trip blank present?	Yes No
7. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES	5. Was a LL Hg or Me Hg trip blank present?	Yes No
	6. Was a LL Hg or Me Hg trip blank present? ontacted PM Date by via Verba	Yes No
8. SAMPLE CONDITION ample(s)	ontacted PM Date by via Verba oncerning	Yes No al Voice Mail Other Samples processed by:
8. SAMPLE CONDITION ample(s)	ontacted PM Date by via Verba oncerning	Yes No al Voice Mail Other Samples processed by:
B. SAMPLE CONDITION ample(s)	Was a VOA the blank present in the count(c). Image: Count of the blank present in the count(c). Was a LL Hg or Me Hg trip blank present?	Yes No al Voice Mail Other Samples processed by:
ample(s)	Was a VOA the blank present in the count(c). Image: Count of the blank present in the count(c). Was a LL Hg or Me Hg trip blank present?	Yes No al Voice Mail Other Samples processed by:
ample(s)	Was a LL Hg or Me Hg trip blank present? Dontacted PM Date by via Verba Doncerning V. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES	Yes No al Voice Mail Other Samples processed by:
<pre>mmple(s) were received with bubble >6 mm in diameter. (Notify PM) O. SAMPLE PRESERVATION ample(s) were further preserved in the laboratory. ime preserved:Preservative(s) added/Lot number(s):</pre>	Was a LL Hg or Me Hg trip blank present?	Yes Mo al Voice Mail Other
SAMPLE PRESERVATION maple(s) were further preserved in the laboratory. me preserved:Preservative(s) added/Lot number(s):	Was a LL Hg or Me Hg trip blank present? ontacted PM Date by via Verba oncerning	Yes Mo al Voice Mail Other
mple(s)were further preserved in the laboratory. me preserved:Preservative(s) added/Lot number(s):	Was a LL Hg or Me Hg trip blank present? ontacted PM Date by via Verba oncerning	Yes Mo al Voice Mail Other Samples processed by: MS holding time had expired. eived in a broken container.
me preserved: Preservative(s) added/Lot number(s):	Was a LL Hg or Me Hg trip blank present? ontacted PM Date by via Verba oncerning	Yes Mo al Voice Mail Other Samples processed by: MS holding time had expired. eived in a broken container.
ime preserved: Preservative(s) added/Lot number(s):	Was a VOA thp online present in the present (c) way in the p	Yes Mo al Voice Mail Other Samples processed by: MS holding time had expired. eived in a broken container.
	9. Was a VOR the product process in (c) and process (c) and pro	Yes Mo al Voice Mail Other Samples processed by: MS MS holding time had expired. eived in a broken container. mm in diameter. (Notify PM)
	9. Was a VOR the product produc	Yes Mo al Voice Mail Other Samples processed by: MS MS holding time had expired. eived in a broken container. mm in diameter. (Notify PM)

WI-NC-099 2/19/2020

Q

DATA VERIFICATION REPORT



February 19, 2020

Kris Hinskey Arcadis Inc 10559 Citation Ave Suite 100 Brighton, MI 48116

CADENA project ID: E203631 Project: Ford Livonia Transmission Project - OFF-SITE - Soil Gas and Groundwater Project number: 30042006.0402.02 off site Event Specific Scope of Work References: Sample COC Laboratory: TestAmerica - North Canton Laboratory submittal: 126006-1 Sample date: 2020-02-06 Report received by CADENA: 2020-02-19 Initial Data Verification completed by CADENA: 2020-02-19 Number of Samples:2 Sample Matrices:Water Test Categories:GCMS VOC Please see attached criteria report or sample result/qualified analytical result summary for qualifier flags assigned to sample data.

There were no significant QC anomalies or exceptions to report.

Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Data verification for the report specified above was completed using the Ford Motor Company Environmental Laboratory Technical Specification, the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

The definitions of the qualifiers used for this data package are defined in the analytical report. CADENA valid qualifiers are defined in the table below. To view and download a PDF copy of the laboratory analytical report access the CADENA CLMS at <u>http://clms.cadenaco.com/index.cfm</u>.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

CADENA Inc, 1099 Highland Drive, Suite E, Ann Arbor, MI 48108 517-819-0356

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
В	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
J-	The result is an estimated quantity, but the result may be biased low.
JB	NON-DETECT AT THE CONCENTRATION REPORTED AND ESTIMATED
JH	The sample result is considered estimated and is potentially biased high.
JL	The sample result is considered estimated and is potentially biased low.
JUB	NON-DETECT AT THE REPORTING LIMIT AND ESTIMATED
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
TNTC	Too Numerous to Count - Asbestos and Microbiological Results.
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

