

January 14, 2019

Mr. Brian Jankauskas, P.E. New York State Department of Environmental Conservation Division of Environmental Remediation, Remedial Bureau A 625 Broadway 12th Floor Albany, NY 12233-7015

Subject: Groundwater Sampling Data for Emerging Contaminants - Revised Former Ciba-Geigy Facility – Main Plant Site and Pretreatment Plant Site Glens Falls, NY NYSDEC #557011

Dear Mr. Jankauskas:

This letter transmits the results of groundwater samples that were collected and analyzed in accordance with the *Groundwater Sampling Work Plan for Emerging Contaminants - Revised* (Work Plan) for the above-referenced site (**Figure 1**). The Work Plan was submitted to New York State Department of Environmental Conservation (NYSDEC) on October 19, 2018 by EHS Support LLC ("EHS Support"), on behalf of Ashland LLC (previously acquired Hercules Incorporated) and BASF Corporation (previously acquired Ciba Corporation) and was approved by the NYSDEC on October 23, 2018. This letter supersedes the letter submitted to the NYSDEC on December 28, 2018 and has been expanded to include the laboratory analytical reports.

O'Brien & Gere Engineers, Inc. (OBG), of Syracuse, NY, was contracted to collect groundwater samples pursuant to the Work Plan. In accordance with the Work Plan, on November 8 - 9, 2018, OBG collected groundwater samples from seven groundwater monitoring wells for the analysis of per- and polyfluoroalkyl substances (PFAS) and 1,4-dioxane, also referred to as "emerging contaminants." The samples were collected using low-flow sampling techniques using a peristaltic pump, with sample handling procedures and precautions specific to emerging contaminants. Field sampling logs are provided as **Attachment 1.** Prior to sampling, the well depths were gauged, and the peristaltic pump tubing was placed approximately 1-foot from the bottom of the well. Water level gauging at MW-OB20 showed that the water column was insufficient for sampling; therefore, in accordance with the Work Plan, MW-18 was selected as the alternate upgradient/off-site sampling location for the Pretreatment Plant Site. The groundwater well locations are illustrated on **Figures 2** through **4**.

Quality assurance/quality control (QA/QC) procedures included the collection of a blind duplicate groundwater sample; a matrix spike/matrix spike duplicate sample pair; one equipment blank water sample; and one field blank water sample.

The primary groundwater samples and QA/QC samples were shipped on ice and under Chain-of-Custody to TestAmerica Laboratories, Inc ("TestAmerica"). TestAmerica subcontracted the PFAS analysis to Eurofins Lancaster Laboratories Environmental (Eurofins). Both laboratories have the relevant analytical



method certifications, and the method detection limits (MDLs) requested by the NYSDEC were met, including:

- **PFAS Target Analytes** Modified (Low Level) EPA Method 537 with a minimum MDL of 2 nanogram per Liter (ng/L [parts per trillion]) for perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA)
- 1,4 dioxane EPA Method 8270 in selective ion monitoring (SIM) mode with a minimum MDL of 0.28 microgram per Liter (μg/L [parts per billion])

Full Category B (Level IV) data validation was performed by EHS Support following NYSDEC protocols, and findings were reported in data usability summary report(s) (DUSRs) (see **Attachment 2**). The data were found to be valid and usable. The electronic data deliverables (EDDs) were uploaded to the NYSDEC EQUIS[™] EDD system.

The sample results are summarized in the attached **Table 1**, and the laboratory analytical reports are provided in **Attachment 3**.

In addition to the wells specified in the Work Plan, a groundwater sample was erroneously collected from well MW-OB18 and submitted to the laboratory for analysis. While the sample was subsequently cancelled, Eurofins inadvertently analyzed the sample for PFAS and has included a letter in the laboratory analytical report listing the detections of PFAS constituents in this sample (see **Attachment 4**). Since this sample was not part of the intended scope, the cited results for MW-OB18 have not been validated.

Please contact me at (608) 558-6795 regarding any questions.

Sincerely,

Cassie B. Reuter

Cassie R. Reuter Project Manager



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- Figure 2 Emerging Contaminant Sampling Locations Main Plant Site
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- Attachment 1 Field Sampling Logs
- Attachment 2 DUSRs
- Attachment 3 Laboratory Analytical Reports
- Attachment 4 Letter Regarding MW-OB18
- cc: Eamonn O'Neil, NYSDOH James Vondracek, Ashland LLC Stephen Havlik, BASF James Breza, P.G., EHS Support LLC Kristin VanLandingham, P.E., EHS Support LLC Bob O'Neill, Brown and Caldwell



Tables

Table 1Summary of Laboratory Analytical ResultsGroundwater Sampling Data for Emerging ContaminantsFormer Ciba-Geigy Facility, Glens Falls, NY

Analyte ¹	CAS #	MW-24	MW-OB14	MW-OB26	MW-OB30	MW-OB7	MW-18	MW-OB23	MW-OB23-DUP ²	EB-110818 ³	FRB-110818 ⁴
		11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/9/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018
1,4-Dioxane (P-Dioxane)	123-91-1	0.097 U	0.097 U	0.1 U	0.097 U	0.095 U	0.11 U	0.1 U	0.11 U	0.095 U	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00033 U	0.0034 J	0.015 J	0.18 J	0.0024 J	0.039 J	0.038 J	0.041 J	0.00033 U	0.00033 U
Perfluorooctanoic acid (PFOA)	335-67-1	0.00025 U	0.0021 J	0.013	0.0063	0.0076	0.011	0.0052	0.0051	0.00025 U	0.00025 U
2-(N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	2991-50-6	0.00084 U	0.0025 U	0.00095 U	0.0025 U	0.0049 U	0.00093 U	0.0009 U	0.00093 U	0.00083 U	0.00083 U
2-(N-methyl perfluorooctanesulfonamido) acetic acid	2355-31-9	0.00084 U	0.0025 U	0.00095 U	0.0025 U	0.0049 U	0.00093 U	0.0009 U	0.00093 U	0.00083 U	0.00083 U
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00084 U	0.0025 U	0.00095 U	0.0025 U	0.0049 U	0.00093 U	0.0009 U	0.00093 U	0.00083 U	0.00083 U
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0017 U	0.005 U	0.0019 U	0.005 U	0.0099 U	0.0019 U	0.0018 U	0.0019 U	0.0017 U	0.0017 U
Perfluorobutane Sulfonate	375-73-5	0.00025 U	0.00076 J	0.0019 J	0.0024 J	0.0015 U	0.00093 J	0.00094	0.00095	0.00025 U	0.00025 U
Perfluorobutanoic acid (PFBA)	375-22-4	0.0017 U	0.005 U	0.0019 UJ	0.0065 J	0.0099 U	0.008	0.0044 J	0.0043 J	0.0017 U	0.0017 U
Perfluorodecane sulfonic acid (1-Decanesulfonic acid, heneicosafluoro-)	335-77-3	0.0005 U	0.0015 U	0.00057 U	0.0015 U	0.003 U	0.00056 U	0.00054 U	0.00056 U	0.0005 U	0.0005 U
Perfluorodecanoic acid (Decanoic acid, nonadecafluoro-)	335-76-2	0.00075 U	0.0022 U	0.00085 U	0.0022 U	0.0045 U	0.00084 U	0.00081 U	0.00083 U	0.00074 U	0.00075 U
Perfluorododecanoic acid (Dodecanoic acid, tricosafluoro-)	307-55-1	0.00042 U	0.0012 U	0.00047 U	0.0012 U	0.0025 U	0.00047 U	0.00045 U	0.00046 U	0.00041 U	0.00042 U
Perfluoroheptane Sulfonate (PFHpS)	375-92-8	0.00033 U	0.00099 U	0.00038 U	0.0017 J	0.002 U	0.00037 U	0.0005 J	0.00052 J	0.00033 U	0.00033 U
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00033 U	0.00099 U	0.0014	0.0012 J	0.002 U	0.0012	0.0013	0.0012	0.00033 U	0.00033 U
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00033 U	0.00099 U	0.0041	0.077	0.002 U	0.00083 J	0.0096	0.0097	0.00033 U	0.00033 U
Perfluorohexanoic acid (PFHxA)	307-24-4	0.00033 U	0.00099 U	0.0027	0.0073	0.002 U	0.0015 J	0.0022	0.0021	0.00033 U	0.00033 U
Perfluorononanoic acid (PFNA)	375-95-1	0.00033 U	0.00099 U	0.00094 J	0.001 U	0.002 U	0.0011 J	0.00078 J	0.00092 J	0.00033 U	0.00033 U
Perfluorooctane sulfonamide (1-Octanesulfonamide, hetpadecafluoro-)	754-91-6	0.00042 U	0.0012 U	0.00047 U	0.0012 U	0.0025 U	0.00047 U	0.00045 U	0.00046 U	0.00041 U	0.00042 U
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0017 U	0.005 U	0.0019 U	0.005 U	0.0099 U	0.0022 J	0.0018 U	0.0019 U	0.0017 U	0.0017 U
Perfluorotetradecanoic acid (Tetradecanoic acid, heptacosafluoro-)	376-06-7	0.00025 U	0.00074 U	0.00028 U	0.00075 U	0.0015 U	0.00028 U	0.00027 U	0.00028 U	0.00025 U	0.00025 U
Perfluorotridecanoic acid (Tridecanoic acid, pentacosafluoro-)	72629-94-8	0.00033 U	0.00099 U	0.00038 U	0.001 U	0.002 U	0.00037 U	0.00036 U	0.00037 U	0.00033 U	0.00033 U
Perfluoroundecanoic acid (Undecanoic acid, uncosafluoro-)	2058-94-8	0.00033 U	0.00099 U	0.00038 U	0.001 U	0.002 U	0.00037 U	0.00036 U	0.00037 U	0.00033 U	0.00033 U

Notes:

(1) All results reported as parts per billion in water (micrograms per liter [μ g/L]).

(2) Blind duplicate sample

(3) Equipment blank sample

(4) Field blank sample (analysis for PFAS only)

U - concentration below method detection limit

J - estimated concentration





Figures



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Attachment 1 Field Sampling Logs

G			Low	Flow Grou	undwater Sa	mpling Lo	g Northi Easti	ID: <u>/////0B</u> ng: ng:	7
Site Na	me: Forme	er Ciba-Geigy Faci	lity Samp	ling Method:	Lor Fl	on	Field Perso	nnel: JFM	
Site Locat	ion: G	lens Falls, NY	Equi	oment Used:	Peri-p	<u>م</u>	ſ	Date: 11/5//2	ś
Projec	ct #:	70980	Pump/Co	ontroller ID#:	F40099	53	Wea	ther: <u>45° c</u>	lowy
Well inform	ation:			Wel	I Volume Multip	liers:	* N	leasurement Poin	t:
Inst	alled Dept	n of Well*:	 ft. b	mp. 🗆	1 in. = 0.041 ga	al/ft	1	- Well Casing	
Meas	sured Depth	n of Well*: 🔭 7	715.5 At. b	mp. 🔉	2 in. = 0.163 ga	al/ft		Protective Casin	g
	Depth	o Water*: 7	<u>. 77</u> ft.		4 in. = 0.653 ga	al/ft		Other:	
Length of W	/ater Colun	nn (LWC):	–in.		6 in. = 1.469 ga	al/ft	Well Volu	me:	gal.
	Well	Diameter:2	in.		8 in. = 2.611 ga	al/ft P	ump Intake Dep	th*:	ft. bmp.
Start P Initial Ob	urge Time servations:	: 09 05 Color de	<u>. </u>	ldor <u>Seva</u>	∽ <u>∽</u> She	en/Free Prod	luct nore	*	
		-		ind	licate units				
Elapsed	Depth	Temperature	рH	Specific	ORP	Dissolved	Turbidity	Flow	Other
Time	to Water		(011)	Conductivi	ity (m)()	Oxygen		Rate	<i>(</i>)
(minutes)	(ft bmp)		(SU)	(m)/cn	$\frac{1}{1}$ (mV)	(mg/l)		(mi/min)	()
5	10,20	(12 . L	8.76	0,9.3	- 210.4	1.15	13.3	100	
10	11.27	122	8.78	0.93	-189.4	0.63	11.1	100	
15	12.22	11.9	8.63	0,92	-184.0	0.54	10.7	100	
20	12.82	12.1	8.27	0.23	~172.2	0.47	9.9	100	
25	13.01	11.9	8.72	0.93	-149.6	0,39	7.8	100	
30	13.11	11.8	822	0.92	-148.3	0.39	8.0	100	
35-	1324	11.8	0.23	5.91	-1462	0.40	7.7	100	
			0.0.2		10.2	0,10			
				[
						100/ 15			
Stabilization	1 - 0 2'	+ 30/	+01	+ 3%	+ 10 mV	± 10% If >	± 10% if > 5 NTU	100 < X < 500	
End F	Purge Time al volume d	= 0.440 of groundwater pur	 ged:	<u>, 1, S_{gal.}</u>		2.0 119/2			L
Final Ob	servations	Color Cle	<u>~ (</u>	dor <u>Sien</u>	Inc. She	en/Free Prod	luct and		
Sample	ID:	MW-0B7-	110219	1		Sample Tin	ne: 0945		
Analytical F	Parameter	_							<u></u>
Containe	r Size	Container Type	# Colle	cted	Field Filtered?	Pi	eservative	Labora	tory
250 n	nL	Clear Plastic	2		N		None	TestAm	erica
1 L		Amber Glass	2		N		None	TestAm	erica
Notes:			. <u> </u>	<u> </u>					
		·							

G			Low	Flow Gro	undwater Sa	Impling Lo	Well Og Northi Easti	ID: ng: ng:	0B14
Site Name	: Former (Ciba-Geigy Facil	ity Samp	ling Method:	Derri D	ump	Field Perso	nnel: MGM	
Site Location:	: Gler	ns Falls, NY	Equi	oment Used:	low	FLOW	ſ	Date: 11/8	118
Project #	÷	70980	Pump/Co	ontroller ID#:	FACOIS	59	Wea	ther: <u>40 C(</u>	oudy
Well information	on:			Wel	l Volume Multip	pliers:	* N	leasurement Poin	it:
Installe	ed Depth o	f Well*:	ft. b	mp. 🗆	1 in. = 0.041 g	al/ft	V	Well Casing	
Measure	ed Depth o	f Well*:	<u>32</u> ft. k	omp. 🕺	2 in. = 0.163 g	al/ft		Protective Casin	ng
	Depth to	Water*:	<u>. 83</u> ft.		4 in. = 0.653 g	al/ft		Other:	
Length of Wate	er Column	(LWC):	in.		6 in. = 1.469 g	al/ft	Well Volu	me:	gal.
	Well Di	ameter:2	in.		8 in. = 2.611 g	al/ft P	ump Intake Dep	•th*:	ft. bmp.
Start Purg Initial Obser	ge Time:	Color WCN	ne c	odor <u>NCM</u>	L She	en/Free Proc	luct <u>NM</u>	2	5.
				ina	licate units				
Elapsed	Depth	Temperature	Hq	Specific	ORP	Dissolved	Turbidity	Flow	Other
Time to	o Water	(Coloiuo)	(811)	Conductiv	ity (m)()	Oxygen		Rate (ml/min)	
					(mv)		<u>(NTO)</u>		<u> (</u>
E	1.07	14.5	10.02	0.15	<u>Le.</u>	2.21	15.0	150	
5 1	2.21	14.5	7.51	0.414	-1.1	9.19	47.1	150	11 A.
10 13	3.02	12.7	8.76	0.333	6.3	4.35	30.2	100	
15 4	813,99	12.7	8.94	0.486	-15.5	2,40	11.2	100	
20 1	4.41	12.6	9,19	0.571	-20.1	3.09	10.44	100	5- A-
25 1	4.89	12,6	9.23	0.580	3 -16 7	5,46	2.14	100	
30 1	15.11	12.5	915	0.103	-15.8	6.34	138	100	
36 1	5.17	12 5	014	A 6111	-14 2	1.17	1.36	100	
2	5141	16.0	7.67	01414	(7.5	Centre 1		100	
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								5	
Otabilization	1 - 0 2'	1 20/	101	1.20/	+ 10 m)/	± 10% if >	± 10% if > 5	100 < X < 500	120
Stabilization 2	$\Delta \leq 0.3$	± 3%	± 0.1	± 3%	1 ± 10 mv	2.0 mg/L	NIO	100 ≤ X ≤ 500	
	ge Time: _	450	. 2	5					
End Purg		groundwater purg	ged: <u>*5</u> .	🚄 gal.					
End Purg Total v	olume of g			dor no	L She	en/Free Proc	luct None	2	
Total v Final Obser	volume of g vations:	Color Non							
End Purg Total v Final Obser	vations:	Color Non	10			Sample Tin	ne: Mic	· · · · ·	
End Purg Total v Final Obser Sample ID:	vations:	Color <u>Non</u> 0B14-1108	10			Sample Tin	ne: <u>1015</u>		
End Purg Total v Final Obser Sample ID: Analytical Para	vations: <u>M</u> W - ameters:	Color <u>Non</u> 0814 - 1108				Sample Tin	ne: <u>1015</u>		
Final Observert Sample ID: Analytical Para Container Siz	vations: <u>MW</u> - ameters: ze C	Color <u>Von</u> OBIU - 1108 ontainer Type	# Colle	cted	Field Filtered?	Sample Tin Pr	ne: <u>1015</u>	Laboral	tory
End Purg Total vo Final Obsern Sample ID: Analytical Para Container Siz 250 mL	vations: <u>MW</u> - ameters: ze C	Color Von OBIL - 1108 ontainer Type Clear Plastic Amber Glass	# Coller 2 2	cted	Field Filtered?	Sample Tin Pr	reservative None None	Laborat TestAme	tory erica erica
End Purg Total v Final Obsern Sample ID: Analytical Para Container Siz 250 mL 1 L	vations: <u>Mw</u> - ameters: ze C (Color <u>Von</u> OBIU - 1108 ontainer Type Clear Plastic Amber Glass	# Colle 2 2		Field Filtered? N N	Sample Tin Pi	reservative None None	Laborat TestAme TestAme	tory erica erica
End Purg Total v Final Obsen Sample ID: Analytical Para Container Si: 250 mL 1 L	vations: <u>MW</u> - ameters: ze C	Color <u>Von</u> OBIU - 1108 ontainer Type Clear Plastic Amber Glass	# Coller 2 2		Field Filtered? N N	Sample Tin Pr	ne: <u>1015</u> reservative None None	Laborat TestAme TestAme	tory erica erica
End Purg Total vo Final Obsern Sample ID: Analytical Para Container Siz 250 mL 1 L Notes:	vations: <u>MW</u> - ameters: ze C /	Color <u>Von</u> OBIU - 1108 ontainer Type Clear Plastic Amber Glass	# Coller 2 2		Field Filtered? N N	Sample Tin	ne: <u>1015</u> reservative None None	Laboral TestAme TestAme	tory erica erica
End Purg Total vo Final Obsern Sample ID: Analytical Para Container Siz 250 mL 1 L Notes:	vations: <u>Mw</u> - ameters: ze C A 2	Color <u>Non</u> OBILI - 1108 ontainer Type Clear Plastic Amber Glass	# Colle 2 2 15 / A		Field Filtered? N N	Sample Tin Pr	ne: <u>2015</u> reservative None None	Laborat TestAme	tory erica erica
End Purg Total vo Final Obsern Sample ID: Analytical Para Container Siz 250 mL 1 L Notes:	vations: <u>MW</u> - ameters: ze C A 2 2 2 2 2 2 2 2 2 2 2 2 2	Color <u>Non</u> OBIU - 1108 ontainer Type Clear Plastic Amber Glass	# Coller 2 2 15 / A		Field Filtered? N N	Sample Tin	ne: <u>1015</u> reservative None None	Laborat TestAme TestAme	tory erica erica

