TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 240-87922-1
Client Project/Site: Ford LTP Livonia MI
Revision: 1

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

Attn: Kristoffer Hinskey

Denise Pohl

Authorized for release by:
12/18/2017 2:48:01 PM

Denise Pohl, Project Manager II
(330)966-9789
denise.pohl@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

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
F1	MS and/or MSD Recovery is outside acceptance limits.
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 240-87922-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Ford LTP Livonia MI

Report Number: 240-87922-1

Revised

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.

Revision 12/18/2017: Client provided incorrect list of compounds initially and report revised to provide a different list of compounds for volatile organic compounds (GCMS) 8260B.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. 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 TestAmerica and its client.

RECEIPT

The samples were received on 11/11/2017 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.0º C and 1.2º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MW-02_110917 (240-87922-1), MW-03_110917 (240-87922-2), MW-05_110917 (240-87922-3), MW-04_110917 (240-87922-4), MW-10_110917 (240-87922-5), MW-51_110917 (240-87922-6), TRIP BLANK (240-87922-7), MW-41_110917 (240-87922-8), MW-34_110917 (240-87922-9), MW-42_110917 (240-87922-10), MW-20_110917 (240-87922-11), MW-09_111017 (240-87922-12), MW-14_111017 (240-87922-13), MW-69_111017 (240-87922-14), MW-31_111017 (240-87922-15) and MW-52_111017 (240-87922-16) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 11/17/2017, 11/20/2017, 11/21/2017 and 11/22/2017.

Methylene Chloride was detected in method blank MB 240-304054/7 at a level that was above the method detection limit but below the

Job ID: 240-87922-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Carbon disulfide was detected in method blank MB 240-304322/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, Chloroethane and Vinyl chloride failed the recovery criteria high for LCS 240-304503/4. Diethyl ether failed the recovery criteria high for LCS 240-304729/4. Refer to the QC report for details.

Vinyl chloride failed the recovery criteria low for the MSD of sample 240-87918-35 in batch 240-304322. 2-Hexanone and Vinyl chloride exceeded the RPD limit. 1,2-Dibromo-3-Chloropropane and 1,4-Dioxane failed the recovery criteria low for the MS of sample MW-09_111017MS (240-87922-12) in batch 240-304729. Chloromethane and Diethyl ether failed the recovery criteria high. Chloromethane, Diethyl ether and Vinyl chloride failed the recovery criteria high for the MSD of sample MW-09_111017MSD (240-87922-12) in batch 240-304729. Several analytes exceeded the RPD limit. Isopropylbenzene failed the recovery criteria low for the MS of sample 240-88219-2 in batch 240-304503. Chloroethane, Dichlorodifluoromethane and Vinyl chloride failed the recovery criteria high. cis-1,3-Dichloropropene failed the recovery criteria low for the MSD of sample 240-88219-2 in batch 240-304503. Chloroethane, Dichlorodifluoromethane and Vinyl chloride failed the recovery criteria high. Refer to the QC report for details.

Samples MW-02_110917 (240-87922-1)[66.67X], MW-04_110917 (240-87922-4)[1000X] and MW-10_110917 (240-87922-5)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Method(s) 8260B: The MS/MSD for batch 304054 was not analyzed due to an instrument malfunction.
TRIP BLANK (240-87922-7)

Method(s) 8260B: The continuing calibration verification (CCV) associated with batch 304503 recovered above the upper control limit for Vinyl Chloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: MW-14_111017 (240-87922-13), MW-69_111017 (240-87922-14) and MW-31_111017 (240-87922-15).

Method(s) 8260B: The laboratory control sample (LCS) for 304503 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.MW-14_111017 (240-87922-13), MW-69_111017 (240-87922-14), MW-31_111017 (240-87922-15) and (LCS 240-304503/4)

Method(s) 8260B: The laboratory control sample (LCS) for 304729 recovered outside control limits for the following analytes: Ethyl Ether This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.MW-09_111017 (240-87922-12), MW-52_111017 (240-87922-16) and (LCS 240-304729/4)

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

VOLATILE ORGANIC COMPOUNDS (GCMS SIM)

Samples MW-02_110917 (240-87922-1), MW-03_110917 (240-87922-2), MW-05_110917 (240-87922-3), MW-04_110917 (240-87922-4), MW-10_110917 (240-87922-5), MW-51_110917 (240-87922-6), MW-41_110917 (240-87922-8), MW-34_110917 (240-87922-9), MW-42_110917 (240-87922-10), MW-20_110917 (240-87922-11), MW-09_111017 (240-87922-12), MW-14_111017 (240-87922-13), MW-69_111017 (240-87922-14), MW-31_111017 (240-87922-15) and MW-52_111017 (240-87922-16) were analyzed for volatile organic compounds (GCMS SIM) in accordance with EPA SW-846 Method 8260B SIM. The samples were analyzed on 11/17/2017, 11/20/2017 and 11/21/2017.

Sample MW-04_110917 (240-87922-4)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Method(s) 8260B SIM: The following sample was diluted due to the nature of the sample matrix: MW-04_110917 (240-87922-4). Elevated reporting limits (RLs) are provided.

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

Method Summary

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

TestAmerica Job ID: 240-87922-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8260B SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = 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 Livonia MI

TestAmerica Job ID: 240-87922-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-87922-1	MW-02_110917	Water	11/09/17 10:37	11/11/17 09:30
240-87922-2	MW-03_110917	Water	11/09/17 11:37	11/11/17 09:30
240-87922-3	MW-05_110917	Water	11/09/17 12:37	11/11/17 09:30
240-87922-4	MW-04_110917	Water	11/09/17 13:47	11/11/17 09:30
240-87922-5	MW-10_110917	Water	11/09/17 14:52	11/11/17 09:30
240-87922-6	MW-51_110917	Water	11/09/17 16:02	11/11/17 09:30
240-87922-7	TRIP BLANK	Water	11/09/17 00:00	11/11/17 09:30
240-87922-8	MW-41_110917	Water	11/09/17 14:50	11/11/17 09:30
240-87922-9	MW-34_110917	Water	11/09/17 15:55	11/11/17 09:30
240-87922-10	MW-42_110917	Water	11/09/17 16:50	11/11/17 09:30
240-87922-11	MW-20_110917	Water	11/10/17 09:02	11/11/17 09:30
240-87922-12	MW-09_111017	Water	11/10/17 11:22	11/11/17 09:30
240-87922-13	MW-14_111017	Water	11/10/17 10:12	11/11/17 09:30
240-87922-14	MW-69_111017	Water	11/10/17 09:10	11/11/17 09:30
240-87922-15	MW-31_111017	Water	11/10/17 10:15	11/11/17 09:30
240-87922-16	MW-52_111017	Water	11/10/17 12:15	11/11/17 09:30

Detection Summary

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: MW-02_110917 — Lab Sample ID: 240-87922-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	4.5		2.0	0.24	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	1000		67	20	ug/L	66.67		8260B	Total/NA
trans-1,2-Dichloroethene	260		67	19	ug/L	66.67		8260B	Total/NA
Vinyl chloride	140		67	30	ug/L	66.67		8260B	Total/NA

Client Sample ID: MW-03_110917 — Lab Sample ID: 240-87922-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.57	J	2.0	0.24	ug/L	1		8260B SIM	Total/NA

Client Sample ID: MW-05_110917 — Lab Sample ID: 240-87922-3

No Detections.

Client Sample ID: MW-04_110917 — Lab Sample ID: 240-87922-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	21000		1000	300	ug/L	1000		8260B	Total/NA
trans-1,2-Dichloroethene	850	J	1000	290	ug/L	1000		8260B	Total/NA
Trichloroethene	19000		1000	330	ug/L	1000		8260B	Total/NA
Vinyl chloride	470	J	1000	450	ug/L	1000		8260B	Total/NA

Client Sample ID: MW-10_110917 — Lab Sample ID: 240-87922-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	5.6		2.0	0.24	ug/L	1		8260B SIM	Total/NA
Vinyl chloride	2000		100	45	ug/L	100		8260B	Total/NA

Client Sample ID: MW-51_110917 — Lab Sample ID: 240-87922-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	1.1	J	2.0	0.24	ug/L	1		8260B SIM	Total/NA
1,1-Dichloroethane	0.70	J	1.0	0.25	ug/L	1		8260B	Total/NA
Vinyl chloride	0.47	J	1.0	0.45	ug/L	1		8260B	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 240-87922-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	8.0	J	10	1.8	ug/L	1		8260B	Total/NA

Client Sample ID: MW-41_110917 — Lab Sample ID: 240-87922-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	2.2		2.0	0.24	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	2.3		1.0	0.30	ug/L	1		8260B	Total/NA
Vinyl chloride	2.4		1.0	0.45	ug/L	1		8260B	Total/NA

Client Sample ID: MW-34_110917 — Lab Sample ID: 240-87922-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	6.6		2.0	0.24	ug/L	1		8260B SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: MW-34_110917 (Continued) — Lab Sample ID: 240-87922-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.35	J	1.0	0.30	ug/L	1		8260B	Total/NA
Vinyl chloride	2.0		1.0	0.45	ug/L	1		8260B	Total/NA

Client Sample ID: MW-42_110917 — Lab Sample ID: 240-87922-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	2.4		2.0	0.24	ug/L	1		8260B SIM	Total/NA
Vinyl chloride	1.0		1.0	0.45	ug/L	1		8260B	Total/NA

Client Sample ID: MW-20_110917 — Lab Sample ID: 240-87922-11

No Detections.

Client Sample ID: MW-09_111017 — Lab Sample ID: 240-87922-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	11		2.0	0.24	ug/L	1		8260B SIM	Total/NA
Vinyl chloride	7.1	F1	1.0	0.45	ug/L	1		8260B	Total/NA

Client Sample ID: MW-14_111017 — Lab Sample ID: 240-87922-13

No Detections.

Client Sample ID: MW-69_111017 — Lab Sample ID: 240-87922-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	35		2.0	0.24	ug/L	1		8260B SIM	Total/NA

Client Sample ID: MW-31_111017 — Lab Sample ID: 240-87922-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.84	J *	1.0	0.45	ug/L	1		8260B	Total/NA

Client Sample ID: MW-52_111017 — Lab Sample ID: 240-87922-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.68	J	2.0	0.24	ug/L	1		8260B SIM	Total/NA
Vinyl chloride	9.1		1.0	0.45	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-02_110917
Date Collected: 11/09/17 10:37
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**4.5**		2.0	0.24	ug/L			11/17/17 21:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*63 - 125*		*11/17/17 21:16*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	670	U	670	120	ug/L			11/20/17 18:10	66.67
Benzene	67	U	67	19	ug/L			11/20/17 18:10	66.67
Bromodichloromethane	67	U	67	20	ug/L			11/20/17 18:10	66.67
Bromoform	67	U	67	29	ug/L			11/20/17 18:10	66.67
Bromomethane	67	U	67	28	ug/L			11/20/17 18:10	66.67
2-Butanone (MEK)	670	U	670	68	ug/L			11/20/17 18:10	66.67
Carbon disulfide	330	U	330	23	ug/L			11/20/17 18:10	66.67
Carbon tetrachloride	67	U	67	23	ug/L			11/20/17 18:10	66.67
Chlorobenzene	67	U	67	21	ug/L			11/20/17 18:10	66.67
Chloroethane	67	U	67	27	ug/L			11/20/17 18:10	66.67
Chloroform	67	U	67	21	ug/L			11/20/17 18:10	66.67
Chloromethane	67	U	67	29	ug/L			11/20/17 18:10	66.67
cis-1,2-Dichloroethene	**1000**		67	20	ug/L			11/20/17 18:10	66.67
cis-1,3-Dichloropropene	67	U	67	17	ug/L			11/20/17 18:10	66.67
Cyclohexane	67	U	67	29	ug/L			11/20/17 18:10	66.67
Dibromochloromethane	67	U	67	17	ug/L			11/20/17 18:10	66.67
1,2-Dibromo-3-Chloropropane	67	U	67	31	ug/L			11/20/17 18:10	66.67
1,2-Dibromoethane	67	U	67	15	ug/L			11/20/17 18:10	66.67
1,2-Dichlorobenzene	67	U	67	17	ug/L			11/20/17 18:10	66.67
1,3-Dichlorobenzene	67	U	67	21	ug/L			11/20/17 18:10	66.67
1,4-Dichlorobenzene	67	U	67	15	ug/L			11/20/17 18:10	66.67
Dichlorodifluoromethane	67	U	67	33	ug/L			11/20/17 18:10	66.67
1,1-Dichloroethane	67	U	67	17	ug/L			11/20/17 18:10	66.67
1,2-Dichloroethane	67	U	67	20	ug/L			11/20/17 18:10	66.67
1,1-Dichloroethene	67	U	67	18	ug/L			11/20/17 18:10	66.67
1,2-Dichloropropane	67	U	67	20	ug/L			11/20/17 18:10	66.67
Diethyl ether	130	U	130	23	ug/L			11/20/17 18:10	66.67
Ethylbenzene	67	U	67	17	ug/L			11/20/17 18:10	66.67
2-Hexanone	670	U	670	82	ug/L			11/20/17 18:10	66.67
Isopropylbenzene	67	U	67	14	ug/L			11/20/17 18:10	66.67
Methyl acetate	670	U	670	95	ug/L			11/20/17 18:10	66.67
Methylcyclohexane	67	U	67	30	ug/L			11/20/17 18:10	66.67
Methylene Chloride	330	U	330	35	ug/L			11/20/17 18:10	66.67
4-Methyl-2-pentanone (MIBK)	670	U	670	47	ug/L			11/20/17 18:10	66.67
Methyl tert-butyl ether	67	U	67	18	ug/L			11/20/17 18:10	66.67
m-Xylene & p-Xylene	130	U	130	16	ug/L			11/20/17 18:10	66.67
o-Xylene	67	U	67	19	ug/L			11/20/17 18:10	66.67
Styrene	67	U	67	15	ug/L			11/20/17 18:10	66.67
1,1,2,2-Tetrachloroethane	67	U	67	21	ug/L			11/20/17 18:10	66.67
Tetrachloroethene	67	U	67	20	ug/L			11/20/17 18:10	66.67
Toluene	67	U	67	15	ug/L			11/20/17 18:10	66.67
trans-1,2-Dichloroethene	**260**		67	19	ug/L			11/20/17 18:10	66.67
trans-1,3-Dichloropropene	67	U	67	21	ug/L			11/20/17 18:10	66.67

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: MW-02_110917
Date Collected: 11/09/17 10:37
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	67	U	67	18	ug/L			11/20/17 18:10	66.67
1,1,1-Trichloroethane	67	U	67	15	ug/L			11/20/17 18:10	66.67
1,1,2-Trichloroethane	67	U	67	23	ug/L			11/20/17 18:10	66.67
Trichloroethene	67	U	67	22	ug/L			11/20/17 18:10	66.67
Trichlorofluoromethane	67	U	67	33	ug/L			11/20/17 18:10	66.67
1,1,2-Trichloro-1,2,2-trifluoroethane	67	U	67	27	ug/L			11/20/17 18:10	66.67
1,2,3-Trimethylbenzene	330	U	330	15	ug/L			11/20/17 18:10	66.67
1,2,4-Trimethylbenzene	67	U	67	16	ug/L			11/20/17 18:10	66.67
1,3,5-Trimethylbenzene	67	U	67	16	ug/L			11/20/17 18:10	66.67
Vinyl chloride	**140**		67	30	ug/L			11/20/17 18:10	66.67
Xylenes, Total	130	U	130	16	ug/L			11/20/17 18:10	66.67

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*69 - 120*		*11/20/17 18:10*	*66.67*
Dibromofluoromethane (Surr)	*87*		*69 - 124*		*11/20/17 18:10*	*66.67*
1,2-Dichloroethane-d4 (Surr)	*91*		*61 - 138*		*11/20/17 18:10*	*66.67*
Toluene-d8 (Surr)	*98*		*73 - 120*		*11/20/17 18:10*	*66.67*

Client Sample ID: MW-03_110917
Date Collected: 11/09/17 11:37
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.57	J	2.0	0.24	ug/L			11/17/17 21:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*81*		*63 - 125*		*11/17/17 21:41*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/20/17 18:31	1
Benzene	1.0	U	1.0	0.28	ug/L			11/20/17 18:31	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/20/17 18:31	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/20/17 18:31	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/20/17 18:31	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/20/17 18:31	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/20/17 18:31	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/20/17 18:31	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/20/17 18:31	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/20/17 18:31	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/20/17 18:31	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/20/17 18:31	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/20/17 18:31	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/20/17 18:31	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/20/17 18:31	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/20/17 18:31	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/20/17 18:31	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/20/17 18:31	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/20/17 18:31	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/20/17 18:31	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/20/17 18:31	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/20/17 18:31	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/20/17 18:31	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/20/17 18:31	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/20/17 18:31	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/20/17 18:31	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			11/20/17 18:31	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/20/17 18:31	1
2-Hexanone	10	U	10	1.2	ug/L			11/20/17 18:31	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/20/17 18:31	1
Methyl acetate	10	U	10	1.4	ug/L			11/20/17 18:31	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/20/17 18:31	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/20/17 18:31	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/20/17 18:31	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/20/17 18:31	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/20/17 18:31	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/20/17 18:31	1
Styrene	1.0	U	1.0	0.23	ug/L			11/20/17 18:31	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/20/17 18:31	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/20/17 18:31	1
Toluene	1.0	U	1.0	0.23	ug/L			11/20/17 18:31	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/20/17 18:31	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/20/17 18:31	1