SAMPLING AND ANALYSIS SUMMARY

CADENA Project ID: E203631 Laboratory: TestAmerica-North Canton Laboratory Submittal: 126006-1

		Collection Date	Collection Time	Volatile Organics	8260B with Single	
Lab Sample ID	Sample ID	(mm/yy/dd)	(hh:mm:ss)	by GCMS	Ion Monitoring	Comment
2401260061	TRIP BLANK	2/6/2020	12:00:00	х		
2401260062	MW-147S_020620	2/6/2020	12:15:00	х	х	

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203631

Laboratory: TestAmerica - North Canton Laboratory Submittal: 126006-1

		Sample Name: Lab Sample ID: Sample Date:	TRIP BLA 2401260 2/6/202	0061			MW-147 2401260 2/6/202	0062	20	
	Auchste		Decult	Report	11	Valid	Desult	Report	11	Valid
	Analyte	Cas No.	Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier
GC/MS VOC										
<u>OSW-8260B</u>										
1	,1-Dichloroethene	75-35-4	ND	1.0	ug/l		ND	1.0	ug/l	
ci	is-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l		ND	1.0	ug/l	
T	etrachloroethene	127-18-4	ND	1.0	ug/l		ND	1.0	ug/l	
tr	rans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l		ND	1.0	ug/l	
Т	richloroethene	79-01-6	ND	1.0	ug/l		ND	1.0	ug/l	
V	'inyl chloride	75-01-4	ND	1.0	ug/l		ND	1.0	ug/l	
<u>OSW-8260BE</u>	<u>3Sim</u>									
1	,4-Dioxane	123-91-1					ND	2.0	ug/l	



Ford Motor Company – Livonia Transmission Project

DATA REVIEW

Livonia, Michigan

Volatile Organic Compounds (VOC) Analysis

SDG # 240-126006-1 CADENA Verification Report: 2020-02-19

Analyses Performed By: TestAmerica Edison, New Jersey

Report #36027R Review Level: Tier III Project: 30042006.0402.02

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) # 240-126006-1 for samples collected in association with the Ford – Livonia, Michigan site. The review was conducted as a Tier III validation in addition to a verification/Tier II validation review performed by CADENA Inc. and included review of level IV laboratory data package completeness. Only elements of a Tier III validation effort (Tier III) includes a detailed review of laboratory raw data to check for errors in calculation, calibration review, internal standard review and compound identification) and omitted deviations from the CADENA verification/Tier II report are documented in this report. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

SDG	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	VOC (Full Scan)	Analysis VOC (SIM)	MISC
	TRIP BLANK	240-126006-1	Water	2/6/2020		Х		
240-126006-1	MW-147S_020620	240-126006-2	Water	2/6/2020		Х	Х	

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

		Repo	Reported		mance ptable	– Not
Items	Reviewed	No	Yes	No	Yes	Required
1. Sample receipt condition			Х		Х	
2. Requested analyses and s	ample results		Х		Х	
3. Master tracking list			Х		Х	
4. Methods of analysis			Х		Х	
5. Reporting limits			Х		Х	
6. Sample collection date			Х		Х	
7. Laboratory sample receive	d date		Х		Х	
8. Sample preservation verifi	cation (as applicable)		Х		Х	
9. Sample preparation/extrac	tion/analysis dates		Х		Х	
10. Fully executed Chain-of-C	ustody (COC) form		Х		Х	
11. Narrative summary of Qua problems provided	lity Assurance or sample		х		Х	
12. Data Package Completene	ess and Compliance		Х		Х	

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8260B and 8260B SIM. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
 - U The analyte was analyzed for but was not detected above the level of the reported sample quantitation limit.
 - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
 - E The compound was quantitated above the calibration range.
 - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
 - J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
 - UJ The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
 - J+ The result is an estimated quantity, but the result may be biased high.
 - J- The result is an estimated quantity, but the result may be biased low.
 - UB Analyte considered non-detect at the listed value due to associated blank contamination.
 - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
 - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

arcadis.com

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260B/8260B-SIM	Water	14 days from collection to analysis	Cool to < 6 °C; pH < 2 with HCl

All samples were analyzed within the specified holding time criteria.

2. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

3. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

3.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (20%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

All compounds associated with the initial calibrations were within the specified control limits.

3.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

4. Internal Standard Performance

Internal standard performance criteria ensure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria require the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

DATA REVIEW

5. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

A field duplicate was not performed on a sample within this SDG.

6. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

No compounds were detected in the samples within this SDG.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: 8260B/8260B-SIM	Re	ported		Performance Acceptable	
	No	Yes	No	Yes	Required
GAS CHROMATOGRAPHY/MASS SPECTROMET	RY (GC/I	MS)			
Tier II Validation					
Holding times/Preservation		X		Х	
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		Х	
Continuing calibration RRFs		X		Х	
Continuing calibration %Ds		X		Х	
Instrument tune and performance check		X		Х	
Ion abundance criteria for each instrument used		X		Х	
Field Duplicate RPD		X		Х	
Internal standard		X		Х	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		Х	
B. Quantitation Reports		X		Х	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		Х		Х	
E. Reporting limits adjusted to reflect sample dilutions		Х		Х	

Notes:

%RSD Relative standard deviation

%R Percent recovery

RPD Relative percent difference

%D Percent difference

VALIDATION PERFORMED BY: Andrew Korycinski

SIGNATURE:

a Kaji

DATE: March 5, 2020

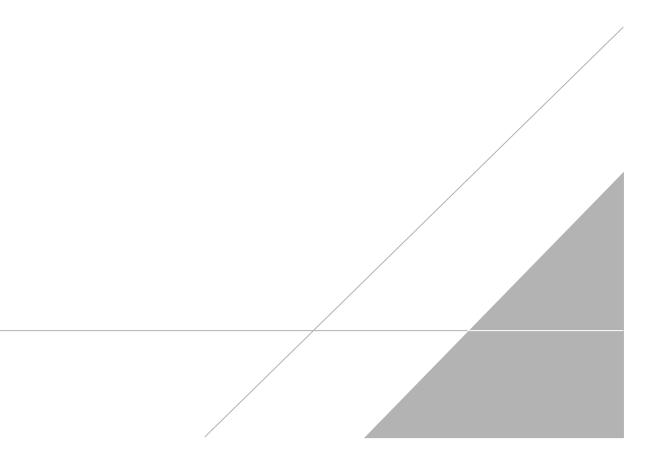
PEER REVIEW: Dennis Capria

DATE: March 9, 2020

CHAIN OF CUSTODY CORRECTED SAMPLE ANALYSIS DATA SHEETS



NO CORRECTIONS/QUALIFERS ADDED TO SAMPLE ANALYSIS DATA SHEETS



Clanic Canadri Regulary proprint Data Count Co	Ideal Regulatory program. DW Other Other 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		lestAmerica Laboratory locanon: Diigniun 10440 Cita	10440 Cilduot Ditve, Sulle 2007 Dilgillori, Mi 40110 7 010-223-2703	100	THAT I CALL IN THE INCOMENDATION OF A DATE OF THE A TOTAL OF THE A
0 Control (Control (Contro) (Contro) (Control (Contro) (Control (Control (Control (Con	0 Care Project Manager, Krie Haukey Aire Caranet: Julia Jan Constrat: Julia Jan Constrat: Julia Earlish Livitoffer, 186 volger, 1	Client Contact	L	NPDES RCRA	1001	
0 Пормания советствания Пормания совет	00 10	Company Name: Arcadis	Class Bashad Managers Cels Handans	Sta Contrate Julia MaClaGarte	I als Constants Millin DalMonipor	TestAmerica Laboratories, Inc.
Telefone: Telefone: <thtelefone:< th=""> <thtelefone:< th=""> <tht< th=""><th>Telephone: Telephone: <thtelephone:< th=""> Telephone: Telephon</thtelephone:<></th><th>Address: 28550 Cabot Drive, Suite 500</th><th>Circuit reoject manager: New Innskey</th><th>SHC CONTRELL JULIA VICCUATION</th><th>Lab A datact: Mine Delynonico</th><th></th></tht<></thtelefone:<></thtelefone:<>	Telephone: Telephone: <thtelephone:< th=""> Telephone: Telephon</thtelephone:<>	Address: 28550 Cabot Drive, Suite 500	Circuit reoject manager: New Innskey	SHC CONTRELL JULIA VICCUATION	Lab A datact: Mine Delynonico	
trained in the first structure in the structure	Tankit, trictoriffer, hinkly, Garcafit, com Anstructure alors Supper Vane: Supper Vane: Anstructure alors Supper Vane: Marking frammed (Sarred) Anstructure alors Nethod of Shipment Currier: 10 day 7 3 tests Nethod of Shipment Currier: 10 day 7 3 tests Nethod of Shipment Currier: 10 day 7 3 tests Nethod of Shipment Currier: 10 day 7 3 tests Nample Date Sample Track (Mr. A 11 tests Nample Date 20 tests 11 tests 11 tests Nample Date 20 tests 20 tests 11 tests 11 tests Nample Date 20 tests 20 tests 11 tests 11 tests 11 tests Nample Date 20 tests 20 tests 20 te	Conditional State Name	Telephone: 248-994-2240	Telephone: 734-644-5131	Telephone: 330-497-9396	
