

County of Brunswick

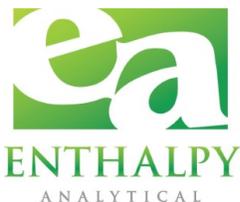
3954 Clearwell Dr NE
Leland, NC 28451

Northwest Water Plant

Leland, NC
Samples Received: 02/11/21

Analytical Report 0221-723

Isotope Dilution Method PFAS



Enthalpy Analytical, LLC – Ultratrace

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I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
- Have 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 _____ pages.

....."Report Issued Date: _____



Summary of Results

Enthalpy Analytical

Job No.: 0221-723-1 PFAS by Isotope Dilution (non-potable water)

County of Brunswick Site: Northwest Water Plant, Leland, NC

Summary

	Compound	CAS	021120-SO1 ng/L	021121-EO1 ng/L
Acids	PFBA	375-22-4	ND U	ND U
	PFPeA	2706-90-3	ND U	ND U
	PFHxA	307-24-4	3.78	4.33
	PFHpA	375-85-9	2.29	2.47
	PFOA	335-67-1	4.67	5.05
	PFNA	375-95-1	0.645	0.609
	PFDA	335-76-2	0.424	0.202 J
	PFUnDA	2058-94-8	0.106 L	0.0686 L
	PFDoDA	307-55-1	0.0414 L	ND U
	PFTTrDA	72629-94-8	ND U	ND U
PFTeDA	376-06-7	ND U	ND U	
Sulfonates	PFBS	375-73-5	3.09	3.10
	PFPeS	2706-91-4	0.468	0.456
	PFHxS	355-46-4	2.14	2.19
	PFHpS	375-92-8	0.133 J	0.1000 L
	PFOS	1763-23-1	7.41	7.24
	PFNS	68259-12-1	ND U	ND U
	PFDS	335-77-3	ND U	ND U
	4:2 FTS	757124-72-4	ND U	ND U
	6:2 FTS	27619-97-2	0.0988 J	0.261
8:2 FTS	39108-34-4	ND U	ND U	
other	PFOSA	754-91-6	ND U	ND U
	N-MeFOSAA	2355-31-9	ND U	0.0688 L
	N-EtFOSAA	2991-50-6	ND U	ND U
	HFPO-DA	13252-13-6	4.01	1.75
	PFMOAA	674-13-5	20.7	6.12
	PFMOPrA	377-73-1	ND U	ND U
	PFO2HxA	39492-88-1	2.77	1.39
	PFO3OA	39492-89-2	1.94	0.803 L
	PFO4DA	39492-90-5	ND U	ND U
	Nafion Byproduct 1	29311-67-9	0.0957 L	0.0780 L
	ADONA	919005-14-4	ND U	ND U
	9Cl-PF3ONS	756426-58-1	ND U	ND U
	11Cl-PF3OUdS	763051-92-9	ND U	ND U
	10:2 FTS	120226-60-0	ND U	ND U
	Byproduct 4		ND U	ND U
	Byproduct 5		8.53	4.86
	Byproduct 6		ND U	ND U
	EVE Acid	69087-46-3	0.120 L	0.0697 L
	FBSA	30334-69-1	0.339	0.437
	Hydro-EVE Acid	773804-62-9	0.239 L	0.127 L
	N-EtFOSA	4151-50-2	ND U	ND U
	N-EtFOSE	1691-99-2	ND U	ND U
	N-MeFOSA	31506-32-8	ND U	ND U
	N-MeFOSE	24448-09-7	ND U	ND U
	Nafion Byproduct 2	749836-20-2	0.240 L	0.188 L
	NFDHA	151772-58-6	ND U	ND U
	NVHOS	1132933-86-8	ND U	ND U
	PEPA	267239-61-2	ND U	ND U
	PFECA-G	801212-59-9	ND U	ND U
	PFEESA	113507-82-7	ND U	ND U
	PFHxDA	67905-19-5	ND U	ND U
	PFMOBA	863090-89-5	ND U	ND U
	PFO5DA	39492-91-6	ND U	ND U
PMPA	13140-29-9	3.03	ND U	
R-EVE Acid		5.84	ND U	