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: MW-03_110917
Date Collected: 11/09/17 11:37
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/20/17 18:31	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/20/17 18:31	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/20/17 18:31	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/20/17 18:31	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/20/17 18:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/20/17 18:31	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/20/17 18:31	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/20/17 18:31	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/20/17 18:31	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/20/17 18:31	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/20/17 18:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*69 - 120*		*11/20/17 18:31*	*1*
Dibromofluoromethane (Surr)	*90*		*69 - 124*		*11/20/17 18:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*61 - 138*		*11/20/17 18:31*	*1*
Toluene-d8 (Surr)	*97*		*73 - 120*		*11/20/17 18:31*	*1*

Client Sample ID: MW-05_110917
Date Collected: 11/09/17 12:37
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-3
Matrix: Water

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	0.24	ug/L			11/17/17 22:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*63 - 125*		*11/17/17 22:05*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/20/17 18:54	1
Benzene	1.0	U	1.0	0.28	ug/L			11/20/17 18:54	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/20/17 18:54	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/20/17 18:54	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/20/17 18:54	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/20/17 18:54	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/20/17 18:54	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/20/17 18:54	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/20/17 18:54	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/20/17 18:54	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/20/17 18:54	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/20/17 18:54	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/20/17 18:54	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/20/17 18:54	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/20/17 18:54	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/20/17 18:54	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/20/17 18:54	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/20/17 18:54	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/20/17 18:54	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/20/17 18:54	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/20/17 18:54	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/20/17 18:54	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/20/17 18:54	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/20/17 18:54	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/20/17 18:54	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/20/17 18:54	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			11/20/17 18:54	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/20/17 18:54	1
2-Hexanone	10	U	10	1.2	ug/L			11/20/17 18:54	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/20/17 18:54	1
Methyl acetate	10	U	10	1.4	ug/L			11/20/17 18:54	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/20/17 18:54	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/20/17 18:54	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/20/17 18:54	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/20/17 18:54	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/20/17 18:54	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/20/17 18:54	1
Styrene	1.0	U	1.0	0.23	ug/L			11/20/17 18:54	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/20/17 18:54	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/20/17 18:54	1
Toluene	1.0	U	1.0	0.23	ug/L			11/20/17 18:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/20/17 18:54	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/20/17 18:54	1

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: MW-05_110917
Date Collected: 11/09/17 12:37
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/20/17 18:54	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/20/17 18:54	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/20/17 18:54	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/20/17 18:54	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/20/17 18:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/20/17 18:54	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/20/17 18:54	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/20/17 18:54	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/20/17 18:54	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/20/17 18:54	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/20/17 18:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*69 - 120*		*11/20/17 18:54*	*1*
Dibromofluoromethane (Surr)	*89*		*69 - 124*		*11/20/17 18:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*61 - 138*		*11/20/17 18:54*	*1*
Toluene-d8 (Surr)	*96*		*73 - 120*		*11/20/17 18:54*	*1*

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: MW-04_110917
Date Collected: 11/09/17 13:47
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	20	U	20	2.4	ug/L			11/20/17 12:01	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*70*		*63 - 125*		*11/20/17 12:01*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10000	U	10000	1800	ug/L			11/20/17 19:16	1000
Benzene	1000	U	1000	280	ug/L			11/20/17 19:16	1000
Bromodichloromethane	1000	U	1000	300	ug/L			11/20/17 19:16	1000
Bromoform	1000	U	1000	430	ug/L			11/20/17 19:16	1000
Bromomethane	1000	U	1000	420	ug/L			11/20/17 19:16	1000
2-Butanone (MEK)	10000	U	10000	1000	ug/L			11/20/17 19:16	1000
Carbon disulfide	5000	U	5000	340	ug/L			11/20/17 19:16	1000
Carbon tetrachloride	1000	U	1000	350	ug/L			11/20/17 19:16	1000
Chlorobenzene	1000	U	1000	320	ug/L			11/20/17 19:16	1000
Chloroethane	1000	U	1000	410	ug/L			11/20/17 19:16	1000
Chloroform	1000	U	1000	310	ug/L			11/20/17 19:16	1000
Chloromethane	1000	U	1000	430	ug/L			11/20/17 19:16	1000
cis-1,2-Dichloroethene	**21000**		1000	300	ug/L			11/20/17 19:16	1000
cis-1,3-Dichloropropene	1000	U	1000	260	ug/L			11/20/17 19:16	1000
Cyclohexane	1000	U	1000	440	ug/L			11/20/17 19:16	1000
Dibromochloromethane	1000	U	1000	250	ug/L			11/20/17 19:16	1000
1,2-Dibromo-3-Chloropropane	1000	U	1000	470	ug/L			11/20/17 19:16	1000
1,2-Dibromoethane	1000	U	1000	230	ug/L			11/20/17 19:16	1000
1,2-Dichlorobenzene	1000	U	1000	260	ug/L			11/20/17 19:16	1000
1,3-Dichlorobenzene	1000	U	1000	320	ug/L			11/20/17 19:16	1000
1,4-Dichlorobenzene	1000	U	1000	230	ug/L			11/20/17 19:16	1000
Dichlorodifluoromethane	1000	U	1000	500	ug/L			11/20/17 19:16	1000
1,1-Dichloroethane	1000	U	1000	250	ug/L			11/20/17 19:16	1000
1,2-Dichloroethane	1000	U	1000	300	ug/L			11/20/17 19:16	1000
1,1-Dichloroethene	1000	U	1000	270	ug/L			11/20/17 19:16	1000
1,2-Dichloropropane	1000	U	1000	300	ug/L			11/20/17 19:16	1000
Diethyl ether	2000	U	2000	350	ug/L			11/20/17 19:16	1000
Ethylbenzene	1000	U	1000	260	ug/L			11/20/17 19:16	1000
2-Hexanone	10000	U	10000	1200	ug/L			11/20/17 19:16	1000
Isopropylbenzene	1000	U	1000	210	ug/L			11/20/17 19:16	1000
Methyl acetate	10000	U	10000	1400	ug/L			11/20/17 19:16	1000
Methylcyclohexane	1000	U	1000	450	ug/L			11/20/17 19:16	1000
Methylene Chloride	5000	U	5000	530	ug/L			11/20/17 19:16	1000
4-Methyl-2-pentanone (MIBK)	10000	U	10000	710	ug/L			11/20/17 19:16	1000
Methyl tert-butyl ether	1000	U	1000	270	ug/L			11/20/17 19:16	1000
m-Xylene & p-Xylene	2000	U	2000	240	ug/L			11/20/17 19:16	1000
o-Xylene	1000	U	1000	280	ug/L			11/20/17 19:16	1000
Styrene	1000	U	1000	230	ug/L			11/20/17 19:16	1000
1,1,2,2-Tetrachloroethane	1000	U	1000	320	ug/L			11/20/17 19:16	1000
Tetrachloroethene	1000	U	1000	300	ug/L			11/20/17 19:16	1000
Toluene	1000	U	1000	230	ug/L			11/20/17 19:16	1000
trans-1,2-Dichloroethene	**850**	**J**	1000	290	ug/L			11/20/17 19:16	1000
trans-1,3-Dichloropropene	1000	U	1000	310	ug/L			11/20/17 19:16	1000

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: MW-04_110917
Date Collected: 11/09/17 13:47
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1000	U	1000	270	ug/L			11/20/17 19:16	1000
1,1,1-Trichloroethane	1000	U	1000	230	ug/L			11/20/17 19:16	1000
1,1,2-Trichloroethane	1000	U	1000	340	ug/L			11/20/17 19:16	1000
Trichloroethene	**19000**		1000	330	ug/L			11/20/17 19:16	1000
Trichlorofluoromethane	1000	U	1000	500	ug/L			11/20/17 19:16	1000
1,1,2-Trichloro-1,2,2-trifluoroethane	1000	U	1000	410	ug/L			11/20/17 19:16	1000
1,2,3-Trimethylbenzene	5000	U	5000	220	ug/L			11/20/17 19:16	1000
1,2,4-Trimethylbenzene	1000	U	1000	240	ug/L			11/20/17 19:16	1000
1,3,5-Trimethylbenzene	1000	U	1000	240	ug/L			11/20/17 19:16	1000
Vinyl chloride	**470**	**J**	1000	450	ug/L			11/20/17 19:16	1000
Xylenes, Total	2000	U	2000	240	ug/L			11/20/17 19:16	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*69 - 120*		*11/20/17 19:16*	*1000*
Dibromofluoromethane (Surr)	*91*		*69 - 124*		*11/20/17 19:16*	*1000*
1,2-Dichloroethane-d4 (Surr)	*93*		*61 - 138*		*11/20/17 19:16*	*1000*
Toluene-d8 (Surr)	*93*		*73 - 120*		*11/20/17 19:16*	*1000*

Client Sample ID: MW-10_110917
Date Collected: 11/09/17 14:52
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	5.6		2.0	0.24	ug/L			11/17/17 22:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*78*		*63 - 125*		*11/17/17 22:55*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	1000	U	1000	180	ug/L			11/20/17 19:38	100
Benzene	100	U	100	28	ug/L			11/20/17 19:38	100
Bromodichloromethane	100	U	100	30	ug/L			11/20/17 19:38	100
Bromoform	100	U	100	43	ug/L			11/20/17 19:38	100
Bromomethane	100	U	100	42	ug/L			11/20/17 19:38	100
2-Butanone (MEK)	1000	U	1000	100	ug/L			11/20/17 19:38	100
Carbon disulfide	500	U	500	34	ug/L			11/20/17 19:38	100
Carbon tetrachloride	100	U	100	35	ug/L			11/20/17 19:38	100
Chlorobenzene	100	U	100	32	ug/L			11/20/17 19:38	100
Chloroethane	100	U	100	41	ug/L			11/20/17 19:38	100
Chloroform	100	U	100	31	ug/L			11/20/17 19:38	100
Chloromethane	100	U	100	43	ug/L			11/20/17 19:38	100
cis-1,2-Dichloroethene	100	U	100	30	ug/L			11/20/17 19:38	100
cis-1,3-Dichloropropene	100	U	100	26	ug/L			11/20/17 19:38	100
Cyclohexane	100	U	100	44	ug/L			11/20/17 19:38	100
Dibromochloromethane	100	U	100	25	ug/L			11/20/17 19:38	100
1,2-Dibromo-3-Chloropropane	100	U	100	47	ug/L			11/20/17 19:38	100
1,2-Dibromoethane	100	U	100	23	ug/L			11/20/17 19:38	100
1,2-Dichlorobenzene	100	U	100	26	ug/L			11/20/17 19:38	100
1,3-Dichlorobenzene	100	U	100	32	ug/L			11/20/17 19:38	100
1,4-Dichlorobenzene	100	U	100	23	ug/L			11/20/17 19:38	100
Dichlorodifluoromethane	100	U	100	50	ug/L			11/20/17 19:38	100
1,1-Dichloroethane	100	U	100	25	ug/L			11/20/17 19:38	100
1,2-Dichloroethane	100	U	100	30	ug/L			11/20/17 19:38	100
1,1-Dichloroethene	100	U	100	27	ug/L			11/20/17 19:38	100
1,2-Dichloropropane	100	U	100	30	ug/L			11/20/17 19:38	100
Diethyl ether	200	U	200	35	ug/L			11/20/17 19:38	100
Ethylbenzene	100	U	100	26	ug/L			11/20/17 19:38	100
2-Hexanone	1000	U	1000	120	ug/L			11/20/17 19:38	100
Isopropylbenzene	100	U	100	21	ug/L			11/20/17 19:38	100
Methyl acetate	1000	U	1000	140	ug/L			11/20/17 19:38	100
Methylcyclohexane	100	U	100	45	ug/L			11/20/17 19:38	100
Methylene Chloride	500	U	500	53	ug/L			11/20/17 19:38	100
4-Methyl-2-pentanone (MIBK)	1000	U	1000	71	ug/L			11/20/17 19:38	100
Methyl tert-butyl ether	100	U	100	27	ug/L			11/20/17 19:38	100
m-Xylene & p-Xylene	200	U	200	24	ug/L			11/20/17 19:38	100
o-Xylene	100	U	100	28	ug/L			11/20/17 19:38	100
Styrene	100	U	100	23	ug/L			11/20/17 19:38	100
1,1,2,2-Tetrachloroethane	100	U	100	32	ug/L			11/20/17 19:38	100
Tetrachloroethene	100	U	100	30	ug/L			11/20/17 19:38	100
Toluene	100	U	100	23	ug/L			11/20/17 19:38	100
trans-1,2-Dichloroethene	100	U	100	29	ug/L			11/20/17 19:38	100
trans-1,3-Dichloropropene	100	U	100	31	ug/L			11/20/17 19:38	100

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: MW-10_110917
Date Collected: 11/09/17 14:52
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	100	U	100	27	ug/L			11/20/17 19:38	100
1,1,1-Trichloroethane	100	U	100	23	ug/L			11/20/17 19:38	100
1,1,2-Trichloroethane	100	U	100	34	ug/L			11/20/17 19:38	100
Trichloroethene	100	U	100	33	ug/L			11/20/17 19:38	100
Trichlorofluoromethane	100	U	100	50	ug/L			11/20/17 19:38	100
1,1,2-Trichloro-1,2,2-trifluoroethane	100	U	100	41	ug/L			11/20/17 19:38	100
1,2,3-Trimethylbenzene	500	U	500	22	ug/L			11/20/17 19:38	100
1,2,4-Trimethylbenzene	100	U	100	24	ug/L			11/20/17 19:38	100
1,3,5-Trimethylbenzene	100	U	100	24	ug/L			11/20/17 19:38	100
Vinyl chloride	**2000**		100	45	ug/L			11/20/17 19:38	100
Xylenes, Total	200	U	200	24	ug/L			11/20/17 19:38	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*69 - 120*		*11/20/17 19:38*	*100*
Dibromofluoromethane (Surr)	*104*		*69 - 124*		*11/20/17 19:38*	*100*
1,2-Dichloroethane-d4 (Surr)	*106*		*61 - 138*		*11/20/17 19:38*	*100*
Toluene-d8 (Surr)	*95*		*73 - 120*		*11/20/17 19:38*	*100*

Client Sample ID: MW-51_110917
Date Collected: 11/09/17 16:02
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.1	J	2.0	0.24	ug/L			11/20/17 12:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*72*		*63 - 125*		*11/20/17 12:25*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/20/17 20:00	1
Benzene	1.0	U	1.0	0.28	ug/L			11/20/17 20:00	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/20/17 20:00	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/20/17 20:00	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/20/17 20:00	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/20/17 20:00	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/20/17 20:00	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/20/17 20:00	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/20/17 20:00	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/20/17 20:00	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/20/17 20:00	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/20/17 20:00	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/20/17 20:00	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/20/17 20:00	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/20/17 20:00	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/20/17 20:00	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/20/17 20:00	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/20/17 20:00	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/20/17 20:00	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/20/17 20:00	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/20/17 20:00	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/20/17 20:00	1
1,1-Dichloroethane	0.70	J	1.0	0.25	ug/L			11/20/17 20:00	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/20/17 20:00	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/20/17 20:00	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/20/17 20:00	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			11/20/17 20:00	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/20/17 20:00	1
2-Hexanone	10	U	10	1.2	ug/L			11/20/17 20:00	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/20/17 20:00	1
Methyl acetate	10	U	10	1.4	ug/L			11/20/17 20:00	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/20/17 20:00	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/20/17 20:00	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/20/17 20:00	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/20/17 20:00	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/20/17 20:00	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/20/17 20:00	1
Styrene	1.0	U	1.0	0.23	ug/L			11/20/17 20:00	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/20/17 20:00	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/20/17 20:00	1
Toluene	1.0	U	1.0	0.23	ug/L			11/20/17 20:00	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/20/17 20:00	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/20/17 20:00	1

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: MW-51_110917
Date Collected: 11/09/17 16:02
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/20/17 20:00	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/20/17 20:00	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/20/17 20:00	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/20/17 20:00	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/20/17 20:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/20/17 20:00	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/20/17 20:00	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/20/17 20:00	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/20/17 20:00	1
Vinyl chloride	**0.47**	**J**	1.0	0.45	ug/L			11/20/17 20:00	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/20/17 20:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*69 - 120*		*11/20/17 20:00*	*1*
Dibromofluoromethane (Surr)	*88*		*69 - 124*		*11/20/17 20:00*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*61 - 138*		*11/20/17 20:00*	*1*
Toluene-d8 (Surr)	*98*		*73 - 120*		*11/20/17 20:00*	*1*