Number Name: Number Name:<	Sunplet Nume: Samplet Nume: Anne: At 7 different that before Include Sunplet Nume: O day 2 vecks Mithold of Shipment (Carrier: Mithold of Shipment (Carrier: 0 day 2 vecks Mithold of Shipment (Carrier: Mithold of Shipment (Carrier: 0 day 2 vecks Mithold of Shipment (Carrier: Mithold of Shipment (Carrier: 1 day 2 vecks Mithold of Shipment (Carrier: Mithold of Shipment (Carrier: N day 2 vecks Mithold of Shipment (Carrier: Mithold of Shipment (Carrier: N day 1 day Mithold of Shipment (Carrier: Mithold of Shipment (Carrier: N day N day Mithold of Shipment (Carrier: Mithold of Shipment (Carrier: N day N day Mithold of Shipment (Carrier: Mithold of Shipment (Carrier: N day N day Mithold of Shipment (Carrier: Mithold of Shipment (Carrier: N day N day Mithold of Shipment (Carrier: Mithold of Shipment (Carrier: N day N day Mithold of Shipment (Carrier: Mithold of Shipment (Carrier: N day N day Mithold of Shipment (Carrier: Mithold of Shipment (Carrier: N day N day Mithold of Shipment (Carrier: Mithold of Shipment (Carrier: N day N day <td>Chycomics Laps (2004), 211, 400 / (</td> <td>Email: kristoffer.hinskey@arcadis.com</td> <td>Analysis Turnaround Time</td> <td>Analyses</td> <td></td>	Chycomics Laps (2004), 211, 400 / (Email: kristoffer.hinskey@arcadis.com	Analysis Turnaround Time	Analyses	
Instruction ODA 2 1000 M 2 100 M 2 10	Andrew of Shipment Currier. O day 7 a vector Interiment Currier. Althous of Shipment Currier. 10, day 7 a vector Shipment Currier. Althous of Shipment Currier. 11, log 7 1, log Shipment Currier. Shipment Currier. 10, day 7 vector Shipment Currier. Shipment Currier. 10, day 7 vector Shipment Currier. Shipment Currier. 11, log 11, log Shipment Currier. Shipment Currier. Name 11, log Shipment Currier. Shipment Currier. Name Name Shipment Currier. Shipment Currier. <	Phone: 248-994-2240	Permit Name	Poor from		Walk-in client
Muthad rightment Currents. Control Conter Control Contr	Method of Shipment Carrier. I stays I stays Shipping Travisies Na. Shipping Travises Na I stays I stays Shipping Travises Na Shipping Travises Na Antria Compare Carrier Shipping Travises Na Shipping Travises Na Antria Compare Carrier Shipping Travises Na Shipping Travises Na Antria Compare Carrier Shipping Travises Na Shipping Travises Na Antria Compare Carrier Shipping Travises Na Shipping Travises Na Antria Compare Carrier Shipping Travises Na Shipping Travises Na Antria Compare Carrier Antria Shipping Travises Na Shipping Travises Na Compare Carrier Antria Shipping Travises Na Shipping Travises Na Compare Carrier Antria Shipping Travises Na Shipping Travises Na Compare Carrier Antria Shipping Travises Na Shipping Travises Na Shipping Travises Na Antria Shipping Travises Na Shipping Travises Na Shipping Travises Na Antria Contrantria Shipping Travises Trania <td>Project Name: Ford LTP Off-Site</td> <td></td> <td></td> <td></td> <td>a bismoline</td>	Project Name: Ford LTP Off-Site				a bismoline
Append Tracking Append Tra	Support Support Support Constrained Total The support Support Support Support Support Support Support Support	Project Number: 30042006.0402.02	Method of Shipment/Carrier:	T I week X	8	Sundance com
Мити Сонцент & Рессийски Валини и Пересийски Ва	Matrix Conniense & Precentives Matrix Conniense & Precentives Matrix Conniense & Precentives Matrix Matrix Matrix Matrix <t< td=""><td>PO#30042006.0402.02</td><td>Shipping/Tracking No:</td><td>\ Ccsp</td><td>85606 E 8260 5608</td><td>Job/SDG No:</td></t<>	PO#30042006.0402.02	Shipping/Tracking No:	\ Ccsp	85606 E 8260 5608	Job/SDG No:
P P <td>N N N N N N N N <t< td=""><td>Sample Identification</td><td>NiA suosupA insmitasi bilo2</td><td>Сопроліс=С Сопроліс=С Сопроліс=С Сопроліс=С Сопроліс=С Сопроліс=С Сопроліс=С Сопроліс=С Сопроліс=С Сопроліс=С</td><td>Vinyl Chloride Vinyl Chloride Vinyl Chloride</td><td>Sample Specific Notes / Special Instructions:</td></t<></td>	N N N N N N N N <t< td=""><td>Sample Identification</td><td>NiA suosupA insmitasi bilo2</td><td>Сопроліс=С Сопроліс=С Сопроліс=С Сопроліс=С Сопроліс=С Сопроліс=С Сопроліс=С Сопроліс=С Сопроліс=С Сопроліс=С</td><td>Vinyl Chloride Vinyl Chloride Vinyl Chloride</td><td>Sample Specific Notes / Special Instructions:</td></t<>	Sample Identification	NiA suosupA insmitasi bilo2	Сопроліс=С Сопроліс=С Сопроліс=С Сопроліс=С Сопроліс=С Сопроліс=С Сопроліс=С Сопроліс=С Сопроліс=С Сопроліс=С	Vinyl Chloride Vinyl Chloride Vinyl Chloride	Sample Specific Notes / Special Instructions:
