



# Environmental Chemists, Inc.

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ANALYTICAL & CONSULTING CHEMISTS

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December 7, 2017

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

Report #2017-17826

Enclosed please find your analytical report.

Sincerely,

A handwritten signature in cursive script that reads "Tammy Duran".

Tammy Duran

Environmental Chemists, Inc.

**ANALYTICAL RESULTS: Perfluorinated Chemicals by EPA 537 Rev 1.1 Safe Drinking Water Analysis**

Customer: Environmental Chemists NLS Project: 291147

Project Description: PFCs with GenX

Project Title: Template: 537PPTGENX Printed: 12/07/2017 10:08

Sample: 1031147 Brunswick Utility (43199) Collected: 11/16/17 Analyzed: 12/06/17 - Analytes: 13

ANALYTE NAME	RESULT	UNITS WWB	DIL	LOD	LOQ	MCL	Note
perfluorobutanesulfonic acid (PFBS)	ND	ppt	1	6.6	21		
perfluorohexanoic acid (PFHxA)	28.7	ppt	1	1.3	4.0		
perfluoro-2-propoxypropanoic acid (GenX)	35.1	ppt	1	0.73	2.3		
perfluoroheptanoic acid (PFHpA)	26.1	ppt	1	0.80	2.6		
perfluorohexanesulfonic acid (PFHxS)	[6.35]	ppt	1	2.8	8.8		J
perfluorooctanoic acid (PFOA)	11.3	ppt	1	1.2	3.9		
perfluorononanoic acid (PFNA)	[2.67]	ppt	1	1.5	4.9		J
perfluorooctanesulfonic acid (PFOS)	10.2	ppt	1	1.7	5.3		
perfluorodecanoic acid (PFDA)	[1.76]	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 (PFTTrDA)	ND	ppt	1	3.2	10		
perfluorotetradecanoic acid (PFTA)	ND	ppt	1	2.8	8.9		
C13-PFHxA (SURR)	90.371%						S
C13-PFDA (SURR)	84.145%						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.

Sample: 1031148 Brunswick Utility (43200) Collected: 11/16/17 Analyzed: 12/06/17 - Analytes: 13

ANALYTE NAME	RESULT	UNITS WWB	DIL	LOD	LOQ	MCL	Note
perfluorobutanesulfonic acid (PFBS)	ND	ppt	1	6.6	21		
perfluorohexanoic acid (PFHxA)	27.3	ppt	1	1.3	4.0		
perfluoro-2-propoxypropanoic acid (GenX)	35.5	ppt	1	0.73	2.3		
perfluoroheptanoic acid (PFHpA)	21.6	ppt	1	0.80	2.6		
perfluorohexanesulfonic acid (PFHxS)	[3.63]	ppt	1	2.8	8.8		J
perfluorooctanoic acid (PFOA)	8.63	ppt	1	1.2	3.9		
perfluorononanoic acid (PFNA)	[1.81]	ppt	1	1.5	4.9		J
perfluorooctanesulfonic acid (PFOS)	5.4	ppt	1	1.7	5.3		
perfluorodecanoic acid (PFDA)	[1.02]	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 (PFTTrDA)	ND	ppt	1	3.2	10		
perfluorotetradecanoic acid (PFTA)	ND	ppt	1	2.8	8.9		
C13-PFHxA (SURR)	93.663%						S
C13-PFDA (SURR)	92.773%						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.

COLLECTION AND CHAIN OF CUSTODY

CLIENT: Brunswick County PUD	PROJECT NAME: Gen X + Compounds	REPORT NO: 17-17826
ADDRESS: PO Box 249	CONTACT NAME: Glenn Walker	PO NO:
Belvia, NC 28422	REPORT TO: Glenn Walker	PHONE/FAX: 910-371-3490
	COPY TO:	email: glenn-walker@brunswickcountync.gov

Sampled By: Billy Benton

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

Sample Identification	Collection			Sample Type	Composite or Grab	Container (P or G)	Chlorine mg/L	LAB ID NUMBER	PRESERVATION							ANALYSIS REQUESTED
	Date	Time	Temp						NONE	HCL	H2SO4	HNO3	NACH	THO	OTHER	
111617-S01	11/16/17	0840	26.3	RAW	C	P		4399								EPA 537 + GenX
111617-E01	11/16/17	0840	26.3	DW	G	G		43200								
					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										

Transfer	Relinquished By:	Date/Time	Received By:	Date/Time
1.	<i>[Signature]</i>	11/16/17		
2.				

Temperature when Received: \_\_\_\_\_ Accepted: \_\_\_\_\_ Rejected: \_\_\_\_\_ Resample Requested: \_\_\_\_\_

Delivered By: \_\_\_\_\_ Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Comments: \_\_\_\_\_

TURNAROUND: \_\_\_\_\_