



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



GRETCHEN WHITMER
 GOVERNOR

LIESL EICHLER CLARK
 DIRECTOR

July 31, 2019

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)
6/20/2019	WL001	ND	70	31
6/20/2019	WL002	ND	70	15
6/20/2019	WL003	11	70	41

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 website 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 (RRD) 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) website within 48 hours of this notification. The results will be found online by going to the MPART website 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 websites:

- **State of Michigan MPART** website serving as the main resource for public information on PFAS contamination in Michigan: www.michigan.gov/pfasresponse
- **USEPA** website including basic information, USEPA actions, and links to informational resources: <http://www.epa.gov/pfas>
- **ATSDR** website 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
Page 3
July 31, 2019

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 (DWEHD), 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, Supervisor, Grand Rapids District Office, Remediation and Redevelopment Division, EGLE
Mr. Luke Dehtiar, Supervisor, Grand Rapids District Office, DWEHD, EGLE



July 11, 2019

Vista Work Order No. 1901772

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 June 25, 2019 under your Project Name 'EGLE 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 cursive script that reads "Martha Maier".

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. 1901772

Case Narrative

Sample Condition on Receipt:

Three 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.

Two Laboratory Fortified Blanks (LFB/LFBD) 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/LFBD recoveries were within the method acceptance criteria.

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

TABLE OF CONTENTS

Case Narrative.....	1
Table of Contents.....	3
Sample Inventory.....	4
Analytical Results.....	5
Qualifiers.....	11
Certifications.....	12
Sample Receipt.....	15

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1901772-01	GWNT1906201045MK	20-Jun-19 10:45	25-Jun-19 08:58	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
1901772-02	GWNT1906201050MK	20-Jun-19 10:50	25-Jun-19 08:58	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
1901772-03	GWNT1906201055MK	20-Jun-19 10:55	25-Jun-19 08:58	HDPE Bottle, 250 mL HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: LRB

EPA Method 537

Client Data		Laboratory Data								
Name:	Merit Laboratories, Inc.	Lab Sample:	B9F0270-BLK1							
Project:	EGLE State Municipal Sampling	Matrix:	Aqueous							
		Column:	BEHC18							
Analyte	CAS Number	Conc. (ng/L)	Matrix	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND		2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 19:53	1
PFHxA	307-24-4	ND		2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 19:53	1
PFHpA	375-85-9	ND		2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 19:53	1
PFHxS	355-46-4	ND		2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 19:53	1
PFOA	335-67-1	ND		2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 19:53	1
PFNA	375-95-1	ND		2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 19:53	1
PFOS	1763-23-1	ND		2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 19:53	1
PFDA	335-76-2	ND		2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 19:53	1
MeFOSAA	2355-31-9	ND		2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 19:53	1
EtFOSAA	2991-50-6	ND		2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 19:53	1
PFUnA	2058-94-8	ND		4		B9F0270	04-Jul-19	0.25 L	08-Jul-19 19:53	1
PFDoA	307-55-1	ND		4		B9F0270	04-Jul-19	0.25 L	08-Jul-19 19:53	1
PFTtDA	72629-94-8	ND		4		B9F0270	04-Jul-19	0.25 L	08-Jul-19 19:53	1
PFTeDA	376-06-7	ND		4		B9F0270	04-Jul-19	0.25 L	08-Jul-19 19:53	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
I3C2-PFHxA	SURR	101	70 - 130		B9F0270	04-Jul-19	0.25 L	08-Jul-19 19:53	1	
I3C2-PFDA	SURR	101	70 - 130		B9F0270	04-Jul-19	0.25 L	08-Jul-19 19:53	1	
d5-EtFOSAA	SURR	86	70 - 130		B9F0270	04-Jul-19	0.25 L	08-Jul-19 19:53	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

Name:	Merit Laboratories, Inc.	Lab Sample:	B9F0270-BS1/B9F0270-BSDI
Project:	EGLE State Municipal Sampling	QC Batch:	B9F0270
Matrix:	Aqueous	Samp Size:	0.25/0.25 L
		Date Extracted:	04-Jul-19
		Column:	BEH C18