5 X <td>A A<td>TRIP BLANK</td><td>k (</td><td>M +</td><td>イナキナ</td><td></td></td>	A A <td>TRIP BLANK</td> <td>k (</td> <td>M +</td> <td>イナキナ</td> <td></td>	TRIP BLANK	k (M +	イナキナ	
3 3 <td>Set 1 Set 1 Set 1 Set 1 Set 1 Lubarown Set 2 Set 1 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarom Set 2 Set 2 Set 2 Set 2 Lubarom Set 2 Set 2 Set 2 Set 2</td> <td></td> <td>1.01</td> <td>~</td> <td></td> <td>for 8260</td>	Set 1 Set 1 Set 1 Set 1 Set 1 Lubarown Set 2 Set 1 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarown Set 2 Set 2 Set 2 Set 2 Lubarom Set 2 Set 2 Set 2 Set 2 Lubarom Set 2 Set 2 Set 2 Set 2		1.01	~		for 8260
Image: Dispersion of Custody 240-128006 Chain of Custody 240-12800 Chain of Custody 240-12800 Chain of Custody 240-1280 Chain of Custody	240-126006 Chain of Custody 240-1260 240-126006 Chain of Custody 240-1260 240-149	0	2.61			618
Date Time Second Seco	Date Time: 15000 Chain of Custody 240-126006 Chain of Custody 240-12600 Chain of Custody 240-12600 Chain of Custody 240-12600 Chain of Custody 240-12600 Chain of Custody 240-1200 (1030 240-1200 (1030 240-120 (1040 240-120 (1040 240-120 (1040 240-120 (1040					
Define Define Received by: Company: Date Time: Date Time: Date Time: Date Time:	240-126006 Chain of Custody 240-12600 Chain of Custody 240-12600 Chain of Custody 240-1260 / Id 3:0 Received in Librigatory by: Date Time: 241-120 21-120					
240-126006 Chain of Custody 240-126006 Chain of Custody 240-12700 105 Client 240-1270 107 Client 240-1770 1200 Client	240-126006 Chain of Custody 240-126006 Chain of Custody 240-126006 Chain of Custody Date Time: Senter Bisposal (A fermy bracessed if samples are retained to a super time: Date Time:					
240-126006 Chain of Custody 240-126006 Chain of Custody 240-126006 Chain of Custody 240-12600 Custody 240-12600 240-12600 240-1260 240-12600 240-126 256-126 266-126 256-126 266-126 267-126 267-12 267-120 267-12 27712020 1030 Received in 1400 nor by: Company: 217120 1045 217120 1045 217120 1045	240-126006 Chain of Custody 240-126006 Chain of Custody 240-126006 Chain of Custody Sample Bisposal (A fee may be assessed if samples are retained to Cuhanown Sample Bisposal (A fee may be assessed if samples are retained to Cuhanown Date Time:					
Zeto-Lection Outstand Andread Unknown Sample Bispesal (A fee may be assessed if samples are retained longer than 1 month) Unknown Sample Bispesal (A fee may be assessed if samples are retained longer than 1 month) Sample Bispesal (A fee may be assessed if samples are retained longer than 1 month) Date/Time: Sample Bispesal (A fee may be assessed if samples are retained longer than 1 month) Date/Time: Sample Bispesal (A fee may be assessed if samples are retained longer than 1 month) Date/Time: Sample Bispesal (A fee may be assessed if samples are retained longer than 1 month) Date/Time: Sample Bispesal (A fee may be assessed if samples are retained longer than 1 month) Date/Time: Sample Bispesal (A fee may be assessed if samples are retained longer than 1 month) Date/Time: Date/Time: Date/Time: Received in 1 Aboratory by: Date/Time: Received in 1 Aboratory by: Date/Time: Date/Time:	Zeto-1.20000 Grant Of Construct Zeto-1.20000 Grant Of Construct Unknown Sample Disposal (A fee may be assessed if samples are retained to Sample Disposal By Lab Date Time: 15 U Received by: MOMBU Date Time: 15 U Date Time: 15 U Date Time: 15 U Date Time: 15 U Date Time: 10 3 0 Received in Likopatory by:					