ſ.			Low	Flow Grou	undwater Sa	mpling Lo	Well a Northi	ID: <u>013-3</u> ng:	·0
							Easti	ng:	
Site Na	me: Former	Ciba-Geigy Facil	ity Samp	ling Method:	Low	Fire	Field Perso	nnel: <u> </u>	
Site Locat	tion: Gle	ens Falls, NY	Equi	pment Used:	lerri	2mp	[Date: 111811	8
Proje	ct #:	70980	Pump/Co	ontroller ID#:	1-4009	53	Wea	ther:	Toody
Well inform	ation:			Well	l Volume Multip	oliers:	* N	leasurement Poin	t:
Inst	alled Depth	of Well*:	ft. k	omp. 🗆	1 in. = 0.041 gas	al/ft	×.	Well Casing	-
Meas	Sured Depth	of vvell^: 18	<u>γςς</u> π.κ (α. #	mp. אמע רו	2 in. = 0.163 gas	al/11 al/ft		Other:	g
Length of W	Jeptin to Jater Column	(IWC):	<u>6'5</u> in		4 in. = 0.000 gas 6 in. = 1.469 gas	al/ft	⊔ Well Volur	me:	gal.
Longaror	Well D	iameter:	in.		8 in. = 2.611 ga	al/ft Pi	ump Intake Dep	th*:	ft. bmp.
Start P	urge Time:	1050 Color Kull	oucles	dor m		en/Free Prod	lict i m	-	
initial Ob	Servations.		<u> </u>	ind	icate units	01211001100			
Elapsed	Depth			Specific		Dissolved	T	Flow	046.04
Time	to Water	Temperature	рН	Conductivi		Oxygen	lurbidity	Rate	Other
(minutes)	(ft bmp)	(Celsius)	(SU)	() (mV)	(mg/l)	(NTU)	(ml/min)	()
5	9.16	12.0	8.17	1.22	-66.6	0.72	26.2	150	
10	9.20	12.1	8.79	1.39	-70.8	0.74	15.3	125	
15	9.24	12.0	8.83	1.46	-72.6	0.70	11.3	125	
20	9.25	12.1	8.99	1.69	- 14.2	0.77	8.1	125	
25	9.26	12.1	9.12	1.74	-111.0	0,81	7.3	125	
30	9.29	12.2	9.22	1.77	-121.1	0,86	6.2	125	
35	9.30	12.2	9.23	1.77	-124.1	0.85	6.5	125	
40	9.33	12.2	924	1:75	-1173	0.86	6.8	125	
								-	
								-	
					1.10	± 10% if >	± 10% if > 5	100 < X < 500	
Stabilization	$\Delta \leq 0.3$	± 3%	± 0.1	± 3%	± 10 mV	2.0 mg/L	NIU	$100 \leq X \leq 500$	
End I	Purge Time:	1150	~ ~)						
Tot	al volume of	groundwater pur	ged: <u>~</u> X	gal.					
Final Ob	servations:	Color ellor	len c	dor <u> </u>	<u>∼</u> She	en/Free Prod	uct	<u>` </u>	
Sample	<u>ہ</u> :ID	w - 8B30	- 11081	४		Sample Tin	ne: 1175		
Analytical F	Parameters:				·				
Containe	r Size (Container Type	# Colle	cted	Field Filtered?	Pr	eservative	Laborat	tory
250 n	nL	Clear Plastic	2		N		None	TestAme	erica
1L		Amber Glass	2		N		None	TestAme	erica
				<u> </u>				1	
Notes:	I		I	I_ <u></u>				<u> </u>	
						·····			

O			Low	Flow Gro	oun	dwater Sa	mpling Lo	Well og Northi Easti	ID: <u>0132</u> ing:	3
Site Na	me: Forme	r Ciba-Geigy Faci	lity Sam	oling Method:		Lowf	-1000	Field Perso	nnel: JAM	
Site Loca	tion: GI	ens Falls, NY	Equi	pment Used		Peri-F	ump	[Date: 11/8/	18
Proje	ct #:	70980	Pump/C	ontroller ID#:		FADDO	453	Wea	ather: 45°C	loudy
Well inform	nation:			We	ell Vo	olume Multip	oliers:	* N	leasurement Poin	t:
Inst	alled Depth	of Well*:	ft. I	omp. 🗆	1	in. = 0.041 ga	al/ft		Well Casing	
Meas	sured Depth	of Well*: 8.	(<i>S</i> ft.	omp. 🗖	2	in. = 0.163 ga	al/ft		Protective Casin	g
	Depth te	Water*:	33 ft.		4	in. = 0.653 ga	al/ft		Other:	
Length of V	/ater Colum	n (LWC):	in.		6	in. = 1.469 ga	al/ft	Well Volu	me: 📂	gal.
1. H. ¹⁰	Well [Diameter: 2	in.		8	in. = 2.611 ga	al/ft P	ump Intake Dep	•th*: 🖉 🖛	ft. bmp.
Start P	urge Time:	13 35						1	2011	
Initial Ob	servations:	Color cle	int (Odor ho	A	She	en/Free Proa	luct croser		
				in	dica	te units				
Elapsed	Depth	Temperature	Hq	Specific	: 	ORP	Dissolved	Turbidity	Flow	Other
Time (minutoo)	to Water	(Coloiuo)	(811)	Conductiv	vity	(m\/)	Oxygen	(NITU)	Rate (ml/min)	
(minutes)	U 27		(30)	1 1				153	150	/////////
5	7.21	12.0	2.49	0.74		15.0	1.15	13.7	150	
10	4.41	11.5	6.04	0.14		59.7	0.76	12.5	150	
15	4.59	11.3	6.77	0.75		-1.3	0.77	11.2	125	
20	4.87	11.4	6.86	0.75	Gallen	-22.9	0.52	9.3	125	
25	4.96	11.4	6.33	0.75	-	- 19.4	0.42	8.4	100	
30	5.11	11.4	6.14	0,76	Ren Se	-18.6	0.38	7.3	100	
35	5.15	11.3	6.13	076		-19.1	0,38	8.2	100	
40	526	11.3	612	6.77		-20.3	637	6.1	100	
.0	5.10	11.7	0.14	0.11		10.3	0.01			
								-		
				106						
								-		
							+ 10% if >	+ 10% if > 5		
Stabilization	∆ ≤ 0.3'	± 3%	± 0.1	± 3%		± 10 mV	2.0 mg/L	NTU	100 ≤ X ≤ 500	
		111.5					<u>~</u>			
	-urge Time	aroundwater pur		5 001						
IO	ai volume o	groundwater pur	yeu. <u> </u>	gal.	-	6				
Final Ob	servations:	Color <u>Cle</u>	~ (Odor	n	She	en/Free Prod	uct un		
Sample	ID: /h	W-0B23-	110818				Sample Tin	ne: 1415	(3.9.9.9.9.9.	
Analytical	Parametere		•							
Containe	r Size	Container Type	# Colle	cted	Fie	eld Filtered?	Pr	eservative	Laborat	ory
250 n	nL	Clear Plastic	2			N		None	TestAme	erica
1 L		Amber Glass	2			Ν		None	TestAme	erica
NL-1										
Notes:										
			4							

σ			Low	Flow Grou	ndwater Sa	mpling Lo	Well og Northi Easti	ID: <u>nw-</u> ng: ng:	24
Site Na	me: Former	Ciba-Geigy Facil	ity Sam	oling Method:	Low -	flow	Field Person	nnel: JHM	
Site Loca	tion: Gle	ens Falls, NY	Equi	ipment Used:	Per. P.	ump	Ε	Date: 11/8/	18
Proje	ct #:	70980	Pump/C	ontroller ID#:	FAOC	953	Wea	ther: 45 00	reast
Well inform	ation:			Well	Volume Multi	pliers:	* N	leasurement Poin	t:
Ins	alled Depth	of Well*:	ft.	bmp.	1 in. = 0.041 g	al/ft	4	Well Casing	-
Meas	Depth to	of VVell [*] : / (<u>60</u> π. 3<5 ft	omp. ⊮⊸. □	2 in. = 0.163 g 4 in. = 0.653 g	al/ft		Other:	ig
Lenath of V	/ater Colum	n (LWC):	in.		6 in. = 1.469 g	al/ft	⊔ Well Volur	ne:	gal.
5	Well D	Diameter: 2	in.		8 in. = 2.611 g	al/ft P	ump Intake Dep	th*: 🧖	ft. bmp
Start F	urge Time:	1530							
Initial Ob	servations:	Color cle	~ (Odor None	She	en/Free Prod	luct nem		
				indic	ate units				
Elapsed	Depth to Water	Temperature	рН	Specific	ORP	Dissolved	Turbidity	Flow	Other
(minutes)	(ft bmp)	(Celsius)	(SU)	((mV)	(mg/l)	(NTU)	(ml/min)	()
5	6.22	11.6	655	0644	72.4	2.51	8.9	100	
10	6.25	11.7	6.32	0.649	79.6	2.59	7.3	100	
15	6.29	11.5	620	2657	81.4	2.69	6.2	100	
20	6.33	11'3	6.11	0.664	95.6	2.74	5.7	100	
25	6.39	11.2	6.09	0.664	102.1	2.76	5.6	100	
30	6.47	11.3	608	0,665	103.2	2.77	5.5	100	
			17.0-						
	- N (1)								
					•				
					į				
						± 10% if >	± 10% if > 5		
Stabilization	∆ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	2.0 mg/L	NTU	100 ≤ X ≤ 500	
End I Tot	Purge Time al volume of	groundwater pur	ged: 13	gal.					
Final Ob	servations:	Color (14	(Jdor	She	een/⊢ree Prod	uct von		
Sample	ID:/	mu-24-	110818	-		Sample Tin	ne: 1605		
Analytical I	Parameters:								
Containe	r Size	Container Type	# Colle	ected F	Field Filtered?	Pr	eservative	Labora	tory
250 r	n∟	Amber Glass	2		N N		None	TestAme	erica
I L		Ambel Glass					HUNG		
Notes:									
				and the second					

T					ha mata na akazar na akazar 170 me			Mall		2110
				Low	Flow Group	dwater Sa	mplina Lo	a Northir	ig: <u>/////-//</u>	0
	E			Lon	riew erean	unator ea		Eastir	ig:	
ł	Site Na	me: Former	Ciba-Geigy Facili	ity Samp	ling Method:	low f	low	Field Persor	nel: MGM	
	Site Locat	ion: Gle	ns Falls, NY	Equi	oment Used:	pern a	mo	D	ate: 11/8/18	3
	Projec	ct #:	70980	Pump/Co	ontroller ID#:	FAODI	39	Weat	her: <u>40 Clove</u>	dy
ŀ	Well inform	ation:			Well V	olume Multip	liers:	* M	easurement Point	t:
	Inst	alled Depth of	of Well*:	ft. b	omp. 🗆 1	in. = 0.041 ga	al/ft		Well Casing	
	Meas	ured Depth o	of Well*: 17.	80 ft. k	omp. 🕂 2	in. = 0.163 ga	al/ft	1	Protective Casin	g
		Depth to	Water*: 10 .	g ft.	□ 4	in. = 0.653 ga	al/ft		Other:	
	Length of W	ater Column	(LWC):	in.	□ 6	in. = 1.469 ga	al/ft	Well Volun	ne: 👝	gal.
		Well Di	iameter: <u>L</u>	in.		in. = 2.611 ga	al/ft P	ump Intake Dept	h*:	ft. bmp
Ī	Start P	urge Time:	1120		· 1					
	Initial Ob	servations:	Color NON	0	odor None	She	en/Free Prod	uct none	<u></u> [
		.p Lut. Silehinu			indica	te units				
ſ	Elapsed	Depth	Temperature	Ha	Specific	ORP	Dissolved	Turbidity	Flow	Other
	Time	to Water	(Calaiua)	(811)	Conductivity	(m)/)	Oxygen (mg/l)	(NTU)	(ml/min)	()
	(minutes)			8 5/1	1.17		1112	451	150	\/_
,	TOOL	USL	12 2	9.17	1.10	10.10	610	210	160	
	5	12.45	1215	OIL	1.15	10:0	0.09	5.20	100	
	10	14.35	14.3	0.15	1.52	-240.1	1.57	6.03	100	
	15	15.76	12.6	8.80	1.49	-200.8	0.40	4.39	100	
	20	16.12	12.0	9.01	1.41	-293.4	1.72	5.37	100	
	25	17.20	12.2	9.14	1.47	-290.3	0.70	9.14	100	
	30	17.75	12.4	9.42	1.80	-265.0	1.52	9.74	100	
						4				
					1					
										2
								1		
	Stabilization	∆ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10% if > 2.0 mg/L	± 10% if > 5 NTU	100 ≤ X ≤ 500	
	End I	Purge Time:	1150							
	Tot	al volume of	groundwater pure	ged: 🔽	5 gal.					
	Final Ob	servations:	Color V	10 0	Ddor	She	en/Free Proc	luct <u>None</u>		
	Sample	ID: Maral	-0B1 (a - 11	0818			Sample Tir	ne: 1/200		
	Sample		VULY-1	010						
	Analytical F	Parameters:	Container Tuno	# Collo	cted E	ield Filtered?	Di	reservative	l abora	torv
	250 n	nL I	Clear Plastic	# Colle		N	<u></u>	None	TestAm	erica
	1 L		Amber Glass	2		N		None	TestAm	erica
	Notes:	1.1011	11.DAL	ANT	at ira					
		wen	Went	chy i	14 1150					
	altern	noted Sr.	male @ 15	45 16	Fea bot	the only	mer No	1.4-Diox	me	
	Com	leted s	Supting	on 11/	9/18					
	* wal	ter tim	red dorn	brou	n on lin	al purge	e to fil	1 bottles	11	/7/2018

٥			Low	Flow Grou	ndwater Sa	mpling Lo	Well Og Northi Fasti	ID: <u>M& 18</u> ng:	
Site Na	me: Formei	Ciba-Geigy Facil	ity Samp	ling Method:	LowF	6.2	Field Perso	nnel: JAM	
Site Locat	ion: Gl	ens Falls, NY	Equi	oment Used:	Per: p	тр		Date: 11/9/15	5
Proje	ct #:	70980	Pump/Co	ontroller ID#:	FADOG	\$3	Wea	ther: 370 000	weast
Well inform	ation:	1990 - 1992 - 1994 - 1994 - 1995 -		Well	Volume Multip	liers:	* N	leasurement Poin	t:
Inst	alled Depth	of Well*:	ft. b	omp. 🗆	1 in. = 0.041 ga	al/ft		Well Casing	
Meas	sured Depth	of Well*: 12.	00 ft. b	omp. 🖾 🖞	2 in. = 0.163 ga	al/ft		Protective Casin	g
	Depth to	Water*: <u>3</u> 2	<u>{7</u> ft.		4 in. = 0.653 ga	al/ft		Other:	
Length of W	Vater Colum Well E	Diameter: 2	in.		5 in. = 1.469 ga 8 in. = 2.611 ga	al/ft P	ump Intake Dep	th*:	ft. bmp.
Start P Initial Ob	urge Time: servations:	1255 Color elen	- C	ldor non	٦. She	en/Free Proc	luct hor	-	
				indic	ate units				
Elapsed	Depth	Temperature	nH	Specific	ORP	Dissolved	Turbidity	Flow	Other
Time	to Water	(Oplaine)	(01)	Conductivity	(Oxygen		Rate	
(minutes)	(ft bmp)		(SU)	1100) (mv)	(mg/l)		(mi/min)	_()_
	2.56	11.6	1.50	1.18	- 96.5	3.00	21.0	100	
10	3.55	11.5	7.40	1.44	-39.7	2.92	27.2	100	
15	3.54	11.4	7.41	1.55	- 56.1	2.64	25.1	100	
20	3.55	11.4	7.36	1.49	-34.3	1.91	18	100	
25	3.55	11.3	7.34	1.45	-28.3	1.82	139	100	
30	3.54	11.3	7.33	1.43	-26.4	1.84	14.1	(00)	
35	3.53	11,3	7.32	1.42	-25.1	1.83	12.6	100	
								~	
					_				
							1		
		54) 					5		
Stabilization	∆ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10% if > 2.0 mg/L	± 10% if > 5 NTU	100 ≤ X ≤ 500	
End		. 1330							
Tot	al volume o	f groundwater pur		S gal					
Final Ok		Color () ru		guin	Sho	on/Eroo Brog	luct i a		
Final OL	servations.								
Sample	ID:	MW-14	5-110914	6		Sample Tir	ne: <u>1340</u>		
Containe	r Size	: Container Type	# Colle	cted F	Field Filtered?	P	reservative	Laborat	orv
250 n	nL	Clear Plastic	2		N		None	TestAme	erica
1 L		Amber Glass	2		Ν		None	TestAme	erica
Notos								I	



Attachment 2 DUSRs

EHS Validation Report Number: 192 Former Ciba Geigy Facility Queensbury, New York

Analyses performed by: Eurofins Lancaster Laboratories Environmental Lancaster, Pennsylvania Sample Delivery Group (SDG): 320-45170/ TAE02 Analysis: PFAS Review Level: DUSR



Report Date: December 27, 2018



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Sample Summary

Water samples were collected at the Former Ciba Geigy Facility Site in Queensbury, New York and were analyzed by Environmental Protection Agency (EPA) Method 537 Modified. Samples were submitted to TestAmerica and logged there with the sample delivery group name 320-45170. They were then sent to Eurofins Lancaster Laboratories Environmental (ELLE) for analysis; they were logged in at ELLE using the sample delivery group name TAE02. Samples included in this Sample Delivery Group (SDG), and in this data validation report, are listed in the table below.

SDG	Lab Sample ID	Field Sample ID	Sample Matrix	Sample Collection Date	PFAS Analysis
TAE02	9909367	MW-OB23-110818	Water	11/8/2018	x
TAE02	9909368	MW-OB7-110818	Water	11/8/2018	x
TAE02	9909369	MW-OB14-110818	Water	11/8/2018	x
TAE02	9909372	MW-OB26-110818	Water	11/8/2018	x
TAE02	9909373	MW-OB30-110818	Water	11/8/2018	x
TAE02	9909374	MW-24-110818	Water	11/8/2018	x
TAE02	9909376	EB-110818	Water	11/8/2018	x
TAE02	9909377	FRB-110818 (320-45170-9)	Water	11/8/2018	x
TAE02	9909378	X-1-110818	Water	11/8/2018	x
TAE02	9909379	MW-18-110918	Water	11/9/2018	x



1 Introduction

Data were reviewed in accordance with Eurofins Lancaster Laboratories Environmental (ELLE) Standard Operating Procedure T-PFAS-WI22030 for Polyfluorinated Alkyl Substances (PFAS) in Aqueous Samples by Method 537 Version 1.1 Modified QSM5.1 Table B-15 Using LC/MS/MS. United States EPA (Environmental Protection Agency) Method 537 "Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/ Tandem Mass Spectrometry (LC/MS/MS)" was referenced as needed, as were the Department of Defense (DoD) Department of Energy (DOE) Consolidated Quality Systems Manual (QSM) for Environmental Laboratories Version 5.2, 2018, National Functional Guidelines for High Resolution Superfund Methods Data Review, April 2016, and EPA Region 2 validation SOPs for high resolution methods. It is expected that the laboratory conducted sufficient quality review of the data prior to reporting. While QC is meant to increase confidence in analytical data, it is important to note that no compound concentration is guaranteed to be accurate, even if all QC criteria were met.

Data validation includes a review of reported results and supporting documentation in the laboratory report. Based on this evaluation, qualifiers may be added, deleted, or modified. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

1.1 Validation Qualifiers

- U The analyte was included in the analysis but was not detected above the reported quantitation limit, or the result is considered non-detect as a consequence of associated blank contamination.
- UJ The analyte was included in the analysis but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
- J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample. When applied to TICs, the "J" qualifier means that the detected compound cannot be identified.
- JN There is presumptive evidence for the presence of the material at an estimated value.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.



2 Sample Custody and Receipt

All samples were received in good condition and properly preserved. The chain of custody is difficult to read in the lab report pdf but appears to have been properly completed.



3 Assessment Summary and Data Usability

In this SDG, no QC (Quality Control) excursions encountered led to rejection of data. Results reported in this SDG are considered usable. Please refer to report below for specific QC variances and data qualification.



4 Per- and Polyfluorinated Alkyl Substances (PFAS) analysis

4.1 Preservation and Holding Times

Acceptance criteria were met. Relevant preservation and holding time requirements are presented in the table below.

Method	Matrix	Preservation	Holding Time
ELLE SOP 14473 PFAS in Water by LC/MS/MS	Water	≤10 °C from time of collection, ≤6 °C from time of laboratory receipt	14 days from collection to extraction, 28 days from extraction to analysis

4.2 Calibration

Acceptance criteria were met:

- The initial calibration relative standard deviation (RSD) values, and/or r² values were acceptable.
- The back-calculated concentration of each calibration point was within acceptance limits
- The CCV %D (continuing calibration verification percent difference) results were within limits.

4.3 Blanks

Acceptance criteria were met. Results for the equipment, field, and method blanks were non-detect.

4.4 Laboratory Control Sample (LCS)

Acceptance criteria were met.

4.5 Matrix Spike/ Matrix Spike Duplicate (MS/MSD) Analysis

Acceptance criteria were met. MS/MSD analysis was performed on sample 9909369.

4.6 Isotope Dilution Analytes (IDA) and Internal Standards (IS)

Sample results whose IDA or IS used for quantification exhibited recoveries outside acceptance limits are shown in the table below.

Sample ID	Internal Standard	Recovery	Reported compounds associated with this internal standard	
9909372	E13C3-PFBS	> UL	PFBS	Sample result qualified as estimated

UL Upper acceptance limit



Analytes that are quantitated under deviant standards are qualified in accordance with the table below.

Internal Standard Recovery	Sample Result	Sample Result Qualification
> Upper control limit	Non-detect	No action
	Detect	L
< Lower control limit but > 20%	Non-detect	LU
	Detect	L
< 20%	Non-detect	R
	Detect	L

4.7 Compound Identification/ Chromatogram Review

Results that were qualified as a result of chromatographic interference are listed in the table below.

Lab sample ID	Field sample ID	Analyte	Reported result value	Lab flag	Validation (applied) qualifier	MDL	Unit	Reason for qualification
9909367	MW-OB23- 110818	Perfluorooctane- sulfonic Acid	0.038	NULL	J	0.00036	μg/l	Branched isomer accounts for a significant portion of the total peak response but is not present in the calibration standard.
9909368	MW-OB7- 110818	Perfluorooctane- sulfonic Acid	0.0024	J	J	0.002	μg/l	Branched isomer accounts for a significant portion of the total peak response but is not present in the calibration standard.
9909369	MW-OB14- 110818	Perfluorooctane- sulfonic Acid	0.0034	J	L	0.00099	μg/l	Branched isomer accounts for a significant portion of the total peak response but is not present in the calibration standard.



EHS Validation Report Number: 192 – Former Ciba Geigy Facility Per- and Polyfluorinated Alkyl Substances (PFAS) analysis

Lab sample ID	Field sample ID	Analyte	Reported result value	Lab flag	Validation (applied) qualifier	MDL	Unit	Reason for qualification
9909372	MW-OB26- 110818	Perfluorobutane- sulfonic acid (PFBS)	0.0019	NULL	ſ	0.00028	μg/l	Chromatographic interference: unresolved peaks in the same chromatographic region as the PFBS elutes
9909372	MW-OB26- 110818	Perfluorobutanoic acid	NULL	U	IJ	0.0019	μg/l	The analyte was not detected, but there is significant interference in the applicable retention time window.
9909372	MW-OB26- 110818	Perfluorooctane- sulfonic Acid	0.015	NULL	J	0.00038	μg/l	Branched isomer accounts for a significant portion of the total peak response but is not present in the calibration standard.
9909373	MW-OB30- 110818	Perfluorooctane- sulfonic Acid	0.18	NULL	ſ	0.001	μg/I	Branched isomer accounts for a significant portion of the total peak response but is not present in the calibration standard.
9909378	X-1-110818	Perfluorooctane- sulfonic Acid	0.041	NULL	L	0.00037	μg/l	Branched isomer accounts for a significant portion of the total peak response but is not present in the calibration standard.
9909379	MW-18- 110918	Perfluorooctane- sulfonic Acid	0.039	NULL	J	0.00037	μg/I	Branched isomer accounts for a significant portion of the total peak response but is not present in the calibration standard.



4.8 Field duplicates

Acceptance criteria were met. One field duplicate sample was submitted in this sample delivery group. Relationships between parent and duplicate sample results are evaluated using acceptance limits in the table below.

Quality control nonconformance	Sample Result	Qualification
Sample and its field duplicate ≥ 5x the RL and -RPD > 30% (aqueous) - or - -RPD > 50% (soil/ sediment)	Detect	J
Sample and/or its field duplicate $< 5x$ the RL and solute difference $> 2x$ the RL (aqueous) - or-	Non-detect	UJ
-absolute difference > 3x the RL (soil/ sediment)	Detect	L

4.9 Additional Notes

The procedure for quantitation employed was that all identified chromatographic peaks confirmed by qualitative or quantitative standards were integrated and the areas were summed.

Validation performed by: Amy Coats EHS Support EHS Validation Report Number: 191 Former Ciba Geigy Facility Queensbury, New York

Analyses performed by: TestAmerica, Buffalo, New York Sample Delivery Group (SDG): 480-145098 Analyses: sVOC Review Level: DUSR



Report Date: December 8, 2018



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	4.11	Additional notes	5		



Sample Summary

Water samples were collected at the Former Ciba Geigy Facility Site in Utica, New York and were analyzed by Environmental Protection Agency (EPA) SW-846 Method 8270D SIM ID for 1,4-dioxane. Samples included in this Sample Delivery Group (SDG), and in this data validation report, are listed in the table below.

SDG	Lab Sample ID	Client Sample ID	Sample Matrix	Sample Collection Date	sVOC Analysis
4801450981	480-145098-1	MW-OB23-110818	Water	11/8/2018	x
4801450981	480-145098-2	MW-OB7-110818	Water	11/8/2018	х
4801450981	480-145098-3	MW-OB14-110818	Water	11/8/2018	х
4801450981	480-145098-4	MW-OB26-110818	Water	11/8/2018	х
4801450981	480-145098-5	MW-OB30-110818	Water	11/8/2018	x
4801450981	480-145098-6	MW-24-110818	Water	11/8/2018	x
4801450981	480-145098-8	EB-110818	Water	11/8/2018	x
4801450981	480-145098-9	X-1-110818	Water	11/8/2018	x
4801450981	480-145098-10	MW-18-110918	Water	11/9/2018	x



1 Introduction

Data were reviewed in accordance with USEPA Contract Laboratory Program National Functional Guidelines (Organic, June 2008 and High Resolution, April 2016), laboratory analytical methods, and professional judgment. It is expected that the laboratory conducted sufficient quality review of the data prior to reporting. While QC is meant to increase confidence in analytical data, it is important to note that no compound concentration is guaranteed to be accurate, even if all QC criteria were met.

Data validation includes a review of reported results and supporting documentation in the laboratory report. Based on this evaluation, qualifiers may be added, deleted, or modified. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

1.1 Validation Qualifiers

- U The analyte was included in the analysis but was not detected above the reported quantitation limit, or the result is considered non-detect as a consequence of associated blank contamination.
- UJ The analyte was included in the analysis but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
- J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.

EHS Validation Report Number: 191 – Former Ciba Geigy Facility Sample Custody and Receipt



2 Sample Custody and Receipt

All samples were received in good condition and properly preserved. The chain of custody was properly completed.



3 Assessment Summary and Data Usability

In this SDG, no QC (Quality Control) excursions encountered led to qualification or rejection of data. Results reported in this SDG are considered usable. Please refer to report below for specific QC information.



4 semiVolatile Organic compound (sVOC) analysis

4.1 Preservation and Holding Times

Relevant preservation and holding time requirements are presented in the following table.

Method	Matrix	Preservation	Holding Time
SW-846 Method 8270	Water	≤6 °C	7 days from collection to extraction, 40 days from extraction to analysis
SW-846 Method 8270	Soil, sediment	≤6 °C	14 days from collection to extraction,40 days from extraction to analysis

Acceptance criteria were met.

4.2 Mass Spectrometer Tuning

Acceptance criteria were met.

4.3 Calibration

Acceptance criteria were met:

- The initial calibration RSD (relative standard deviation) values were acceptable.
- The CCV %D (continuing calibration verification percent difference) results were within limits.

4.4 Blanks

Acceptance criteria were met. No detections were reported for the method or equipment blanks.

4.5 Laboratory Control Sample (LCS) Analysis

Acceptance criteria were met.

4.6 Matrix Spike/ Matrix Spike Duplicate (MS/MSD) Analysis

Acceptance criteria were met. MS/MSD analysis was performed on sample 480-45098-3.

4.7 Internal Standards

Acceptance criteria were met.

4.8 Isotope Dilution Analytes (IDA)

Acceptance criteria were met.


4.9 Compound Identification

Acceptable; no issues to report.

4.10 Field duplicates

Acceptance criteria were met. One field duplicate sample was submitted in this SDG. Results for the parent and duplicate sample were non-detect.

4.11 Additional notes

NA: No additional notes to report.

Validation performed by: Amy Coats EHS Support Brian Jankauskas, P.E. Groundwater Sampling Data for Emerging Contaminants - Revised January 14, 2019



Attachment 3 Laboratory Analytical Reports



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Sacramento 880 Riverside Parkway West Sacramento, CA 95605 Tel: (916)373-5600

TestAmerica Job ID: 320-45170-1

Client Project/Site: Hercules Glens Falls - Emerging Contam.

For:

O'Brien & Gere Inc of North America 94 New Karner Rd., Suite 106 Albany, New York 12203

Attn: Mr. Paul D'Annibale

Adi Barnott

Authorized for release by: 12/11/2018 2:00:56 PM

Eddie Barnett, Project Manager I (912)250-0280 eddie.barnett@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.



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Definitions/Glossary

Client: O'Brien & Gere Inc of North America Project/Site: Hercules Glens Falls - Emerging Contam.

Glossarv

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)

1 2 3 4 5 6 7 8

Job ID: 320-45170-1

Laboratory: TestAmerica Sacramento

Narrative

Job Narrative 320-45170-1

Receipt

The samples were received on 11/10/2018 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.9° C.

Subcontract Work

Method PFAS, Standard List (24 Analytes): This method was subcontracted to Eurofins Lancaster Laboratories Env LLC. The subcontract laboratory certification is different from that of the facility issuing the final report.

Accreditation/Certification Summary

Client: O'Brien & Gere Inc of North America Project/Site: Hercules Glens Falls - Emerging Contam.

Laboratory: TestAmerica Sacramento

TestAmerica Job ID: 320-45170-1

TestAmerica	Sacramento

Authority	Program	EPA Region	Identification Number	Expiration Date	
Alaska (UST)	State Program	10	17-020	01-20-21	
ANAB	DoD ELAP		L2468	01-20-21	
Arizona	State Program	9	AZ0708	08-11-19	
Arkansas DEQ	State Program	6	88-0691	06-17-19	
California	State Program	9	2897	01-31-19	
Colorado	State Program	8	CA00044	08-31-19	
Connecticut	State Program	1	PH-0691	06-30-19	
Florida	NELAP	4	E87570	06-30-19	
Georgia	State Program	4	N/A	01-28-19	
Hawaii	State Program	9	N/A	01-29-19	
Illinois	NELAP	5	200060	03-17-19	
Louisiana	NELAP	6	30612	06-30-19	
Maine	State Program	1	CA0004	04-14-20	
Michigan	State Program	5	9947	01-31-20	
Nevada	State Program	9	CA00044	07-31-19	
New Hampshire	NELAP	1	2997	04-18-19	
New Jersey	NELAP	2	CA005	06-30-19	
New York	NELAP	2	11666	03-31-19	
Oregon	NELAP	10	4040	01-29-19	
Pennsylvania	NELAP	3	68-01272	03-31-19	
Texas	NELAP	6	T104704399	05-31-19	
US Fish & Wildlife	Federal		LE148388-0	07-31-19	
USDA	Federal		P330-18-00239	01-17-21	
USEPA UCMR	Federal	1	CA00044	12-31-20	
Utah	NELAP	8	CA00044	02-28-19	
Vermont	State Program	1	VT-4040	04-30-19	
Virginia	NELAP	3	460278	03-14-19	
Washington	State Program	10	C581	05-05-19	
West Virginia (DW)	State Program	3	9930C	12-31-18	
Wyoming	State Program	8	8TMS-L	01-28-19	

TestAmerica Job ID: 320-45170-1

Client: O'Brien & Gere Inc of North America Project/Site: Hercules Glens Falls - Emerging Contam.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	
320-45170-1	MW-OB23-110818	Water	11/08/18 14:15	11/10/18 09:00	
320-45170-2	MW-OB7-110818	Water	11/08/18 09:45	11/10/18 09:00	
320-45170-3	MW-OB14-110818	Water	11/08/18 10:15	11/10/18 09:00	5
320-45170-4	MW-OB26-110818	Water	11/08/18 16:00	11/10/18 09:00	J
320-45170-5	MW-OB30-110818	Water	11/08/18 11:35	11/10/18 09:00	C
320-45170-6	MW-24-110818	Water	11/08/18 16:05	11/10/18 09:00	Ο
320-45170-8	EB-110818	Water	11/08/18 15:45	11/10/18 09:00	
320-45170-9	FRB-110818	Water	11/08/18 15:35	11/10/18 09:00	
320-45170-10	X-1-110818	Water	11/08/18 00:00	11/10/18 09:00	
320-45170-11	MW-18-110918	Water	11/09/18 13:40	11/10/18 09:00	8

TestAmerica Sacramento



Prepared by:

Eurofins Lancaster Laboratories Environmental

2425 New Holland Pike

Lancaster, PA 17601

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Project: EC Sampling - Former Ciba-Geigy Facility

Account #: 01042 Group Number: 2011497 SDG: TAE02 PO Number: 320-45170 State of Sample Origin: NY

Electronic Copy To TestAmerica North Canton

Attn: Eddie Barnett

Respectfully Submitted,

Kay How

Kay Hower

(717) 556-7364

To view our laboratory's current scopes of accreditation please go to http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/. Historical copies may be requested through your project manager.



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REVISED	

-	
	7

Client Sample Description	Sample Collection	<u>ELLE#</u>
	Date/Time	
MW-OB23-110818 (320-45170-1) Grab	11/08/2018 14:15	9909367
MW-OB7-110818 (320-45170-2) Grab	11/08/2018 09:45	9909368
MW-OB14-110818 (320-45170-3) Grab	11/08/2018 10:15	9909369
MW-OB14-110818-MS (320-45170-3MS) Grab	11/08/2018 10:15	9909370
MW-OB14-110818-MSD (320-45170-3MSD) Grab	11/08/2018 10:15	9909371
MW-OB26-110818 (320-45170-4) Grab	11/08/2018 16:00	9909372
MW-OB30-110818 (320-45170-5) Grab	11/08/2018 11:35	9909373
MW-24-110818 (320-45170-6) Grab	11/08/2018 16:05	9909374
EB-110818 (320-45170-8) Grab	11/08/2018 15:45	9909376
FRB-110818 (320-45170-9) Grab	11/08/2018 15:35	9909377
X-1-110818 (320-45170-10) Grab	11/08/2018	9909378
MW-18-110918 (320-45170-11) Grab	11/09/2018 13:40	9909379

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.





December 10, 2018

Mr. Eddie Barnett TestAmerica 5102 LaRoche Avenue Savannah, GA 31404

Dear Mr. Barnett:

I am writing to inform you of revised analytical reports that are being issued for the following:

Project: EC Sampling - Former Ciba-Geigy Facility Group No.: 2011497

SDG No.: TAE02

ELLE Sample No.	Client Sample Identification	Collection Date
9909375	MW-OB18-110818 (320-45170-7) Grab	11/8/18

The correction to the data affects the PFAS analysis only.

Per your request this sample was deleted after the sample was analyzed. The sample had detections for:

Perfluorooctanoic acid – 60 ng/l Perfluorohexanoic acid – 4.3 ng/l Perfluoroheptanoic acid – 2.4 ng/l Perfluorohexanesulfonate – 17 ng/l Perfluoro-octanesulfonate – 18 ng/l

The revised analytical report reflects this correction and is enclosed.

If you have any questions or require further assistance, please contact me at 717-656-2300, Ext. 1198, or email me at KayHower@EurofinsUS.com. We appreciate your business and look forward to continuing to serve your laboratory needs.

Sincerely,

Kaystowe

Kay G. Hower Principal Specialist Environmental Client Services

KGH/jll Enclosures

2425 New Holland Pike Lancaster, PA 17601 T | 717-656-2300 F | 717-656-2681 www.EurofinsUS.com/LancLabsEnv 12/11/2018



State of New York Certification No. 10670

Lancaster Laboratories Environmental

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Analysis Report

REVISED

Sample Description: MW-OB23-110818 (320-45170 Groundwater EC Sampling - Former Ciba-0 Project Name: EC Sampling - Former Ciba-0		MW-OB23-110818 (320-45170-1) Grab Groundwater EC Sampling - Former Ciba-Geigy Facility			TestAmerica ELLE Sample #: WW 9909367 ELLE Group #: 2011497 Matrix: Groundwater		
		g - Former Ciba-G	eigy Facility				
Submit Collect SDG#:	tal Date/Time: ion Date/Time:	11/21/2018 1 11/08/2018 1 TAE02-01	1:00 4:15				
CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous		ous EPA 537 Modified	Version 1.1	ng/l	ng/l	ng/l	
14473	6:2-Fts		27619-97-2	N.D.	0.90	1.8	1
14473	8:2-Fts		39108-34-4	N.D.	1.8	5.4	1
14473	NEtFOSAA		2991-50-6	N.D.	0.90	2.7	1
	NEtFOSAA is the a	cronym for N-ethyl	perfluorooctanesulfona	midoacetic Acid.			
14473	NMeFOSAA		2355-31-9	N.D.	0.90	2.7	1
	NMeFOSAA is the	acronym for N-meth	yl perfluorooctanesulfo	namidoacetic Acid.			
14473	Perfluorobutanesulf	onic Acid	375-73-5	0.94	0.27	0.90	1
14473	Perfluorodecanesul	fonic Acid	335-77-3	N.D.	0.54	1.8	1
14473	Perfluoroheptanesu	Ilfonic Acid	375-92-8	0.50 J	0.36	1.8	1
14473	Perfluorohexanesul	fonic Acid	355-46-4	9.6	0.36	1.8	1
14473	Perfluorooctanesulf	onic Acid	1763-23-1	38	0.36	1.8	1
14473	Pfba-Perfluorobutar	noic Acid	375-22-4	4.4 J	1.8	5.4	1
14473	Pfda-Perfluorodeca	noic Acid	335-76-2	N.D.	0.81	1.8	1
14473	Pfdoda-Perfluorodo	decanoic	307-55-1	N.D.	0.45	1.8	1
14473	Pfhpa-Perfluorohep	tanoic Acid	375-85-9	1.3	0.36	0.90	1
14473	Pfhxa-Perfluorohex	anoic Acid	307-24-4	2.2	0.36	1.8	1
14473	Pfna-Perfluoronona	noic Acid	375-95-1	0.78 J	0.36	1.8	1
14473	Pfoa-Perfluorooctar	noic Acid	335-67-1	5.2	0.27	0.90	1
14473	Pfosa-Perfluoroocta	anesulfonami	754-91-6	N.D.	0.45	2.7	1
14473	Pfpea-Perfluoropen	tanoic Acid	2706-90-3	N.D.	1.8	5.4	1
14473	Pfteda-Perfluoroteti	adecanoic	376-06-7	N.D.	0.27	0.90	1
14473	Pftrda-Perfluorotride	ecanoic Ac	72629-94-8	N.D.	0.36	0.90	1
14473	3 Pfunda-Perfluoroundecanoic Aci 2058		2058-94-8	N.D.	0.36	1.8	1

Sample Comments

Laboratory Sample Analysis Record							
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	21 PFAS in Water 320-45170	EPA 537 Version 1.1 Modified	1	18325011	11/29/2018 03:47	Isaac Phillips-Cary	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18325011	11/21/2018 16:00	Anthony C Polaski	1



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Sample Description: MW-OB7-110818 (320-45170-2) Grab Groundwater EC Sampling - Former Ciba-Geigy Facility

Project Name: EC Sampling - Former Ciba-Geigy Facility

 Submittal Date/Time:
 11/21/2018 11:00

 Collection Date/Time:
 11/08/2018 09:45

 SDG#:
 TAE02-02

Analysis Report

TestAmerica ELLE Sample #: WW 9909368 ELLE Group #: 2011497 Matrix: Groundwater

REVISED

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
LC/MS	/MS Miscellaneous	EPA 537 Ver Modified	sion 1.1	ng/l	ng/l	ng/l	
14473	6:2-Fts		27619-97-2	N.D.	4.9	9.9	1
14473	8:2-Fts		39108-34-4	N.D.	9.9	30	1
14473	NEtFOSAA		2991-50-6	N.D.	4.9	15	1
	NEtFOSAA is the acrony	m for N-ethyl perflu	orooctanesulfonam	idoacetic Acid.			
14473	NMeFOSAA		2355-31-9	N.D.	4.9	15	1
	NMeFOSAA is the acrony	/m for N-methyl pe	rfluorooctanesulfon	amidoacetic Acid.			
14473	Perfluorobutanesulfonic A	Acid	375-73-5	N.D.	1.5	4.9	1
14473	Perfluorodecanesulfonic	Acid	335-77-3	N.D.	3.0	9.9	1
14473	Perfluoroheptanesulfonic	Acid	375-92-8	N.D.	2.0	9.9	1
14473	Perfluorohexanesulfonic	Acid	355-46-4	N.D.	2.0	9.9	1
14473	Perfluorooctanesulfonic A	cid	1763-23-1	2.4 J	2.0	9.9	1
14473	Pfba-Perfluorobutanoic A	cid	375-22-4	N.D.	9.9	30	1
14473	Pfda-Perfluorodecanoic A	vcid	335-76-2	N.D.	4.5	9.9	1
14473	Pfdoda-Perfluorododecar	noic	307-55-1	N.D.	2.5	9.9	1
14473	Pfhpa-Perfluoroheptanoio	: Acid	375-85-9	N.D.	2.0	4.9	1
14473	Pfhxa-Perfluorohexanoic	Acid	307-24-4	N.D.	2.0	9.9	1
14473	Pfna-Perfluorononanoic A	Acid	375-95-1	N.D.	2.0	9.9	1
14473	Pfoa-Perfluorooctanoic A	cid	335-67-1	7.6	1.5	4.9	1
14473	Pfosa-Perfluorooctanesul	fonami	754-91-6	N.D.	2.5	15	1
14473	Pfpea-Perfluoropentanoio	: Acid	2706-90-3	N.D.	9.9	30	1
14473	Pfteda-Perfluorotetradeca	anoic	376-06-7	N.D.	1.5	4.9	1
14473	Pftrda-Perfluorotridecano	ic Ac	72629-94-8	N.D.	2.0	4.9	1
14473	Pfunda-Perfluoroundecar	noic Aci	2058-94-8	N.D.	2.0	9.9	1
Repo	rting limits were raised due	to interference from	m the sample matrix	C .			

State of New York Certification No. 10670

Sample Comments

Laboratory Sample Analysis Record

CAT	Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution
No.					Date and Time		Factor
14473	21 PFAS in Water 320-45170	EPA 537 Version 1.1 Modified	1	18325011	11/29/2018 03:56	Isaac Phillips-Cary	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18325011	11/21/2018 16:00	Anthony C Polaski	1



Analysis Report

TestAmerica ELLE Sample #:

ELLE Group #:

Matrix: Groundwater

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Sample Description:	MW-OB14-110818 (320-45170-3) Grab
	Groundwater
	EC Sampling - Former Ciba-Geigy Facility

Project Name:

EC Sampling - Former Ciba-Geigy Facility

 Submittal Date/Time:
 11/21/2018 11:00

 Collection Date/Time:
 11/08/2018 10:15

 SDG#:
 TAE02-03BKG

CAT No.	Analysis Name	CAS NI	imber Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
LC/MS	/MS Miscellaneous	EPA 537 Version 1. Modified	1 ng/l	ng/l	ng/l	
14473	6:2-Fts	27619-9	07-2 N.D.	2.5	5.0	1
14473	8:2-Fts	39108-3	4-4 N.D.	5.0	15	1
14473	NEtFOSAA	2991-50	-6 N.D.	2.5	7.4	1
	NEtFOSAA is the acrony	m for N-ethyl perfluorooctan	esulfonamidoacetic Acid.			
14473	NMeFOSAA	2355-31	-9 N.D.	2.5	7.4	1
	NMeFOSAA is the acrony	ym for N-methyl perfluorooct	anesulfonamidoacetic Acid.			
14473	Perfluorobutanesulfonic A	Acid 375-73-	5 0.76 J	0.74	2.5	1
14473	Perfluorodecanesulfonic	Acid 335-77-	3 N.D.	1.5	5.0	1
14473	Perfluoroheptanesulfonic	Acid 375-92-	8 N.D.	0.99	5.0	1
14473	Perfluorohexanesulfonic	Acid 355-46-	4 N.D.	0.99	5.0	1
14473	Perfluorooctanesulfonic A	Acid 1763-23	-1 3.4 J	0.99	5.0	1
14473	Pfba-Perfluorobutanoic A	.cid 375-22-	4 N.D.	5.0	15	1
14473	Pfda-Perfluorodecanoic A	Acid 335-76-	2 N.D.	2.2	5.0	1
14473	Pfdoda-Perfluorododecar	noic 307-55-	1 N.D.	1.2	5.0	1
14473	Pfhpa-Perfluoroheptanoio	c Acid 375-85-	9 N.D.	0.99	2.5	1
14473	Pfhxa-Perfluorohexanoic	Acid 307-24-	4 N.D.	0.99	5.0	1
14473	Pfna-Perfluorononanoic A	Acid 375-95-	1 N.D.	0.99	5.0	1
14473	Pfoa-Perfluorooctanoic A	cid 335-67-	1 2.1 J	0.74	2.5	1
14473	Pfosa-Perfluorooctanesu	lfonami 754-91-	6 N.D.	1.2	7.4	1
14473	Pfpea-Perfluoropentanoio	c Acid 2706-90	-3 N.D.	5.0	15	1
14473	Pfteda-Perfluorotetradeca	anoic 376-06-	7 N.D.	0.74	2.5	1
14473	Pftrda-Perfluorotridecano	ic Ac 72629-9	14-8 N.D.	0.99	2.5	1
14473	Pfunda-Perfluoroundecar	noic Aci 2058-94	-8 N.D.	0.99	5.0	1

marginally low in the associated matrix spike and duplicate samples,

indicating a matrix effect.

Reporting limits were raised due to interference from the sample matrix.

Sample Comments

State of New York Certification No. 10670

		Labo	oratory S	Sample Analy	sis Record		
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	21 PFAS in Water 320-45170	EPA 537 Version 1.1 Modified	1	18325011	11/29/2018 04:05	Isaac Phillips-Cary	1

*=This limit was used in the evaluation of the final result

REVISED

WW 9909369

2011497



Analysis Report

REVISED

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Sample Description:	MW-OB14-110818 (320-45170-3) Grab Groundwater EC Sampling - Former Ciba-Geigy Facility	TestAmerica ELLE Sample #: ELLE Group #: Matrix: Groundwa	WW 9909369 2011497 ater
Project Name:	EC Sampling - Former Ciba-Geigy Facility		
Submittal Date/Time: Collection Date/Time: SDG#:	11/21/2018 11:00 11/08/2018 10:15 TAE02-03BKG		

Laboratory Sam	ple Analysis Record
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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18325011	11/21/2018 16:00	Anthony C Polaski	1



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Analysis Report

REVISED

Sample Description: MW-OB14-110818-MS (320-45170-3MS) Grab Groundwater EC Sampling - Former Ciba-Geigy Facility		170-3MS) Grab eigy Facility	T E M	estAmerica LLE Sample #: LLE Group #: latrix: Groundwa	WW 9909370 2011497 ter		
Project	t Name:	EC Sampling -	Former Ciba-G	eigy Facility			
Submit Collecti SDG#:	tal Date/Time: ion Date/Time:	11/21/2018 11:0 11/08/2018 10:1 TAE02-03MS	00 15				
CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
LC/MS	/MS Miscellaneo	us EPA 537 V Modified	ersion 1.1	ng/l	ng/l	ng/l	
14473	6:2-Fts		27619-97-2	33	2.5	5.0	1
14473	8:2-Fts		39108-34-4	42	5.0	15	1
14473	NEtFOSAA		2991-50-6	11	2.5	7.5	1
	NEtFOSAA is the ac	cronym for N-ethyl per	fluorooctanesulfona	midoacetic Acid.			
14473	NMeFOSAA		2355-31-9	9.3	2.5	7.5	1
	NMeFOSAA is the a	cronym for N-methyl	perfluorooctanesulfo	namidoacetic Acid.			
14473	Perfluorobutanesulfo	onic Acid	375-73-5	12	0.75	2.5	1
14473	Perfluorodecanesulf	onic Acid	335-77-3	13	1.5	5.0	1
14473	Perfluoroheptanesul	fonic Acid	375-92-8	11	0.99	5.0	1
14473	Perfluorohexanesulf	onic Acid	355-46-4	12	0.99	5.0	1
14473	Perfluorooctanesulfo	onic Acid	1763-23-1	15	0.99	5.0	1
14473	Pfba-Perfluorobutan	oic Acid	375-22-4	16	5.0	15	1
14473	Pfda-Perfluorodecar	noic Acid	335-76-2	13	2.2	5.0	1
14473	Pfdoda-Perfluorodoo	decanoic	307-55-1	14	1.2	5.0	1
14473	Pfhpa-Perfluorohept	anoic Acid	375-85-9	13	0.99	2.5	1
14473	Pfhxa-Perfluorohexa	anoic Acid	307-24-4	14	0.99	5.0	1
14473	Pfna-Perfluorononar	noic Acid	375-95-1	14	0.99	5.0	1
14473	Pfoa-Perfluorooctan	oic Acid	335-67-1	15	0.75	2.5	1
14473	Pfosa-Perfluoroocta	nesulfonami	754-91-6	13	1.2	7.5	1
14473	Pfpea-Perfluoropent	anoic Acid	2706-90-3	14 J	5.0	15	1
14473	Pfteda-Perfluorotetra	adecanoic	376-06-7	14	0.75	2.5	1
14473	Pftrda-Perfluorotride	canoic Ac	72629-94-8	14	0.99	2.5	1
14473	Pfunda-Perfluoround	decanoic Aci	2058-94-8	12	0.99	5.0	1
The r outsid	ecovery for the backgr le of QC acceptance li	round sample injectior	n peak areas is QC Summary.				

The recovery for sample injection peak areas is within QC acceptance limits but marginally low in this sample and the associated duplicate sample, indicating a matrix effect.

Reporting limits were raised due to interference from the sample matrix.

Sample Comments

State of New York Certification No. 10670

		Labo	ratory S	ample Analys	sis Record		
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	21 PFAS in Water 320-45170	EPA 537 Version 1.1 Modified	1	18325011	11/29/2018 04:23	Isaac Phillips-Cary	1



Analysis Report

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Sample Description:	MW-OB14-110818-MS (320-45170-3MS) Grab Groundwater EC Sampling - Former Ciba-Geigy Facility	TestAmerica ELLE Sample #: ELLE Group #: Matrix: Groundwa	WW 9909370 2011497 ater
Project Name:	EC Sampling - Former Ciba-Geigy Facility		
Submittal Date/Time: Collection Date/Time: SDG#:	11/21/2018 11:00 11/08/2018 10:15 TAE02-03MS		

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18325011	11/21/2018 16:00	Anthony C Polaski	1



Analysis Report

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							REVISE)
Sampl	mple Description: MW-OB14-110818-MSD (320-45170-3MSD) Grab Groundwater EC Sampling - Former Ciba-Geigy Facility			T E E M	estAmerica LLE Sample #: LLE Group #: latrix: Groundwa	WW 9909371 2011497 ater	REVISED	
Projec	t Name:	EC Sampling	- Former Ciba-G	eigy Facility				
Submit Collect SDG#:	tal Date/Time: ion Date/Time:	11/21/2018 1 11/08/2018 10 TAE02-03MS	1:00):15 D					
CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor	
LC/MS	/MS Miscellaneo	us EPA 537 Modified	Version 1.1	ng/l	ng/l	ng/l		
14473	6:2-Fts		27619-97-2	37	2.5	5.0	1	
14473	8:2-Fts		39108-34-4	46	5.0	15	1	
14473	NEtFOSAA		2991-50-6	11	2.5	7.5	1	
	NEtFOSAA is the ad	cronym for N-ethyl p	perfluorooctanesulfona	midoacetic Acid.				
14473	NMeFOSAA		2355-31-9	12	2.5	7.5	1	
	NMeFOSAA is the a	acronym for N-meth	yl perfluorooctanesulfo	namidoacetic Acid.				
14473	Perfluorobutanesulf	onic Acid	375-73-5	13	0.75	2.5	1	
14473	Perfluorodecanesulf	ionic Acid	335-77-3	14	1.5	5.0	1	
14473	Perfluoroheptanesu	Ifonic Acid	375-92-8	13	1.0	5.0	1	
14473	Perfluorohexanesulf	ionic Acid	355-46-4	13	1.0	5.0	1	
14473	Perfluorooctanesulf	onic Acid	1763-23-1	16	1.0	5.0	1	
14473	Pfba-Perfluorobutar	ioic Acid	375-22-4	17	5.0	15	1	
14473	Pfda-Perfluorodeca	noic Acid	335-76-2	13	2.2	5.0	1	
14473	Pfdoda-Perfluorodo	decanoic	307-55-1	14	1.2	5.0	1	
14473	Pfhpa-Perfluorohept	tanoic Acid	375-85-9	14	1.0	2.5	1	
14473	Pfhxa-Perfluorohexa	anoic Acid	307-24-4	15	1.0	5.0	1	
14473	Pfna-Perfluoronona	noic Acid	375-95-1	13	1.0	5.0	1	
14473	Pfoa-Perfluorooctan	oic Acid	335-67-1	16	0.75	2.5	1	
14473	Pfosa-Perfluoroocta	nesulfonami	754-91-6	13	1.2	7.5	1	
14473	Pfpea-Perfluoropent	tanoic Acid	2706-90-3	13 J	5.0	15	1	
14473	Pfteda-Perfluorotetr	adecanoic	376-06-7	13	0.75	2.5	1	
14473	Pftrda-Perfluorotride	ecanoic Ac	72629-94-8	14	1.0	2.5	1	
14473	Pfunda-Perfluoroun	decanoic Aci	2058-94-8	13	1.0	5.0	1	
The r outsid	ecovery for the backg de of QC acceptance l	round sample inject imits as noted on th	tion peak areas is ne QC Summary.					

The recovery for sample injection peak areas is within QC acceptance

limits but marginally low in the associated matrix spike and this sample, indicating a matrix effect.

Reporting limits were raised due to interference from the sample matrix.

Sample Comments

State of New York Certification No. 10670

	Laboratory Sample Analysis Record						
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	21 PFAS in Water 320-45170	EPA 537 Version 1.1 Modified	1	18325011	11/29/2018 04:32	Isaac Phillips-Cary	1



Analysis Report

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			REVISED
Sample Description:	MW-OB14-110818-MSD (320-45170-3MSD) Grab Groundwater EC Sampling - Former Ciba-Geigy Facility	TestAmerica ELLE Sample #: ELLE Group #: Matrix: Groundwa	WW 9909371 2011497 ater
Project Name:	EC Sampling - Former Ciba-Geigy Facility		1161
Submittal Date/Time: Collection Date/Time: SDG#:	11/21/2018 11:00 11/08/2018 10:15 TAE02-03MSD		

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18325011	11/21/2018 16:00	Anthony C Polaski	1



Analysis Report

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Sample Description:	MW-OB26-110818 (320-45170-4) Grab
	Groundwater
	EC Sampling - Former Ciba-Geigy Facility

Project Name: EC Sampling - Former Ciba-Geigy Facility

 Submittal Date/Time:
 11/21/2018 11:00

 Collection Date/Time:
 11/08/2018 16:00

 SDG#:
 TAE02-04

TestAmerica	
ELLE Sample #:	WW 9909372
ELLE Group #:	2011497
Matrix: Groundwa	ater

REVISED

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
LC/MS	/MS Miscellaneous	EPA 537 Ver Modified	sion 1.1	ng/l	ng/l	ng/l	
14473	6:2-Fts		27619-97-2	N.D.	0.95	1.9	1
14473	8:2-Fts		39108-34-4	N.D.	1.9	5.7	1
14473	NEtFOSAA		2991-50-6	N.D.	0.95	2.8	1
	NEtFOSAA is the acronyn	n for N-ethyl perflu	orooctanesulfonam	idoacetic Acid.			
14473	NMeFOSAA		2355-31-9	N.D.	0.95	2.8	1
	NMeFOSAA is the acrony	m for N-methyl pe	rfluorooctanesulfon	amidoacetic Acid.			
14473	Perfluorobutanesulfonic A	cid	375-73-5	1.9	0.28	0.95	1
14473	Perfluorodecanesulfonic A	Acid	335-77-3	N.D.	0.57	1.9	1
14473	Perfluoroheptanesulfonic	Acid	375-92-8	N.D.	0.38	1.9	1
14473	Perfluorohexanesulfonic A	Acid	355-46-4	4.1	0.38	1.9	1
14473	Perfluorooctanesulfonic A	cid	1763-23-1	15	0.38	1.9	1
14473	Pfba-Perfluorobutanoic Ad	cid	375-22-4	N.D.	1.9	5.7	1
14473	Pfda-Perfluorodecanoic A	cid	335-76-2	N.D.	0.85	1.9	1
14473	Pfdoda-Perfluorododecan	oic	307-55-1	N.D.	0.47	1.9	1
14473	Pfhpa-Perfluoroheptanoic	Acid	375-85-9	1.4	0.38	0.95	1
14473	Pfhxa-Perfluorohexanoic	Acid	307-24-4	2.7	0.38	1.9	1
14473	Pfna-Perfluorononanoic A	cid	375-95-1	0.94 J	0.38	1.9	1
14473	Pfoa-Perfluorooctanoic Ac	cid	335-67-1	13	0.28	0.95	1
14473	Pfosa-Perfluorooctanesulf	fonami	754-91-6	N.D.	0.47	2.8	1
14473	Pfpea-Perfluoropentanoic	Acid	2706-90-3	N.D.	1.9	5.7	1
14473	Pfteda-Perfluorotetradeca	noic	376-06-7	N.D.	0.28	0.95	1
14473	Pftrda-Perfluorotridecanoi	c Ac	72629-94-8	N.D.	0.38	0.95	1
14473	Pfunda-Perfluoroundecan	oic Aci	2058-94-8	N.D.	0.38	1.9	1
The s	ample injection standard pe	eak areas were out	side of the QC				

limits for both the initial injection and the re-injection. The values here are from the initial injection of the sample.

The recovery for labeled compound used as extraction standard 13C3-PFBS is outside of QC acceptance limits due to the matrix of the sample.

Sample Comments

State of New York Certification No. 10670

	Laboratory Sample Analysis Record						
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	21 PFAS in Water 320-45170	EPA 537 Version 1.1 Modified	1	18325011	11/29/2018 04:41	Isaac Phillips-Cary	1



Analysis Report

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Sample Description:	MW-OB26-110818 (320-45170-4) Grab Groundwater EC Sampling - Former Ciba-Geigy Facility	TestAmerica ELLE Sample #: WW 9909372 ELLE Group #: 2011497 Matrix: Groundwater		
Project Name:	EC Sampling - Former Ciba-Geigy Facility			
Submittal Date/Time: Collection Date/Time: SDG#:	11/21/2018 11:00 11/08/2018 16:00 TAE02-04			

|--|

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18325011	11/21/2018 16:00	Anthony C Polaski	1



Analysis Report

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Sample Description:	MW-OB30-110818 (320-45170-5) Grab
	Groundwater
	EC Sampling - Former Ciba-Geigy Facility

Project Name: EC Sampling - Former Ciba-Geigy Facility

Submittal Date/Time: 11/21/2018 11:00 Collection Date/Time: 11/08/2018 11:35 SDG#: TAE02-05

TestAmerica ELLE Sample #: WW 9909373 ELLE Group #: 2011497 Matrix: Groundwater

REVISED

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
LC/MS/	MS Miscellaneous	EPA 537 Vers Modified	sion 1.1	ng/l	ng/l	ng/l	
14473	6:2-Fts		27619-97-2	N.D.	2.5	5.0	1
14473	8:2-Fts		39108-34-4	N.D.	5.0	15	1
14473	NEtFOSAA		2991-50-6	N.D.	2.5	7.5	1
	NEtFOSAA is the acronyn	n for N-ethyl perflu	orooctanesulfonam	idoacetic Acid.			
14473	NMeFOSAA		2355-31-9	N.D.	2.5	7.5	1
	NMeFOSAA is the acrony	m for N-methyl per	fluorooctanesulfon	amidoacetic Acid.			
14473	Perfluorobutanesulfonic A	cid	375-73-5	2.4 J	0.75	2.5	1
14473	Perfluorodecanesulfonic A	Acid	335-77-3	N.D.	1.5	5.0	1
14473	Perfluoroheptanesulfonic	Acid	375-92-8	1.7 J	1.0	5.0	1
14473	Perfluorohexanesulfonic A	Acid	355-46-4	77	1.0	5.0	1
14473	Perfluorooctanesulfonic A	cid	1763-23-1	180	1.0	5.0	1
14473	Pfba-Perfluorobutanoic Ac	cid	375-22-4	6.5 J	5.0	15	1
14473	Pfda-Perfluorodecanoic A	cid	335-76-2	N.D.	2.2	5.0	1
14473	Pfdoda-Perfluorododecan	oic	307-55-1	N.D.	1.2	5.0	1
14473	Pfhpa-Perfluoroheptanoic	Acid	375-85-9	1.2 J	1.0	2.5	1
14473	Pfhxa-Perfluorohexanoic	Acid	307-24-4	7.3	1.0	5.0	1
14473	Pfna-Perfluorononanoic A	cid	375-95-1	N.D.	1.0	5.0	1
14473	Pfoa-Perfluorooctanoic Ac	cid	335-67-1	6.3	0.75	2.5	1
14473	Pfosa-Perfluorooctanesulf	fonami	754-91-6	N.D.	1.2	7.5	1
14473	Pfpea-Perfluoropentanoic	Acid	2706-90-3	N.D.	5.0	15	1
14473	Pfteda-Perfluorotetradeca	noic	376-06-7	N.D.	0.75	2.5	1
14473	Pftrda-Perfluorotridecanoi	c Ac	72629-94-8	N.D.	1.0	2.5	1
14473	Pfunda-Perfluoroundecan	oic Aci	2058-94-8	N.D.	1.0	5.0	1
Repo	rting limits were raised due	to interference from	n the sample matrix	ζ.			

State of New York Certification No. 10670

No.

Sample Comments

Laboratory Sample Analysis Record Method CAT Analysis Name Trial# Batch# Analysis Analyst Dilution Date and Time Factor 14473 21 PFAS in Water 320-45170 EPA 537 Version 1.1 1 18325011 11/29/2018 04:50 Isaac Phillips-Cary 1 Modified 14091 PFAS Water Prep EPA 537 Version 1.1 1 18325011 11/21/2018 16:00 Anthony C Polaski 1 Modified



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Lancaster Laboratories Environmental

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Analysis Report

REVISED

Sample Description:		MW-24-110818 (320-45170-6) Grab Groundwater EC Sampling - Former Ciba-Geigy Facility			TestAmerica ELLE Sample #: WW 9909 ELLE Group #: 2011497 Matrix: Groundwater			
Projec	t Name:	EC Sampling	g - Former Ciba-G	eigy Facility				
Submit Collect SDG#:	tal Date/Time: ion Date/Time:	11/21/2018 1 11/08/2018 1 TAE02-06	1:00 6:05					
CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor	
LC/MS	/MS Miscellaned	ous EPA 537 Modified	' Version 1.1 I	ng/l	ng/l	ng/l		
14473	6:2-Fts		27619-97-2	N.D.	0.84	1.7	1	
14473	8:2-Fts		39108-34-4	N.D.	1.7	5.0	1	
14473	NEtFOSAA		2991-50-6	N.D.	0.84	2.5	1	
	NEtFOSAA is the a	cronym for N-ethyl	perfluorooctanesulfona	nidoacetic Acid.				
14473	NMeFOSAA		2355-31-9	N.D.	0.84	2.5	1	
	NMeFOSAA is the a	acronym for N-meth	nyl perfluorooctanesulfo	namidoacetic Acid.				
14473	Perfluorobutanesulf	onic Acid	375-73-5	N.D.	0.25	0.84	1	
14473	Perfluorodecanesul	fonic Acid	335-77-3	N.D.	0.50	1.7	1	
14473	Perfluoroheptanesu	Ilfonic Acid	375-92-8	N.D.	0.33	1.7	1	
14473	Perfluorohexanesul	fonic Acid	355-46-4	N.D.	0.33	1.7	1	
14473	Perfluorooctanesulf	onic Acid	1763-23-1	N.D.	0.33	1.7	1	
14473	Pfba-Perfluorobutar	noic Acid	375-22-4	N.D.	1.7	5.0	1	
14473	Pfda-Perfluorodeca	noic Acid	335-76-2	N.D.	0.75	1.7	1	
14473	Pfdoda-Perfluorodo	decanoic	307-55-1	N.D.	0.42	1.7	1	
14473	Pfhpa-Perfluorohep	tanoic Acid	375-85-9	N.D.	0.33	0.84	1	
14473	Pfhxa-Perfluorohex	anoic Acid	307-24-4	N.D.	0.33	1.7	1	
14473	Pfna-Perfluoronona	noic Acid	375-95-1	N.D.	0.33	1.7	1	
14473	Pfoa-Perfluorooctar	noic Acid	335-67-1	N.D.	0.25	0.84	1	
14473	Pfosa-Perfluoroocta	anesulfonami	754-91-6	N.D.	0.42	2.5	1	
14473	Pfpea-Perfluoropen	tanoic Acid	2706-90-3	N.D.	1.7	5.0	1	
14473	Pfteda-Perfluorotetr	adecanoic	376-06-7	N.D.	0.25	0.84	1	
14473	Pftrda-Perfluorotride	ecanoic Ac	72629-94-8	N.D.	0.33	0.84	1	
14473	Pfunda-Perfluoroun	decanoic Aci	2058-94-8	N.D.	0.33	1.7	1	

Sample Comments

		Labo	oratory S	Sample Analy	sis Record		
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	21 PFAS in Water 320-45170	EPA 537 Version 1.1 Modified	1	18325011	11/29/2018 04:59	Isaac Phillips-Cary	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18325011	11/21/2018 16:00	Anthony C Polaski	1



Analysis Report

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Sample Description:	EB-110818 (320-45170-8) Grab Water EC Sampling - Former Ciba-Geigy Facility
	EC Sampling - Former Ciba-Geigy Facility

Project Name: EC Sampling - Former Ciba-Geigy Facility

 Submittal Date/Time:
 11/21/2018 11:00

 Collection Date/Time:
 11/08/2018 15:45

 SDG#:
 TAE02-08EB

State of New York Certification No. 10670

erica	
mple #: WW 9909376 oup #: 2011497 Nater	
	rica mple #: WW 9909376 oup #: 2011497 Water

REVISED 4 09376 7 6 7 8

SDG#:	TAE02-08EB						
CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor	
LC/MS	/MS Miscellaneous EPA 537	Version 1.1	ng/l	ng/l	ng/l		
	Modified						
14473	6:2-Fts	27619-97-2	N.D.	0.83	1.7	1	
14473	8:2-Fts	39108-34-4	N.D.	1.7	5.0	1	
14473	NEtFOSAA	2991-50-6	N.D.	0.83	2.5	1	
	NEtFOSAA is the acronym for N-ethyl	perfluorooctanesulfona	midoacetic Acid.				
14473	NMeFOSAA	2355-31-9	N.D.	0.83	2.5	1	
	NMeFOSAA is the acronym for N-meth	yl perfluorooctanesulfo	namidoacetic Acid.				
14473	Perfluorobutanesulfonic Acid	375-73-5	N.D.	0.25	0.83	1	
14473	Perfluorodecanesulfonic Acid	335-77-3	N.D.	0.50	1.7	1	
14473	Perfluoroheptanesulfonic Acid	375-92-8	N.D.	0.33	1.7	1	
14473	Perfluorohexanesulfonic Acid	355-46-4	N.D.	0.33	1.7	1	
14473	Perfluorooctanesulfonic Acid	1763-23-1	N.D.	0.33	1.7	1	
14473	Pfba-Perfluorobutanoic Acid	375-22-4	N.D.	1.7	5.0	1	
14473	Pfda-Perfluorodecanoic Acid	335-76-2	N.D.	0.74	1.7	1	
14473	Pfdoda-Perfluorododecanoic	307-55-1	N.D.	0.41	1.7	1	
14473	Pfhpa-Perfluoroheptanoic Acid	375-85-9	N.D.	0.33	0.83	1	
14473	Pfhxa-Perfluorohexanoic Acid	307-24-4	N.D.	0.33	1.7	1	
14473	Pfna-Perfluorononanoic Acid	375-95-1	N.D.	0.33	1.7	1	
14473	Pfoa-Perfluorooctanoic Acid	335-67-1	N.D.	0.25	0.83	1	
14473	Pfosa-Perfluorooctanesulfonami	754-91-6	N.D.	0.41	2.5	1	
14473	Pfpea-Perfluoropentanoic Acid	2706-90-3	N.D.	1.7	5.0	1	
14473	Pfteda-Perfluorotetradecanoic	376-06-7	N.D.	0.25	0.83	1	
14473	Pftrda-Perfluorotridecanoic Ac	72629-94-8	N.D.	0.33	0.83	1	
14473	Pfunda-Perfluoroundecanoic Aci	2058-94-8	N.D.	0.33	1.7	1	

Sample Comments

Laboratory Sample Analysis Record							
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	21 PFAS in Water 320-45170	EPA 537 Version 1.1 Modified	1	18325011	11/29/2018 05:17	Isaac Phillips-Cary	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18325011	11/21/2018 16:00	Anthony C Polaski	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description:FRB-110818 (3) Water EC Sampling -Project Name:EC Sampling -Submittal Date/Time:11/21/2018 11: 11/08/2018 15: TAE02-09FB		8 (320-45170-9) Gra g - Former Ciba-G	ab eigy Facility		TestAmerica ELLE Sample #: ELLE Group #: Matrix: Wator	WW 99093 2011497	
		g - Former Ciba-G	eigy Facility		Wallix. Walei		
		11/21/2018 ⁻ 11/08/2018 ⁻ TAE02-09FE	11:00 15:35 3				
CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous EPA 537 Version 1.1 Modified		7 Version 1.1 d	ng/l	ng/l	ng/l		
14473	6:2-Fts		27619-97-2	N.D.	0.83	1.7	1
14473	8:2-Fts		39108-34-4	N.D.	1.7	5.0	1
14473	NEtFOSAA		2991-50-6	N.D.	0.83	2.5	1
	NEtFOSAA is the a	cronym for N-ethy	l perfluorooctanesulfona	midoacetic Acid.			
14473	NMeFOSAA		2355-31-9	N.D.	0.83	2.5	1
	NMeFOSAA is the	acronym for N-me	thyl perfluorooctanesulfo	namidoacetic Acid.			
14473	Perfluorobutanesul	fonic Acid	375-73-5	N.D.	0.25	0.83	1
14473	Perfluorodecanesu	Ifonic Acid	335-77-3	N.D.	0.50	1.7	1
14473	Perfluoroheptanes	ulfonic Acid	375-92-8	N.D.	0.33	1.7	1
14473	Perfluorohexanesu	Ifonic Acid	355-46-4	N.D.	0.33	1.7	1
14473	Perfluorooctanesul	fonic Acid	1763-23-1	N.D.	0.33	1.7	1
14473	Pfba-Perfluorobuta	noic Acid	375-22-4	N.D.	1.7	5.0	1
14473	Pfda-Perfluorodeca	anoic Acid	335-76-2	N.D.	0.75	1.7	1
14473	Pfdoda-Perfluorodo	odecanoic	307-55-1	N.D.	0.42	1.7	1

N.D.

N.D.

N.D.

N.D.

N.D.

N.D.

N.D.

N.D.

N.D.

375-85-9

307-24-4

375-95-1

335-67-1

754-91-6

376-06-7

2706-90-3

72629-94-8

2058-94-8

State of New York Certification No. 10670

Pfhpa-Perfluoroheptanoic Acid

Pfhxa-Perfluorohexanoic Acid

Pfna-Perfluorononanoic Acid

Pfoa-Perfluorooctanoic Acid

Pfosa-Perfluorooctanesulfonami

Pfpea-Perfluoropentanoic Acid

Pfteda-Perfluorotetradecanoic

Pftrda-Perfluorotridecanoic Ac

Pfunda-Perfluoroundecanoic Aci

14473

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14473

Sample Comments

0.33

0.33

0.33

0.25

0.42

0.25

0.33

0.33

1.7

		Labo	oratory S	Sample Analy	sis Record		
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	21 PFAS in Water 320-45170	EPA 537 Version 1.1 Modified	1	18325011	11/29/2018 05:26	Isaac Phillips-Cary	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18325011	11/21/2018 16:00	Anthony C Polaski	1

*=This limit was used in the evaluation of the final result

0.83

1.7

1.7

0.83

2.5

5.0

0.83

0.83

1.7

1

1

1

1

1

1

1

1

1

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Sample Description: X-1-110818 (320-45170-10) Grab Groundwater EC Sampling - Former Ciba-Geigy Facility

Project Name: EC Sampling - Former Ciba-Geigy Facility

Submittal Date/Time: Collection Date/Time: SDG#:

11/21/2018 11:00 11/08/2018 TAE02-10FD

Analysis Report

REVISED

TestAmerica ELLE Sample #: WW 9909378 ELLE Group #: 2011497 Matrix: Groundwater

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
LC/MS/	MS Miscellaneous	EPA 537 Ver Modified	sion 1.1	ng/l	ng/l	ng/l	
14473	6:2-Fts		27619-97-2	N.D.	0.93	1.9	1
14473	8:2-Fts		39108-34-4	N.D.	1.9	5.6	1
14473	NEtFOSAA		2991-50-6	N.D.	0.93	2.8	1
	NEtFOSAA is the acronyn	n for N-ethyl perflu	orooctanesulfonam	nidoacetic Acid.			
14473	NMeFOSAA		2355-31-9	N.D.	0.93	2.8	1
	NMeFOSAA is the acrony	m for N-methyl pe	rfluorooctanesulfon	amidoacetic Acid.			
14473	Perfluorobutanesulfonic A	cid	375-73-5	0.95	0.28	0.93	1
14473	Perfluorodecanesulfonic A	Acid	335-77-3	N.D.	0.56	1.9	1
14473	Perfluoroheptanesulfonic	Acid	375-92-8	0.52 J	0.37	1.9	1
14473	Perfluorohexanesulfonic A	Acid	355-46-4	9.7	0.37	1.9	1
14473	Perfluorooctanesulfonic A	cid	1763-23-1	41	0.37	1.9	1
14473	Pfba-Perfluorobutanoic Ac	cid	375-22-4	4.3 J	1.9	5.6	1
14473	Pfda-Perfluorodecanoic A	cid	335-76-2	N.D.	0.83	1.9	1
14473	Pfdoda-Perfluorododecan	oic	307-55-1	N.D.	0.46	1.9	1
14473	Pfhpa-Perfluoroheptanoic	Acid	375-85-9	1.2	0.37	0.93	1
14473	Pfhxa-Perfluorohexanoic	Acid	307-24-4	2.1	0.37	1.9	1
14473	Pfna-Perfluorononanoic A	cid	375-95-1	0.92 J	0.37	1.9	1
14473	Pfoa-Perfluorooctanoic Ac	cid	335-67-1	5.1	0.28	0.93	1
14473	Pfosa-Perfluorooctanesulf	ionami	754-91-6	N.D.	0.46	2.8	1
14473	Pfpea-Perfluoropentanoic	Acid	2706-90-3	N.D.	1.9	5.6	1
14473	Pfteda-Perfluorotetradeca	noic	376-06-7	N.D.	0.28	0.93	1
14473	Pftrda-Perfluorotridecanoi	c Ac	72629-94-8	N.D.	0.37	0.93	1
14473	Pfunda-Perfluoroundecan	oic Aci	2058-94-8	N.D.	0.37	1.9	1

State of New York Certification No. 10670

Sample Comments

Laboratory Sample Analysis Record							
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	21 PFAS in Water 320-45170	EPA 537 Version 1.1 Modified	1	18325011	11/29/2018 05:35	Isaac Phillips-Cary	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18325011	11/21/2018 16:00	Anthony C Polaski	1



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Sample Description: MW-18-110918 (320-45170-11) Grab Groundwater

EC Sampling - Former Ciba-Geigy Facility

EC Sampling - Former Ciba-Geigy Facility

Project Name:

Submittal Date/Time: 11/21/2018 11:00 Collection Date/Time: 11/09/2018 13:40 SDG#: TAE02-11

Analysis Report

REVISED

TestAmerica	
ELLE Sample #:	WW 9909379
ELLE Group #:	2011497
Matrix: Groundwa	ater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
LC/MS	/MS Miscellaneous EPA 537 V Modified	ersion 1.1	ng/l	ng/l	ng/l	
14473	6:2-Fts	27619-97-2	N.D.	0.93	1.9	1
14473	8:2-Fts	39108-34-4	N.D.	1.9	5.6	1
14473	NEtFOSAA	2991-50-6	N.D.	0.93	2.8	1
	NEtFOSAA is the acronym for N-ethyl per	fluorooctanesulfonam	idoacetic Acid.			
14473	NMeFOSAA	2355-31-9	N.D.	0.93	2.8	1
	NMeFOSAA is the acronym for N-methyl	perfluorooctanesulfon	amidoacetic Acid.			
14473	Perfluorobutanesulfonic Acid	375-73-5	0.93 J	0.28	0.93	1
14473	Perfluorodecanesulfonic Acid	335-77-3	N.D.	0.56	1.9	1
14473	Perfluoroheptanesulfonic Acid	375-92-8	N.D.	0.37	1.9	1
14473	Perfluorohexanesulfonic Acid	355-46-4	0.83 J	0.37	1.9	1
14473	Perfluorooctanesulfonic Acid	1763-23-1	39	0.37	1.9	1
14473	Pfba-Perfluorobutanoic Acid	375-22-4	8.0	1.9	5.6	1
14473	Pfda-Perfluorodecanoic Acid	335-76-2	N.D.	0.84	1.9	1
14473	Pfdoda-Perfluorododecanoic	307-55-1	N.D.	0.47	1.9	1
14473	Pfhpa-Perfluoroheptanoic Acid	375-85-9	1.2	0.37	0.93	1
14473	Pfhxa-Perfluorohexanoic Acid	307-24-4	1.5 J	0.37	1.9	1
14473	Pfna-Perfluorononanoic Acid	375-95-1	1.1 J	0.37	1.9	1
14473	Pfoa-Perfluorooctanoic Acid	335-67-1	11	0.28	0.93	1
14473	Pfosa-Perfluorooctanesulfonami	754-91-6	N.D.	0.47	2.8	1
14473	Pfpea-Perfluoropentanoic Acid	2706-90-3	2.2 J	1.9	5.6	1
14473	Pfteda-Perfluorotetradecanoic	376-06-7	N.D.	0.28	0.93	1
14473	Pftrda-Perfluorotridecanoic Ac	72629-94-8	N.D.	0.37	0.93	1
14473	Pfunda-Perfluoroundecanoic Aci	2058-94-8	N.D.	0.37	1.9	1

State of New York Certification No. 10670

Sample Comments

Laboratory Sample Analysis Record							
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	21 PFAS in Water 320-45170	EPA 537 Version 1.1 Modified	1	18325011	11/29/2018 05:44	Isaac Phillips-Cary	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18325011	11/21/2018 16:00	Anthony C Polaski	1



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Analysis Report

Group Number: 2011497

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Quality Control Summary

Client Name: TestAmerica Reported: 12/10/2018 16:17

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ	
	ng/l	ng/l	ng/l	
Batch number: 18325011	Sample num	ber(s): 9909367-	9909374,99093	376-9909379
6:2-Fts	N.D.	1.0	2.0	
8:2-Fts	N.D.	2.0	6.0	
NEtFOSAA	N.D.	1.0	3.0	
NMeFOSAA	N.D.	1.0	3.0	
Perfluorobutanesulfonic Acid	N.D.	0.30	1.0	
Perfluorodecanesulfonic Acid	N.D.	0.60	2.0	
Perfluoroheptanesulfonic Acid	N.D.	0.40	2.0	
Perfluorohexanesulfonic Acid	N.D.	0.40	2.0	
Perfluorooctanesulfonic Acid	N.D.	0.40	2.0	
Pfba-Perfluorobutanoic Acid	N.D.	2.0	6.0	
Pfda-Perfluorodecanoic Acid	N.D.	0.90	2.0	
Pfdoda-Perfluorododecanoic	N.D.	0.50	2.0	
Pfhpa-Perfluoroheptanoic Acid	N.D.	0.40	1.0	
Pfhxa-Perfluorohexanoic Acid	N.D.	0.40	2.0	
Pfna-Perfluorononanoic Acid	N.D.	0.40	2.0	
Pfoa-Perfluorooctanoic Acid	N.D.	0.30	1.0	
Pfosa-Perfluorooctanesulfonami	N.D.	0.50	3.0	
Pfpea-Perfluoropentanoic Acid	N.D.	2.0	6.0	
Pfteda-Perfluorotetradecanoic	N.D.	0.30	1.0	
Pftrda-Perfluorotridecanoic Ac	N.D.	0.40	1.0	
Pfunda-Perfluoroundecanoic Aci	N.D.	0.40	2.0	

LCS/LCSD

Analysis Name	LCS Spike Added ng/l	LCS Conc ng/l	LCSD Spike Added ng/l	LCSD Conc ng/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 18325011	Sample number(s): 9909367-9	9909374,9909376-9	909379					
6:2-Fts	15.17	14.37			95		66-155		
8:2-Fts	15.33	16.11			105		66-148		
NEtFOSAA	5.44	4.92			90		55-169		
NMeFOSAA	5.44	4.54			83		44-147		
Perfluorobutanesulfonic Acid	4.81	4.57			95		73-128		
Perfluorodecanesulfonic Acid	5.24	4.62			88		60-135		
Perfluoroheptanesulfonic Acid	5.18	4.91			95		64-135		
Perfluorohexanesulfonic Acid	5.14	5.07			99		71-131		

*- Outside of specification

**-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.



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Analysis Report

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Client Name: TestAmerica Reported: 12/10/2018 16:17 Group Number: 2011497

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ng/l	LCS Conc ng/l	LCSD Spike Added ng/l	LCSD Conc ng/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Perfluorooctanesulfonic Acid	5.20	4.92			95		67-138		
Pfba-Perfluorobutanoic Acid	5.44	5.40			99		74-142		
Pfda-Perfluorodecanoic Acid	5.44	5.14			94		69-148		
Pfdoda-Perfluorododecanoic	5.44	5.42			100		75-136		
Pfhpa-Perfluoroheptanoic Acid	5.44	5.54			102		76-140		
Pfhxa-Perfluorohexanoic Acid	5.44	5.96			110		75-135		
Pfna-Perfluorononanoic Acid	5.44	5.75			106		72-148		
Pfoa-Perfluorooctanoic Acid	5.44	5.63			103		72-138		
Pfosa-Perfluorooctanesulfonami	5.44	5.17			95		65-164		
Pfpea-Perfluoropentanoic Acid	5.44	5.38			99		74-134		
Pfteda-Perfluorotetradecanoic	5.44	5.78			106		74-135		
Pftrda-Perfluorotridecanoic Ac	5.44	5.33			98		61-145		
Pfunda-Perfluoroundecanoic Aci	5.44	4.80			88		75-146		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ng/l	MS Spike Added ng/l	MS Conc ng/l	MSD Spike Added ng/l	MSD Conc ng/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 18325011	Sample numbe	r(s): 9909367-9	9909374,9	909376-9909379	UNSPK: 9	909369				
6:2-Fts	N.D.	37.72	33.4	37.9	36.95	89	98	70-130	10	30
8:2-Fts	N.D.	38.11	42.06	38.3	46.37	110	121	60-150	10	30
NEtFOSAA	N.D.	13.53	10.56	13.59	10.69	78	79	49-159	1	30
NMeFOSAA	N.D.	13.53	9.31	13.59	11.55	69	85	58-157	21	30
Perfluorobutanesulfonic Acid	0.757	11.97	11.99	12.02	13.05	94	102	73-134	8	30
Perfluorodecanesulfonic Acid	N.D.	13.03	13.27	13.09	13.88	102	106	41-148	5	30
Perfluoroheptanesulfonic Acid	N.D.	12.87	11.28	12.93	13.38	88	103	50-145	17	30
Perfluorohexanesulfonic Acid	N.D.	12.79	12.21	12.85	12.77	95	99	73-129	4	30
Perfluorooctanesulfonic Acid	3.41	12.93	14.91	12.99	16.47	89	101	48-154	10	30
Pfba-Perfluorobutanoic Acid	N.D.	13.53	15.91	13.59	16.52	118	122	58-155	4	30
Pfda-Perfluorodecanoic Acid	N.D.	13.53	13.13	13.59	13.36	97	98	73-142	2	30
Pfdoda-Perfluorododecanoic	N.D.	13.53	14.33	13.59	14.15	106	104	76-136	1	30
Pfhpa-Perfluoroheptanoic Acid	N.D.	13.53	12.81	13.59	13.87	95	102	67-137	8	30
Pfhxa-Perfluorohexanoic Acid	N.D.	13.53	13.94	13.59	14.8	103	109	70-130	6	30
Pfna-Perfluorononanoic Acid	N.D.	13.53	13.68	13.59	13.47	101	99	70-130	2	30
Pfoa-Perfluorooctanoic Acid	2.14	13.53	15.4	13.59	15.61	98	99	48-160	1	30
Pfosa-Perfluorooctanesulfonami	N.D.	13.53	13.12	13.59	12.88	97	95	70-130	2	30
Pfpea-Perfluoropentanoic Acid	N.D.	13.53	13.92	13.59	13.4	103	99	53-161	4	30
Pfteda-Perfluorotetradecanoic	N.D.	13.53	13.97	13.59	13.11	103	96	78-133	6	30
Pftrda-Perfluorotridecanoic Ac	N.D.	13.53	14	13.59	13.84	103	102	57-151	1	30

*- Outside of specification

**-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.



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Quality Control Summary

Client Name: TestAmerica Reported: 12/10/2018 16:17 Group Number: 2011497

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ng/l	MS Spike Added ng/l	MS Conc ng/l	MSD Spike Added ng/l	MSD Conc ng/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Pfunda-Perfluoroundecanoic Aci	N.D.	13.53	11.52	13.59	12.59	85	93	66-137	9	30

Labeled Isotope Quality Control

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 21 PFAS in Water 320-45170 Batch number: 18325011

Daton name	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C5-PFHxA	13C3-PFHxS	13C4-PFHpA
9909367	74	97	101	60	66	66
9909368	78	93	93	75	73	81
9909369	76	90	88	71	70	77
9909370	78	95	94	75	74	78
9909371	79	95	94	74	70	75
9909372	57	118	159*	63	84	76
9909373	33	86	90	77	77	78
9909374	80	115	117	74	73	79
9909376	83	86	82	74	77	77
9909377	91	90	86	86	90	88
9909378	83	113	122	75	79	79
9909379	83	104	111	73	76	80
Blank	90	95	86	85	85	84
LCS	84	86	79	76	77	80
MS	78	95	94	75	74	78
MSD	79	95	94	74	70	75
Limits:	33-123	31-157	26-148	35-138	34-126	35-126
	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA	13C2-8:2-FTS
9909367	114	68	74	78	72	85
9909368	127	81	80	81	82	105
9909369	127	78	73	79	76	115
9909370	124	76	71	69	77	130
9909371	115	76	73	83	79	120
9909372	165	80	82	82	81	122
9909373	138	82	75	81	74	92
9909374	113	76	77	82	84	88
9909376	101	80	79	81	78	90
9909377	121	93	89	93	94	105

*- Outside of specification

**-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.



Client Name: TestAmerica

Reported: 12/10/2018 16:17

Lancaster Laboratories Environmental

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Analysis Report

Quality Control Summary

Group Number: 2011497

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 21 PFAS in Water 320-45170

Batch numb	per: 18325011					
	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA	13C2-8:2-FTS
9909378	138	81	74	81	86	88
9909379	135	79	72	79	83	96
Blank	125	90	80	87	86	84
LCS	107	80	81	79	78	93
MS	124	76	71	69	77	130
MSD	115	76	73	83	79	120
Limits:	32-170	48-122	50-121	41-144	47-125	27-164
	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA	13C8-PFOSA
9909367	79	71	76	68	67	69
9909368	98	89	86	78	67	84
9909369	88	76	73	67	65	74
9909370	92	79	83	70	69	74
9909371	89	85	81	75	74	81
9909372	89	86	100	78	83	74
9909373	87	80	74	73	74	79
9909374	94	86	90	77	80	65
9909376	90	82	81	77	74	79
9909377	114	97	96	84	86	85
9909378	90	86	85	80	80	79
9909379	90	83	81	81	73	71
Blank	93	90	82	79	81	78
LCS	89	89	86	80	75	80
MS	92	79	83	70	69	74
MSD	89	85	81	75	74	81
Limits.	30-127	30-128	30-142	39-130	26-119	11-127

*- Outside of specification

**-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

1042/2011497/9909367-79

480301-A1650N

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TostAmorica		Ashluid Allson Falls, NY		FC Samplag - Arbhurd Gleas Kalis			熊	Щē	(e)}	ll Al	101	$M_{h} \subseteq \mathbb{P}$							n toject (tajnat),			
Hilen & Gen Officer Alliany		Laboratory		Ánalýsís H	olding Time fi	om Sample Dates			Chemik	cal Pres	ervati	<u>en: (see</u>	key at h	ution1)								
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Kay Hower

From:	Barnett. Eddie <eddie.barnett@testamericainc.com></eddie.barnett@testamericainc.com>
Sent:	Monday, December 10, 2018 7:32 AM
То:	Kay Hower
Cc:	Beauchamp, Betsy
Subject:	Changes to the Reports
-	

Importance:

High

EXTERNAL EMAIL*

Hi Kay -

Can you make some changes to the data?

Can you please update the following IDs? They were logged incorrectly and should be updated as follows:

MW-0823 should read "MW-OB23" MW-0826 should read "MW-OB26" MW-0830 should read "MW-OB30"

In addition, sample MW-OB-18-110818 (320-45170-7) should not have been reported. In our system it is in-active but it looks like Sacramento included it in the shipment when they sent the samples. I understand you will still have to bill for the sample, but can you remove it from the report?

Sorry for the rush, but can you have all of the updated items sent over today? Report, Level 4, EDDs, etc?

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Client Sample Description Sample Collection Date/Time 11/08/2018 14:15 MW-0823-110818 (320-45170-1) Grab MW-OB7-110818 (320-45170-2) Grab 11/08/2018 09:45 MW-OB14-110818 (320-45170-3) Grab 11/08/2018 10:15 MW-OB14-110818-MS (320-45170-3MS) Grab 11/08/2018 10:15 MW-OB14-110818-MSD (320-45170-3MSD) Grab 11/08/2018 10:15 MW-0826-110818 (320-45170-4) Grab 11/08/2018 16:00 MW-0830-110818 (320-45170-5) Grab 11/08/2018 11:35 MW-24-110818 (320-45170-6) Grab 11/08/2018 16:05 MW-OB18-110818 (320-45170-7) Grab 11/08/2018 15:10 EB-110818 (320-45170-8) Grab 11/08/2018 15:45 FRB-110818 (320-45170-9) Grab 11/08/2018 15:35 X-1-110818 (320-45170-10) Grab 11/08/2018 MW-18-110918 (320-45170-11) Grab 11/09/2018 13:40

EDDIE BARNETT Project Manager

TestAmerica THE LEADER IN ENVIRONMENTAL TESTING

5102 LaRoche Avenue Savannah, GA 31404 Tel: 912-354-7858 | Fax: 912-352-0165 Direct Line: 912-250-0280 www.testamericainc.com

Notify us here to report this email as spam.

🚓 eurofins

Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 233997

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Client: Test America

]	Delivery and F	Receipt	Information	on				
Γ	Delivery Method:	<u>Fed I</u>	<u>=x</u>	Arriva	l Timestamp:	<u>11/21/</u>	<u>2018 11:0</u>	<u>0</u>		
١	Number of Package	es: <u>2</u>		Numb	er of Projects	: <u>6</u>				
5	State/Province of O	rigin: <u>NY</u>								
			Arrival Cond	dition \$	Summary					
5	Shipping Container	Sealed:	Yes	Sam	ple IDs on C	OC match Cont	ainers:	Yes		
Ċ	Custody Seal Prese	ent:	Yes	Sam	ple Date/Tim	es match COC:		No		
(Custody Seal Intact	n 1	Yes	VOA	A Vial Headsp	ace ≥ 6mm:		N/A		
ç	Samples Chilled:		Yes	Tota	al Trip Blank (Qty:	0			
F	Paperwork Enclose	d:	Yes	Air (Quality Samp	les Present:		No		
د	Samples Intact:		Yes							
N	Missing Samples:		No							
F	Extra Samples:		Yes							
- [Discrepancy in Con	tainer Qty on C	OC: No							
Th	Unpacked by Zane	Hollinger (1025 DT = Digi	51) at 13:04 on 11 Samples ital (Temp. Bottle)	/21/2018 Chille IR =	3 d Details = Infrared (Su	rface Temp)	All Temp	eratures in °C		
0	Thermomotor ID	Corrected Temp	Therm, Type	Ice Type	Ice Present?	Ice Container	Elevated T	emp?		
<u>000ler #</u>	DT42-03	0.3	DT	Wet	Y	Loose/Bag	Ν			
2	DT42-03	0.3	DT	Wet	Y	Loose/Bag	N			
			Extra S	ample	Details					
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	MW-OB18-110818	2	,	1/08/2018	3 15:10 Wa	s crossed out on CC	DC, but still re	ceived		
		Sa	ample Date/Ti	me Dis	crepancy	Details				
c	Sample ID on COC	Date/Tir	ne on Label		Com	ments				

X-1-110818 11/08/2018 12:00 No time given on COC
🔅 eurofins

Lancaster Laboratories Environmental

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	mL	milliliter(s)
С	degrees Celsius	MPN	Most Probable Number
cfu	colony forming units	N.D.	non-detect
CP Units	cobalt-chloroplatinate units	ng	nanogram(s)
F	degrees Fahrenheit	NTU	nephelometric turbidity units
g	gram(s)	pg/L	picogram/liter
IŪ	International Units	RL	Reporting Limit
kg	kilogram(s)	TNTC	Too Numerous To Count
Ĺ	liter(s)	μg	microgram(s)
lb.	pound(s)	μĹ	microliter(s)
m3	cubic meter(s)	umhos/cm	micromhos/cm
meq	milliequivalents	MCL	Maximum Contamination Limit
mg	milligram(s)		
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent aqueous liquids, ppm is usually taken to l very close to a kilogram. For gases or va	to one milligram per be equivalent to milli apors, one ppm is eq	kilogram (mg/kg) or one gram per million grams. For grams per liter (mg/l), because one liter of water has a weight uivalent to one microliter per liter of gas.
ppb	parts per billion		
Dry weight basis	Results printed under this heading have the concentration to approximate the value p	been adjusted for mo resent in a similar sa	Disture content. This increases the analyte weight ample without moisture. All other results are reported on an

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

as-received basis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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Environmental

Data Qualifiers

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Qualifier	Definition
С	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
Р	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised
	due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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	Client: Site Name , Ashland /Glens Fall	Laboratory: Mari	PFAs 14	TestAmerica sen Russeide Diare	SSU JUVETSIDE FAWY W. Sacramento, CA 95605-1500		Phone: 732-593-255 Fax: 732-549-3679	Sample Date (mm/dd/yy)	11/08/18	11/08/18	11/08/18	11/4/18						12		Received by.	Received by	2 dec	Received by: 11/	of Test
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Ь	TestAmerica	2'Brien & Gere Office: Albany Iddress: O'Brien & Gere	4 New Karner Rd, Suite 106, Albany, N.Y. 12203	Phone: (518) 724-7256 5	'tax (31b) acc. 2743 'toject Contact: Paul D'Annibale/ Maureen Garude 'mail: Paul D'Annibale@obg.com / Maureen Gardn.		Sample Identification	Unique Field Sample ID	1 EB-110818	2 FRB-110818	x-1-110818	Mr. 18-110315						0		Anquished by T Mar De agent	OBC-01 aligned al	500	inquisited by RINGL	OP.L.

Login Sample Receipt Checklist

Client: O'Brien & Gere Inc of North America

Login Number: 45170 List Number: 1 Creator: Nelson, Kym D

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	743349
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Job Number: 320-45170-1

List Source: TestAmerica Sacramento



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-145098-1

Client Project/Site: Hercules Glens Falls - Emerging Contam.

For:

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www.testamericainc.com

Visit us at:

Expert

O'Brien & Gere Inc of North America 94 New Karner Rd., Suite 106 Albany, New York 12203

Attn: Mr. Paul D'Annibale

Adi Barnott

Authorized for release by: 11/27/2018 9:59:35 AM

Eddie Barnett, Project Manager I (912)250-0280 eddie.barnett@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

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Client: O'Brien & Gere Inc of North America Project/Site: Hercules Glens Falls - Emerging Contam.

3

Qualifiers

GC/MS Semi VOA

GC/WS Sellin		
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	
E	Result exceeded calibration range.	

Glossary

Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	
E	Result exceeded calibration range.	5
Glossary		- 6
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	8
CFL	Contains Free Liquid	
CNF	Contains No Free Liquid	9
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)	13
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: 480-145098-1

Laboratory: TestAmerica Buffalo

Narrative

CASE NARRATIVE

Client: O'Brien & Gere Inc of North America Project: Hercules Glens Falls - Emerging Contam.

Report Number: 480-145098-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 11/10/2018; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.0° C and 1.6° C.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS) - SELECTED ION MONITORING (SIM) ISOTOPE DILUTION

Samples MW-OB23-110818 (480-145098-1), MW-OB7-110818 (480-145098-2), MW-OB14-110818 (480-145098-3), MW-OB26-110818 (480-145098-4), MW-OB30-110818 (480-145098-5), MW-24-110818 (480-145098-6), EB-110818 (480-145098-8), X-1-110818 (480-145098-9) and MW-18-110918 (480-145098-10) were analyzed for Semivolatile Organic Compounds (GC-MS) - Selected Ion Monitoring (SIM) Isotope Dilution in accordance with EPA SW-846 Method 8270D SIM Isotope Dilution. The samples were prepared on 11/13/2018 and analyzed on 11/20/2018.

The 1,4-Dioxane result reported for sample MW-OB14-110818 (480-145098-3[MSD]) has an E flag qualifier indicating the results are over the calibration range on the raw data. The actual amounts are within the calibration range; however, the E flag is generated based upon the bias corrected concentration. The LIMS system calculates a bias correction based on the recovery of the 1,4-Dioxane-d8 isotope.

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

Detection Summary

TestAmerica	Job	ID: 4	480-1	45098-1

Detection Summary		
Client: O'Brien & Gere Inc of North America Project/Site: Hercules Glens Falls - Emerging Contam.	TestAmerica Job ID: 480-145098-1	2
Client Sample ID: MW-OB23-110818	Lab Sample ID: 480-145098-1	
No Detections.		
Client Sample ID: MW-OB7-110818	Lab Sample ID: 480-145098-2	5
No Detections.		6
Client Sample ID: MW-OB14-110818	Lab Sample ID: 480-145098-3	
No Detections.		
Client Sample ID: MW-OB26-110818	Lab Sample ID: 480-145098-4	8
No Detections.		9
Client Sample ID: MW-OB30-110818	Lab Sample ID: 480-145098-5	
No Detections.		
Client Sample ID: MW-24-110818	Lab Sample ID: 480-145098-6	
No Detections.		13
Client Sample ID: EB-110818	Lab Sample ID: 480-145098-8	
No Detections.		
Client Sample ID: X-1-110818	Lab Sample ID: 480-145098-9	
No Detections.		
Client Sample ID: MW-18-110918	Lab Sample ID: 480-145098-10	
No Detections.		

Project/Site: Hercules Glens Falls - Emerging Contam. Client Sample ID: MW-OB23-110818 Lab Sample ID: 480-145098-1 Date Collected: 11/08/18 14:15 Matrix: Water Date Received: 11/10/18 01:00 Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) Result Qualifier MDL Unit Dil Fac Analyte RL Analyzed D Prepared 0.20 1,4-Dioxane 0.20 U 0.10 ug/L 11/13/18 07:55 11/20/18 11:10 Isotope Dilution %Recovery Qualifier Dil Fac Limits Prepared Analyzed 1,4-Dioxane-d8 24 15 - 110 11/13/18 07:55 11/20/18 11:10 Client Sample ID: MW-OB7-110818 Lab Sample ID: 480-145098-2 Date Collected: 11/08/18 09:45 Matrix: Water Date Received: 11/10/18 01:00 Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) **Result Qualifier** MDL Unit Analvte RL D Prepared Analvzed Dil Fac 0.19 U 0.095 ug/L 1,4-Dioxane 0.19 11/13/18 07:55 11/20/18 11:34 Isotope Dilution %Recoverv Qualifier Limits Prepared Analvzed Dil Fac 15 - 110 11/13/18 07:55 11/20/18 11:34 1,4-Dioxane-d8 21 1 Client Sample ID: MW-OB14-110818 Lab Sample ID: 480-145098-3 Date Collected: 11/08/18 10:15 Matrix: Water Date Received: 11/10/18 01:00 Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac 1,4-Dioxane 0.19 U 0.19 0.097 ug/L 11/13/18 07:55 11/20/18 10:21 1 Isotope Dilution %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1,4-Dioxane-d8 22 15 - 110 11/13/18 07:55 11/20/18 10:21 Client Sample ID: MW-OB26-110818 Lab Sample ID: 480-145098-4 Date Collected: 11/08/18 16:00 Matrix: Water Date Received: 11/10/18 01:00 Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) Result Qualifier Analyte RL MDL Unit D Prepared Analvzed Dil Fac 0.10 ug/L 1,4-Dioxane 0.20 U 0.20 11/13/18 07:55 11/20/18 11:58 1 Isotope Dilution %Recovery Qualifier Dil Fac Limits Prepared Analyzed 1.4-Dioxane-d8 15 - 110 11/13/18 07:55 11/20/18 11:58 24 1 Client Sample ID: MW-OB30-110818 Lab Sample ID: 480-145098-5 Date Collected: 11/08/18 11:35 Matrix: Water Date Received: 11/10/18 01:00 Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Welliou. 0270D Siwi ID - Sellin	volatile Orga	anic comp	ounus (GC/n		isotope	e Diluti	UII)		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.19	U	0.19	0.097	ug/L		11/13/18 07:55	11/20/18 12:24	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	25		15 - 110				11/13/18 07:55	11/20/18 12:24	1

TestAmerica Buffalo

Client: O'Brien & Gere Inc of North America

TestAmerica Job ID: 480-145098-1

Client Sample Results

Client: O'Brien & Gere Inc of North America Project/Site: Hercules Glens Falls - Emerging Contam. TestAmerica Job ID: 480-145098-1

Date Collected: 11/08/18 16:05 Date Received: 11/10/18 01:00								Matrix	Water
Method: 8270D SIM ID - Semiv Analyte	olatile Orga Result	anic Comp Qualifier	ounds (GC/N _{RL}	IS SIM / MDL	Isotope Unit	e Dilutio D	on) Prepared	Analvzed	Dil Fac
1,4-Dioxane	0.19	U	0.19	0.097	ug/L		11/13/18 07:55	11/20/18 12:49	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	26		15 - 110				11/13/18 07:55	11/20/18 12:49	1
Client Sample ID: EB-1108	18					La	b Sample	ID: 480-145	6098-8
Date Collected: 11/08/18 15:45 Date Received: 11/10/18 01:00							-	Matrix	Water
Method: 8270D SIM ID - Semiv	olatile Orga	anic Comp	ounds (GC/N	IS SIM /	Isotope	e Dilutio	on)		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.19	U	0.19	0.095	ug/L		11/13/18 07:55	11/20/18 13:13	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	26		15 - 110				11/13/18 07:55	11/20/18 13:13	1
7,4-Dioxane-d8 Client Sample ID: X-1-1108 Date Collected: 11/08/18 00:00 Date Received: 11/10/18 01:00	26 318		15-110			La	11/13/18 07:55 b Sample	11/20/18 13:13 ID: 480-145 Matrix:	1 5098-9 : Water
7,4-Dioxane-d8 Client Sample ID: X-1-1108 Date Collected: 11/08/18 00:00 Date Received: 11/10/18 01:00 Method: 8270D SIM ID - Semiv	26 318 olatile Orga	anic Comp		IS SIM /	Isotope	La Dilutio	11/13/18 07:55 b Sample	11/20/18 13:13 ID: 480-145 Matrix:	1 5098-9 : Water
1,4-Dioxane-d8 Client Sample ID: X-1-1108 Date Collected: 11/08/18 00:00 Date Received: 11/10/18 01:00 Method: 8270D SIM ID - Semiv Analyte	26 318 olatile Orga Result	anic Comp Qualifier	15-110 Dounds (GC/N RL	IS SIM / MDL	Isotope Unit	La e Dilutio	11/13/18 07:55 b Sample b Sample pn) Prepared	11/20/18 13:13 ID: 480-145 Matrix: Analyzed	1 5098-9 : Water Dil Fac
1,4-Dioxane-d8 Client Sample ID: X-1-1108 Date Collected: 11/08/18 00:00 Date Received: 11/10/18 01:00 Method: 8270D SIM ID - Semiv Analyte 1,4-Dioxane	26 318 olatile Orga Result 0.21	anic Comp Qualifier U	00000000000000000000000000000000000000	IS SIM / MDL 0.11	Isotope Unit ug/L	La Dilutio	11/13/18 07:55 b Sample b Sample pn) Prepared 11/13/18 07:55	11/20/18 13:13 ID: 480-145 Matrix: Analyzed 11/20/18 13:38	1 5098-9 : Water Dil Fac
1,4-Dioxane-d8 Client Sample ID: X-1-1108 ate Collected: 11/08/18 00:00 ate Received: 11/10/18 01:00 Method: 8270D SIM ID - Semiv Analyte 1,4-Dioxane Isotope Dilution	26 318 colatile Orga Result 0.21 %Recovery	anic Comp Qualifier U Qualifier	00000000000000000000000000000000000000	IS SIM / MDL 0.11	Isotope Unit ug/L	La e Dilutio	11/13/18 07:55 b Sample on) Prepared 11/13/18 07:55 Prepared	11/20/18 13:13 ID: 480-145 Matrix: Analyzed 11/20/18 13:38 Analyzed	1 5098-9 : Water Dil Fac 1 Dil Fac
1,4-Dioxane-d8 2.1ient Sample ID: X-1-1108 Pate Collected: 11/08/18 00:00 Pate Received: 11/10/18 01:00 Method: 8270D SIM ID - Semiv Analyte 1,4-Dioxane Isotope Dilution 1,4-Dioxane-d8	26 318 colatile Orga Result 0.21 %Recovery 27	anic Comp Qualifier U Qualifier	15-110 Dounds (GC/N RL 0.21 Limits 15-110	IS SIM / MDL 0.11	Isotope Unit ug/L	La Dilutio	11/13/18 07:55 b Sample Dn) Prepared 11/13/18 07:55 Prepared 11/13/18 07:55	11/20/18 13:13 ID: 480-145 Matrix: Analyzed 11/20/18 13:38 Analyzed 11/20/18 13:38	1 5098-9 : Water
1,4-Dioxane-d8 Client Sample ID: X-1-1108 Date Collected: 11/08/18 00:00 Date Received: 11/10/18 01:00 Method: 8270D SIM ID - Semiv Analyte 1,4-Dioxane Isotope Dilution 1,4-Dioxane-d8 Client Sample ID: MW-18-1 Date Collected: 11/09/18 13:40 Date Received: 11/10/18 01:00	26 318 olatile Orga Result 0.21 %Recovery 27 110918	anic Comp Qualifier U Qualifier	15-110 Dounds (GC/N RL 0.21 Limits 15-110	1S SIM / MDL 0.11	Isotope Unit ug/L	La Dilutio D	11/13/18 07:55 b Sample on) Prepared 11/13/18 07:55 Prepared 11/13/18 07:55 Sample II	11/20/18 13:13 ID: 480-145 Matrix: Analyzed 11/20/18 13:38 Analyzed 11/20/18 13:38 C: 480-1450 Matrix:	1 5098-9 Water Dil Fac 1 Dil Fac 1 98-10 Water
1,4-Dioxane-d8 Client Sample ID: X-1-1108 Date Collected: 11/08/18 00:00 Date Received: 11/10/18 01:00 Method: 8270D SIM ID - Semiv Analyte 1,4-Dioxane Isotope Dilution 1,4-Dioxane-d8 Client Sample ID: MW-18-1 Date Collected: 11/09/18 13:40 Date Received: 11/10/18 01:00 Method: 8270D SIM ID - Semiv	26 26 318 colatile Orga Result 0.21 %Recovery 27 110918 colatile Orga	anic Comp Qualifier U Qualifier	15-110 0000000000000000000000000000000000	1S SIM / MDL 0.11	Isotope Unit ug/L	La Dilutio Lab	11/13/18 07:55 b Sample on) Prepared 11/13/18 07:55 Prepared 11/13/18 07:55 b Sample II	11/20/18 13:13 ID: 480-145 Matrix: Analyzed 11/20/18 13:38 Analyzed 11/20/18 13:38 C: 480-1450 Matrix:	1 5098-9 : Water <u>Dil Fac</u> 1 <i>Dil Fac</i> 1 998-10 : Water
1,4-Dioxane-d8 Client Sample ID: X-1-1108 Date Collected: 11/08/18 00:00 Date Received: 11/10/18 01:00 Method: 8270D SIM ID - Semiv Analyte 1,4-Dioxane Isotope Dilution 1,4-Dioxane-d8 Client Sample ID: MW-18-1 Date Collected: 11/09/18 13:40 Date Received: 11/10/18 01:00 Method: 8270D SIM ID - Semiv Analyte	26 26 318 olatile Orga Result 0.21 %Recovery 27 110918 olatile Orga Result	anic Comp Qualifier U Qualifier	15-110 0000000000000000000000000000000000	1S SIM / MDL 0.11 1S SIM / MDL	Isotope Unit ug/L	La Dilutio D Lab	11/13/18 07:55 b Sample on) Prepared 11/13/18 07:55 Prepared 11/13/18 07:55 o Sample II on) Prepared	11/20/18 13:13 ID: 480-145 Matrix: Analyzed 11/20/18 13:38 Analyzed 11/20/18 13:38 C: 480-1450 Matrix: Analyzed	1 5098-9 Water Dil Fac 1 Dil Fac 1 988-10 Water Dil Fac
1,4-Dioxane-d8 Client Sample ID: X-1-1108 Date Collected: 11/08/18 00:00 Date Received: 11/10/18 01:00 Method: 8270D SIM ID - Semiv Analyte 1,4-Dioxane Isotope Dilution 1,4-Dioxane-d8 Client Sample ID: MW-18-1 Date Collected: 11/09/18 13:40 Date Collected: 11/10/18 01:00 Method: 8270D SIM ID - Semiv Analyte 1,4-Dioxane	26 318 olatile Orga Result 0.21 %Recovery 27 110918 olatile Orga Result 0.21	anic Comp Qualifier U Qualifier anic Comp Qualifier U	15-110 Dounds (GC/N RL 0.21 Limits 15-110 Dounds (GC/N RL 0.21	1S SIM / MDL 0.11 1S SIM / MDL 0.11	Isotope Unit ug/L	La Dilutio Lab	11/13/18 07:55 b Sample b) Prepared 11/13/18 07:55 Prepared 11/13/18 07:55 Sample II b) Prepared 11/13/18 07:55 Prepared 11/13/18 07:55	11/20/18 13:13 ID: 480-145 Matrix: Analyzed 11/20/18 13:38 Analyzed 11/20/18 13:38 O: 480-1450 Matrix: Analyzed 11/20/18 13:38 D: 480-1450 Matrix:	1 5098-9 Water Dil Fac 1 Dil Fac 1 988-10 Water Dil Fac 1 098-10

Isotope Dilution Summary

Client: O'Brien & Gere Inc of North America Project/Site: Hercules Glens Falls - Emerging Contam.

			Percent Isotope Dilution Recovery (Acceptance Limits)
		DXE	
ab Sample ID	Client Sample ID	(15-110)	
80-145098-1	MW-OB23-110818	24	
80-145098-2	MW-OB7-110818	21	
80-145098-3	MW-OB14-110818	22	
80-145098-3 MS	MW-OB14-110818	21	
80-145098-3 MSD	MW-OB14-110818	20	
80-145098-4	MW-OB26-110818	24	
80-145098-5	MW-OB30-110818	25	
80-145098-6	MW-24-110818	26	
80-145098-8	EB-110818	26	
80-145098-9	X-1-110818	27	
80-145098-10	MW-18-110918	27	
CS 480-445183/2-A	Lab Control Sample	28	
1B 480-445183/1-A	Method Blank	28	
Surragata Lagand			

QC Sample Results

Client: O'Brien & Gere Inc of North America Project/Site: Hercules Glens Falls - Emerging Contam.

Lab Sample ID: MB 480-44 Matrix: Water Analysis Batch: 446525	45183/1-A									Clie	ent Samp	ole ID: Met Prep Type Prep Bat	hod : Tot :h: 4	Blank tal/NA 45183
		MB	MB											
Analyte	Re	sult	Qualifier	RL		MDL	Unit		_ D	P	repared	Analyze	I	Dil Fa
1,4-Dioxane		0.20	U	0.20		0.10	ug/L			11/1	3/18 07:55	11/20/18 08	:44	
		MВ	MB											
Isotope Dilution	%Reco	very	Qualifier	Limits						P	repared	Analyze	1	Dil Fa
1,4-Dioxane-d8		28		15 - 110						11/1	3/18 07:55	11/20/18 0	:44	
Lab Sample ID: LCS 480-4	45183/2-A							С	lient	Sar	nple ID:	Lab Cont	ol Sa	ampl
Matrix: Water											•	Prep Type	: Tot	tal/N
Analysis Batch: 446525												Prep Bat	:h: 4	4518
				Spike	LCS	LCS	;					%Rec.		
Analyte				Added	Result	Qua	lifier	Unit		D	%Rec	Limits		
1,4-Dioxane				1.00	1.14			ug/L			114	40 - 140		
	LCS	LCS	;											
Isotope Dilution	%Recovery	Qua	lifier	Limits										
1,4-Dioxane-d8	28			15-110										
I ah Sample ID: 480-14509	8-3 MS								Clie	ont S	Samnle II		14-1	1081:
Matrix: Water									Unic		ampio n	Pren Type	: Tot	al/N
Analysis Batch: 446525												Pren Bat	h 4	4518
	Sample	San	nple	Spike	MS	MS						%Rec.		
Analyte	Result	Qua	lifier	Added	Result	Qua	lifier	Unit		D	%Rec	Limits		
1,4-Dioxane	0.19	U		0.962	1.14			ug/L			119	40 - 140		
	MS	MS												
Isotope Dilution	%Recovery	Qua	lifier	Limits										
1,4-Dioxane-d8	21			15-110										
l ah Sample ID: 480-14509									Clie	nt S	Samnlo II		14-1	1081
Matrix: Water									0.10			Pren Tvn	Tot	al/N
Analysis Batch: 446525												Prep Bat	:h: 4	4518
	Sample	San	nple	Spike	MSD	MSE)					%Rec.	-	RP
Analyte	Result	Qua	lifier	Added	Result	Qua	lifier	Unit		D	%Rec	Limits	RPD	Lim
1,4-Dioxane	0.19	U		0.962	1.17	E		ug/L			121	40 - 140	2	2
	MSD	MSI	ס					J						
Isotope Dilution	%Recovery	Qua	lifier	Limits										
				15 110										

QC Association Summary

Client: O'Brien & Gere Inc of North America Project/Site: Hercules Glens Falls - Emerging Contam.

GC/MS Semi VOA

Prep Batch: 445183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145098-1	MW-OB23-110818	Total/NA	Water	3510C	
480-145098-2	MW-OB7-110818	Total/NA	Water	3510C	
480-145098-3	MW-OB14-110818	Total/NA	Water	3510C	
480-145098-4	MW-OB26-110818	Total/NA	Water	3510C	
480-145098-5	MW-OB30-110818	Total/NA	Water	3510C	
480-145098-6	MW-24-110818	Total/NA	Water	3510C	
480-145098-8	EB-110818	Total/NA	Water	3510C	
480-145098-9	X-1-110818	Total/NA	Water	3510C	
480-145098-10	MW-18-110918	Total/NA	Water	3510C	
MB 480-445183/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-445183/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-145098-3 MS	MW-OB14-110818	Total/NA	Water	3510C	
480-145098-3 MSD	MW-OB14-110818	Total/NA	Water	3510C	

Analysis Batch: 446525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
480-145098-1	MW-OB23-110818	Total/NA	Water	8270D SIM ID	445183	-
480-145098-2	MW-OB7-110818	Total/NA	Water	8270D SIM ID	445183	
480-145098-3	MW-OB14-110818	Total/NA	Water	8270D SIM ID	445183	
480-145098-4	MW-OB26-110818	Total/NA	Water	8270D SIM ID	445183	
480-145098-5	MW-OB30-110818	Total/NA	Water	8270D SIM ID	445183	
480-145098-6	MW-24-110818	Total/NA	Water	8270D SIM ID	445183	
480-145098-8	EB-110818	Total/NA	Water	8270D SIM ID	445183	
480-145098-9	X-1-110818	Total/NA	Water	8270D SIM ID	445183	
480-145098-10	MW-18-110918	Total/NA	Water	8270D SIM ID	445183	
MB 480-445183/1-A	Method Blank	Total/NA	Water	8270D SIM ID	445183	
LCS 480-445183/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	445183	
480-145098-3 MS	MW-OB14-110818	Total/NA	Water	8270D SIM ID	445183	
480-145098-3 MSD	MW-OB14-110818	Total/NA	Water	8270D SIM ID	445183	

			L	_ab Chro	onicle				
Client: O'Brien Project/Site: H	& Gere Inc c ercules Glen	of North America s Falls - Emerging	Contam				TestA	merica Job	ID: 480-145098-1
lient Sam	ole ID: MW	/-OB23-110818					Lab Sa	ample ID:	480-145098-1
ate Collecte	d: 11/08/18 1 d: 11/10/18 0	4:15 1:00							Matrix: Water
Bron Type	Batch	Batch Mothed	Bun	Dilution	Batch	Prepared	Analyst	Lab	
Total/NA	Prep	3510C			445183	11/13/18 07:55			
Total/NA	Analysis	8270D SIM ID		1	446525	11/20/18 11:10	DMR	TAL BUF	
Client Sam	ple ID: MW	/-OB7-110818					Lab Sa	ample ID:	480-145098-2
Date Receive	d: 11/10/18 0	1:00							
- Pren Tyne	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab	
Total/NA	Prep	<u>3510C</u>			445183	11/13/18 07:55	JMP	TAL BUF	
Total/NA	Analysis	8270D SIM ID		1	446525	11/20/18 11:34	DMR	TAL BUF	
Client Sam Date Collecte Date Receive	ple ID: MW d: 11/08/18 1 d: 11/10/18 0	/-OB14-110818 0:15 1:00					Lab Sa	ample ID:	480-145098-3 Matrix: Water
_	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA Total/NA	Prep Analysis	3510C 8270D SIM ID		1	445183 446525	11/13/18 07:55 11/20/18 10:21	JMP DMR	TAL BUF TAL BUF	
Client Sam Date Collecte Date Receive	p le ID: MW d: 11/08/18 1 d: 11/10/18 0	/-OB26-110818 6:00 1:00					Lab Sa	ample ID:	480-145098-4 Matrix: Water
_	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Prep	3510C			445183	11/13/18 07:55	JMP	TAL BUF	
Total/NA	Analysis	8270D SIM ID		1	446525	11/20/18 11:58	DMR	TAL BUF	
Client Sam Date Collecte Date Receive	ple ID: MW d: 11/08/18 1 d: 11/10/18 0	/-OB30-110818 1:35 1:00					Lab Sa	ample ID:	480-145098-5 Matrix: Water
_	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Prep	3510C			445183	11/13/18 07:55	JMP	TAL BUF	
Total/NA	Analysis	8270D SIM ID		1	446525	11/20/18 12:24	DMR	TAL BUF	
Client Sam Date Collecte Date Received	ple ID: MW d: 11/08/18 1 d: 11/10/18 0	/-24-110818 6:05 1:00					Lab Sa	ample ID:	480-145098-6 Matrix: Water
	Patch	Patch		Dilution	Datak	Dronored			
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Prep				445183	11/13/18 07:55	JMP	TAL BUF	
	· · - I-	·						••	

TestAmerica Buffalo

TAL BUF

1

446525 11/20/18 12:49 DMR

8270D SIM ID

Analysis

Total/NA

Lab Chronicle

Client: O'Brien & Gere Inc of North America Project/Site: Hercules Glens Falls - Emerging Contam.

Chent Sam	ple ID: EB-	-110818					Lab Sa	ample ID:	480-145098-8	
Date Collecte	d: 11/08/18 1	5:45							Matrix: Water	
Date Receive	d: 11/10/18 0	1:00								
	Batch	Batch		Dilution	Batch	Prepared				5
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab		Ð
Total/NA	Prep	3510C			445183	11/13/18 07:55	JMP	TAL BUF		
Total/NA	Analysis	8270D SIM ID		1	446525	11/20/18 13:13	DMR	TAL BUF		
Client Sam	ple ID: X-1	-110818					Lab Sa	ample ID:	480-145098-9	
Date Collecte Date Receive	d: 11/08/18 0 d: 11/10/18 0	00:00 1:00						•	Matrix: Water	8
	Batch	Batch		Dilution	Batch	Prepared				9
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab		
Total/NA	Prep	3510C			445183	11/13/18 07:55	JMP	TAL BUF		10
	Analysis	8270D SIM ID		1	446525	11/20/18 13:38	DMR	TAL BUF		
Total/NA	,									

Date Received: 11/10/18 01:00

-	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			445183	11/13/18 07:55	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	446525	11/20/18 14:03	DMR	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: O'Brien & Gere Inc of North America Project/Site: Hercules Glens Falls - Emerging Contam. TestAmerica Job ID: 480-145098-1

Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-19

Laboratory: TestAmerica Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10842	03-31-19

TestAmerica Buffalo

Client: O'Brien & Gere Inc of North America

Project/Site: Hercules Glens Falls - Emerging Contam.

Method	Method Description	Protocol	Laboratory
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF

Protocol References:

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

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TestAmerica Buffalo

Sample Summary

TestAmerica Job ID: 480-145098-1

Client: O'Brien & Gere Inc of North America Project/Site: Hercules Glens Falls - Emerging Contam.

Lab Sample ID	Client Sample ID	Matrix	Collected Received
480-145098-1	MW-OB23-110818	Water	11/08/18 14:15 11/10/18 01:00
480-145098-2	MW-OB7-110818	Water	11/08/18 09:45 11/10/18 01:00
480-145098-3	MW-OB14-110818	Water	11/08/18 10:15 11/10/18 01:00
480-145098-4	MW-OB26-110818	Water	11/08/18 16:00 11/10/18 01:00
480-145098-5	MW-OB30-110818	Water	11/08/18 11:35 11/10/18 01:00
480-145098-6	MW-24-110818	Water	11/08/18 16:05 11/10/18 01:00
480-145098-8	EB-110818	Water	11/08/18 15:45 11/10/18 01:00
480-145098-9	X-1-110818	Water	11/08/18 00:00 11/10/18 01:00
480-145098-10	MW-18-110918	Water	11/09/18 13:40 11/10/18 01:00

TestAmerica Buffalo

٥				EC Sa	mplin	g - Form	er Cib	a-Geig	y Facil	ity		rage i <u>91</u> .⊈ Lab Use Only
TestAmerica		Client: Site Name / Ashland /Glens Falls,	Location NY	Sampling Prop EC Sampling -	ram: Ashland Glens I	Falls	Sampler(s):	on Will	Maureen Ma	rsh John Mc	Dougall	Project Number:
O'Brien & Gere Office: Albany Address: O'Brien & Gere		Laboratory: Marie	Meidhof	Analysis Hold	ing Time from	Sample Date:		Chemical Prese	vatives: (see key	at bottom) 0 0 0 0	0 0 0	Tabu David
94 New Karner Rd, Suite 106, Albany, N.Y. 122 Phone: 6518) 724-7256	03	PFAs 1,4- TestAmerica	-Dioxane TestAmenca	14 days to extra analysis	ction, 28 days fi	om extraction to	-	0428 F				
Fax: (518) 869-2945		880 Riverside Pkwy	10 Hazelwood Dr					ed Me				480-145098 CO
Project Contact: Paul D'Annibale/ Maureen G Email: Paul D'Annibale@obg.com / Maureen.C	arınder Zardıner@obg.com	W. Sacamento, CA 95605-1500	Amberst, NY 14228-2223	Package Requ	irement:		(V. / V)	oy USEPA N				Job Number:
		Tan (06 arr)		Put NVSDEC ASP	Cat It Level Phy w	/atendard 20 BD TAT	D 20 (C	ouexe SU yd				
Sample Identificatio	u	Phone: /32-549-3679 Fax: 732-549-3679		EDD Format:	EQuIS 4-File		2) darð) Fibiði	WIS DIP-#'I 485 SV-14				
Unique Field Sample ID	Sample Location	Sample Date (mm/dd/yy)	Sample Time (hh:mm)	Sample Type (see key)	Sample Matrix (see key)	# of Containers	Reporting . Unite	J\3n J\3u				Lab Sample ID
MW-24-110818 (1-1)	MW24-03.	11/08/18	21:HI	z	GW	4	z o	××				
2 MW-OB7-110818	MW-087	11/08/18	5h.b	z	GW	4	z 9	××		(
* MW 0814-110818	MW-0B14	11/08/18		Z	GW	4	N O	x x	V	(mp)		
MW-OB14-110818	MW-0B14	11/08/18	51:01	WS	wa	4	R G	x x				
s MW-OB14-110818-MS	MW-OB14	11/08/18	10:15	WS	wa	4	N O	x x				
MW-OB26-110818-MSD	MW-0B26	11/08/18	21:01	z	GW	4	N D	x x				
7 MW-20-110818	MW-20-08	11/08/18	1600	z	GW	4	Z D	××				
8 MW-20-110818	MW-3003	3011/08/18	11:35	z	GW	4	N N	x x	(
9 MW-24-110818	MW-24	11/08/18	1605	z	GW	4	N O	x x	am			
10 MW-OB18-110818	MW-OB18	11/08/18	1510	N	GW	53	N O	xx	Ja-			
800-0318-110818 Wa	is I bothe Ca	114-Dic	oxere due	to lot	nan o	herover h	X					
Reinquistred by T, McD, Jan V	Date 11 /9 118	Received by MI	wing Ca		0 1	me 11/19/1 8	Condit	:00			Сотт	ents or Notes:
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Refinquished by: PLES: 4.LL	Date 11/9/18	Received by TIN	I KNUS	meyer	0 H	11-9-18 11-9-18	Cooler	Temperature:	.1.0	6#1	file F	TERG (FLDF) AND EQUID 4
Sample Type: N [±] Normal environmental sample Sample Matrix: SE = Sediment, SO = Soil, WG Preservatives Code: 0 = none, 1 = HCL, 2 = HN	e, FD = field duplicate, EB = = Groundwater, WS = Surface 103, 3 = H2SO4, 4 = NaOH,	 Equipment Blank, 1 Water, WW = Wast 5 = Ascorbic Acid, 4 	FB = Field Blank, TB e Water, WQ = Water 6 = McOH, 7 = NaH	= Trip Blank, Quality, TA = 504, 8 = Na2S2	MS = Lab Mat Animal Tissue 03: 9 = H3PO	rix Spike, Other (Sp , TP = Plant Tissue 4	ecify): AA = Ambie	st Air, Other (Sj) ecify):			
Rel inguistred By	and mit	ilmer 1700					Show	ret	Clier	D Jave	19/11/ 20	Qaio all
SF I LOST MININUL	21-11					, 1 1	1 1		9			

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TestAmerica		Client: Site Name / Ashland / Glens Falls,	Location NY	Sampling Po EC Sampling	ogram: Ashland Glens	Falls	Sampler(s):	uller	Maurcen Marsh	John McDau	itali	Lab Use Only Project Number:
2'Brien & Gere Office: Albany Iddress: O'Ibren & Gere 4 New Karner Rd, Suite 106, Albany, N.Y. 12203 *new (518) 840-2945 *aax: (518) 840-2945 *aax: (518) 840-2945 *aax: (518) 640-2945	der 0	Laboratory: Marie PFAs L4- TestAmenca 880 Riverside Plwy W. Sacamento, CA	Meidhof Dioxane TextAmerica 10 Hazdwood Dr Amherst, NY	Analysis Hol 14 days to extr analysis	ding Time fron action, 28 days	m Sample Date: from extraction to	د (ن)	e bodiel Method e bodiel Method e bodiel Method	Prescriatives: (see key at 1	oottom) 0	0	Di Ini
imati: Paul D Annibale@obg.com / Maurcen Gan Sample Identification	uncrutong.com	95605-1500 Phone: 732-593-2554 Fax: 732-549-3679	14228-2225	Package Req Full NYSDEC A Project Num EDD Format	uirement: ur car A Level Phys. ber: 69645 : EQuIS 4-File	TAT CII (2 babasis/w	(C) or Compound (C) of Compound (C) / N)	PFAS by USEPA N 577 158 by USEPA N	KIS			Job Number:
Unique Field Sample ID	Sample Location	Sample Date (mm/dd/yy)	Sample Time (hh:mm)	Sample Type (see key)	Sample Matrix (see key)	# of Containers	Reporting Units	1/30	7./90			Lab Sample ID
1 EB-110818	1	11/08/18	1545	EB	wa	ч	N 9	×				
2 FRB-110818	1	11/08/18	1535	B	WQ	2	z v	×				
3 X-1-110818	ı	11/08/18	1	FD	GW	4	Z O	×				
MW-18-110915	81-m	1119118	1340	S	GU	<i>l</i> -1	GR	X				
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inquality J. McDurgar (1	Date 11/9/18	Received by	1.11.1	T		81/6/11 arc	Cond	tion:			Comme	atts or Notes.
EODG OF OF	Date 1404	of: 7" (TTV C	31	- 4 1	1/2/11 and	Custo	dy Seals intac	n (b) n	2	Stand for F	lard 20 business day TA' ull NYSDEC ASP Cat B
almonuted by P. D.	Date 15:45	of Tard	D. Knull	22	- 2 18	nue 11-11	Coole	st Temperatur	1.0.1.61	(# 0	I.eve file E	I Pkg (PDF) and EQuIS DD,
ample Type: N = Normal environmental sample, 1 ample Matrix: SE = Sediment, SO = Soit, WG = G reservatives Code: 0 = none. 1 = HCL. 2 = HNO3.	FD = field duplicate, EB iroundwater, WS = Surfaction 3 = H2SO4, 4 = NaOH	Equipment Blank, 1 e Water, WW = Waster 5 = Ascorbic Acid. 6	FB = Field Blank, TE e Water, WQ = Water i = MeOH, 7 = NaHE	I = Trip Blank, Quality, TA = 304. 8 = Na2S	MS = Lab Ma Animal Tissue 203: 9 = H3PC	atrix Spike, Other (S e, TP = Plant Tissue D4	pecify): , AA = Ambi	ent Air, Oth	er (Specify):			
celinguisted By:	Tim K	anll un	700				5A	rocer	Valeeron	ve 11-10.	41-	ONO
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11/27/2018

Login Sample Receipt Checklist

Client: O'Brien & Gere Inc of North America

Login Number: 145098 List Number: 1 Creator: Kinecki, Kenneth P

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	False	Some samples had spare volume provided with partial contents.
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Job Number: 480-145098-1

List Source: TestAmerica Buffalo

Brian Jankauskas, P.E. Groundwater Sampling Data for Emerging Contaminants - Revised January 14, 2019



Attachment 4 Letter Regarding MW-OB18





Lancaster Laboratories Environmental

December 10, 2018

Mr. Eddie Barnett TestAmerica 5102 LaRoche Avenue Savannah, GA 31404

Dear Mr. Barnett:

I am writing to inform you of revised analytical reports that are being issued for the following:

Project: EC Sampling - Former Ciba-Geigy Facility Group No.: 2011497

SDG No.: TAE02

ELLE Sample No.	Client Sample Identification	Collection Date
9909375	MW-OB18-110818 (320-45170-7) Grab	11/8/18

The correction to the data affects the PFAS analysis only.

Per your request this sample was deleted after the sample was analyzed. The sample had detections for:

Perfluorooctanoic acid – 60 ng/l Perfluorohexanoic acid – 4.3 ng/l Perfluoroheptanoic acid – 2.4 ng/l Perfluorohexanesulfonate – 17 ng/l Perfluoro-octanesulfonate – 18 ng/l

The revised analytical report reflects this correction and is enclosed.

If you have any questions or require further assistance, please contact me at 717-656-2300, Ext. 1198, or email me at KayHower@EurofinsUS.com. We appreciate your business and look forward to continuing to serve your laboratory needs.

Sincerely,

Kaystowe

Kay G. Hower Principal Specialist Environmental Client Services

KGH/jll Enclosures

2425 New Holland Pike Lancaster, PA 17601