Analyte	CAS Number	LFB (ng/L)		LFB % Rec		LFB (ng/L)	LFB Quals	LFB (ng/L)	LFB Spike Amt	LFB % Rec	LFB RPD	LFB Quals	LFB % Rec	LFB Limits	LFB Analyzed	LFB Dil	LFB Analyzed	LFB Dil
		Spike Amt	% Rec	Spike Amt	% Rec													
PFBS	375-73-5	35	100	35	98	35	2	35	35	98	2	35	70-130	30	08-Jul-19 19:31	1	08-Jul-19 19:42	1
PFHxA	307-24-4	40	99	40	101	40	2	40	40	101	2	40	70-130	30	08-Jul-19 19:31	1	08-Jul-19 19:42	1
PFHpA	375-85-9	40	100	40	103	41	2	40	40	103	2	40	70-130	30	08-Jul-19 19:31	1	08-Jul-19 19:42	1
PFHxS	355-46-4	36	100	36	100	36	0	36	36	100	0	36	70-130	30	08-Jul-19 19:31	1	08-Jul-19 19:42	1
PFOA	335-67-1	40	101	40	101	40	0	40	40	101	0	40	70-130	30	08-Jul-19 19:31	1	08-Jul-19 19:42	1
PFNA	375-95-1	39	97	40	97	42	7	40	40	104	7	40	70-130	30	08-Jul-19 19:31	1	08-Jul-19 19:42	1
PFOS	1763-23-1	37	100	37	102	38	3	37	37	102	3	37	70-130	30	08-Jul-19 19:31	1	08-Jul-19 19:42	1
PFDA	335-76-2	39	97	40	97	40	4	40	40	101	4	40	70-130	30	08-Jul-19 19:31	1	08-Jul-19 19:42	1
MeFOSAA	2355-31-9	36	90	40	93	37	4	40	40	93	4	40	70-130	30	08-Jul-19 19:31	1	08-Jul-19 19:42	1
EtFOSAA	2991-50-6	34	84	40	84	39	16	40	40	98	16	40	70-130	30	08-Jul-19 19:31	1	08-Jul-19 19:42	1
PFUnA	2058-94-8	38	96	40	96	39	2	40	40	98	2	40	70-130	30	08-Jul-19 19:31	1	08-Jul-19 19:42	1
PFDxA	307-55-1	36	91	40	91	39	6	40	40	97	6	40	70-130	30	08-Jul-19 19:31	1	08-Jul-19 19:42	1
PFTnDA	72629-94-8	36	90	40	90	40	10	40	40	100	10	40	70-130	30	08-Jul-19 19:31	1	08-Jul-19 19:42	1
PFTeDA	376-06-7	36	89	40	89	39	9	40	40	97	9	40	70-130	30	08-Jul-19 19:31	1	08-Jul-19 19:42	1
Labeled Standards	Type	LFB % Rec	LFB Quals	LFB (ng/L)	LFB % Rec	LFB Spike Amt	LFB RPD	LFB (ng/L)	LFB Spike Amt	LFB % Rec	LFB RPD	LFB Quals	LFB % Rec	LFB Limits	LFB Analyzed	LFB Dil	LFB Analyzed	LFB Dil
13C2-PFHxA	SURR	102			100					100			70-130	08-Jul-19 19:31	1	08-Jul-19 19:42	1	
13C2-PFDA	SURR	97			101					101			70-130	08-Jul-19 19:31	1	08-Jul-19 19:42	1	
d5-EtFOSAA	SURR	88			95					95			70-130	08-Jul-19 19:31	1	08-Jul-19 19:42	1	

Reporting convention specified by MI DEQ.

Sample ID: GWNT1906201045MIK

EPA Method 537

Client Data		Laboratory Data							
Name: Merit Laboratories, Inc.	Matrix: Drinking Water	Lab Sample: 1901772-01	Column: BEH C18						
Project: EGLE State Municipal Sampling	Date Collected: 20-Jun-19 10:45	Date Received: 25-Jun-19 08:58							
Location: HESPERIA03130WL003									
Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	3	2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 20:58	1
PFHxA	307-24-4	15	2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 20:58	1
PFHpA	375-85-9	12	2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 20:58	1
PFHxS	355-46-4	ND	2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 20:58	1
PFOA	335-67-1	11	2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 20:58	1
PFNA	375-95-1	ND	2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 20:58	1
PFOS	1763-23-1	ND	2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 20:58	1
PFDA	335-76-2	ND	2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 20:58	1
MeFOSAA	2355-31-9	ND	4		B9F0270	04-Jul-19	0.25 L	08-Jul-19 20:58	1
EtFOSAA	2991-50-6	ND	4		B9F0270	04-Jul-19	0.25 L	08-Jul-19 20:58	1
PFUnA	2058-94-8	ND	4		B9F0270	04-Jul-19	0.25 L	08-Jul-19 20:58	1
PFDoA	307-55-1	ND	4		B9F0270	04-Jul-19	0.25 L	08-Jul-19 20:58	1
PFTtDA	72629-94-8	ND	4		B9F0270	04-Jul-19	0.25 L	08-Jul-19 20:58	1
PFTeDA	376-06-7	ND	4		B9F0270	04-Jul-19	0.25 L	08-Jul-19 20:58	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
I3C2-PFHxA	SURR	98	70 - 130		B9F0270	04-Jul-19	0.25 L	08-Jul-19 20:58	1
I3C2-PFDA	SURR	97	70 - 130		B9F0270	04-Jul-19	0.25 L	08-Jul-19 20:58	1
d5-EtFOSAA	SURR	90	70 - 130		B9F0270	04-Jul-19	0.25 L	08-Jul-19 20:58	1