Date/Time: Sample Disposal (A fee may be ascessed if samples are retained longer than 1 month) Culcinown Sample Disposal (A fee may be ascessed if samples are retained longer than 1 month) Date/Time: Sample Disposal (A fee may be ascessed if samples are retained longer than 1 month) Date/Time: If Section 1 for the may be ascessed if samples are retained longer than 1 month) Date/Time: Date/Time: Date/Time: Date/Time: Date/Time: Date/Time: Date/Time: Date/Time: Date/Time: Date/Time: Date/Time: Company: Date/Time: Date/Time:	Tunknown Sample Disposal (A fee may be accessed if samples are retained to a big a construction of the may be accessed if samples are retained to A construction of the may be accessed if samples are retained to A construction of the accessed if samples are retained to A construction of the accessed if samples are retained to A construction of the accessed if samples are retained to A construction of the accessed if samples are retained to A construction of the accessed if samples are retained to A construction of the accessed if samples are retained to A construction of the accessed if samples are retained to A construction of the accessed if samples are retained to A construction of the accessed if the accessed if samples are retained to A construction of the accessed if t					
Unknown Sample Béposul (A fee may be axcessed if samples arc retained tonger (han 1 month) Dane Time: Return to Chent: P Disposal By Lah Archive For Months Dane Time: 15 aC Received by: Company: Archive For Dane Time: Dane Time: 15 aC Received by: Color SPace Company: Arcuit Dane Time: Dane Time: 15 aC Received by: MUMBAU Company: Arcuit Dane Time: Dane Time: 2171/2020 / 1030 Received in Laboratory by: MUMBAU Company: Arcuit Dane Time: Dane Time: 2171/2020 / 1030 Received in Laboratory by: MUMBAU Company: Arcuit Dane Time:	Tunknown Sample Disposal (A fee may be assessed if samples are retained to Date Time: Sample Disposal (A fee may be assessed if samples are retained to Archive Date Time: 15 U Received by: Date Time: 15 U Received by: Date Time: 15 U Received by: Date Time: 15 U Received in Lapy atory by: Date Time: 1445 Received in Lapy atory by:					
Date Time ISU Received by: Out Conpany: Artuli Date Time: KCO 26.25 15.00 Received by: U Conpany: Artuli 2.6-3.5 KCO Date Time: 31713030 10730 Received in Lingatory by: MONBOU Company: Time: KCO Date Time: 31713030 10730 Received in Lingatory by: MONBOU Company: 2.740 Date Time: 114130 1445 Received in Lingatory by: MONBOU Company: Date Time:	Date Time: 15 UC Received by, UVI Carl Story, 267,200 //030 Received in LAD atom WWWWW 2171,200 //030 Received in LAD atom by, MMAW		Poison B	Sample Disposal (A fee may be assessed if sa Return to Chent & Disposal By La	ab Archive For Months	
Date Time: 15 with the sectived by: Received by: Company: Artwin: Date Time: Artwin: Date Time: Artwin: Bate Time: Artwin: Bate Time: Artwin: Bate Time: Artwin: Bate Time: Artwin: Artwin: <td>Date Time: 15 UC Received by: 26.72, 15.0C Received by: 21.77, 20.20/10.30 Received in Langatory by: Date Time: 21.77, 120 1445 Received in Langatory by:</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Date Time: 15 UC Received by: 26.72, 15.0C Received by: 21.77, 20.20/10.30 Received in Langatory by: Date Time: 21.77, 120 1445 Received in Langatory by:					
Bar Company: Tout and Star Company: Tout and Star Company: Arrived Star Star Company: Arrived Star Star Star Star Star Star Star Star	Protection of the Company: read Date Time 1500 Received by: NUN (and Storg Date Time) 1500 Received by: NUN (and Storg Date Time) 1712030 / 1030 Received by: NUN BUT BUT IN 1917 DD 1445 Received in LADY atoms by: NUN BUT IN 217 DD 1445 Received in LADY atoms by: NUN BUT IN 217 DD 1445	Submit all results through Cadena at Jtomalla@cad Level IV Reporting requested.	Jenaco.com. Cadena #E203631			
Min Willing company. Min Willing Company. Co	Min WWW Company: Acad is Date Time. Date Date Time. Date Time. Date Date Date Date Date Date Date Date	Relinquished by: Driver M.	4 pours	Received by:		
Den Marchan Company Company Date Time Date Time Received in Langatory by Marchan 2 Company 777 Date Time 2-8-20	Der Harren Lander in Abgarony by MIR Company. Der Harren Angeweichen Abgarony by MIR Company.	Relinquished by Millin William	Aradis 1	Received by MO	(na	Dute/Time 2/14/20 1030
	A PARTICIPACION DE LA COMPACIÓN DE	Relinquistred by: Property ()	1 1/1	Received in La	1 1 1	Date Time: 2-8-20 93
			1212		1 1 100 1	