Client Sample ID: TRIP BLANK
Date Collected: 11/09/17 00:00
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	8.0	J	10	1.8	ug/L			11/17/17 22:47	1
Benzene	1.0	U	1.0	0.28	ug/L			11/17/17 22:47	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/17/17 22:47	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/17/17 22:47	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/17/17 22:47	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/17/17 22:47	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/17/17 22:47	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/17/17 22:47	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/17/17 22:47	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/17/17 22:47	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/17/17 22:47	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/17/17 22:47	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/17/17 22:47	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/17/17 22:47	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/17/17 22:47	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/17/17 22:47	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/17/17 22:47	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/17/17 22:47	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/17/17 22:47	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/17/17 22:47	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/17/17 22:47	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/17/17 22:47	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/17/17 22:47	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/17/17 22:47	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/17/17 22:47	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/17/17 22:47	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			11/17/17 22:47	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/17/17 22:47	1
2-Hexanone	10	U	10	1.2	ug/L			11/17/17 22:47	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/17/17 22:47	1
Methyl acetate	10	U	10	1.4	ug/L			11/17/17 22:47	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/17/17 22:47	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/17/17 22:47	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/17/17 22:47	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/17/17 22:47	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/17/17 22:47	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/17/17 22:47	1
Styrene	1.0	U	1.0	0.23	ug/L			11/17/17 22:47	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/17/17 22:47	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/17/17 22:47	1
Toluene	1.0	U	1.0	0.23	ug/L			11/17/17 22:47	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/17/17 22:47	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/17/17 22:47	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/17/17 22:47	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/17/17 22:47	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/17/17 22:47	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/17/17 22:47	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/17/17 22:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/17/17 22:47	1

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: TRIP BLANK
Date Collected: 11/09/17 00:00
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/17/17 22:47	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/17/17 22:47	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/17/17 22:47	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/17/17 22:47	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/17/17 22:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*69 - 120*		*11/17/17 22:47*	*1*
Dibromofluoromethane (Surr)	*89*		*69 - 124*		*11/17/17 22:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*61 - 138*		*11/17/17 22:47*	*1*
Toluene-d8 (Surr)	*92*		*73 - 120*		*11/17/17 22:47*	*1*

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: MW-41_110917
Date Collected: 11/09/17 14:50
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.2		2.0	0.24	ug/L			11/20/17 12:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*74*		*63 - 125*		*11/20/17 12:50*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/20/17 20:22	1
Benzene	1.0	U	1.0	0.28	ug/L			11/20/17 20:22	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/20/17 20:22	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/20/17 20:22	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/20/17 20:22	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/20/17 20:22	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/20/17 20:22	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/20/17 20:22	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/20/17 20:22	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/20/17 20:22	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/20/17 20:22	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/20/17 20:22	1
cis-1,2-Dichloroethene	2.3		1.0	0.30	ug/L			11/20/17 20:22	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/20/17 20:22	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/20/17 20:22	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/20/17 20:22	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/20/17 20:22	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/20/17 20:22	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/20/17 20:22	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/20/17 20:22	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/20/17 20:22	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/20/17 20:22	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/20/17 20:22	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/20/17 20:22	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/20/17 20:22	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/20/17 20:22	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			11/20/17 20:22	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/20/17 20:22	1
2-Hexanone	10	U	10	1.2	ug/L			11/20/17 20:22	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/20/17 20:22	1
Methyl acetate	10	U	10	1.4	ug/L			11/20/17 20:22	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/20/17 20:22	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/20/17 20:22	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/20/17 20:22	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/20/17 20:22	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/20/17 20:22	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/20/17 20:22	1
Styrene	1.0	U	1.0	0.23	ug/L			11/20/17 20:22	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/20/17 20:22	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/20/17 20:22	1
Toluene	1.0	U	1.0	0.23	ug/L			11/20/17 20:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/20/17 20:22	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/20/17 20:22	1

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: MW-41_110917
Date Collected: 11/09/17 14:50
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/20/17 20:22	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/20/17 20:22	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/20/17 20:22	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/20/17 20:22	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/20/17 20:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/20/17 20:22	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/20/17 20:22	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/20/17 20:22	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/20/17 20:22	1
Vinyl chloride	**2.4**		1.0	0.45	ug/L			11/20/17 20:22	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/20/17 20:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*69 - 120*		*11/20/17 20:22*	*1*
Dibromofluoromethane (Surr)	*90*		*69 - 124*		*11/20/17 20:22*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*61 - 138*		*11/20/17 20:22*	*1*
Toluene-d8 (Surr)	*97*		*73 - 120*		*11/20/17 20:22*	*1*

Client Sample ID: MW-34_110917
Date Collected: 11/09/17 15:55
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**6.6**		2.0	0.24	ug/L			11/20/17 13:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*72*		*63 - 125*		*11/20/17 13:15*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/20/17 20:45	1
Benzene	1.0	U	1.0	0.28	ug/L			11/20/17 20:45	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/20/17 20:45	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/20/17 20:45	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/20/17 20:45	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/20/17 20:45	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/20/17 20:45	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/20/17 20:45	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/20/17 20:45	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/20/17 20:45	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/20/17 20:45	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/20/17 20:45	1
cis-1,2-Dichloroethene	**0.35**	**J**	1.0	0.30	ug/L			11/20/17 20:45	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/20/17 20:45	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/20/17 20:45	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/20/17 20:45	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/20/17 20:45	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/20/17 20:45	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/20/17 20:45	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/20/17 20:45	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/20/17 20:45	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/20/17 20:45	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/20/17 20:45	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/20/17 20:45	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/20/17 20:45	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/20/17 20:45	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			11/20/17 20:45	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/20/17 20:45	1
2-Hexanone	10	U	10	1.2	ug/L			11/20/17 20:45	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/20/17 20:45	1
Methyl acetate	10	U	10	1.4	ug/L			11/20/17 20:45	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/20/17 20:45	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/20/17 20:45	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/20/17 20:45	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/20/17 20:45	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/20/17 20:45	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/20/17 20:45	1
Styrene	1.0	U	1.0	0.23	ug/L			11/20/17 20:45	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/20/17 20:45	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/20/17 20:45	1
Toluene	1.0	U	1.0	0.23	ug/L			11/20/17 20:45	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/20/17 20:45	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/20/17 20:45	1

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: MW-34_110917
Date Collected: 11/09/17 15:55
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/20/17 20:45	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/20/17 20:45	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/20/17 20:45	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/20/17 20:45	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/20/17 20:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/20/17 20:45	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/20/17 20:45	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/20/17 20:45	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/20/17 20:45	1
Vinyl chloride	**2.0**		1.0	0.45	ug/L			11/20/17 20:45	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/20/17 20:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*69 - 120*		*11/20/17 20:45*	*1*
Dibromofluoromethane (Surr)	*92*		*69 - 124*		*11/20/17 20:45*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*61 - 138*		*11/20/17 20:45*	*1*
Toluene-d8 (Surr)	*94*		*73 - 120*		*11/20/17 20:45*	*1*

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: MW-42_110917
Date Collected: 11/09/17 16:50
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.4		2.0	0.24	ug/L			11/20/17 13:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*71*		*63 - 125*		*11/20/17 13:40*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/20/17 21:07	1
Benzene	1.0	U	1.0	0.28	ug/L			11/20/17 21:07	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/20/17 21:07	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/20/17 21:07	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/20/17 21:07	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/20/17 21:07	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/20/17 21:07	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/20/17 21:07	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/20/17 21:07	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/20/17 21:07	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/20/17 21:07	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/20/17 21:07	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/20/17 21:07	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/20/17 21:07	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/20/17 21:07	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/20/17 21:07	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/20/17 21:07	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/20/17 21:07	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/20/17 21:07	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/20/17 21:07	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/20/17 21:07	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/20/17 21:07	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/20/17 21:07	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/20/17 21:07	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/20/17 21:07	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/20/17 21:07	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			11/20/17 21:07	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/20/17 21:07	1
2-Hexanone	10	U	10	1.2	ug/L			11/20/17 21:07	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/20/17 21:07	1
Methyl acetate	10	U	10	1.4	ug/L			11/20/17 21:07	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/20/17 21:07	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/20/17 21:07	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/20/17 21:07	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/20/17 21:07	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/20/17 21:07	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/20/17 21:07	1
Styrene	1.0	U	1.0	0.23	ug/L			11/20/17 21:07	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/20/17 21:07	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/20/17 21:07	1
Toluene	1.0	U	1.0	0.23	ug/L			11/20/17 21:07	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/20/17 21:07	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/20/17 21:07	1

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: MW-42_110917
Date Collected: 11/09/17 16:50
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/20/17 21:07	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/20/17 21:07	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/20/17 21:07	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/20/17 21:07	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/20/17 21:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/20/17 21:07	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/20/17 21:07	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/20/17 21:07	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/20/17 21:07	1
Vinyl chloride	**1.0**		1.0	0.45	ug/L			11/20/17 21:07	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/20/17 21:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*69 - 120*		*11/20/17 21:07*	*1*
Dibromofluoromethane (Surr)	*93*		*69 - 124*		*11/20/17 21:07*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*61 - 138*		*11/20/17 21:07*	*1*
Toluene-d8 (Surr)	*95*		*73 - 120*		*11/20/17 21:07*	*1*

Client Sample ID: MW-20_110917
Date Collected: 11/10/17 09:02
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-11
Matrix: Water

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	0.24	ug/L			11/20/17 14:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*74*		*63 - 125*		*11/20/17 14:55*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/20/17 21:28	1
Benzene	1.0	U	1.0	0.28	ug/L			11/20/17 21:28	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/20/17 21:28	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/20/17 21:28	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/20/17 21:28	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/20/17 21:28	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/20/17 21:28	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/20/17 21:28	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/20/17 21:28	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/20/17 21:28	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/20/17 21:28	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/20/17 21:28	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/20/17 21:28	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/20/17 21:28	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/20/17 21:28	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/20/17 21:28	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/20/17 21:28	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/20/17 21:28	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/20/17 21:28	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/20/17 21:28	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/20/17 21:28	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/20/17 21:28	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/20/17 21:28	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/20/17 21:28	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/20/17 21:28	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/20/17 21:28	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			11/20/17 21:28	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/20/17 21:28	1
2-Hexanone	10	U	10	1.2	ug/L			11/20/17 21:28	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/20/17 21:28	1
Methyl acetate	10	U	10	1.4	ug/L			11/20/17 21:28	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/20/17 21:28	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/20/17 21:28	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/20/17 21:28	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/20/17 21:28	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/20/17 21:28	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/20/17 21:28	1
Styrene	1.0	U	1.0	0.23	ug/L			11/20/17 21:28	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/20/17 21:28	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/20/17 21:28	1
Toluene	1.0	U	1.0	0.23	ug/L			11/20/17 21:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/20/17 21:28	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/20/17 21:28	1

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: MW-20_110917
Date Collected: 11/10/17 09:02
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/20/17 21:28	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/20/17 21:28	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/20/17 21:28	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/20/17 21:28	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/20/17 21:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/20/17 21:28	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/20/17 21:28	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/20/17 21:28	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/20/17 21:28	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/20/17 21:28	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/20/17 21:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*69 - 120*		*11/20/17 21:28*	*1*
Dibromofluoromethane (Surr)	*92*		*69 - 124*		*11/20/17 21:28*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*61 - 138*		*11/20/17 21:28*	*1*
Toluene-d8 (Surr)	*96*		*73 - 120*		*11/20/17 21:28*	*1*

Client Sample ID: MW-09_111017
Date Collected: 11/10/17 11:22
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	11		2.0	0.24	ug/L			11/21/17 12:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*63 - 125*		*11/21/17 12:44*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/22/17 14:06	1
Benzene	1.0	U	1.0	0.28	ug/L			11/22/17 14:06	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/22/17 14:06	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/22/17 14:06	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/22/17 14:06	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/22/17 14:06	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/22/17 14:06	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/22/17 14:06	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/22/17 14:06	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/22/17 14:06	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/22/17 14:06	1
Chloromethane	1.0	U F1	1.0	0.43	ug/L			11/22/17 14:06	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/22/17 14:06	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/22/17 14:06	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/22/17 14:06	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/22/17 14:06	1
1,2-Dibromo-3-Chloropropane	1.0	U F1 F2	1.0	0.47	ug/L			11/22/17 14:06	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/22/17 14:06	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/22/17 14:06	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/22/17 14:06	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/22/17 14:06	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/22/17 14:06	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/22/17 14:06	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/22/17 14:06	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/22/17 14:06	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/22/17 14:06	1
Diethyl ether	2.0	U F1 *	2.0	0.35	ug/L			11/22/17 14:06	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/22/17 14:06	1
2-Hexanone	10	U F2	10	1.2	ug/L			11/22/17 14:06	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/22/17 14:06	1
Methyl acetate	10	U	10	1.4	ug/L			11/22/17 14:06	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/22/17 14:06	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/22/17 14:06	1
4-Methyl-2-pentanone (MIBK)	10	U F2	10	0.71	ug/L			11/22/17 14:06	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/22/17 14:06	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/22/17 14:06	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/22/17 14:06	1
Styrene	1.0	U	1.0	0.23	ug/L			11/22/17 14:06	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/22/17 14:06	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/22/17 14:06	1
Toluene	1.0	U	1.0	0.23	ug/L			11/22/17 14:06	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/22/17 14:06	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/22/17 14:06	1

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: MW-09_111017
Date Collected: 11/10/17 11:22
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U F2	1.0	0.27	ug/L			11/22/17 14:06	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/22/17 14:06	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/22/17 14:06	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/22/17 14:06	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/22/17 14:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/22/17 14:06	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/22/17 14:06	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/22/17 14:06	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/22/17 14:06	1
Vinyl chloride	**7.1**	**F1**	1.0	0.45	ug/L			11/22/17 14:06	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/22/17 14:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*69 - 120*		*11/22/17 14:06*	*1*
Dibromofluoromethane (Surr)	*92*		*69 - 124*		*11/22/17 14:06*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*61 - 138*		*11/22/17 14:06*	*1*
Toluene-d8 (Surr)	*87*		*73 - 120*		*11/22/17 14:06*	*1*

Client Sample ID: MW-14_111017
Date Collected: 11/10/17 10:12
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-13
Matrix: Water

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	0.24	ug/L			11/20/17 17:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*73*		*63 - 125*		*11/20/17 17:07*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/21/17 18:12	1
Benzene	1.0	U	1.0	0.28	ug/L			11/21/17 18:12	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/21/17 18:12	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/21/17 18:12	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/21/17 18:12	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/21/17 18:12	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/21/17 18:12	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/21/17 18:12	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 18:12	1
Chloroethane	1.0	U *	1.0	0.41	ug/L			11/21/17 18:12	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/21/17 18:12	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/21/17 18:12	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/21/17 18:12	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/21/17 18:12	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/21/17 18:12	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/21/17 18:12	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/21/17 18:12	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/21/17 18:12	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/21/17 18:12	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 18:12	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/21/17 18:12	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 18:12	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/21/17 18:12	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/21/17 18:12	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/21/17 18:12	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/21/17 18:12	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			11/21/17 18:12	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/21/17 18:12	1
2-Hexanone	10	U	10	1.2	ug/L			11/21/17 18:12	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/21/17 18:12	1
Methyl acetate	10	U	10	1.4	ug/L			11/21/17 18:12	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/21/17 18:12	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/21/17 18:12	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/21/17 18:12	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/21/17 18:12	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/21/17 18:12	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/21/17 18:12	1
Styrene	1.0	U	1.0	0.23	ug/L			11/21/17 18:12	1
1,1,2,2-Tetrachloroethane	1.0	U *	1.0	0.32	ug/L			11/21/17 18:12	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/21/17 18:12	1
Toluene	1.0	U	1.0	0.23	ug/L			11/21/17 18:12	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/21/17 18:12	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/21/17 18:12	1

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: MW-14_111017
Date Collected: 11/10/17 10:12
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-13
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/21/17 18:12	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/21/17 18:12	1
1,1,2-Trichloroethane	1.0	U *	1.0	0.34	ug/L			11/21/17 18:12	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/21/17 18:12	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 18:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/21/17 18:12	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/21/17 18:12	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 18:12	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 18:12	1
Vinyl chloride	1.0	U *	1.0	0.45	ug/L			11/21/17 18:12	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/21/17 18:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*69 - 120*		*11/21/17 18:12*	*1*
Dibromofluoromethane (Surr)	*107*		*69 - 124*		*11/21/17 18:12*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*61 - 138*		*11/21/17 18:12*	*1*
Toluene-d8 (Surr)	*107*		*73 - 120*		*11/21/17 18:12*	*1*