Results reported to RL.
 Reporting convention specified by MI DEQ.
 RL - Reporting limit
 When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: GWNT1906201050MIK

EPA Method 537

Client Data		Laboratory Data							
Name:	Merit Laboratories, Inc.	Lab Sample:	1901772-02	Column:	BEH C18				
Project:	EGLE State Municipal Sampling	Date Collected:	20-Jun-19 10:50	Date Received:	25-Jun-19 08:58				
Location:	HESPERIA03130WL001	Matrix:	Drinking Water						
Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	31	2		B9F0270	04-Jul-19	0.26 L	08-Jul-19 21:09	1
PFHxA	307-24-4	ND	2		B9F0270	04-Jul-19	0.26 L	08-Jul-19 21:09	1
PFHpA	375-85-9	ND	2		B9F0270	04-Jul-19	0.26 L	08-Jul-19 21:09	1
PFHxS	355-46-4	ND	2		B9F0270	04-Jul-19	0.26 L	08-Jul-19 21:09	1
PFOA	335-67-1	ND	2		B9F0270	04-Jul-19	0.26 L	08-Jul-19 21:09	1
PFNA	375-95-1	ND	2		B9F0270	04-Jul-19	0.26 L	08-Jul-19 21:09	1
PFOS	1763-23-1	ND	2		B9F0270	04-Jul-19	0.26 L	08-Jul-19 21:09	1
PFDA	335-76-2	ND	2		B9F0270	04-Jul-19	0.26 L	08-Jul-19 21:09	1
MeFOSAA	2355-31-9	ND	4		B9F0270	04-Jul-19	0.26 L	08-Jul-19 21:09	1
EtFOSAA	2991-50-6	ND	4		B9F0270	04-Jul-19	0.26 L	08-Jul-19 21:09	1
PFUnA	2058-94-8	ND	4		B9F0270	04-Jul-19	0.26 L	08-Jul-19 21:09	1
PFDoA	307-55-1	ND	4		B9F0270	04-Jul-19	0.26 L	08-Jul-19 21:09	1
PFTtDA	72629-94-8	ND	4		B9F0270	04-Jul-19	0.26 L	08-Jul-19 21:09	1
PFTeDA	376-06-7	ND	4		B9F0270	04-Jul-19	0.26 L	08-Jul-19 21:09	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
I3C2-PFHxA	SURR	103	70 - 130		B9F0270	04-Jul-19	0.26 L	08-Jul-19 21:09	1
I3C2-PFDA	SURR	97	70 - 130		B9F0270	04-Jul-19	0.26 L	08-Jul-19 21:09	1
d5-EtFOSAA	SURR	88	70 - 130		B9F0270	04-Jul-19	0.26 L	08-Jul-19 21:09	1

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

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

RL - Reporting limit

Sample ID: GWNT1906201055MK

EPA Method 537

Client Data		Laboratory Data							
Name:	Merit Laboratories, Inc.	Lab Sample:	1901772-03	Column:	BEH C18				
Project:	EGLE State Municipal Sampling	Matrix:	Drinking Water	Date Received:	25-Jun-19 08:58				
Location:	HESPERIA03130WL002	Date Collected:	20-Jun-19 10:55						
Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	15	2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 21:20	1
PFHxA	307-24-4	ND	2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 21:20	1
PFHpA	375-85-9	ND	2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 21:20	1
PFHxS	355-46-4	ND	2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 21:20	1
PFOA	335-67-1	ND	2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 21:20	1
PFNA	375-95-1	ND	2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 21:20	1
PFOS	1763-23-1	ND	2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 21:20	1
PFDA	335-76-2	ND	2		B9F0270	04-Jul-19	0.25 L	08-Jul-19 21:20	1
MeFOSAA	2355-31-9	ND	4		B9F0270	04-Jul-19	0.25 L	08-Jul-19 21:20	1
EfFOSAA	2991-50-6	ND	4		B9F0270	04-Jul-19	0.25 L	08-Jul-19 21:20	1
PFUnA	2058-94-8	ND	4		B9F0270	04-Jul-19	0.25 L	08-Jul-19 21:20	1
PFDoA	307-55-1	ND	4		B9F0270	04-Jul-19	0.25 L	08-Jul-19 21:20	1
PFTfDA	72629-94-8	ND	4		B9F0270	04-Jul-19	0.25 L	08-Jul-19 21:20	1
PFTeDA	376-06-7	ND	4		B9F0270	04-Jul-19	0.25 L	08-Jul-19 21:20	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
I3C2-PFHxA	SURR	105	70 - 130		B9F0270	04-Jul-19	0.25 L	08-Jul-19 21:20	1
I3C2-PFDA	SURR	99	70 - 130		B9F0270	04-Jul-19	0.25 L	08-Jul-19 21:20	1
d5-EfFOSAA	SURR	92	70 - 130		B9F0270	04-Jul-19	0.25 L	08-Jul-19 21:20	1