2/19/2020

- 1

Client Sample ID: TRIP BLANK Date Collected: 02/06/20 00:00 Date Received: 02/08/20 09:35

Lab Sample ID: 240-126006-1

Matrix: Water

5 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			02/12/20 20:47	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			02/12/20 20:47	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			02/12/20 20:47	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			02/12/20 20:47	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			02/12/20 20:47	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			02/12/20 20:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		75 - 130			-		02/12/20 20:47	1
4-Bromofluorobenzene (Surr)	102		47 - 134					02/12/20 20:47	1
Toluene-d8 (Surr)	92		69 - 122					02/12/20 20:47	1
Dibromofluoromethane (Surr)	85		78 - 129					02/12/20 20:47	1

Eurofins TestAmerica, Canton

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

Client Sample ID: MW-147S_020620 Date Collected: 02/06/20 12:15 Date Received: 02/08/20 09:35

Lab	Samp	le	D:	24

Job ID: 240-126006-1

Matrix: Water

nalyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
,4-Dioxane	2.0	U	2.0	0.86	ug/L			02/12/20 21:27	1
urrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
,2-Dichloroethane-d4 (Surr)	98		70 - 133					02/12/20 21:27	1
Method: 8260B - Volatile O	rganic Compo	unds (GC/	MS)						
Analyte	-	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			02/13/20 20:16	1
is-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			02/13/20 20:16	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			02/13/20 20:16	1
rans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			02/13/20 20:16	1
Frichloroethene	1.0	U	1.0	0.10	ug/L			02/13/20 20:16	1
/inyl chloride	1.0	U	1.0	0.20	ug/L			02/13/20 20:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
,2-Dichloroethane-d4 (Surr)	97		75 - 130					02/13/20 20:16	1
-Bromofluorobenzene (Surr)	107		47 - 134					02/13/20 20:16	1
Toluene-d8 (Surr)	94		69 - 122					02/13/20 20:16	1
Dibromofluoromethane (Surr)	87		78 - 129					02/13/20 20:16	1