envirochem (SM)
ANALYTICAL & CONSULTING CHEMISTS

Environmental Chemists, Inc.

6602 Windmill Way, Wilmington, NC 28405 • 910.392.0223 Lab • 910.392.4424 Fax
710 Bowsertown Road, Manteo, NC 27954 • 252.473.5702 Lab/Fax
255-A Wilmington Highway, Jacksonville, NC 28540 • 910.347.5843 Lab/Fax

info@environmentalchemists.com

September 4, 2018

Brunswick County Public Utilities
Post Office Box 249
Bolivia, NC 28422
Attn: Glenn Walker

Report #2018-13071
Collected – August 9, 2018

Enclosed please find your analytical report.

Sincerely,

Tammy Duran
Environmental Chemists, Inc.

ANALYTICAL RESULTS: Perfluorinated Chemicals by EPA 537 Rev 1.1 Safe Drinking Water Analysis
Customer: Environmental Chemists NLS Project: 306264
Project Description: PFCs by EPA 537 (w/GenX)
Project Title: Template: 537PPTGENX Printed: 08/30/2018 12:01

Sample: 1075381 32851 Collected: 08/09/18 Analyzed: 08/28/18 - Analytes: 13

ANALYTE NAME	RESULT	UNITS WWB	DIL	LOD	LOQ	MCL	Note
perfluorobutanesulfonic acid (PFBS)	ND	ppt	1	6.6	21		
perfluorohexanoic acid (PFHxA)	6.86	ppt	1	1.3	4.0		
perfluoro-2-propoxypropanoic acid (GenX)	3.14	ppt	1	0.73	2.3		
perfluoroheptanoic acid (PFHpA)	7.28	ppt	1	0.80	2.6		
perfluorohexanesulfonic acid (PFHxS)	[3.04]	ppt	1	2.8	8.8		J
perfluorooctanoic acid (PFOA)	[3.79]	ppt	1	1.2	3.9		J
perfluorononanoic acid (PFNA)	ND	ppt	1	1.5	4.9		
perfluorooctanesulfonic acid (PFOS)	8.48	ppt	1	1.7	5.3		
perfluorodecanoic acid (PFDA)	[1.57]	ppt	1	0.90	2.7		J
perfluoroundecanoic acid (PFUnA)	ND	ppt	1	1.0	3.0		
perfluorododecanoic acid (PFDoA)	ND	ppt	1	1.9	6.1		
perfluorotridecanoic acid (PFTrDA)	ND	ppt	1	3.2	10		
perfluorotetradecanoic acid (PFTA)	ND	ppt	1	2.8	8.9		
C13-PFHxA (SURR)	58.993%		1				SR S
C13-PFDA (SURR)	100.758%		1				S

NOTES APPLICABLE TO THIS ANALYSIS:
J = Result enclosed in brackets is between LOD and LOQ, a region of less certain quantitation.
S = This compound is a surrogate used to evaluate the quality control of a method.
SR = Surrogate recovery was outside QC limits.
C13-PFHxA recovered below QC limits.

Sample: 1075382 32852 Collected: 08/09/18 Analyzed: 08/28/18 - Analytes: 13

ANALYTE NAME	RESULT	UNITS WWB	DIL	LOD	LOQ	MCL	Note
perfluorobutanesulfonic acid (PFBS)	ND	ppt	1	6.6	21		
perfluorohexanoic acid (PFHxA)	7.6	ppt	1	1.3	4.0		
perfluoro-2-propoxypropanoic acid (GenX)	5.52	ppt	1	0.73	2.3		MS
perfluoroheptanoic acid (PFHpA)	8.11	ppt	1	0.80	2.6		
perfluorohexanesulfonic acid (PFHxS)	[3.7]	ppt	1	2.8	8.8		J
perfluorooctanoic acid (PFOA)	4.58	ppt	1	1.2	3.9		
perfluorononanoic acid (PFNA)	ND	ppt	1	1.5	4.9		
perfluorooctanesulfonic acid (PFOS)	8.5	ppt	1	1.7	5.3		
perfluorodecanoic acid (PFDA)	[1.48]	ppt	1	0.90	2.7		J
perfluoroundecanoic acid (PFUnA)	ND	ppt	1	1.0	3.0		
perfluorododecanoic acid (PFDoA)	ND	ppt	1	1.9	6.1		
perfluorotridecanoic acid (PFTrDA)	ND	ppt	1	3.2	10		
perfluorotetradecanoic acid (PFTA)	ND	ppt	1	2.8	8.9		
C13-PFHxA (SURR)	61.374%		1				SR S
C13-PFDA (SURR)	104.674%		1				S

NOTES APPLICABLE TO THIS ANALYSIS:
J = Result enclosed in brackets is between LOD and LOQ, a region of less certain quantitation.
S = This compound is a surrogate used to evaluate the quality control of a method.
SR = Surrogate recovery was outside QC limits.
C13-PFHxA recovered below QC limits.
MS = Matrix spike recovery was outside QC limits.
perfluoro-2-propoxypropanoic acid (GenX) recovered below QC limits.

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ENVIRONMENTAL CHEMISTS, INC

NCDENR: DWQ CERTIFICATION # 94 NCDHHS: DLS CERTIFICATION # 37729

6602 Windmill Way Wilmington, NC 28405
OFFICE: 910-392-0223 FAX 910-392-4424
info@environmentalchemists.com

COLLECTION AND CHAIN OF CUSTODY

CLIENT: BRUNSWICK COUNTY WATER	PROJECT NAME:	REPORT NO:
ADDRESS: P.O. BOX 249	CONTACT NAME: GLENN WALKER	PO NO: 18-13071
BOLIVIA, N.C. 28422	REPORT TO: SAME	PHONE/FAX:
	COPY TO:	email: glenn.walker@brunswickcounty.gov

Sampled By: BILLY BENTON

SAMPLE TYPE: I = Influent, E = Effluent, W = Well, ST = Stream, SO = Soil, SL = Sludge, Other:

Sample Identification	Collection Date	Collection Time	Collection Temp	Sample Type	Composite or Grab	Container (P or G)	Chlorine mg/L	LAB ID NUMBER	PRESERVATION NONE	HCL	H2SO4	HNO3	NAOH	THIO	Zn acetate	OTHER ANALYSIS REQUESTED
080918-S01	8-9-18	1010AM	28.4	RAW	C	P (circled)		32851								EPA 537 + GENX
					G (circled)	G										
080918-E01	8-9-18	1010 AM		DW	C	P (circled)		32852								
					G (circled)	G										
					C	P										
					G	G										
					C	P										
					G	G										
					C	P										
					G	G										
					C	P										
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					C	P										
					G	G										
					C	P										
					G	G										
					C	P										
					G	G										

Transfer	Relinquished By:	Date/Time	Received By:	Date/Time
1.	BILLY BENTON			
2.				

Temperature when Received: ______ Accepted: ______ Rejected: ______ Resample Requested: ______

Delivered By: BILLY BENTON Received By: ______ Date: 8-9-18 Time: 128P

Comments: ______ TURNAROUND: ______