Client Sample ID: MW-69_111017
Date Collected: 11/10/17 09:10
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-14
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	35		2.0	0.24	ug/L			11/20/17 17:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*70*		*63 - 125*		*11/20/17 17:57*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/21/17 18:34	1
Benzene	1.0	U	1.0	0.28	ug/L			11/21/17 18:34	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/21/17 18:34	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/21/17 18:34	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/21/17 18:34	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/21/17 18:34	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/21/17 18:34	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/21/17 18:34	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 18:34	1
Chloroethane	1.0	U *	1.0	0.41	ug/L			11/21/17 18:34	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/21/17 18:34	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/21/17 18:34	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/21/17 18:34	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/21/17 18:34	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/21/17 18:34	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/21/17 18:34	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/21/17 18:34	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/21/17 18:34	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/21/17 18:34	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 18:34	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/21/17 18:34	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 18:34	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/21/17 18:34	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/21/17 18:34	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/21/17 18:34	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/21/17 18:34	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			11/21/17 18:34	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/21/17 18:34	1
2-Hexanone	10	U	10	1.2	ug/L			11/21/17 18:34	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/21/17 18:34	1
Methyl acetate	10	U	10	1.4	ug/L			11/21/17 18:34	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/21/17 18:34	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/21/17 18:34	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/21/17 18:34	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/21/17 18:34	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/21/17 18:34	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/21/17 18:34	1
Styrene	1.0	U	1.0	0.23	ug/L			11/21/17 18:34	1
1,1,2,2-Tetrachloroethane	1.0	U *	1.0	0.32	ug/L			11/21/17 18:34	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/21/17 18:34	1
Toluene	1.0	U	1.0	0.23	ug/L			11/21/17 18:34	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/21/17 18:34	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/21/17 18:34	1

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: MW-69_111017
Date Collected: 11/10/17 09:10
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-14
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/21/17 18:34	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/21/17 18:34	1
1,1,2-Trichloroethane	1.0	U *	1.0	0.34	ug/L			11/21/17 18:34	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/21/17 18:34	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 18:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/21/17 18:34	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/21/17 18:34	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 18:34	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 18:34	1
Vinyl chloride	1.0	U *	1.0	0.45	ug/L			11/21/17 18:34	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/21/17 18:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*69 - 120*		*11/21/17 18:34*	*1*
Dibromofluoromethane (Surr)	*103*		*69 - 124*		*11/21/17 18:34*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*61 - 138*		*11/21/17 18:34*	*1*
Toluene-d8 (Surr)	*108*		*73 - 120*		*11/21/17 18:34*	*1*

Client Sample ID: MW-31_111017

Date Collected: 11/10/17 10:15
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-15

Matrix: Water

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	0.24	ug/L			11/20/17 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*76*		*63 - 125*		*11/20/17 18:22*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/21/17 18:57	1
Benzene	1.0	U	1.0	0.28	ug/L			11/21/17 18:57	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/21/17 18:57	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/21/17 18:57	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/21/17 18:57	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/21/17 18:57	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/21/17 18:57	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/21/17 18:57	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 18:57	1
Chloroethane	1.0	U *	1.0	0.41	ug/L			11/21/17 18:57	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/21/17 18:57	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/21/17 18:57	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/21/17 18:57	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/21/17 18:57	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/21/17 18:57	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/21/17 18:57	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/21/17 18:57	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/21/17 18:57	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/21/17 18:57	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 18:57	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/21/17 18:57	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 18:57	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/21/17 18:57	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/21/17 18:57	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/21/17 18:57	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/21/17 18:57	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			11/21/17 18:57	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/21/17 18:57	1
2-Hexanone	10	U	10	1.2	ug/L			11/21/17 18:57	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/21/17 18:57	1
Methyl acetate	10	U	10	1.4	ug/L			11/21/17 18:57	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/21/17 18:57	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/21/17 18:57	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/21/17 18:57	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/21/17 18:57	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/21/17 18:57	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/21/17 18:57	1
Styrene	1.0	U	1.0	0.23	ug/L			11/21/17 18:57	1
1,1,2,2-Tetrachloroethane	1.0	U *	1.0	0.32	ug/L			11/21/17 18:57	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/21/17 18:57	1
Toluene	1.0	U	1.0	0.23	ug/L			11/21/17 18:57	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/21/17 18:57	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/21/17 18:57	1

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: MW-31_111017
Date Collected: 11/10/17 10:15
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-15
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/21/17 18:57	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/21/17 18:57	1
1,1,2-Trichloroethane	1.0	U *	1.0	0.34	ug/L			11/21/17 18:57	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/21/17 18:57	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 18:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/21/17 18:57	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/21/17 18:57	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 18:57	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 18:57	1
Vinyl chloride	**0.84**	**J ***	1.0	0.45	ug/L			11/21/17 18:57	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/21/17 18:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*69 - 120*		*11/21/17 18:57*	*1*
Dibromofluoromethane (Surr)	*110*		*69 - 124*		*11/21/17 18:57*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*61 - 138*		*11/21/17 18:57*	*1*
Toluene-d8 (Surr)	*106*		*73 - 120*		*11/21/17 18:57*	*1*

Client Sample ID: MW-52_111017
Date Collected: 11/10/17 12:15
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-16
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.68	J	2.0	0.24	ug/L			11/21/17 13:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*63 - 125*		*11/21/17 13:09*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/22/17 14:29	1
Benzene	1.0	U	1.0	0.28	ug/L			11/22/17 14:29	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/22/17 14:29	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/22/17 14:29	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/22/17 14:29	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/22/17 14:29	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/22/17 14:29	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/22/17 14:29	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/22/17 14:29	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/22/17 14:29	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/22/17 14:29	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/22/17 14:29	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/22/17 14:29	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/22/17 14:29	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/22/17 14:29	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/22/17 14:29	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/22/17 14:29	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/22/17 14:29	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/22/17 14:29	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/22/17 14:29	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/22/17 14:29	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/22/17 14:29	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/22/17 14:29	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/22/17 14:29	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/22/17 14:29	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/22/17 14:29	1
Diethyl ether	2.0	U *	2.0	0.35	ug/L			11/22/17 14:29	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/22/17 14:29	1
2-Hexanone	10	U	10	1.2	ug/L			11/22/17 14:29	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/22/17 14:29	1
Methyl acetate	10	U	10	1.4	ug/L			11/22/17 14:29	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/22/17 14:29	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/22/17 14:29	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/22/17 14:29	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/22/17 14:29	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/22/17 14:29	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/22/17 14:29	1
Styrene	1.0	U	1.0	0.23	ug/L			11/22/17 14:29	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/22/17 14:29	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/22/17 14:29	1
Toluene	1.0	U	1.0	0.23	ug/L			11/22/17 14:29	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/22/17 14:29	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/22/17 14:29	1

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: MW-52_111017
Date Collected: 11/10/17 12:15
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-16
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/22/17 14:29	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/22/17 14:29	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/22/17 14:29	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/22/17 14:29	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/22/17 14:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/22/17 14:29	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/22/17 14:29	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/22/17 14:29	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/22/17 14:29	1
Vinyl chloride	**9.1**		1.0	0.45	ug/L			11/22/17 14:29	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/22/17 14:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*69 - 120*		*11/22/17 14:29*	*1*
Dibromofluoromethane (Surr)	*92*		*69 - 124*		*11/22/17 14:29*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*61 - 138*		*11/22/17 14:29*	*1*
Toluene-d8 (Surr)	*86*		*73 - 120*		*11/22/17 14:29*	*1*

Surrogate Summary

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

TestAmerica Job ID: 240-87922-1

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	DCA	TOL
Lab Sample ID	Client Sample ID	(69-120)	(69-124)	(61-138)	(73-120)
240-87918-E-35 MS	Matrix Spike	96	89	92	98
240-87918-F-35 MSD	Matrix Spike Duplicate	100	88	92	98
240-87922-1	MW-02_110917	93	87	91	98
240-87922-2	MW-03_110917	90	90	93	97
240-87922-3	MW-05_110917	97	89	96	96
240-87922-4	MW-04_110917	96	91	93	93
240-87922-5	MW-10_110917	100	104	106	95
240-87922-6	MW-51_110917	95	88	95	98
240-87922-7	TRIP BLANK	95	89	92	92
240-87922-8	MW-41_110917	90	90	94	97
240-87922-9	MW-34_110917	93	92	101	94
240-87922-10	MW-42_110917	92	93	97	95
240-87922-11	MW-20_110917	97	92	98	96
240-87922-12	MW-09_111017	83	92	104	87
240-87922-12 MS	MW-09_111017	85	89	94	95
240-87922-12 MSD	MW-09_111017	84	88	96	94
240-87922-13	MW-14_111017	77	107	103	107
240-87922-14	MW-69_111017	77	103	103	108
240-87922-15	MW-31_111017	77	110	107	106
240-87922-16	MW-52_111017	84	92	104	86
240-88219-E-2 MS	Matrix Spike	85	102	97	102
240-88219-H-2 MSD	Matrix Spike Duplicate	85	100	97	103
LCS 240-304054/5	Lab Control Sample	99	94	102	97
LCS 240-304322/4	Lab Control Sample	97	93	97	97
LCS 240-304503/4	Lab Control Sample	87	111	109	107
LCS 240-304729/4	Lab Control Sample	87	89	96	94
MB 240-304054/7	Method Blank	92	116	124	96
MB 240-304322/6	Method Blank	100	90	93	94
MB 240-304503/6	Method Blank	75	109	101	108
MB 240-304729/6	Method Blank	78	91	106	87

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		DCA
Lab Sample ID	Client Sample ID	(63-125)
240-87921-C-6 MS	Matrix Spike	80
240-87921-C-6 MSD	Matrix Spike Duplicate	80
240-87922-1	MW-02_110917	83
240-87922-2	MW-03_110917	81
240-87922-3	MW-05_110917	83
240-87922-4	MW-04_110917	70

Surrogate Summary

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

TestAmerica Job ID: 240-87922-1

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	DCA (63-125)						
240-87922-5	MW-10_110917	78						
240-87922-6	MW-51_110917	72						
240-87922-8	MW-41_110917	74						
240-87922-9	MW-34_110917	72						
240-87922-10	MW-42_110917	71						
240-87922-10 MS	MW-42_110917	74						
240-87922-10 MSD	MW-42_110917	72						
240-87922-11	MW-20_110917	74						
240-87922-12	MW-09_111017	89						
240-87922-13	MW-14_111017	73						
240-87922-14	MW-69_111017	70						
240-87922-15	MW-31_111017	76						
240-87922-16	MW-52_111017	89						
240-88124-C-2 MS	Matrix Spike	93						
240-88124-C-2 MSD	Matrix Spike Duplicate	90						
LCS 240-304047/4	Lab Control Sample	81						
LCS 240-304276/4	Lab Control Sample	72						
LCS 240-304512/4	Lab Control Sample	88						
MB 240-304047/5	Method Blank	81						
MB 240-304276/5	Method Blank	75						
MB 240-304512/5	Method Blank	89						

Surrogate Legend

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

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

Lab Sample ID: MB 240-304054/7
Matrix: Water
Analysis Batch: 304054

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/17/17 14:59	1
Benzene	1.0	U	1.0	0.28	ug/L			11/17/17 14:59	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/17/17 14:59	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/17/17 14:59	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/17/17 14:59	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/17/17 14:59	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/17/17 14:59	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/17/17 14:59	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/17/17 14:59	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/17/17 14:59	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/17/17 14:59	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/17/17 14:59	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/17/17 14:59	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/17/17 14:59	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/17/17 14:59	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/17/17 14:59	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/17/17 14:59	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/17/17 14:59	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/17/17 14:59	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/17/17 14:59	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/17/17 14:59	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/17/17 14:59	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/17/17 14:59	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/17/17 14:59	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/17/17 14:59	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/17/17 14:59	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			11/17/17 14:59	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/17/17 14:59	1
2-Hexanone	10	U	10	1.2	ug/L			11/17/17 14:59	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/17/17 14:59	1
Methyl acetate	10	U	10	1.4	ug/L			11/17/17 14:59	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/17/17 14:59	1
Methylene Chloride	0.911	J	5.0	0.53	ug/L			11/17/17 14:59	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/17/17 14:59	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/17/17 14:59	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/17/17 14:59	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/17/17 14:59	1
Styrene	1.0	U	1.0	0.23	ug/L			11/17/17 14:59	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/17/17 14:59	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/17/17 14:59	1
Toluene	1.0	U	1.0	0.23	ug/L			11/17/17 14:59	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/17/17 14:59	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/17/17 14:59	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/17/17 14:59	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/17/17 14:59	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/17/17 14:59	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/17/17 14:59	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/17/17 14:59	1

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

Lab Sample ID: MB 240-304054/7
Matrix: Water
Analysis Batch: 304054

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/17/17 14:59	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/17/17 14:59	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/17/17 14:59	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/17/17 14:59	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/17/17 14:59	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/17/17 14:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*69 - 120*		*11/17/17 14:59*	*1*
Dibromofluoromethane (Surr)	*116*		*69 - 124*		*11/17/17 14:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*124*		*61 - 138*		*11/17/17 14:59*	*1*
Toluene-d8 (Surr)	*96*		*73 - 120*		*11/17/17 14:59*	*1*

Lab Sample ID: LCS 240-304054/5
Matrix: Water
Analysis Batch: 304054

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	17.3		ug/L		87	35 - 131
Benzene	10.0	9.96		ug/L		100	79 - 120
Bromodichloromethane	10.0	8.95		ug/L		90	79 - 125
Bromoform	10.0	9.15		ug/L		91	55 - 145
Bromomethane	10.0	7.10		ug/L		71	17 - 158
2-Butanone (MEK)	20.0	21.9		ug/L		109	43 - 149
Carbon disulfide	10.0	9.11		ug/L		91	49 - 141
Carbon tetrachloride	10.0	8.81		ug/L		88	55 - 171
Chlorobenzene	10.0	9.73		ug/L		97	80 - 120
Chloroethane	10.0	4.66		ug/L		47	10 - 149
Chloroform	10.0	9.21		ug/L		92	80 - 120
Chloromethane	10.0	8.28		ug/L		83	59 - 124
cis-1,2-Dichloroethene	10.0	9.20		ug/L		92	77 - 120
cis-1,3-Dichloropropene	10.0	10.4		ug/L		104	75 - 120
Cyclohexane	10.0	10.1		ug/L		101	66 - 135
Dibromochloromethane	10.0	8.87		ug/L		89	64 - 129
1,2-Dibromo-3-Chloropropane	10.0	7.39		ug/L		74	50 - 130
1,2-Dibromoethane	10.0	9.46		ug/L		95	80 - 120
1,2-Dichlorobenzene	10.0	9.02		ug/L		90	80 - 120
1,3-Dichlorobenzene	10.0	9.40		ug/L		94	80 - 120
1,4-Dichlorobenzene	10.0	9.42		ug/L		94	80 - 120
Dichlorodifluoromethane	10.0	9.52		ug/L		95	42 - 141
1,1-Dichloroethane	10.0	9.78		ug/L		98	74 - 120
1,2-Dichloroethane	10.0	9.60		ug/L		96	68 - 133
1,1-Dichloroethene	10.0	9.63		ug/L		96	65 - 127
1,2-Dichloropropane	10.0	10.5		ug/L		105	78 - 127
Diethyl ether	10.0	10.2		ug/L		102	72 - 125
Ethylbenzene	10.0	9.74		ug/L		97	80 - 120
2-Hexanone	20.0	21.5		ug/L		108	28 - 169
Isopropylbenzene	10.0	9.21		ug/L		92	80 - 128

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

Lab Sample ID: LCS 240-304054/5
Matrix: Water
Analysis Batch: 304054

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl acetate	20.0	18.1		ug/L		91	63 - 137
Methylcyclohexane	10.0	9.04		ug/L		90	63 - 141
Methylene Chloride	10.0	10.3		ug/L		103	64 - 140
4-Methyl-2-pentanone (MIBK)	20.0	20.0		ug/L		100	53 - 144
Methyl tert-butyl ether	10.0	9.14		ug/L		91	73 - 120
Styrene	10.0	9.31		ug/L		93	80 - 121
1,1,2,2-Tetrachloroethane	10.0	8.88		ug/L		89	58 - 122
Tetrachloroethene	10.0	9.44		ug/L		94	80 - 122
Toluene	10.0	9.51		ug/L		95	78 - 120
trans-1,2-Dichloroethene	10.0	9.50		ug/L		95	74 - 124
trans-1,3-Dichloropropene	10.0	8.96		ug/L		90	67 - 120
1,2,4-Trichlorobenzene	10.0	7.66		ug/L		77	34 - 141
1,1,1-Trichloroethane	10.0	9.10		ug/L		91	64 - 147
1,1,2-Trichloroethane	10.0	9.58		ug/L		96	76 - 121
Trichloroethene	10.0	9.56		ug/L		96	76 - 124
Trichlorofluoromethane	10.0	8.89		ug/L		89	27 - 176
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.6		ug/L		106	65 - 144
1,2,4-Trimethylbenzene	10.0	9.08		ug/L		91	80 - 120
1,3,5-Trimethylbenzene	10.0	9.25		ug/L		92	79 - 120
Vinyl chloride	10.0	11.0		ug/L		110	65 - 124
Xylenes, Total	20.0	18.7		ug/L		93	80 - 120
1,4-Dioxane	200	134		ug/L		67	35 - 134

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*69 - 120*
Dibromofluoromethane (Surr)	*94*		*69 - 124*
1,2-Dichloroethane-d4 (Surr)	*102*		*61 - 138*
Toluene-d8 (Surr)	*97*		*73 - 120*

Lab Sample ID: MB 240-304322/6
Matrix: Water
Analysis Batch: 304322

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/20/17 14:29	1
Benzene	1.0	U	1.0	0.28	ug/L			11/20/17 14:29	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/20/17 14:29	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/20/17 14:29	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/20/17 14:29	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/20/17 14:29	1
Carbon disulfide	0.387	J	5.0	0.34	ug/L			11/20/17 14:29	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/20/17 14:29	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/20/17 14:29	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/20/17 14:29	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/20/17 14:29	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/20/17 14:29	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/20/17 14:29	1

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

Lab Sample ID: MB 240-304322/6
Matrix: Water
Analysis Batch: 304322

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/20/17 14:29	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/20/17 14:29	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/20/17 14:29	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/20/17 14:29	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/20/17 14:29	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/20/17 14:29	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/20/17 14:29	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/20/17 14:29	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/20/17 14:29	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/20/17 14:29	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/20/17 14:29	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/20/17 14:29	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/20/17 14:29	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			11/20/17 14:29	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/20/17 14:29	1
2-Hexanone	10	U	10	1.2	ug/L			11/20/17 14:29	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/20/17 14:29	1
Methyl acetate	10	U	10	1.4	ug/L			11/20/17 14:29	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/20/17 14:29	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/20/17 14:29	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/20/17 14:29	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/20/17 14:29	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/20/17 14:29	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/20/17 14:29	1
Styrene	1.0	U	1.0	0.23	ug/L			11/20/17 14:29	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/20/17 14:29	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/20/17 14:29	1
Toluene	1.0	U	1.0	0.23	ug/L			11/20/17 14:29	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/20/17 14:29	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/20/17 14:29	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/20/17 14:29	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/20/17 14:29	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/20/17 14:29	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/20/17 14:29	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/20/17 14:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/20/17 14:29	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/20/17 14:29	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/20/17 14:29	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/20/17 14:29	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/20/17 14:29	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/20/17 14:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*69 - 120*		*11/20/17 14:29*	*1*
Dibromofluoromethane (Surr)	*90*		*69 - 124*		*11/20/17 14:29*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*61 - 138*		*11/20/17 14:29*	*1*
Toluene-d8 (Surr)	*94*		*73 - 120*		*11/20/17 14:29*	*1*

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

Lab Sample ID: LCS 240-304322/4
Matrix: Water
Analysis Batch: 304322

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	18.1		ug/L		91	35 - 131
Benzene	10.0	9.24		ug/L		92	79 - 120
Bromodichloromethane	10.0	8.40		ug/L		84	79 - 125
Bromoform	10.0	8.49		ug/L		85	55 - 145
Bromomethane	10.0	5.84		ug/L		58	17 - 158
2-Butanone (MEK)	20.0	24.4		ug/L		122	43 - 149
Carbon disulfide	10.0	9.03		ug/L		90	49 - 141
Carbon tetrachloride	10.0	8.73		ug/L		87	55 - 171
Chlorobenzene	10.0	9.05		ug/L		91	80 - 120
Chloroethane	10.0	4.18		ug/L		42	10 - 149
Chloroform	10.0	8.53		ug/L		85	80 - 120
Chloromethane	10.0	7.60		ug/L		76	59 - 124
cis-1,2-Dichloroethene	10.0	8.68		ug/L		87	77 - 120
cis-1,3-Dichloropropene	10.0	9.84		ug/L		98	75 - 120
Cyclohexane	10.0	11.3		ug/L		113	66 - 135
Dibromochloromethane	10.0	8.34		ug/L		83	64 - 129
1,2-Dibromo-3-Chloropropane	10.0	7.41		ug/L		74	50 - 130
1,2-Dibromoethane	10.0	9.26		ug/L		93	80 - 120
1,2-Dichlorobenzene	10.0	8.52		ug/L		85	80 - 120
1,3-Dichlorobenzene	10.0	8.99		ug/L		90	80 - 120
1,4-Dichlorobenzene	10.0	8.76		ug/L		88	80 - 120
Dichlorodifluoromethane	10.0	9.51		ug/L		95	42 - 141
1,1-Dichloroethane	10.0	9.42		ug/L		94	74 - 120
1,2-Dichloroethane	10.0	9.47		ug/L		95	68 - 133
1,1-Dichloroethene	10.0	9.36		ug/L		94	65 - 127
1,2-Dichloropropane	10.0	10.3		ug/L		103	78 - 127
Diethyl ether	10.0	10.3		ug/L		103	72 - 125
Ethylbenzene	10.0	8.74		ug/L		87	80 - 120
2-Hexanone	20.0	23.1		ug/L		116	28 - 169
Isopropylbenzene	10.0	8.46		ug/L		85	80 - 128
Methyl acetate	20.0	18.8		ug/L		94	63 - 137
Methylcyclohexane	10.0	10.2		ug/L		102	63 - 141
Methylene Chloride	10.0	8.63		ug/L		86	64 - 140
4-Methyl-2-pentanone (MIBK)	20.0	20.4		ug/L		102	53 - 144
Methyl tert-butyl ether	10.0	9.15		ug/L		91	73 - 120
Styrene	10.0	8.43		ug/L		84	80 - 121
1,1,2,2-Tetrachloroethane	10.0	10.0		ug/L		100	58 - 122
Tetrachloroethene	10.0	8.98		ug/L		90	80 - 122
Toluene	10.0	8.94		ug/L		89	78 - 120
trans-1,2-Dichloroethene	10.0	9.12		ug/L		91	74 - 124
trans-1,3-Dichloropropene	10.0	8.66		ug/L		87	67 - 120
1,2,4-Trichlorobenzene	10.0	6.27		ug/L		63	34 - 141
1,1,1-Trichloroethane	10.0	8.57		ug/L		86	64 - 147
1,1,2-Trichloroethane	10.0	9.01		ug/L		90	76 - 121
Trichloroethene	10.0	9.12		ug/L		91	76 - 124
Trichlorofluoromethane	10.0	8.65		ug/L		87	27 - 176
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	11.3		ug/L		113	65 - 144

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

Lab Sample ID: LCS 240-304322/4
Matrix: Water
Analysis Batch: 304322

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	10.0	8.84		ug/L		88	80 - 120
1,3,5-Trimethylbenzene	10.0	9.16		ug/L		92	79 - 120
Vinyl chloride	10.0	10.7		ug/L		107	65 - 124
Xylenes, Total	20.0	16.9		ug/L		85	80 - 120
1,4-Dioxane	200	159		ug/L		79	35 - 134

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*69 - 120*
Dibromofluoromethane (Surr)	*93*		*69 - 124*
1,2-Dichloroethane-d4 (Surr)	*97*		*61 - 138*
Toluene-d8 (Surr)	*97*		*73 - 120*

Lab Sample ID: 240-87918-E-35 MS
Matrix: Water
Analysis Batch: 304322

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	10	U	20.0	19.5		ug/L		98	19 - 133
Benzene	1.0	U	10.0	9.56		ug/L		96	69 - 127
Bromodichloromethane	1.0	U	10.0	8.91		ug/L		89	75 - 128
Bromoform	1.0	U	10.0	8.89		ug/L		89	61 - 135
Bromomethane	1.0	U	10.0	3.01		ug/L		30	10 - 148
2-Butanone (MEK)	10	U	20.0	24.9		ug/L		125	34 - 153
Carbon disulfide	1.3	J B	10.0	10.7		ug/L		94	46 - 143
Carbon tetrachloride	1.0	U	10.0	7.75		ug/L		78	53 - 175
Chlorobenzene	1.0	U	10.0	9.47		ug/L		95	76 - 120
Chloroethane	1.0	U	10.0	6.55		ug/L		65	10 - 141
Chloroform	1.0	U	10.0	8.61		ug/L		86	74 - 125
Chloromethane	1.0	U	10.0	4.60		ug/L		46	34 - 127
cis-1,2-Dichloroethene	1.0	U	10.0	8.58		ug/L		86	69 - 127
cis-1,3-Dichloropropene	1.0	U	10.0	10.6		ug/L		106	68 - 120
Cyclohexane	1.0	U	10.0	9.32		ug/L		93	56 - 135
Dibromochloromethane	1.0	U	10.0	8.73		ug/L		87	62 - 131
1,2-Dibromo-3-Chloropropane	1.0	U	10.0	7.95		ug/L		80	48 - 130
1,2-Dibromoethane	1.0	U	10.0	9.92		ug/L		99	73 - 121
1,2-Dichlorobenzene	1.0	U	10.0	8.98		ug/L		90	70 - 120
1,3-Dichlorobenzene	1.0	U	10.0	8.90		ug/L		89	71 - 120
1,4-Dichlorobenzene	1.0	U	10.0	8.90		ug/L		89	72 - 120
Dichlorodifluoromethane	1.0	U	10.0	8.23		ug/L		82	45 - 130
1,1-Dichloroethane	1.0	U	10.0	9.23		ug/L		92	69 - 122
1,2-Dichloroethane	1.0	U	10.0	9.52		ug/L		95	64 - 138
1,1-Dichloroethene	1.0	U	10.0	8.95		ug/L		89	62 - 127
1,2-Dichloropropane	1.0	U	10.0	10.9		ug/L		109	72 - 131
Ethylbenzene	1.0	U	10.0	8.80		ug/L		88	72 - 121
2-Hexanone	10	U F2	20.0	24.4		ug/L		122	21 - 184
Isopropylbenzene	1.0	U	10.0	8.32		ug/L		83	70 - 132
Methyl acetate	10	U	20.0	18.4		ug/L		92	52 - 139
Methylcyclohexane	1.0	U	10.0	8.04		ug/L		80	46 - 139

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

Lab Sample ID: 240-87918-E-35 MS
Matrix: Water
Analysis Batch: 304322

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	5.0	U	10.0	8.37		ug/L		84	52 - 137
4-Methyl-2-pentanone (MIBK)	10	U	20.0	22.3		ug/L		111	53 - 147
Methyl tert-butyl ether	1.0	U	10.0	8.95		ug/L		89	67 - 125
Styrene	1.0	U	10.0	8.80		ug/L		88	74 - 125
1,1,2,2-Tetrachloroethane	1.0	U	10.0	9.81		ug/L		98	51 - 123
Tetrachloroethene	1.0	U	10.0	8.66		ug/L		87	69 - 126
Toluene	1.0	U	10.0	9.36		ug/L		94	69 - 125
trans-1,2-Dichloroethene	1.0	U	10.0	8.76		ug/L		88	66 - 131
trans-1,3-Dichloropropene	1.0	U	10.0	9.25		ug/L		93	59 - 120
1,2,4-Trichlorobenzene	1.0	U	10.0	7.25		ug/L		72	26 - 138
1,1,1-Trichloroethane	1.0	U	10.0	7.89		ug/L		79	57 - 156
1,1,2-Trichloroethane	1.0	U	10.0	10.4		ug/L		104	68 - 127
Trichloroethene	1.0	U	10.0	9.05		ug/L		91	68 - 129
Trichlorofluoromethane	1.0	U	10.0	6.28		ug/L		63	28 - 172
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	10.0	7.90		ug/L		79	58 - 137
Vinyl chloride	21	F1 F2	10.0	27.1		ug/L		60	55 - 123

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*69 - 120*
Dibromofluoromethane (Surr)	*89*		*69 - 124*
1,2-Dichloroethane-d4 (Surr)	*92*		*61 - 138*
Toluene-d8 (Surr)	*98*		*73 - 120*

Lab Sample ID: 240-87918-F-35 MSD
Matrix: Water
Analysis Batch: 304322

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	10	U	20.0	15.2		ug/L		76	19 - 133	25	35
Benzene	1.0	U	10.0	8.97		ug/L		90	69 - 127	6	10
Bromodichloromethane	1.0	U	10.0	8.42		ug/L		84	75 - 128	6	13
Bromoform	1.0	U	10.0	9.00		ug/L		90	61 - 135	1	13
Bromomethane	1.0	U	10.0	3.40		ug/L		34	10 - 148	12	35
2-Butanone (MEK)	10	U	20.0	22.2		ug/L		111	34 - 153	12	23
Carbon disulfide	1.3	J B	10.0	11.3		ug/L		100	46 - 143	5	18
Carbon tetrachloride	1.0	U	10.0	7.16		ug/L		72	53 - 175	8	17
Chlorobenzene	1.0	U	10.0	9.24		ug/L		92	76 - 120	2	12
Chloroethane	1.0	U	10.0	6.97		ug/L		70	10 - 141	6	35
Chloroform	1.0	U	10.0	8.25		ug/L		83	74 - 125	4	11
Chloromethane	1.0	U	10.0	5.27		ug/L		53	34 - 127	14	25
cis-1,2-Dichloroethene	1.0	U	10.0	8.35		ug/L		83	69 - 127	3	11
cis-1,3-Dichloropropene	1.0	U	10.0	10.1		ug/L		101	68 - 120	5	13
Cyclohexane	1.0	U	10.0	8.78		ug/L		88	56 - 135	6	35
Dibromochloromethane	1.0	U	10.0	8.72		ug/L		87	62 - 131	0	15
1,2-Dibromo-3-Chloropropane	1.0	U	10.0	9.61		ug/L		96	48 - 130	19	31
1,2-Dibromoethane	1.0	U	10.0	9.83		ug/L		98	73 - 121	1	12
1,2-Dichlorobenzene	1.0	U	10.0	8.56		ug/L		86	70 - 120	5	19

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

Lab Sample ID: 240-87918-F-35 MSD
Matrix: Water
Analysis Batch: 304322

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3-Dichlorobenzene	1.0	U	10.0	8.79		ug/L		88	71 - 120	1	18
1,4-Dichlorobenzene	1.0	U	10.0	8.64		ug/L		86	72 - 120	3	17
Dichlorodifluoromethane	1.0	U	10.0	8.44		ug/L		84	45 - 130	2	34
1,1-Dichloroethane	1.0	U	10.0	8.86		ug/L		89	69 - 122	4	11
1,2-Dichloroethane	1.0	U	10.0	9.22		ug/L		92	64 - 138	3	11
1,1-Dichloroethene	1.0	U	10.0	7.90		ug/L		79	62 - 127	12	14
1,2-Dichloropropane	1.0	U	10.0	10.5		ug/L		105	72 - 131	3	12
Ethylbenzene	1.0	U	10.0	8.61		ug/L		86	72 - 121	2	15
2-Hexanone	10	U F2	20.0	27.8	F2	ug/L		139	21 - 184	13	12
Isopropylbenzene	1.0	U	10.0	7.84		ug/L		78	70 - 132	6	16
Methyl acetate	10	U	20.0	18.0		ug/L		90	52 - 139	2	14
Methylcyclohexane	1.0	U	10.0	7.91		ug/L		79	46 - 139	2	35
Methylene Chloride	5.0	U	10.0	7.92		ug/L		79	52 - 137	5	12
4-Methyl-2-pentanone (MIBK)	10	U	20.0	23.5		ug/L		118	53 - 147	6	16
Methyl tert-butyl ether	1.0	U	10.0	8.75		ug/L		87	67 - 125	2	12
Styrene	1.0	U	10.0	8.39		ug/L		84	74 - 125	5	14
1,1,2,2-Tetrachloroethane	1.0	U	10.0	10.7		ug/L		107	51 - 123	9	17
Tetrachloroethene	1.0	U	10.0	8.81		ug/L		88	69 - 126	2	18
Toluene	1.0	U	10.0	8.95		ug/L		89	69 - 125	5	14
trans-1,2-Dichloroethene	1.0	U	10.0	8.47		ug/L		85	66 - 131	3	11
trans-1,3-Dichloropropene	1.0	U	10.0	9.00		ug/L		90	59 - 120	3	14
1,2,4-Trichlorobenzene	1.0	U	10.0	7.18		ug/L		72	26 - 138	1	35
1,1,1-Trichloroethane	1.0	U	10.0	7.40		ug/L		74	57 - 156	6	13
1,1,2-Trichloroethane	1.0	U	10.0	10.3		ug/L		103	68 - 127	2	11
Trichloroethene	1.0	U	10.0	8.46		ug/L		85	68 - 129	7	12
Trichlorofluoromethane	1.0	U	10.0	5.75		ug/L		58	28 - 172	9	26
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	10.0	5.96		ug/L		60	58 - 137	28	35
Vinyl chloride	21	F1 F2	10.0	23.7	F1 F2	ug/L		26	55 - 123	13	12

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*69 - 120*
Dibromofluoromethane (Surr)	*88*		*69 - 124*
1,2-Dichloroethane-d4 (Surr)	*92*		*61 - 138*
Toluene-d8 (Surr)	*98*		*73 - 120*

Lab Sample ID: MB 240-304503/6
Matrix: Water
Analysis Batch: 304503

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/21/17 12:33	1
Benzene	1.0	U	1.0	0.28	ug/L			11/21/17 12:33	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/21/17 12:33	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/21/17 12:33	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/21/17 12:33	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/21/17 12:33	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/21/17 12:33	1

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

Lab Sample ID: MB 240-304503/6
Matrix: Water
Analysis Batch: 304503

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/21/17 12:33	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 12:33	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/21/17 12:33	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/21/17 12:33	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/21/17 12:33	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/21/17 12:33	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/21/17 12:33	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/21/17 12:33	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/21/17 12:33	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/21/17 12:33	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/21/17 12:33	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/21/17 12:33	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 12:33	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/21/17 12:33	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 12:33	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/21/17 12:33	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/21/17 12:33	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/21/17 12:33	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/21/17 12:33	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			11/21/17 12:33	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/21/17 12:33	1
2-Hexanone	10	U	10	1.2	ug/L			11/21/17 12:33	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/21/17 12:33	1
Methyl acetate	10	U	10	1.4	ug/L			11/21/17 12:33	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/21/17 12:33	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/21/17 12:33	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/21/17 12:33	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/21/17 12:33	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/21/17 12:33	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/21/17 12:33	1
Styrene	1.0	U	1.0	0.23	ug/L			11/21/17 12:33	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/21/17 12:33	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/21/17 12:33	1
Toluene	1.0	U	1.0	0.23	ug/L			11/21/17 12:33	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/21/17 12:33	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/21/17 12:33	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/21/17 12:33	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/21/17 12:33	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/21/17 12:33	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/21/17 12:33	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 12:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/21/17 12:33	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/21/17 12:33	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 12:33	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 12:33	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/21/17 12:33	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/21/17 12:33	1

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

Lab Sample ID: MB 240-304503/6
Matrix: Water
Analysis Batch: 304503

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		69 - 120		11/21/17 12:33	1
Dibromofluoromethane (Surr)	109		69 - 124		11/21/17 12:33	1
1,2-Dichloroethane-d4 (Surr)	101		61 - 138		11/21/17 12:33	1
Toluene-d8 (Surr)	108		73 - 120		11/21/17 12:33	1

Lab Sample ID: LCS 240-304503/4
Matrix: Water
Analysis Batch: 304503

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	16.7		ug/L		84	35 - 131
Benzene	10.0	11.3		ug/L		113	79 - 120
Bromodichloromethane	10.0	11.6		ug/L		116	79 - 125
Bromoform	10.0	9.54		ug/L		95	55 - 145
Bromomethane	10.0	15.4		ug/L		154	17 - 158
2-Butanone (MEK)	20.0	21.3		ug/L		106	43 - 149
Carbon disulfide	10.0	12.6		ug/L		126	49 - 141
Carbon tetrachloride	10.0	11.4		ug/L		114	55 - 171
Chlorobenzene	10.0	11.0		ug/L		110	80 - 120
Chloroethane	10.0	16.5	*	ug/L		165	10 - 149
Chloroform	10.0	11.1		ug/L		111	80 - 120
Chloromethane	10.0	7.87		ug/L		79	59 - 124
cis-1,2-Dichloroethene	10.0	11.3		ug/L		113	77 - 120
cis-1,3-Dichloropropene	10.0	10.9		ug/L		109	75 - 120
Cyclohexane	10.0	9.74		ug/L		97	66 - 135
Dibromochloromethane	10.0	10.8		ug/L		108	64 - 129
1,2-Dibromo-3-Chloropropane	10.0	9.39		ug/L		94	50 - 130
1,2-Dibromoethane	10.0	10.9		ug/L		109	80 - 120
1,2-Dichlorobenzene	10.0	10.0		ug/L		100	80 - 120
1,3-Dichlorobenzene	10.0	9.80		ug/L		98	80 - 120
1,4-Dichlorobenzene	10.0	10.1		ug/L		101	80 - 120
Dichlorodifluoromethane	10.0	11.4		ug/L		114	42 - 141
1,1-Dichloroethane	10.0	11.0		ug/L		110	74 - 120
1,2-Dichloroethane	10.0	11.6		ug/L		116	68 - 133
1,1-Dichloroethene	10.0	10.5		ug/L		105	65 - 127
1,2-Dichloropropane	10.0	11.7		ug/L		117	78 - 127
Diethyl ether	10.0	11.1		ug/L		111	72 - 125
Ethylbenzene	10.0	10.5		ug/L		105	80 - 120
2-Hexanone	20.0	19.0		ug/L		95	28 - 169
Isopropylbenzene	10.0	9.61		ug/L		96	80 - 128
Methyl acetate	20.0	23.8		ug/L		119	63 - 137
Methylcyclohexane	10.0	8.81		ug/L		88	63 - 141
Methylene Chloride	10.0	11.7		ug/L		117	64 - 140
4-Methyl-2-pentanone (MIBK)	20.0	21.6		ug/L		108	53 - 144
Methyl tert-butyl ether	10.0	10.2		ug/L		102	73 - 120
Styrene	10.0	10.0		ug/L		100	80 - 121
1,1,2,2-Tetrachloroethane	10.0	12.7	*	ug/L		127	58 - 122
Tetrachloroethene	10.0	10.3		ug/L		103	80 - 122

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

Lab Sample ID: LCS 240-304503/4
Matrix: Water
Analysis Batch: 304503

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	10.0	11.1		ug/L		111	78 - 120
trans-1,2-Dichloroethene	10.0	11.0		ug/L		110	74 - 124
trans-1,3-Dichloropropene	10.0	10.4		ug/L		104	67 - 120
1,2,4-Trichlorobenzene	10.0	7.90		ug/L		79	34 - 141
1,1,1-Trichloroethane	10.0	11.3		ug/L		113	64 - 147
1,1,2-Trichloroethane	10.0	13.0	*	ug/L		130	76 - 121
Trichloroethene	10.0	11.3		ug/L		113	76 - 124
Trichlorofluoromethane	10.0	12.1		ug/L		121	27 - 176
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	11.4		ug/L		114	65 - 144
1,2,4-Trimethylbenzene	10.0	9.68		ug/L		97	80 - 120
1,3,5-Trimethylbenzene	10.0	10.0		ug/L		100	79 - 120
Vinyl chloride	10.0	12.7	*	ug/L		127	65 - 124
Xylenes, Total	20.0	20.9		ug/L		105	80 - 120
1,4-Dioxane	200	224		ug/L		112	35 - 134

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*69 - 120*
Dibromofluoromethane (Surr)	*111*		*69 - 124*
1,2-Dichloroethane-d4 (Surr)	*109*		*61 - 138*
Toluene-d8 (Surr)	*107*		*73 - 120*

Lab Sample ID: 240-88219-E-2 MS
Matrix: Water
Analysis Batch: 304503

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.0	U	10.0	9.18		ug/L		92	69 - 127
Bromodichloromethane	1.0	U	10.0	8.76		ug/L		88	75 - 128
Bromoform	1.0	U	10.0	6.76		ug/L		68	61 - 135
Bromomethane	1.0	U	10.0	12.3		ug/L		123	10 - 148
Carbon tetrachloride	1.0	U	10.0	8.84		ug/L		88	53 - 175
Chlorobenzene	1.0	U	10.0	8.63		ug/L		86	76 - 120
Chloroethane	1.0	U F1 *	10.0	17.1	F1	ug/L		171	10 - 141
Chloroform	1.0	U	10.0	9.42		ug/L		94	74 - 125
Chloromethane	1.0	U	10.0	8.29		ug/L		83	34 - 127
cis-1,2-Dichloroethene	1.0	U	10.0	9.09		ug/L		91	69 - 127
cis-1,3-Dichloropropene	1.0	U F1	10.0	6.87		ug/L		69	68 - 120
Dibromochloromethane	1.0	U	10.0	8.36		ug/L		84	62 - 131
1,2-Dibromoethane	1.0	U	10.0	9.22		ug/L		92	73 - 121
1,2-Dichlorobenzene	1.0	U	10.0	7.95		ug/L		80	70 - 120
1,3-Dichlorobenzene	1.0	U	10.0	7.92		ug/L		79	71 - 120
1,4-Dichlorobenzene	1.0	U	10.0	7.82		ug/L		78	72 - 120
Dichlorodifluoromethane	1.0	U F1	10.0	14.2	F1	ug/L		142	45 - 130
1,1-Dichloroethane	1.0	U	10.0	9.17		ug/L		92	69 - 122
1,2-Dichloroethane	1.0	U	10.0	9.56		ug/L		96	64 - 138
1,1-Dichloroethene	1.0	U	10.0	9.07		ug/L		91	62 - 127
1,2-Dichloropropane	1.0	U	10.0	9.26		ug/L		93	72 - 131

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

Lab Sample ID: 240-88219-E-2 MS
Matrix: Water
Analysis Batch: 304503

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	1.0	U	10.0	8.02		ug/L		80	72 - 121
Isopropylbenzene	1.0	U F1	10.0	6.91	F1	ug/L		69	70 - 132
Methylene Chloride	5.0	U	10.0	9.75		ug/L		97	52 - 137
Styrene	1.0	U	10.0	7.58		ug/L		76	74 - 125
1,1,2,2-Tetrachloroethane	1.0	U *	10.0	11.8		ug/L		118	51 - 123
Tetrachloroethene	1.0	U	10.0	7.90		ug/L		79	69 - 126
Toluene	1.0	U	10.0	9.01		ug/L		90	69 - 125
trans-1,2-Dichloroethene	1.0	U	10.0	8.74		ug/L		87	66 - 131
trans-1,3-Dichloropropene	1.0	U	10.0	7.45		ug/L		74	59 - 120
1,2,4-Trichlorobenzene	1.0	U	10.0	6.09		ug/L		61	26 - 138
1,1,1-Trichloroethane	1.0	U	10.0	9.13		ug/L		91	57 - 156
1,1,2-Trichloroethane	1.0	U *	10.0	10.8		ug/L		108	68 - 127
Trichloroethene	1.0	U	10.0	8.82		ug/L		88	68 - 129
Trichlorofluoromethane	1.0	U	10.0	14.3		ug/L		143	28 - 172
1,2,4-Trimethylbenzene	1.0	U	10.0	7.21		ug/L		72	64 - 120
1,3,5-Trimethylbenzene	1.0	U	10.0	7.54		ug/L		75	67 - 120
Vinyl chloride	1.0	U F1 *	10.0	13.4	F1	ug/L		134	55 - 123
Xylenes, Total	2.0	U	20.0	15.9		ug/L		80	71 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*85*		*69 - 120*
Dibromofluoromethane (Surr)	*102*		*69 - 124*
1,2-Dichloroethane-d4 (Surr)	*97*		*61 - 138*
Toluene-d8 (Surr)	*102*		*73 - 120*

Lab Sample ID: 240-88219-H-2 MSD
Matrix: Water
Analysis Batch: 304503

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	1.0	U	10.0	9.26		ug/L		93	69 - 127	1	10
Bromodichloromethane	1.0	U	10.0	8.70		ug/L		87	75 - 128	1	13
Bromoform	1.0	U	10.0	6.23		ug/L		62	61 - 135	8	13
Bromomethane	1.0	U	10.0	12.7		ug/L		127	10 - 148	3	35
Carbon tetrachloride	1.0	U	10.0	9.13		ug/L		91	53 - 175	3	17
Chlorobenzene	1.0	U	10.0	8.49		ug/L		85	76 - 120	2	12
Chloroethane	1.0	U F1 *	10.0	17.0	F1	ug/L		170	10 - 141	1	35
Chloroform	1.0	U	10.0	9.25		ug/L		93	74 - 125	2	11
Chloromethane	1.0	U	10.0	8.21		ug/L		82	34 - 127	1	25
cis-1,2-Dichloroethene	1.0	U	10.0	9.59		ug/L		96	69 - 127	5	11
cis-1,3-Dichloropropene	1.0	U F1	10.0	6.69	F1	ug/L		67	68 - 120	3	13
Dibromochloromethane	1.0	U	10.0	7.95		ug/L		80	62 - 131	5	15
1,2-Dibromoethane	1.0	U	10.0	8.89		ug/L		89	73 - 121	4	12
1,2-Dichlorobenzene	1.0	U	10.0	7.89		ug/L		79	70 - 120	1	19
1,3-Dichlorobenzene	1.0	U	10.0	7.94		ug/L		79	71 - 120	0	18
1,4-Dichlorobenzene	1.0	U	10.0	8.01		ug/L		80	72 - 120	2	17
Dichlorodifluoromethane	1.0	U F1	10.0	14.3	F1	ug/L		143	45 - 130	1	34
1,1-Dichloroethane	1.0	U	10.0	9.26		ug/L		93	69 - 122	1	11

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

Lab Sample ID: 240-88219-H-2 MSD
Matrix: Water
Analysis Batch: 304503

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane	1.0	U	10.0	9.43		ug/L		94	64 - 138	1	11
1,1-Dichloroethene	1.0	U	10.0	9.15		ug/L		92	62 - 127	1	14
1,2-Dichloropropane	1.0	U	10.0	9.42		ug/L		94	72 - 131	2	12
Ethylbenzene	1.0	U	10.0	8.24		ug/L		82	72 - 121	3	15
Isopropylbenzene	1.0	U F1	10.0	7.25		ug/L		72	70 - 132	5	16
Methylene Chloride	5.0	U	10.0	9.58		ug/L		96	52 - 137	2	12
Styrene	1.0	U	10.0	7.86		ug/L		79	74 - 125	4	14
1,1,2,2-Tetrachloroethane	1.0	U *	10.0	10.1		ug/L		101	51 - 123	15	17
Tetrachloroethene	1.0	U	10.0	8.34		ug/L		83	69 - 126	6	18
Toluene	1.0	U	10.0	9.02		ug/L		90	69 - 125	0	14
trans-1,2-Dichloroethene	1.0	U	10.0	8.99		ug/L		90	66 - 131	3	11
trans-1,3-Dichloropropene	1.0	U	10.0	7.30		ug/L		73	59 - 120	2	14
1,2,4-Trichlorobenzene	1.0	U	10.0	6.39		ug/L		64	26 - 138	5	35
1,1,1-Trichloroethane	1.0	U	10.0	9.11		ug/L		91	57 - 156	0	13
1,1,2-Trichloroethane	1.0	U *	10.0	9.98		ug/L		100	68 - 127	8	11
Trichloroethene	1.0	U	10.0	9.02		ug/L		90	68 - 129	2	12
Trichlorofluoromethane	1.0	U	10.0	14.0		ug/L		140	28 - 172	2	26
1,2,4-Trimethylbenzene	1.0	U	10.0	7.35		ug/L		73	64 - 120	2	22
1,3,5-Trimethylbenzene	1.0	U	10.0	7.82		ug/L		78	67 - 120	4	25
Vinyl chloride	1.0	U F1 *	10.0	13.7	F1	ug/L		137	55 - 123	2	12
Xylenes, Total	2.0	U	20.0	15.8		ug/L		79	71 - 122	1	14

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*85*		*69 - 120*
Dibromofluoromethane (Surr)	*100*		*69 - 124*
1,2-Dichloroethane-d4 (Surr)	*97*		*61 - 138*
Toluene-d8 (Surr)	*103*		*73 - 120*

Lab Sample ID: MB 240-304729/6
Matrix: Water
Analysis Batch: 304729

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/22/17 12:59	1
Benzene	1.0	U	1.0	0.28	ug/L			11/22/17 12:59	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/22/17 12:59	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/22/17 12:59	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/22/17 12:59	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/22/17 12:59	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/22/17 12:59	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/22/17 12:59	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/22/17 12:59	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/22/17 12:59	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/22/17 12:59	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/22/17 12:59	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/22/17 12:59	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/22/17 12:59	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/22/17 12:59	1

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

Lab Sample ID: MB 240-304729/6
Matrix: Water
Analysis Batch: 304729

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/22/17 12:59	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/22/17 12:59	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/22/17 12:59	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/22/17 12:59	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/22/17 12:59	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/22/17 12:59	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/22/17 12:59	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/22/17 12:59	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/22/17 12:59	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/22/17 12:59	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/22/17 12:59	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			11/22/17 12:59	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/22/17 12:59	1
2-Hexanone	10	U	10	1.2	ug/L			11/22/17 12:59	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/22/17 12:59	1
Methyl acetate	10	U	10	1.4	ug/L			11/22/17 12:59	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/22/17 12:59	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/22/17 12:59	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/22/17 12:59	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/22/17 12:59	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/22/17 12:59	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/22/17 12:59	1
Styrene	1.0	U	1.0	0.23	ug/L			11/22/17 12:59	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/22/17 12:59	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/22/17 12:59	1
Toluene	1.0	U	1.0	0.23	ug/L			11/22/17 12:59	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/22/17 12:59	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/22/17 12:59	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/22/17 12:59	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/22/17 12:59	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/22/17 12:59	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/22/17 12:59	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/22/17 12:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/22/17 12:59	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/22/17 12:59	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/22/17 12:59	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/22/17 12:59	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/22/17 12:59	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/22/17 12:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*69 - 120*		*11/22/17 12:59*	*1*
Dibromofluoromethane (Surr)	*91*		*69 - 124*		*11/22/17 12:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*61 - 138*		*11/22/17 12:59*	*1*
Toluene-d8 (Surr)	*87*		*73 - 120*		*11/22/17 12:59*	*1*

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

Lab Sample ID: LCS 240-304729/4
Matrix: Water
Analysis Batch: 304729

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	20.4		ug/L		102	35 - 131
Benzene	10.0	9.96		ug/L		100	79 - 120
Bromodichloromethane	10.0	9.68		ug/L		97	79 - 125
Bromoform	10.0	7.73		ug/L		77	55 - 145
Bromomethane	10.0	13.1		ug/L		131	17 - 158
2-Butanone (MEK)	20.0	20.4		ug/L		102	43 - 149
Carbon disulfide	10.0	10.4		ug/L		104	49 - 141
Carbon tetrachloride	10.0	10.1		ug/L		101	55 - 171
Chlorobenzene	10.0	9.72		ug/L		97	80 - 120
Chloroethane	10.0	12.9		ug/L		129	10 - 149
Chloroform	10.0	10.2		ug/L		102	80 - 120
Chloromethane	10.0	12.2		ug/L		122	59 - 124
cis-1,2-Dichloroethene	10.0	9.58		ug/L		96	77 - 120
cis-1,3-Dichloropropene	10.0	8.84		ug/L		88	75 - 120
Cyclohexane	10.0	10.7		ug/L		107	66 - 135
Dibromochloromethane	10.0	9.56		ug/L		96	64 - 129
1,2-Dibromo-3-Chloropropane	10.0	6.30		ug/L		63	50 - 130
1,2-Dibromoethane	10.0	9.39		ug/L		94	80 - 120
1,2-Dichlorobenzene	10.0	9.05		ug/L		91	80 - 120
1,3-Dichlorobenzene	10.0	9.20		ug/L		92	80 - 120
1,4-Dichlorobenzene	10.0	9.15		ug/L		92	80 - 120
Dichlorodifluoromethane	10.0	8.68		ug/L		87	42 - 141
1,1-Dichloroethane	10.0	10.8		ug/L		108	74 - 120
1,2-Dichloroethane	10.0	10.7		ug/L		107	68 - 133
1,1-Dichloroethene	10.0	11.4		ug/L		114	65 - 127
1,2-Dichloropropane	10.0	10.8		ug/L		108	78 - 127
Diethyl ether	10.0	13.1	*	ug/L		131	72 - 125
Ethylbenzene	10.0	9.62		ug/L		96	80 - 120
2-Hexanone	20.0	18.3		ug/L		91	28 - 169
Isopropylbenzene	10.0	9.22		ug/L		92	80 - 128
Methyl acetate	20.0	20.9		ug/L		104	63 - 137
Methylcyclohexane	10.0	8.98		ug/L		90	63 - 141
Methylene Chloride	10.0	9.74		ug/L		97	64 - 140
4-Methyl-2-pentanone (MIBK)	20.0	18.0		ug/L		90	53 - 144
Methyl tert-butyl ether	10.0	8.71		ug/L		87	73 - 120
Styrene	10.0	9.07		ug/L		91	80 - 121
1,1,2,2-Tetrachloroethane	10.0	10.4		ug/L		104	58 - 122
Tetrachloroethene	10.0	9.31		ug/L		93	80 - 122
Toluene	10.0	10.5		ug/L		105	78 - 120
trans-1,2-Dichloroethene	10.0	10.3		ug/L		103	74 - 124
trans-1,3-Dichloropropene	10.0	8.77		ug/L		88	67 - 120
1,2,4-Trichlorobenzene	10.0	5.72		ug/L		57	34 - 141
1,1,1-Trichloroethane	10.0	9.79		ug/L		98	64 - 147
1,1,2-Trichloroethane	10.0	10.5		ug/L		105	76 - 121
Trichloroethene	10.0	8.78		ug/L		88	76 - 124
Trichlorofluoromethane	10.0	13.4		ug/L		134	27 - 176
1,1,2-Trichloro-1,2,2-trifluoroetha ne	10.0	11.4		ug/L		114	65 - 144

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

Lab Sample ID: LCS 240-304729/4
Matrix: Water
Analysis Batch: 304729

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	10.0	9.08		ug/L		91	80 - 120
1,3,5-Trimethylbenzene	10.0	9.39		ug/L		94	79 - 120
Vinyl chloride	10.0	11.3		ug/L		113	65 - 124
Xylenes, Total	20.0	19.1		ug/L		95	80 - 120
1,4-Dioxane	200	94.6		ug/L		47	35 - 134

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*69 - 120*
Dibromofluoromethane (Surr)	*89*		*69 - 124*
1,2-Dichloroethane-d4 (Surr)	*96*		*61 - 138*
Toluene-d8 (Surr)	*94*		*73 - 120*

Lab Sample ID: 240-87922-12 MS
Matrix: Water
Analysis Batch: 304729

Client Sample ID: MW-09_111017
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	10	U	20.0	7.84	J	ug/L		39	19 - 133
Benzene	1.0	U	10.0	9.52		ug/L		95	69 - 127
Bromodichloromethane	1.0	U	10.0	9.39		ug/L		94	75 - 128
Bromoform	1.0	U	10.0	6.92		ug/L		69	61 - 135
Bromomethane	1.0	U	10.0	14.1		ug/L		141	10 - 148
2-Butanone (MEK)	10	U	20.0	14.2		ug/L		71	34 - 153
Carbon disulfide	5.0	U	10.0	9.37		ug/L		94	46 - 143
Carbon tetrachloride	1.0	U	10.0	8.91		ug/L		89	53 - 175
Chlorobenzene	1.0	U	10.0	9.20		ug/L		92	76 - 120
Chloroethane	1.0	U	10.0	13.6		ug/L		136	10 - 141
Chloroform	1.0	U	10.0	9.96		ug/L		100	74 - 125
Chloromethane	1.0	U F1	10.0	13.8	F1	ug/L		138	34 - 127
cis-1,2-Dichloroethene	1.0	U	10.0	9.32		ug/L		93	69 - 127
cis-1,3-Dichloropropene	1.0	U	10.0	8.21		ug/L		82	68 - 120
Cyclohexane	1.0	U	10.0	7.62		ug/L		76	56 - 135
Dibromochloromethane	1.0	U	10.0	9.03		ug/L		90	62 - 131
1,2-Dibromo-3-Chloropropane	1.0	U F1 F2	10.0	4.21	F1	ug/L		42	48 - 130
1,2-Dibromoethane	1.0	U	10.0	8.96		ug/L		90	73 - 121
1,2-Dichlorobenzene	1.0	U	10.0	7.79		ug/L		78	70 - 120
1,3-Dichlorobenzene	1.0	U	10.0	8.10		ug/L		81	71 - 120
1,4-Dichlorobenzene	1.0	U	10.0	8.14		ug/L		81	72 - 120
Dichlorodifluoromethane	1.0	U	10.0	9.14		ug/L		91	45 - 130
1,1-Dichloroethane	1.0	U	10.0	10.4		ug/L		104	69 - 122
1,2-Dichloroethane	1.0	U	10.0	10.5		ug/L		105	64 - 138
1,1-Dichloroethene	1.0	U	10.0	10.8		ug/L		108	62 - 127
1,2-Dichloropropane	1.0	U	10.0	10.3		ug/L		103	72 - 131
Diethyl ether	2.0	U F1 *	10.0	13.1	F1	ug/L		131	65 - 124
Ethylbenzene	1.0	U	10.0	8.68		ug/L		87	72 - 121
2-Hexanone	10	U F2	20.0	16.7		ug/L		84	21 - 184
Isopropylbenzene	1.0	U	10.0	7.79		ug/L		78	70 - 132
Methyl acetate	10	U	20.0	15.8		ug/L		79	52 - 139

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

Lab Sample ID: 240-87922-12 MS
Matrix: Water
Analysis Batch: 304729

Client Sample ID: MW-09_111017
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylcyclohexane	1.0	U	10.0	6.19		ug/L		62	46 - 139
Methylene Chloride	5.0	U	10.0	8.71		ug/L		87	52 - 137
4-Methyl-2-pentanone (MIBK)	10	U F2	20.0	15.0		ug/L		75	53 - 147
Methyl tert-butyl ether	1.0	U	10.0	7.56		ug/L		76	67 - 125
Styrene	1.0	U	10.0	8.47		ug/L		85	74 - 125
1,1,2,2-Tetrachloroethane	1.0	U	10.0	9.16		ug/L		92	51 - 123
Tetrachloroethene	1.0	U	10.0	8.56		ug/L		86	69 - 126
Toluene	1.0	U	10.0	10.0		ug/L		100	69 - 125
trans-1,2-Dichloroethene	1.0	U	10.0	9.65		ug/L		96	66 - 131
trans-1,3-Dichloropropene	1.0	U	10.0	8.45		ug/L		85	59 - 120
1,2,4-Trichlorobenzene	1.0	U F2	10.0	4.51		ug/L		45	26 - 138
1,1,1-Trichloroethane	1.0	U	10.0	8.66		ug/L		87	57 - 156
1,1,2-Trichloroethane	1.0	U	10.0	10.3		ug/L		103	68 - 127
Trichloroethene	1.0	U	10.0	8.69		ug/L		87	68 - 129
Trichlorofluoromethane	1.0	U	10.0	12.9		ug/L		129	28 - 172
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	10.0	8.45		ug/L		84	58 - 137
1,2,4-Trimethylbenzene	1.0	U	10.0	7.86		ug/L		79	64 - 120
1,3,5-Trimethylbenzene	1.0	U	10.0	7.97		ug/L		80	67 - 120
Vinyl chloride	7.1	F1	10.0	18.0		ug/L		109	55 - 123
Xylenes, Total	2.0	U	20.0	17.2		ug/L		86	71 - 122
1,4-Dioxane	50	U F1 F2	200	18.9	J F1	ug/L		9	13 - 155

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*85*		*69 - 120*
Dibromofluoromethane (Surr)	*89*		*69 - 124*
1,2-Dichloroethane-d4 (Surr)	*94*		*61 - 138*
Toluene-d8 (Surr)	*95*		*73 - 120*

Lab Sample ID: 240-87922-12 MSD
Matrix: Water
Analysis Batch: 304729

Client Sample ID: MW-09_111017
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	10	U	20.0	9.11	J	ug/L		46	19 - 133	15	35
Benzene	1.0	U	10.0	9.76		ug/L		98	69 - 127	3	10
Bromodichloromethane	1.0	U	10.0	9.52		ug/L		95	75 - 128	1	13
Bromoform	1.0	U	10.0	7.62		ug/L		76	61 - 135	10	13
Bromomethane	1.0	U	10.0	11.6		ug/L		116	10 - 148	19	35
2-Butanone (MEK)	10	U	20.0	17.0		ug/L		85	34 - 153	18	23
Carbon disulfide	5.0	U	10.0	9.49		ug/L		95	46 - 143	1	18
Carbon tetrachloride	1.0	U	10.0	9.42		ug/L		94	53 - 175	5	17
Chlorobenzene	1.0	U	10.0	9.58		ug/L		96	76 - 120	4	12
Chloroethane	1.0	U	10.0	12.8		ug/L		128	10 - 141	6	35
Chloroform	1.0	U	10.0	10.1		ug/L		101	74 - 125	2	11
Chloromethane	1.0	U F1	10.0	14.5	F1	ug/L		145	34 - 127	5	25
cis-1,2-Dichloroethene	1.0	U	10.0	9.43		ug/L		94	69 - 127	1	11
cis-1,3-Dichloropropene	1.0	U	10.0	8.34		ug/L		83	68 - 120	2	13

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

Lab Sample ID: 240-87922-12 MSD
Matrix: Water
Analysis Batch: 304729

Client Sample ID: MW-09_111017
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyclohexane	1.0	U	10.0	9.22		ug/L		92	56 - 135	19	35
Dibromochloromethane	1.0	U	10.0	9.58		ug/L		96	62 - 131	6	15
1,2-Dibromo-3-Chloropropane	1.0	U F1 F2	10.0	6.35	F2	ug/L		63	48 - 130	40	31
1,2-Dibromoethane	1.0	U	10.0	9.87		ug/L		99	73 - 121	10	12
1,2-Dichlorobenzene	1.0	U	10.0	8.86		ug/L		89	70 - 120	13	19
1,3-Dichlorobenzene	1.0	U	10.0	8.80		ug/L		88	71 - 120	8	18
1,4-Dichlorobenzene	1.0	U	10.0	8.87		ug/L		89	72 - 120	9	17
Dichlorodifluoromethane	1.0	U	10.0	9.10		ug/L		91	45 - 130	0	34
1,1-Dichloroethane	1.0	U	10.0	10.5		ug/L		105	69 - 122	1	11
1,2-Dichloroethane	1.0	U	10.0	10.6		ug/L		106	64 - 138	2	11
1,1-Dichloroethene	1.0	U	10.0	11.1		ug/L		111	62 - 127	3	14
1,2-Dichloropropane	1.0	U	10.0	10.5		ug/L		105	72 - 131	2	12
Diethyl ether	2.0	U F1 *	10.0	14.3	F1	ug/L		143	65 - 124	8	11
Ethylbenzene	1.0	U	10.0	9.05		ug/L		90	72 - 121	4	15
2-Hexanone	10	U F2	20.0	22.2	F2	ug/L		111	21 - 184	28	12
Isopropylbenzene	1.0	U	10.0	8.35		ug/L		83	70 - 132	7	16
Methyl acetate	10	U	20.0	18.0		ug/L		90	52 - 139	13	14
Methylcyclohexane	1.0	U	10.0	7.66		ug/L		77	46 - 139	21	35
Methylene Chloride	5.0	U	10.0	8.87		ug/L		89	52 - 137	2	12
4-Methyl-2-pentanone (MIBK)	10	U F2	20.0	19.8	F2	ug/L		99	53 - 147	28	16
Methyl tert-butyl ether	1.0	U	10.0	8.49		ug/L		85	67 - 125	12	12
Styrene	1.0	U	10.0	8.75		ug/L		88	74 - 125	3	14
1,1,2,2-Tetrachloroethane	1.0	U	10.0	10.8		ug/L		108	51 - 123	16	17
Tetrachloroethene	1.0	U	10.0	9.10		ug/L		91	69 - 126	6	18
Toluene	1.0	U	10.0	10.2		ug/L		102	69 - 125	2	14
trans-1,2-Dichloroethene	1.0	U	10.0	9.90		ug/L		99	66 - 131	3	11
trans-1,3-Dichloropropene	1.0	U	10.0	9.08		ug/L		91	59 - 120	7	14
1,2,4-Trichlorobenzene	1.0	U F2	10.0	6.69	F2	ug/L		67	26 - 138	39	35
1,1,1-Trichloroethane	1.0	U	10.0	8.83		ug/L		88	57 - 156	2	13
1,1,2-Trichloroethane	1.0	U	10.0	11.2		ug/L		112	68 - 127	9	11
Trichloroethene	1.0	U	10.0	8.77		ug/L		88	68 - 129	1	12
Trichlorofluoromethane	1.0	U	10.0	11.3		ug/L		113	28 - 172	14	26
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	10.0	10.5		ug/L		105	58 - 137	22	35
1,2,4-Trimethylbenzene	1.0	U	10.0	8.48		ug/L		85	64 - 120	8	22
1,3,5-Trimethylbenzene	1.0	U	10.0	8.41		ug/L		84	67 - 120	5	25
Vinyl chloride	7.1	F1	10.0	19.9	F1	ug/L		128	55 - 123	10	12
Xylenes, Total	2.0	U	20.0	18.0		ug/L		90	71 - 122	5	14
1,4-Dioxane	50	U F1 F2	200	56.4	F2	ug/L		28	13 - 155	100	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*69 - 120*
Dibromofluoromethane (Surr)	*88*		*69 - 124*
1,2-Dichloroethane-d4 (Surr)	*96*		*61 - 138*
Toluene-d8 (Surr)	*94*		*73 - 120*

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

Lab Sample ID: MB 240-304047/5
Matrix: Water
Analysis Batch: 304047

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	0.24	ug/L			11/17/17 13:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*81*		*63 - 125*		*11/17/17 13:26*	*1*

Lab Sample ID: LCS 240-304047/4
Matrix: Water
Analysis Batch: 304047

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	9.73		ug/L		97	59 - 131		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*81*		*63 - 125*

Lab Sample ID: 240-87921-C-6 MS
Matrix: Water
Analysis Batch: 304047

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	2.0	U	10.0	8.97		ug/L		90	52 - 129		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*80*		*63 - 125*

Lab Sample ID: 240-87921-C-6 MSD
Matrix: Water
Analysis Batch: 304047

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	2.0	U	10.0	10.2		ug/L		102	52 - 129	13	13

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*80*		*63 - 125*

Lab Sample ID: MB 240-304276/5
Matrix: Water
Analysis Batch: 304276

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	0.24	ug/L			11/20/17 11:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*75*		*63 - 125*		*11/20/17 11:11*	*1*

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

Lab Sample ID: LCS 240-304276/4
Matrix: Water
Analysis Batch: 304276

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	10.4		ug/L		104	59 - 131		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*72*		*63 - 125*

Lab Sample ID: 240-87922-10 MS
Matrix: Water
Analysis Batch: 304276

Client Sample ID: MW-42_110917
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	2.4		10.0	13.4		ug/L		110	52 - 129		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*74*		*63 - 125*

Lab Sample ID: 240-87922-10 MSD
Matrix: Water
Analysis Batch: 304276

Client Sample ID: MW-42_110917
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	2.4		10.0	12.9		ug/L		105	52 - 129	4	13

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*72*		*63 - 125*

Lab Sample ID: MB 240-304512/5
Matrix: Water
Analysis Batch: 304512

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	0.24	ug/L			11/21/17 11:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*63 - 125*		*11/21/17 11:55*	*1*

Lab Sample ID: LCS 240-304512/4
Matrix: Water
Analysis Batch: 304512

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	9.35		ug/L		93	59 - 131		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*88*		*63 - 125*

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

Lab Sample ID: 240-88124-C-2 MS
Matrix: Water
Analysis Batch: 304512

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	2.0	U	10.0	10.9		ug/L		109	52 - 129		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*63 - 125*

Lab Sample ID: 240-88124-C-2 MSD
Matrix: Water
Analysis Batch: 304512

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	2.0	U	10.0	10.1		ug/L		101	52 - 129	8	13

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*63 - 125*

GC/MS VOA

Analysis Batch: 304047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-87922-1	MW-02_110917	Total/NA	Water	8260B SIM	
240-87922-2	MW-03_110917	Total/NA	Water	8260B SIM	
240-87922-3	MW-05_110917	Total/NA	Water	8260B SIM	
240-87922-5	MW-10_110917	Total/NA	Water	8260B SIM	
MB 240-304047/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-304047/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-87921-C-6 MS	Matrix Spike	Total/NA	Water	8260B SIM	
240-87921-C-6 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B SIM	

Analysis Batch: 304054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-87922-7	TRIP BLANK	Total/NA	Water	8260B	
MB 240-304054/7	Method Blank	Total/NA	Water	8260B	
LCS 240-304054/5	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 304276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-87922-4	MW-04_110917	Total/NA	Water	8260B SIM	
240-87922-6	MW-51_110917	Total/NA	Water	8260B SIM	
240-87922-8	MW-41_110917	Total/NA	Water	8260B SIM	
240-87922-9	MW-34_110917	Total/NA	Water	8260B SIM	
240-87922-10	MW-42_110917	Total/NA	Water	8260B SIM	
240-87922-11	MW-20_110917	Total/NA	Water	8260B SIM	
240-87922-13	MW-14_111017	Total/NA	Water	8260B SIM	
240-87922-14	MW-69_111017	Total/NA	Water	8260B SIM	
240-87922-15	MW-31_111017	Total/NA	Water	8260B SIM	
MB 240-304276/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-304276/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-87922-10 MS	MW-42_110917	Total/NA	Water	8260B SIM	
240-87922-10 MSD	MW-42_110917	Total/NA	Water	8260B SIM	

Analysis Batch: 304322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-87922-1	MW-02_110917	Total/NA	Water	8260B	
240-87922-2	MW-03_110917	Total/NA	Water	8260B	
240-87922-3	MW-05_110917	Total/NA	Water	8260B	
240-87922-4	MW-04_110917	Total/NA	Water	8260B	
240-87922-5	MW-10_110917	Total/NA	Water	8260B	
240-87922-6	MW-51_110917	Total/NA	Water	8260B	
240-87922-8	MW-41_110917	Total/NA	Water	8260B	
240-87922-9	MW-34_110917	Total/NA	Water	8260B	
240-87922-10	MW-42_110917	Total/NA	Water	8260B	
240-87922-11	MW-20_110917	Total/NA	Water	8260B	
MB 240-304322/6	Method Blank	Total/NA	Water	8260B	
LCS 240-304322/4	Lab Control Sample	Total/NA	Water	8260B	
240-87918-E-35 MS	Matrix Spike	Total/NA	Water	8260B	
240-87918-F-35 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 304503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-87922-13	MW-14_111017	Total/NA	Water	8260B	

GC/MS VOA (Continued)

Analysis Batch: 304503 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-87922-14	MW-69_111017	Total/NA	Water	8260B	
240-87922-15	MW-31_111017	Total/NA	Water	8260B	
MB 240-304503/6	Method Blank	Total/NA	Water	8260B	
LCS 240-304503/4	Lab Control Sample	Total/NA	Water	8260B	
240-88219-E-2 MS	Matrix Spike	Total/NA	Water	8260B	
240-88219-H-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 304512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-87922-12	MW-09_111017	Total/NA	Water	8260B SIM	
240-87922-16	MW-52_111017	Total/NA	Water	8260B SIM	
MB 240-304512/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-304512/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-88124-C-2 MS	Matrix Spike	Total/NA	Water	8260B SIM	
240-88124-C-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B SIM	

Analysis Batch: 304729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-87922-12	MW-09_111017	Total/NA	Water	8260B	
240-87922-16	MW-52_111017	Total/NA	Water	8260B	
MB 240-304729/6	Method Blank	Total/NA	Water	8260B	
LCS 240-304729/4	Lab Control Sample	Total/NA	Water	8260B	
240-87922-12 MS	MW-09_111017	Total/NA	Water	8260B	
240-87922-12 MSD	MW-09_111017	Total/NA	Water	8260B	

Client Sample ID: MW-02_110917
Lab Sample ID: 240-87922-1
Date Collected: 11/09/17 10:37
Matrix: Water
Date Received: 11/11/17 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		66.67	304322	11/20/17 18:10	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	304047	11/17/17 21:16	SAM	TAL CAN

Client Sample ID: MW-03_110917
Lab Sample ID: 240-87922-2
Date Collected: 11/09/17 11:37
Matrix: Water
Date Received: 11/11/17 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304322	11/20/17 18:31	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	304047	11/17/17 21:41	SAM	TAL CAN

Client Sample ID: MW-05_110917
Lab Sample ID: 240-87922-3
Date Collected: 11/09/17 12:37
Matrix: Water
Date Received: 11/11/17 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304322	11/20/17 18:54	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	304047	11/17/17 22:05	SAM	TAL CAN

Client Sample ID: MW-04_110917
Lab Sample ID: 240-87922-4
Date Collected: 11/09/17 13:47
Matrix: Water
Date Received: 11/11/17 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1000	304322	11/20/17 19:16	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		10	304276	11/20/17 12:01	SAM	TAL CAN

Client Sample ID: MW-10_110917
Lab Sample ID: 240-87922-5
Date Collected: 11/09/17 14:52
Matrix: Water
Date Received: 11/11/17 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		100	304322	11/20/17 19:38	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	304047	11/17/17 22:55	SAM	TAL CAN

Client Sample ID: MW-51_110917
Lab Sample ID: 240-87922-6
Date Collected: 11/09/17 16:02
Matrix: Water
Date Received: 11/11/17 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304322	11/20/17 20:00	LRW	TAL CAN

Client Sample ID: MW-51_110917
Lab Sample ID: 240-87922-6
Date Collected: 11/09/17 16:02
Matrix: Water
Date Received: 11/11/17 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B SIM		1	304276	11/20/17 12:25	SAM	TAL CAN

Client Sample ID: TRIP BLANK
Lab Sample ID: 240-87922-7
Date Collected: 11/09/17 00:00
Matrix: Water
Date Received: 11/11/17 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304054	11/17/17 22:47	LRW	TAL CAN

Client Sample ID: MW-41_110917
Lab Sample ID: 240-87922-8
Date Collected: 11/09/17 14:50
Matrix: Water
Date Received: 11/11/17 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304322	11/20/17 20:22	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	304276	11/20/17 12:50	SAM	TAL CAN

Client Sample ID: MW-34_110917
Lab Sample ID: 240-87922-9
Date Collected: 11/09/17 15:55
Matrix: Water
Date Received: 11/11/17 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304322	11/20/17 20:45	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	304276	11/20/17 13:15	SAM	TAL CAN

Client Sample ID: MW-42_110917
Lab Sample ID: 240-87922-10
Date Collected: 11/09/17 16:50
Matrix: Water
Date Received: 11/11/17 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304322	11/20/17 21:07	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	304276	11/20/17 13:40	SAM	TAL CAN

Client Sample ID: MW-20_110917
Lab Sample ID: 240-87922-11
Date Collected: 11/10/17 09:02
Matrix: Water
Date Received: 11/11/17 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304322	11/20/17 21:28	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	304276	11/20/17 14:55	SAM	TAL CAN

Lab Chronicle

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

TestAmerica Job ID: 240-87922-1

Client Sample ID: MW-09_111017
Date Collected: 11/10/17 11:22
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304729	11/22/17 14:06	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	304512	11/21/17 12:44	SAM	TAL CAN

Client Sample ID: MW-14_111017
Date Collected: 11/10/17 10:12
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304503	11/21/17 18:12	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	304276	11/20/17 17:07	SAM	TAL CAN

Client Sample ID: MW-69_111017
Date Collected: 11/10/17 09:10
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304503	11/21/17 18:34	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	304276	11/20/17 17:57	SAM	TAL CAN

Client Sample ID: MW-31_111017
Date Collected: 11/10/17 10:15
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304503	11/21/17 18:57	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	304276	11/20/17 18:22	SAM	TAL CAN

Client Sample ID: MW-52_111017
Date Collected: 11/10/17 12:15
Date Received: 11/11/17 09:30

Lab Sample ID: 240-87922-16
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304729	11/22/17 14:29	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	304512	11/21/17 13:09	SAM	TAL CAN

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

Accreditation/Certification Summary

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

TestAmerica Job ID: 240-87922-1

Laboratory: TestAmerica Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2927	02-23-18
Connecticut	State Program	1	PH-0590	12-31-17 *
Florida	NELAP	4	E87225	06-30-18
Illinois	NELAP	5	200004	07-31-18
Kansas	NELAP	7	E-10336	01-31-18 *
Kentucky (UST)	State Program	4	58	02-23-18
Kentucky (WW)	State Program	4	98016	12-31-17 *
Minnesota	NELAP	5	039-999-348	12-31-17 *
Minnesota (Petrofund)	State Program	1	3506	07-31-18
Nevada	State Program	9	OH-000482008A	07-31-18
New Jersey	NELAP	2	OH001	06-30-18
New York	NELAP	2	10975	03-31-18
Ohio VAP	State Program	5	CL0024	09-06-19
Oregon	NELAP	10	4062	02-23-18
Pennsylvania	NELAP	3	68-00340	08-31-18
Texas	NELAP	6	T104704517-17-9	08-31-18
USDA	Federal		P330-16-00404	12-28-19
Virginia	NELAP	3	460175	09-14-18
Washington	State Program	10	C971	01-12-18 *
West Virginia DEP	State Program	3	210	12-31-17 *

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

1.2/C1.2
1.0/C1.0

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

MICHIGAN 190

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Ashley Reibel / Divya Kumar	Lab PM: Pohl, Denise	Carrier Tracking No(s):	COC No: 240-46823-20400.3
Client Contact: Kristoffer Hinskey	Phone:	E-Mail: denise.pohl@testamericainc.com		Page: Page ~~3 of 10~~ 1 of 2
Company: ARCADIS U.S., Inc.		Analysis Requested		Job #:
Address: 28550 Cabot Drive Suite 500	Due Date Requested:			Preservation Codes:
City: Novi	TAT Requested (days): 10 days			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: MI, 48377	PO #: MI001318.0002.00002			
Phone:	WO #: Cadena #: ~~E203631~~ E203728			Other:
Email: kristoffer.hinskey@arcadis-us.com	Project #: 24015353			
Project Name: Ford LTP Livonia MI - E203631	SSOW#:			
Site:				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B, 8260B_SIM	1,1 DCE	CIS-1,2-DCE	trans-1,2-DCE	PCE	TCE	Vinyl Chloride	1,4 dioxane	Total Number of containers	Note:
			Preservation Code:				A									
MW-02-110917	11/9/17	1037	G	Water	N	N		X	X	X	X	X	X	X	6	
MW-03-110917	11/9/17	1137	G	Water	N	N		X	X	X	X	X	X	X	6	
MW-05-110917	11/9/17	1237	G	Water	N	N		X	X	X	X	X	X	X	6	
MW-04-110917	11/9/17	1347	G	Water	N	N		X	X	X	X	X	X	X	6	
MW-10-110917	11/9/17	1452	G	Water	N	N		X	X	X	X	X	X	X	6	
MW-51-110917	11/9/17	1602	G	Water	N	N		X	X	X	X	X	X	X	6	
TRIP BLANK	11/9/17	—	—	Water	N	N		X	X	X	X	X	X	X	6	
~~MW-43-110917~~ MW-41-110917	11/9/17	~~1450~~ ~~1045~~	G	Water	N	N		X	X	X	X	X	X	X	6	
~~MW-30-110917~~ MW-34-110917	11/9/17	~~1240~~ 1535	G	Water	N	N		X	X	X	X	X	X	X	6	
MW-42-110917	11/9/17	1450	G	Water	N	N		X	X	X	X	X	X	X	6	
MW-20-111017	11/10/17	0902	G	Water	N	N		X	X	X	X	X	X	X	6	

240-87922 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: Submit through Cadena: jm.tomalia@cadena.com

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Ashley Reibel	11/10/17 1316	ARCADIS		11/10/17 1316	TAL
2		11/10/17 1400			11/11/17 930	TA
3						

Custody Seals Intact: △ Yes △ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 08/04/2016

TestAmerica Michigan
10448 Citation Drive
Suite 200
Brighton, MI 48116
Phone: 810.229.2763 Fax:

MICHIGAN 190

Chain of Custody Record 190701

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Kristin Skey	Site Contact:	Date:	COC No:
Company Name: ARCADIS	Tel/Fax:	Lab Contact:	Carrier:	1 of 2 COCs
Address: 28550 Cabot Dr Suite 500	Analysis Turnaround Time			Sampler:
City/State/Zip: Novi MI 48377	☐ CALENDAR DAYS ☒ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below 10 day			Walk-in Client:
Fax:	☒ 2 weeks			Lab Sampling:
Project Name: FORDLTP E203728	☐ 1 week			
Site: Livonia, MI	☐ 2 days			Job / SDG No.:
PO#	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	1,1 DCE	cis-1,2-DCE	trans-1,2-DCE	PCE	TCE	Vinyl Chloride	1,4 Dioxane	Sample Specific Notes:
MW-09-111017	11/10/17	1122	G	W	6	N	N	X	X	X	X	X	X	X	
MW-14-111017	11/10/17	1012	G	W	6	N	N	X	X	X	X	X	X	X	
MW-69-111017	11/10/17	910	G	W	6	N	N	X	X	X	X	X	X	X	
MW-31-111017	11/10/17	1015	G	W	6	N	N	X	X	X	X	X	X	X	
MW-52-111017	11/10/17	1215	G	W	6	N	N	X	X	X	X	X	X	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other 2

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
Submit through Cadena: jm.tomalia@cadena.com

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Ashley Reibel / Ashley Reibel	ARCADIS 1316	11/10/17 1316		TESTAMERICA	11/10/17 1316
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TESTAMERICA	11/10/17 1400		TA	11/11/17 730
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** _____
Canton Facility

Client Arcadis U.S Site Name _____ Cooler unpacked by:

Cooler Received on 11/11/17 Opened on 11/11/17

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

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

TestAmerica Cooler # _____ Foam Box (Client Cooler) Box Other _____

Packing material used: (Bubble Wrap) (Foam) Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☑ See Multiple Cooler Form
   IR GUN# IR-8 (CF **+0** °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN #36 (CF **+0.3**°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN # 627 (CF **-1.3**°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(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 be reconciled with the COC?	(Yes)	No
9. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
10. Sufficient quantity received to perform indicated analyses?	(Yes)	No
11. Are these work share samples?	Yes	(No)
If yes, Questions 11-15 have been checked at the originating laboratory.		
11. Were all preserved sample(s) at the correct pH upon receipt?	Yes No	(NA) pH Strip Lot# **HC697954**
12. Were VOAs on the COC?	(Yes)	No
13. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	(No) NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # B712810VB	(Yes)	No
15. 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 _____

16. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

_____

_____

_____

_____

_____

17. 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)

18. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

TestAmerica Multiple Cooler Receipt Form/Narrative **Login # :**_____
Canton Facility

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
Client cooler	8	1.2	1.2	ice
1	8	1.0	1.0	ice