



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
LANSING



LIESL EICHLER CLARK
DIRECTOR

January 16, 2020

VIA E-MAIL

HESPERIA
33 E MICHIGAN AVE
P.O. BOX 366
HESPERIA, MICHIGAN 49421

WSSN: 03130

Dear Water Supply Owner/Operator:

SUBJECT: HESPERIA 2019 Quarterly
Per- and Polyfluoroalkyl Substances (PFAS) Results

HESPERIA was included in a state-funded quarterly sampling effort because PFAS results in 2018 were greater than or equal to 10 parts per trillion (ppt) total PFAS or between 10 ppt and 70 ppt perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA). The results of 2019 PFAS samples collected from HESPERIA, WSSN # 03130 (water supply) on the date(s) indicated are below. A copy of the laboratory report is enclosed for your review.

Date Collected	Sampling Location	PFOS + PFOA (ppt)	LHA (ppt) PFOS + PFOA	Total Tested PFAS (ppt)
12/16/2019	CH001	ND	70	35
12/16/2019	WL003	9	70	31

ND – The parameter was not detected based on the laboratory’s analytical report.
See Official lab results for test method used.

Currently, there is no regulatory drinking water standard for any of the PFAS chemicals. However, in May 2016, the United States Environmental Protection Agency (USEPA) established a non-regulatory Lifetime Health Advisory (LHA) for two of these chemicals, PFOS and PFOA. The LHA for PFOS and PFOA is 70 ppt combined, or individually if only one of them is present.

Your water supply may have returned results greater than non-detect (ND) for the total amount of PFAS analytes tested. Neither the Michigan Department of Environment, Great Lakes, and Energy (EGLE) (formerly the Michigan Department of Environmental Quality) nor the USEPA currently have any guidance values for these other analytes. If additional guidance and/or comparison values are developed for PFOS, PFOA, or other PFAS chemicals in the future, we may reevaluate the recommendations below.

The concentrations of PFOS and PFOA in these samples are below the USEPA LHA of 70 ppt. We provide the following recommendations:

1. Inform the public as soon as possible of these sample results through posting on your Web site or other means. EGLE, in collaboration with the Michigan Department of Health and Human Services (MDHHS), has developed a toolkit containing communication templates to help notify the consumers of your water supply on the presence of PFAS in the drinking water and the response measures that are being initiated. This is a resource available to you if you choose and can be modified to fit your needs. The toolkit is available at www.Michigan.gov/PFASResponse; click on "news and education."
2. Investigate potential sources of PFAS in your watershed and initiate steps to remove any identified source, if possible. EGLE's Remediation and Redevelopment Division District Supervisor is copied herein and is available to assist you with this effort.
3. Evaluate options to modify operations to reduce PFAS in the water supply should levels approach the existing LHA. For example, this could be accomplished by minimizing use of wells with elevated PFAS levels or through the installation of treatment technology capable of reducing PFAS prior to distribution.
4. Please continue with your regularly scheduled monitoring.

The results of the 2019 sampling will be posted online on the Michigan PFAS Action Response Team (MPART) Web site within 48 hours of this notification. The results will be found online by going to the MPART Web site address listed below; click on "Testing and Treatment," scroll down to "Drinking Water," and select "Statewide Testing Initiative."

For information on PFOS, PFOA, and other PFAS, including possible health outcomes, you may visit these Web sites:

- **State of Michigan MPART** Web site serving as the main resource for public information on PFAS contamination in Michigan: www.Michigan.gov/PFASResponse
- **USEPA** Web site including basic information, USEPA actions, and links to informational resources: <http://www.epa.gov/pfas>
- **ATSDR** Web site including health information, exposure, and links to additional resources: www.atsdr.cdc.gov/pfas

To speak to a MDHHS toxicologist, call toll-free at 1-800-648-6942.

HESPERIA
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Thank you for your continued collaboration with this investigation. The ongoing partnership between EGLE and Michigan's public water supplies plays an integral role in the state's continued efforts to ascertain and address the incidence of PFAS in drinking water for Michiganders.

If you have any questions concerning this sampling, please contact me at the telephone number below; by email at EGLE-PFAS-DrinkingWater@Michigan.gov; or by mail at EGLE-Drinking Water and Environmental Health Division, P.O. Box 30817, Lansing, Michigan 48909-8311.

Sincerely,

Lois Elliott Graham

Lois Elliott Graham, R.S., M.S.A.
Drinking Water and Environmental Health
Division
810-730-8674

Enclosure

cc: Mr. Thomas Reichard, District Health Department No. 10
Mr. Steven Crider, Supervisor, Drinking Water Unit, MDHHS
Ms. Abigail Hendershot, EGLE
Mr. Luke Dehtiar, EGLE



January 08, 2020

Vista Work Order No. 1904423

Ms. Maya Murshak
Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Dear Ms. Murshak,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on December 20, 2019 under your Project Name 'MDEQ State Municipal Sampling'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

A handwritten signature in black ink that reads "Martha Maier". The signature is fluid and cursive, with the first name being more prominent.

Martha Maier
Laboratory Director



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 1904423

Case Narrative

Sample Condition on Receipt:

Two drinking water samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

Analytical Notes:

EPA Method 537, Rev. 1.1

The samples were extracted and analyzed for a selected list of 14 PFAS using EPA Method 537, Rev. 1.1. The results have been reported following the conventions specified by the Michigan Department of Environmental Quality.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Laboratory Fortified Blank (LFB) and a Laboratory Reagent Blank (LRB) were extracted and analyzed with the preparation batch. No analytes were detected in the Laboratory Reagent Blank. The LFB recoveries were within the method acceptance criteria.

The surrogate recoveries for all QC and field samples were within the acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1904423-01	GWNT1912161100GGA	16-Dec-19 11:00	20-Dec-19 12:15	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
1904423-02	GWNT1912161130GGA	16-Dec-19 11:30	20-Dec-19 12:15	HDPE Bottle, 250 mL HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: LRB

EPA Method 537 Rev 1.1

Client Data		Laboratory Data							
Name:	Merit Laboratories, Inc.	Lab Sample:	B9L0260-BLK1	Column:	BEHC18				
Project:	MDEQ State Municipal Sampling	Matrix:	Aqueous						
Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	2		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:02	1
PFHxA	307-24-4	ND	2		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:02	1
PFHpA	375-85-9	ND	2		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:02	1
PFHxS	355-46-4	ND	2		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:02	1
PFOA	335-67-1	ND	2		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:02	1
PFNA	375-95-1	ND	2		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:02	1
PFOS	1763-23-1	ND	2		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:02	1
PFDA	335-76-2	ND	2		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:02	1
MeFOSAA	2355-31-9	ND	4		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:02	1
EtFOSAA	2991-50-6	ND	4		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:02	1
PFUnA	2058-94-8	ND	4		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:02	1
PFDoA	307-55-1	ND	4		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:02	1
PFTrDA	72629-94-8	ND	4		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:02	1
PFTeDA	376-06-7	ND	4		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:02	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	106	70 - 130		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:02	1
13C2-PFDA	SURR	101	70 - 130		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:02	1
d5-EtFOSAA	SURR	96	70 - 130		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:02	1

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Results reported to RL.
Reporting convention specified by MI DEQ.

RL - Reporting limit

Sample ID: LFB
EPA Method 537 Rev 1.1

Client Data		Laboratory Data										
Name:	Merit Laboratories, Inc.	Matrix:	Aqueous	Lab Sample:	B9L0260-BSI	Column:	BEH C18					
Project:	MDEQ State Municipal Sampling											
Analyte	CAS Number	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFBS	375-73-5	35	35	100	70 - 130		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:13	1	
PFHxA	307-24-4	40	40	99	70 - 130		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:13	1	
PFHpA	375-85-9	38	40	96	70 - 130		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:13	1	
PFHxS	355-46-4	36	36	100	70 - 130		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:13	1	
PFOA	335-67-1	41	40	101	70 - 130		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:13	1	
PFNA	375-95-1	39	40	98	70 - 130		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:13	1	
PFOS	1763-23-1	36	37	96	70 - 130		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:13	1	
PFDA	335-76-2	36	40	91	70 - 130		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:13	1	
MeFOSAA	2355-31-9	39	40	98	70 - 130		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:13	1	
EtFOSAA	2991-50-6	39	40	97	70 - 130		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:13	1	
PFUnA	2058-94-8	38	40	95	70 - 130		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:13	1	
PFDoA	307-55-1	38	40	95	70 - 130		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:13	1	
PFTtDA	72629-94-8	37	40	93	70 - 130		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:13	1	
PFTeDA	376-06-7	39	40	96	70 - 130		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:13	1	
Labeled Standards	Type			% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
I3C2-PFHxA	SURR			100	70 - 130		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:13	1	
I3C2-PFDA	SURR			100	70 - 130		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:13	1	
d5-EtFOSAA	SURR			97	70 - 130		B9L0260	27-Dec-19	0.25 L	03-Jan-20 20:13	1	

Data Reported per Michigan DEQ instructions.

Sample ID: GWNT1912161100GGA

EPA Method 537 Rev 1.1

Client Data		Laboratory Data	
Name:	Merit Laboratories, Inc.	Lab Sample:	1904423-01
Project:	MDEQ State Municipal Sampling	Date Received:	20-Dec-19 12:15
Location:	HESPERIA03130CH001	Matrix:	Drinking Water
		Date Collected:	16-Dec-19 11:00
		Column:	BEHC18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	35	2		B9L0260	27-Dec-19	0.26 L	03-Jan-20 22:15	1
PFHxA	307-24-4	ND	2		B9L0260	27-Dec-19	0.26 L	03-Jan-20 22:15	1
PFHpA	375-85-9	ND	2		B9L0260	27-Dec-19	0.26 L	03-Jan-20 22:15	1
PFHxS	355-46-4	ND	2		B9L0260	27-Dec-19	0.26 L	03-Jan-20 22:15	1
PFOA	335-67-1	ND	2		B9L0260	27-Dec-19	0.26 L	03-Jan-20 22:15	1
PFNA	375-95-1	ND	2		B9L0260	27-Dec-19	0.26 L	03-Jan-20 22:15	1
PFOS	1763-23-1	ND	2		B9L0260	27-Dec-19	0.26 L	03-Jan-20 22:15	1
PFDA	335-76-2	ND	2		B9L0260	27-Dec-19	0.26 L	03-Jan-20 22:15	1
MeFOSAA	2355-31-9	ND	4		B9L0260	27-Dec-19	0.26 L	03-Jan-20 22:15	1
EtFOSAA	2991-50-6	ND	4		B9L0260	27-Dec-19	0.26 L	03-Jan-20 22:15	1
PFUnA	2058-94-8	ND	4		B9L0260	27-Dec-19	0.26 L	03-Jan-20 22:15	1
PFDoA	307-55-1	ND	4		B9L0260	27-Dec-19	0.26 L	03-Jan-20 22:15	1
PFTtDA	72629-94-8	ND	4		B9L0260	27-Dec-19	0.26 L	03-Jan-20 22:15	1
PFTeDA	376-06-7	ND	4		B9L0260	27-Dec-19	0.26 L	03-Jan-20 22:15	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	101	70 - 130		B9L0260	27-Dec-19	0.26 L	03-Jan-20 22:15	1
13C2-PFDA	SURR	100	70 - 130		B9L0260	27-Dec-19	0.26 L	03-Jan-20 22:15	1
d5-EtFOSAA	SURR	95	70 - 130		B9L0260	27-Dec-19	0.26 L	03-Jan-20 22:15	1

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Results reported to RL.
Reporting convention specified by MI DEQ.
RL - Reporting limit

Sample ID: GWNT1912161130GGA

EPA Method 537 Rev 1.1

Client Data		Laboratory Data							
Name:	Merit Laboratories, Inc.	Lab Sample:	1904423-02	Column:	BEHC18				
Project:	MDEQ State Municipal Sampling	Date Collected:	16-Dec-19 11:30	Date Received:	20-Dec-19 12:15				
Location:	HESPERIA03130WL003	Matrix:	Drinking Water						
Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	3	2		B9L0260	27-Dec-19	0.24 L	03-Jan-20 22:26	1
PFHxA	307-24-4	11	2		B9L0260	27-Dec-19	0.24 L	03-Jan-20 22:26	1
PFHpA	375-85-9	8	2		B9L0260	27-Dec-19	0.24 L	03-Jan-20 22:26	1
PFHxS	355-46-4	ND	2		B9L0260	27-Dec-19	0.24 L	03-Jan-20 22:26	1
PFOA	335-67-1	9	2		B9L0260	27-Dec-19	0.24 L	03-Jan-20 22:26	1
PFNA	375-95-1	ND	2		B9L0260	27-Dec-19	0.24 L	03-Jan-20 22:26	1
PFOS	1763-23-1	ND	2		B9L0260	27-Dec-19	0.24 L	03-Jan-20 22:26	1
PFDA	335-76-2	ND	2		B9L0260	27-Dec-19	0.24 L	03-Jan-20 22:26	1
MeFOSAA	2355-31-9	ND	4		B9L0260	27-Dec-19	0.24 L	03-Jan-20 22:26	1
EtFOSAA	2991-50-6	ND	4		B9L0260	27-Dec-19	0.24 L	03-Jan-20 22:26	1
PFUnA	2058-94-8	ND	4		B9L0260	27-Dec-19	0.24 L	03-Jan-20 22:26	1
PFDoA	307-55-1	ND	4		B9L0260	27-Dec-19	0.24 L	03-Jan-20 22:26	1
PFTtDA	72629-94-8	ND	4		B9L0260	27-Dec-19	0.24 L	03-Jan-20 22:26	1
PFTeDA	376-06-7	ND	4		B9L0260	27-Dec-19	0.24 L	03-Jan-20 22:26	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	96	70 - 130		B9L0260	27-Dec-19	0.24 L	03-Jan-20 22:26	1
13C2-PFDA	SURR	92	70 - 130		B9L0260	27-Dec-19	0.24 L	03-Jan-20 22:26	1
d5-EtFOSAA	SURR	80	70 - 130		B9L0260	27-Dec-19	0.24 L	03-Jan-20 22:26	1

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Results reported to RL.
Reporting convention specified by MI DEQ.

RL - Reporting limit

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	19-013-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-23
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2018017
Massachusetts Department of Environmental Protection	N/A
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1521520
New Hampshire Environmental Accreditation Program	207718-B
New Jersey Department of Environmental Protection	190001
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-010
Pennsylvania Department of Environmental Protection	016
Texas Commission on Environmental Quality	T104704189-19-10
Vermont Department of Health	VT-4042
Virginia Department of General Services	10272
Washington Department of Ecology	C584-19
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	Method
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	Method
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613/1613B
1,4-Dioxane (1,4-Diethyleneoxide) analysis by GC/HRMS	EPA 522
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	Method
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A



CHAIN OF CUSTODY

For Laboratory Use Only
 Work Order #: 1904423 Temp: 15 °C
 Storage ID: R-13, DR-2 Storage Secured: Yes No

Project ID: MDEQ STATE MUNICIPAL SAMPLING PC#: 60570309 Sampler: GEORGE AUSTIN (name)
 Invoice to: Name MIKE JURY Company MDEQ Address 401 KETCHUM ST, SUITE B City BAY CITY State MI Zip 48708
 Phone: 989-894-6255 Fax: 989-891-9237

Relinquished by (printed name and signature) [Signature] Date 12/19/19 Time 13:00 Received by (printed name and signature) George Austin Date 12/20/19 Time 12:15
 Relinquished by (printed name and signature) [Signature] Date 12/19/19 Time 13:00 Received by (printed name and signature) Mike Jury Date 12/20/19 Time 12:15

SHIP TO: Vista Analytical Laboratory
 1104 Windfield Way
 El Dorado Hills, CA 95762
 Ph.: (916) 673-1520, Fax: (916) 673-0106

ATTN: Jennifer Miller

Sample ID	Date	Time	Location/Sample Description	Method of Shipment	Tracking No.:	Quantity	Matrix Type	List of 21 Wislomers	List of 24 Wislomers	List of 28 Wislomers	Other Please List	Isotope Dilution	PFOM/PROS	UCMR3 PFAS List	PFAS List 14	USEPA Method 537	Comments
GWNT1912161100GGA	12/16/19	1100	HESPERIA03130CH001			2	P DW										WELL #1 & 2
GWNT1912161130GGA	12/16/19	1130	HESPERIA03130WL003			2	P DW										WELL #3

Special Instructions/Comments: _____
 Send Results and Acknowledgements to the list provided by e-mail to Vista.

Name: MIKE JURY
 Company: MDEQ
 Address: 401 KETCHUM ST, SUITE B
 City: BAY CITY State: MI Zip: 48708
 Phone: 989-894-6255 Fax: 989-891-9237
 Email: corin.bogdan@aecon.com

SEND DOCUMENTATION AND RESULTS TO:

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment,
 SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other

Bottle Preservation Type: T = Thiosulfate, TZ = Trizma



Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 1904423

TAT std

Samples Arrival:	Date/Time 12/20/19 12:15	Initials: HOG	Location: WR-2
			Shelf/Rack: NA
Delivered By:	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> UPS	<input type="checkbox"/> On Trac
	<input type="checkbox"/> GSO	<input type="checkbox"/> DHL	<input type="checkbox"/> Hand Delivered
	<input type="checkbox"/> Other		
Preservation:	<input checked="" type="checkbox"/> Ice	<input type="checkbox"/> Blue Ice	<input type="checkbox"/> Dry Ice
	<input type="checkbox"/> None		
Temp °C: 1.5 (uncorrected)	Probe used: Y / <input checked="" type="checkbox"/> N		Thermometer ID: IR-4
Temp °C: 1.5 (corrected)			

	YES	NO	NA
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>		
Shipping Custody Seals Intact?	<input checked="" type="checkbox"/>		
Airbill <u>—</u> Trk # <u>4894 6696 4278</u>	<input checked="" type="checkbox"/>		
Shipping Documentation Present?	<input checked="" type="checkbox"/>		
Shipping Container	<input checked="" type="checkbox"/> Vista	<input type="checkbox"/> Client	<input checked="" type="checkbox"/> Retain
	<input type="checkbox"/> Return	<input type="checkbox"/> Dispose	
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>		
Chain of Custody / Sample Documentation Complete?	<input checked="" type="checkbox"/>		
Holding Time Acceptable?	<input checked="" type="checkbox"/>		

Logged In:	Date/Time 12/23/19 1222	Initials: WWS	Location: R-13, WR-2 ↓ ↓ Shelf/Rack: 8-2, F-7
COC Anomaly/Sample Acceptance Form completed?			<input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

Comments:

CoC/Label Reconciliation Report WO# 1904423

LabNumber	CoC Sample ID	Sample Alias	Sample Date/Time	Container	BaseMatrix	Sample Comments
1904423-01	A GWNT1912161100GGA	HESPERIA03130CH001	16-Dec-19 11:00	HDPE Bottle, 250 mL	Aqueous	
1904423-01	B GWNT1912161100GGA	HESPERIA03130CH001	16-Dec-19 11:00	HDPE Bottle, 250 mL	Aqueous	
1904423-02	A GWNT1912161130GGA	HESPERIA03130WL003	16-Dec-19 11:30	HDPE Bottle, 250 mL	Aqueous	
1904423-02	B GWNT1912161130GGA	HESPERIA03130WL003	16-Dec-19 11:30	HDPE Bottle, 250 mL	Aqueous	

Checkmarks indicate that information on the CoC reconciled with the sample label. Any discrepancies are noted in the following columns.

	Yes	No	NA	Comments:
Sample Container Intact?	✓			
Sample Custody Seals Intact?			✓	
Adequate Sample Volume?	✓			
Container Type Appropriate for Analysis(es)	✓			
Preservation Documented: Na2S2O3 Trizma None Other	✓			
If Chlorinated or Drinking Water Samples, Acceptable Preservation?	✓			

Verified by/Date: SK 12/16/19