Results reported to RL.
Reporting convention specified by MI DEQ.
When reported, PFHxS, PFOA, PFOS, MeFOSAA and EfFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
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
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limits of Detection
LOQ	Limits of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
NA	Not applicable
ND	Not Detected
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
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	E87777-21
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
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 #: 1901772 Temp: 0.9 °C
 Storage ID: R-13 9 WR-2 Storage Secured: Yes No

Project ID: EGLE STATE MUNICIPAL SAMPLING PO#: 60570309 Sampler: Michal Kosciarz
 Invoice to: Name MIKE JURY Company EGLE Address 401 KETCHUM ST, SUITE B City BAY CITY State MI Ph# 989-894-6255 Fax# 989-891-9237

Relinquished by (printed name and signature) GEORGE AUSTIN Date 6/24/19 Time 1700 Received by (printed name and signature) ASHLEY MUSON ADELSON Date 06/25/19 Time 0858
 *Michal Kosciarz Relinquished by (printed name and signature) Date _____ Time _____ Received by (printed name and signature) Date _____ Time _____

SHIP TO: Vista Analytical Laboratory
 1104 Windfield Way
 El Dorado Hills, CA 95762
 Ph: (916) 673-1520; Fax: (916) 673-0106
 ATTN: Jennifer Miller Tracking No: _____

Sample ID	Date	Time	Location/Sample Description	Quantity	Matrix Type	Add Analysis(es) Requested						Comments				
						PFAS Dilution	PFAS List 1a	UICM3 PFAS List B	PFOM PFOS	PFAS List 14	USEPA Method 537					
GWNT1906201045MK	6/20/19	1045	HESPERIA03130WL003	2	P DW											
GWNT1906201050MK	6/20/19	1050	HESPERIA03130WL001	2	P DW											
GWNT1906201055MK	6/20/19	1055	HESPERIA03130WL002	2	P DW											

Special Instructions/Comments: _____
 Send Results and Acknowledgements to the list provided by e-mail to Vista.
 Name: MIKE JURY
 Company: EGLE
 Address: 401 KETCHUM ST, SUITE B
 City: BAY CITY State: MI Zip: 48708
 Phone: 989-894-6255 Fax: 989-891-9237
 Email: dorin.bogdan@aecom.com

SEND DOCUMENTATION AND RESULTS TO:
 Name: MIKE JURY
 Company: EGLE
 Address: 401 KETCHUM ST, SUITE B
 City: BAY CITY State: MI Zip: 48708
 Phone: 989-894-6255 Fax: 989-891-9237
 Email: dorin.bogdan@aecom.com

Container Types: P = HDPE, PJ = HDPE Jar
 Bottle Preservation Type: T = Thiosulfate, O = Other.
 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.

1901772

Page # 1 of 1

Vista Work Order #: _____

TAT std

Samples Arrival:	Date/Time 06/25/19 0858	Initials: ajin	Location: WR-2
Logged In:	Date/Time 06/25/19 06/26/19 1154	Initials: KE	Location: R-13: A2 Shelf/Rack: <u>WR-2: A3</u>
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: 0.9 (uncorrected)	Probe used: Y / <input checked="" type="checkbox"/> N		Thermometer ID: <u>IR-3</u>
Temp °C: 0.9 (corrected)			

	YES	NO	NA
Adequate Sample Volume Received?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Holding Time Acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Custody Seals Intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Shipping Documentation Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Airbill <u> </u> Trk # <u>4894 6696 0478</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample Container Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample Custody Seals Intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC Anomaly/Sample Acceptance Form completed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If Chlorinated or Drinking Water Samples, Acceptable Preservation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Preservation Documented:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
	<input type="checkbox"/> Na ₂ S ₂ O ₃	<input checked="" type="checkbox"/> Trizma	<input type="checkbox"/> None
	<input type="checkbox"/> Other		
Shipping Container	<input checked="" type="checkbox"/> Vista	<input type="checkbox"/> Client	<input checked="" type="checkbox"/> Retain
	<input type="checkbox"/> Return	<input type="checkbox"/> Dispose	

Comments: