

Pender County

605 E Fremont St
Burgaw, NC 28425-5115

WTP

Samples Received: 5/31/2023

Analytical Report 0523-1200

PFAS by Isotope Dilution (non-potable water)

PFAS 49 Analyte List

Report Issue Date: 6/28/2023

I certify that to the best of my knowledge all analytical data presented in this report have been checked for completeness, accuracy, errors and legibility in addition to having been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s). This analytical report was prepared in Portable Document Format (.PDF) and contains 20 pages. This report shall not be reproduced except in full without approval of the laboratory. This will provide assurance that parts of the report are not taken out of context.

Signature:



Laura Boivin, QA Associate II

Addendum:



Enthalpy Analytical, LLC – Ultratrace
Mark Hager, Project Manager
O: 910-876-6894/ F: 910-212-6886
mark.hager@enthalpy.com / www.enthalpy.com
2714 Exchange Drive, Wilmington, NC 28405

Enthalpy Analytical

Job No.: 0523-1200-1 PFAS by Isotope Dilution (non-potable water)
 Pender County Client Project: N/A Site: WTP

Enthalpy ID	0523-1200-002-1	Prep Batch	EU15374	Sample Vol (mL)	293.94
Sample Name	CFE	Prep Date	2023-09-02 10:45	Extract Vol (mL)	0.4
Matrix	AQ	Analysis Date	2023-08-09 04:10	Split Factor	N/A
Sampling Date	2023-05-31 11:40	Analyst	behager	Method Code	WM-026
Received Date	2023-05-31	Instrument	Sauron	Sample Type	Sample

Compound	CAS	Formatted Result ng/L	LOD ng/L	LOG ng/L	Recovery Limits	Recovery	Flags
Acids							
PFBA	375-22-4	4.82	0.216	0.544			
PFPeA	2708-90-3	8.33	0.156	0.544			
PFHxA	307-24-4	8.82	0.182	0.544			
PFHpA	376-85-9	3.31	0.191	0.544			
PFOA	335-87-1	8.31	0.125	0.544			
PFNA	375-95-1	0.775	0.123	0.544			
PFDA	335-78-2	0.338	0.156	0.544			
PFUnDA	2059-94-8	<LOD	0.123	0.544			
PFDoDA	307-55-1	<LOD	0.221	0.544			
PFTeDA	72829-94-8	<LOD	0.180	0.544			
PFTeDA	378-08-7	<LOD	0.209	0.544			
PFHxDA	87805-19-5	<LOD	0.289	0.544			
Sulfonates							
PFBS	376-73-5	4.86	0.289	0.544			
PFPeS	2706-81-4	0.820	0.112	0.513			
PFHxS	325-46-4	5.04	0.420	0.489			
PFHpS	376-92-8	<LOD	0.284	0.519			
PFOS	1763-23-1	11.5	0.287	0.604			
PFNS	88258-12-1	<LOD	0.189	0.524			
PFDS	335-77-3	<LOD	0.296	0.524			
4:2 FTS	757124-72-4	<LOD	0.0706	0.610			
6:2 FTS	27819-87-2	0.473	0.257	0.519			
8:2 FTS	38108-34-4	<LOD	0.122	0.521			
10:2 FTS	120228-60-0	<LOD	0.417	0.544			
Sulfonamides							
FBSA	30334-88-1	0.847	0.258	0.544			
N-BrFOSA	4151-50-2	<LOD	0.337	0.544			
N-BrFOSAA	2881-50-6	<LOD	0.221	0.544			
N-BrFOSE	1691-69-2	<LOD	0.834	2.46			
N-MeFOSA	31508-32-8	<LOD	0.225	0.544			
N-MeFOSAA	2355-31-8	<LOD	0.153	0.544			
N-MeFOSE	24448-09-7	<LOD	0.517	2.46			
PFOA	754-91-8	0.168	0.0764	0.544			
Other							
Nation Byproduct 1 (PS Acid)	28311-87-8	<LOD	0.291	0.544			
Nation Byproduct 2 (Hydro-PS Acid)	748836-20-2	<LOD	0.451	0.544			
PFECAs							
ADONA	919005-14-4	<LOD	0.147	0.516			
HFPO-DA	13252-13-6	2.90	0.0577	0.544			
NFDHA	151772-58-6	<LOD	0.114	0.544			
PEPA	267238-61-2	<LOD	0.102	0.544			
PFECa-G	801212-59-9	<LOD	0.0726	0.544			
PFMOAA	674-13-5	15.5	0.276	0.544			
PFMOBA	863090-89-5	<LOD	0.913	1.22			
PFMOPrA	377-73-1	<LOD	0.194	0.544			
PFO2xA	39492-89-1	4.35	0.175	0.544			
PFO3QA	38482-88-2	<LOD	0.250	0.544			
PFO4DA	38482-80-5	<LOD	0.430	2.72			
PFO6DA	39482-81-6	<LOD	0.435	2.72			
PMPA	13140-29-6	6.27	0.128	0.544			
PFESAs							
11C-PFSOUdS	763051-82-9	<LOD	0.257	0.513			
9Cl-PF3ONS	758428-88-1	<LOD	0.349	0.507			
PFEEsA	113507-82-7	<LOD	0.164	0.544			
ES							
MPFBA					20-150%	89.5%	
M5PFPeA					20-150%	140.6%	
M3PFBS					20-150%	140.4%	
M2:4:2 FTS					20-150%	124.9%	
M5PFHxA					20-150%	81.3%	
M3HFPO-DA					20-150%	74.6%	
M4PFHpA					20-150%	88.7%	
M3PFHxS					20-150%	77.5%	
M2:6:2 FTS					20-150%	129.8%	
M8PFDA					20-150%	87.4%	
M9PFNA					20-150%	91.4%	
M8PFOS					20-150%	83.9%	
M2:8:2 FTS					20-150%	92.8%	
M8FOSA-I					20-150%	94.4%	
M9PFDA					20-150%	90.1%	
d3-N-MeFOSAA					20-150%	81.4%	
d5-N-BrFOSAA					20-150%	65.0%	
M7PFUdA					20-150%	80.6%	
MPFDoA					20-150%	87.5%	
M2PFTeDA					20-150%	30.6%	
d3-N-MeFOSA					10-200%	7.2%	Q
d5-N-BrFOSA					10-200%	7.7%	Q
d7-N-MeFOSE					10-200%	46.1%	
d9-N-BrFOSE					10-200%	45.8%	

Enthalpy Analytical

Job No.: 0523-1200-1 PFAS by Isotope Dilution (non-potable water)
 Pender County Client Project: N/A Site: WTP

Enthalpy ID	0523-1200-001-1	Prep Batch	EU15374	Sample Vol (mL)	295.84
Sample Name	Post CW	Prep Date	2023-08-02 10:45	Extract Vol (mL)	0.4
Matrix	AQ	Analysis Date	2023-09-08 05:48	Split Factor	N/A
Sampling Date	2023-05-31 11:43	Analyst	bahager	Method Code	WM-028
Received Date	2023-05-31	Instrument	Sauron	Sample Type	Sample

Compound	CAS	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids							
PFBA	375-22-4	4.89	0.215	0.541			
PFPeA	2706-90-3	4.23	0.155	0.541			
PFHxA	307-24-4	3.10	0.101	0.541			
PFHpA	375-85-8	1.19	0.188	0.541			
PFOA	335-67-1	1.67	0.124	0.541			
PFNA	375-95-1	<LOD	0.122	0.541			U
PFDA	335-76-2	<LOD	0.155	0.541			U
PFUnDA	2058-64-8	<LOD	0.122	0.541			U
PFDoDA	307-55-1	<LOD	0.220	0.541			U
PFTeDA	72628-84-8	<LOD	0.179	0.541			U
PFTeDA	378-06-7	<LOD	0.206	0.541			U
PFHxDA	67805-18-5	<LOD	0.287	0.541			U
Sulfonates							
PFBS	375-73-5	2.08	0.287	0.541			
PFPeS	2706-91-4	<LOD	0.111	0.510			U
PFHxS	355-48-4	1.08	0.417	0.496			
PFHpS	375-92-8	<LOD	0.282	0.516			U
PFOS	1763-23-1	1.19	0.288	0.501			
PFNS	68253-12-1	<LOD	0.168	0.521			U
PFDS	335-77-3	<LOD	0.294	0.521			U
4:2 FTS	757124-72-4	<LOD	0.0701	0.507			U
6:2 FTS	27819-97-2	<LOD	0.255	0.515			U
8:2 FTS	38108-34-4	<LOD	0.121	0.518			U
10:2 FTS	120228-60-0	<LOD	0.414	0.541			U
Sulfonamides							
FBSA	30334-88-1	<LOD	0.257	0.541			U
N-EFOSAA	4151-50-2	<LOD	0.335	0.541			U
N-EFOSAA	2881-60-6	<LOD	0.220	0.541			U
N-EFOSE	1681-89-2	<LOD	0.828	2.43			U
N-MeFOSA	31506-32-8	<LOD	0.223	0.541			U
N-MeFOSAA	2355-31-8	<LOD	0.152	0.541			U
N-MeFOSE	24448-09-7	<LOD	0.514	2.43			U
PFOSA	754-91-6	0.840	0.0758	0.541			
Other							
Nation Byproduct 1 (PS Acid)	29311-87-8	<LOD	0.288	0.541			U
Nation Byproduct 2 (Hydro-PS Acid)	749838-20-2	<LOD	0.448	0.541			U
PFECAs							
ADONA	919005-14-4	<LOD	0.147	0.512			U
HFPO-DA	13252-13-8	1.85	0.0573	0.541			
NFDHA	151772-59-8	<LOD	0.114	0.541			U
PEPA	287239-81-2	0.578	0.101	0.541			
PFECa-G	801212-68-8	<LOD	0.0722	0.541			U
PFMOAA	674-13-5	9.56	0.274	0.541			
PFMOBA	883080-89-5	<LOD	0.908	1.22			U
PFMOPrA	377-73-1	<LOD	0.183	0.541			U
PFO2HxA	38482-88-1	2.54	0.174	0.541			
PFOSOA	38482-89-2	<LOD	0.248	0.541			U
PF04DA	38482-90-5	<LOD	0.428	2.70			U
PF05DA	38482-91-8	<LOD	0.433	2.70			U
PMPA	13140-28-8	3.68	0.127	0.541			
PFESAs							
11Cl-PF3OUdS	788051-92-8	<LOD	0.255	0.510			U
9Cl-PF3ONS	758426-58-1	<LOD	0.346	0.504			U
PFEEsA	113507-82-7	<LOD	0.183	0.541			U
ES							
MPPBA					20-150%	88.2%	
M5PFPeA					20-150%	92.4%	
M3PFBS					20-150%	90.7%	
M2-4:2 FTS					20-150%	96.2%	
M5PFHxA					20-150%	77.4%	
M3HFPO-DA					20-150%	71.2%	
M4PFHpA					20-150%	88.1%	
M3PFHxS					20-150%	85.0%	
M2-6:2 FTS					20-150%	115.6%	
M8PFOA					20-150%	80.0%	
M8PFNA					20-150%	51.8%	
M8PFOS					20-150%	94.6%	
M2-8:2 FTS					20-150%	95.3%	
M8FOSA-1					20-150%	75.0%	
M8PFDA					20-150%	86.8%	
d3-N-MeFOSAA					20-150%	81.7%	
d5-N-EFOSAA					20-150%	88.7%	
M7PFUda					20-150%	82.1%	
MPFDaA					20-150%	70.6%	
M2PFTeDA					20-150%	27.3%	
d3-N-MeFOSA					10-200%	1.9%	Q
d5-N-EFOSA					10-200%	2.0%	Q
d7-N-MeFOSE					10-200%	37.2%	
d8-N-EFOSE					10-200%	38.2%	