Detailed Results

Enthalpy Analytical

Job No.: 0221-723-1 PFAS by Isotope Dilution (non-potable water)
 County of Brunswick Site: Northwest Water Plant, Leland, NC

Enthalpy ID	0221-723-001-1	Prep Batch	EU11521	Sample Vol (mL)	294.79
Sample Name	021120-SO1	Prep Date	2021-02-12 15:53	Extract Vol (mL)	0.4
Matrix	Aqueous	Analysis Date	2021-02-12 23:56	Dilution Factor	1
Sampling Date	20210211 00:00				

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags	
Acids	PFBA	375-22-4	ND	ND	ND	0.130	0.250			U	
	PFPeA	2706-90-3	ND	ND	ND	0.144	0.250			U	
	PFHxA	307-24-4	2782.12	3.78	3.78	0.164	0.250				
	PFHpA	375-85-9	1690.51	2.29	2.29	0.103	0.250				
	PFOA	335-67-1	3439.61	4.67	4.67	0.150	0.250				
	PFNA	375-95-1	475.59	0.645	0.645	0.0645	0.250				
	PFDA	335-76-2	312.82	0.424	0.424	0.0717	0.250				
	PFUnDA	2058-94-8	78.03	0.106	0.106	0.157	0.250			L	
	PFDoDA	307-55-1	30.53	0.0414	0.0414	0.171	0.250			L	
	PFTriDA	72629-94-8	ND	ND	ND	0.128	0.250			U	
	PFTeDA	376-06-7	ND	ND	ND	0.185	0.250			U	
	PFBS	375-73-5	2274.65	3.09	3.09	0.301	0.301				
	PFPeS	2706-91-4	345.18	0.468	0.468	0.175	0.235				
	PFHxS	355-46-4	1577.29	2.14	2.14	0.162	0.228				
PFHpS	375-92-8	98.07	0.133	0.133	0.114	0.237			J		
Sulfonates	PFOS	1763-23-1	5463.03	7.41	7.41	0.136	0.232				
	PFNS	68259-12-1	ND	ND	ND	0.0733	0.240			U	
	PFDS	335-77-3	ND	ND	ND	0.163	0.242			U	
	4:2 FTS	757124-72-4	ND	ND	ND	0.100	0.233			U	
	6:2 FTS	27619-97-2	72.83	0.0988	0.0988	0.0984	0.237			J	
	8:2 FTS	39108-34-4	ND	ND	ND	0.145	0.240			U	
	PFOSA	754-91-6	ND	ND	ND	0.110	0.311			U	
	N-MeFOSAA	2355-31-9	ND	ND	ND	0.122	0.250			U	
	N-EiFOSAA	2991-50-6	ND	ND	ND	0.0924	0.250			U	
	HFPO-DA	13252-13-6	2958.28	4.01	4.01	0.193	0.250				
other	PFMOAA	674-13-5	15218.74	20.7	20.7	1.26	1.26				
	PFMOPrA	377-73-1	ND	ND	ND	0.204	0.250			U	
	PF02HxA	39492-88-1	2040.02	2.77	2.77	1.26	1.26				
	PF03OA	39492-89-2	1426.67	1.94	1.94	1.26	1.26				
	PF04DA	39492-90-5	ND	ND	ND	1.26	2.55			U	
	Nafion Byproduct 1	29311-67-9	70.55	0.0957	0.0957	0.204	0.250			L	
	ADONA	919005-14-4	ND	ND	ND	0.102	0.236			U	
	9Cl-PF3ONS	756426-58-1	ND	ND	ND	0.102	0.233			U	
	11Cl-PF3OUdS	763051-92-9	ND	ND	ND	0.102	0.236			U	
	10:2 FTS	120226-60-0	ND	ND	ND	0.204	0.250			U	
	Byproduct 4		ND	ND	ND	1.26	1.26			U	
	Byproduct 5		6283.09	8.53	8.53	1.26	1.26				
	Byproduct 6		ND	ND	ND	1.26	1.26			U	
	EVE Acid	69087-46-3	88.74	0.120	0.120	1.26	1.26			L	
	FBSA	30334-69-1	249.69	0.339	0.339	0.204	0.250				
	Hydro-EVE Acid	773804-62-9	176.06	0.239	0.239	1.26	1.26			L	
	N-EiFOSA	4151-50-2	ND	ND	ND	0.204	0.250			U	
	N-EiFOSE	1691-99-2	ND	ND	ND	6.11	6.11			U	
	N-MeFOSA	31506-32-8	ND	ND	ND	0.204	0.250			U	
	N-MeFOSE	24448-09-7	ND	ND	ND	6.11	6.11			U	
	Nafion Byproduct 2	749836-20-2	177.03	0.240	0.240	1.26	1.26			L	
	NFDHA	151772-58-6	ND	ND	ND	0.204	0.250			U	
	NVHOS	1132933-86-8	ND	ND	ND	1.26	1.26			U	
	PEPA	267239-61-2	ND	ND	ND	1.26	1.26			U	
	PFECA-G	801212-59-9	ND	ND	ND	1.26	1.26			U	
	PFEEESA	113507-82-7	ND	ND	ND	0.204	0.250			U	
	PFHxDA	67905-19-5	ND	ND	ND	1.26	1.26			U	
	PFMOBA	863090-89-5	ND	ND	ND	1.26	1.26			U	
	PF05DA	39492-91-6	ND	ND	ND	2.55	2.55			U	
	PMPA	13140-29-9	2232.13	3.03	3.03	1.26	1.26				
	R-EVE Acid		4301.30	5.84	5.84	1.26	1.26				
	ES	MPPFA	4725.22	6.41	6.41			20-150%	94.5%		
		M5PFPeA	11058.21	15.0	15.0			20-150%	221.2%		Q
		M3PFBS	16120.27	21.9	21.9			20-150%	322.4%		Q
M2-4:2 FTS		9367.22	12.7	12.7			20-150%	187.3%		Q	
M5PFHxA		4282.27	5.81	5.81			20-150%	85.6%			
M3HFPO-DA		4319.98	5.86	5.86			20-150%	86.4%			
M4PFHpA		4330.44	5.88	5.88			20-150%	86.6%			
M3PFHxS		4135.21	5.61	5.61			20-150%	82.7%			
M2-6:2 FTS		5549.00	7.53	7.53			20-150%	111.0%			
M8PFOA		4257.69	5.78	5.78			20-150%	85.2%			
M9PFNA		3809.74	5.17	5.17			20-150%	76.2%			
M8PFOS		3674.69	4.99	4.99			20-150%	73.5%			
M2-8:2 FTS		3326.55	4.51	4.51			20-150%	66.5%			
M8FOSA-I		2139.67	2.90	2.90			20-150%	42.8%			
M6PFDA		3419.31	4.64	4.64			20-150%	68.4%			
d3-N-MeFOSAA		3173.30	4.31	4.31			20-150%	63.5%			
d5-N-EiFOSAA		2979.35	4.04	4.04			20-150%	59.6%			
M7PFUdA		2883.15	3.91	3.91			20-150%	57.7%			
MPPDoA		2201.47	2.99	2.99			20-150%	44.0%			
M2PFTeDA		1215.07	1.65	1.65			20-150%	24.3%			

Enthalpy Analytical

Job No.: 0221-723-1 PFAS by Isotope Dilution (non-potable water)

County of Brunswick Site: Northwest Water Plant, Leland, NC

Enthalpy ID 0221-723-002-1

Prep Batch EU11521

Sample Vol (mL) 292.54

Sample Name 021121-EO1

Prep Date 2021-02-12 15:53

Extract Vol (mL) 0.4

Matrix Aqueous

Analysis Date 2021-02-13 00:19

Dilution Factor 1

Sampling Date 20210211 00:00

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags	
Acids	PFBA	375-22-4	ND	ND	ND	0.131	0.252			U	
	PFPeA	2706-90-3	ND	ND	ND	0.145	0.252			U	
	PFHxA	307-24-4	3165.85	4.33	4.33	0.165	0.252				
	PFHpA	375-85-9	1807.20	2.47	2.47	0.104	0.252				
	PFOA	335-67-1	3695.75	5.05	5.05	0.151	0.252				
	PFNA	375-95-1	445.36	0.609	0.609	0.0650	0.252				
	PFDA	335-76-2	147.84	0.202	0.202	0.0722	0.252			J	
	PFUnDA	2058-94-8	50.14	0.0686	0.0686	0.158	0.252			L	
	PFDoDA	307-55-1	ND	ND	ND	0.173	0.252			U	
	PFTriDA	72629-94-8	ND	ND	ND	0.129	0.252			U	
	PFTeDA	376-06-7	ND	ND	ND	0.186	0.252			U	
	Sulfonates	PFBS	375-73-5	2264.05	3.10	3.10	0.303	0.303			
		PFPeS	2706-91-4	333.67	0.456	0.456	0.176	0.237			
		PFHxS	355-46-4	1601.58	2.19	2.19	0.163	0.230			
PFHpS		375-92-8	73.11	0.1000	0.1000	0.115	0.239			L	
PFOS		1763-23-1	5293.50	7.24	7.24	0.137	0.234				
PFNS		68259-12-1	ND	ND	ND	0.0738	0.242			U	
PFDS		335-77-3	ND	ND	ND	0.164	0.243			U	
4:2 FTS		757124-72-4	ND	ND	ND	0.101	0.235			U	
6:2 FTS		27619-97-2	190.55	0.261	0.261	0.0991	0.239			U	
8:2 FTS		39108-34-4	ND	ND	ND	0.146	0.242			U	
other	PFOSA	754-91-6	ND	ND	ND	0.111	0.313			U	
	N-MeFOSAA	2355-31-9	50.34	0.0688	0.0688	0.123	0.252			L	
	N-EtFOSAA	2991-50-6	ND	ND	ND	0.0932	0.252			U	
	HFPO-DA	13252-13-6	1281.71	1.75	1.75	0.195	0.252				
	PFMOAA	674-13-5	4473.43	6.12	6.12	1.26	1.26				
	PFMOPrA	377-73-1	ND	ND	ND	0.205	0.252			U	
	PFO2HxA	39492-88-1	1013.54	1.39	1.39	1.26	1.26				
	PFO3OA	39492-89-2	587.21	0.803	0.803	1.26	1.26			L	
	PFO4DA	39492-90-5	ND	ND	ND	1.26	2.57			U	
	Nafion Byproduct 1	29311-67-9	57.03	0.0780	0.0780	0.205	0.252			L	
	ADONA	919005-14-4	ND	ND	ND	0.103	0.238			U	
	9Cl-PF3ONS	756426-58-1	ND	ND	ND	0.103	0.235			U	
	11Cl-PF3OUds	763051-92-9	ND	ND	ND	0.103	0.238			U	
	10:2 FTS	120226-60-0	ND	ND	ND	0.205	0.252			U	
	Byproduct 4		ND	ND	ND	1.26	1.26			U	
	Byproduct 5		3553.79	4.86	4.86	1.26	1.26				
	Byproduct 6		ND	ND	ND	1.26	1.26			U	
	EVE Acid	69087-46-3	50.96	0.0697	0.0697	1.26	1.26			L	
	FBSA	30334-69-1	319.86	0.437	0.437	0.205	0.252				
	Hydro-EVE Acid	773804-62-9	93.03	0.127	0.127	1.26	1.26			L	
	N-EtFOA	4151-50-2	ND	ND	ND	0.205	0.252			U	
	N-EtFOSE	1691-99-2	ND	ND	ND	6.15	6.15			U	
	N-MeFOA	31506-32-8	ND	ND	ND	0.205	0.252			U	
	N-MeFOSE	24448-09-7	ND	ND	ND	6.15	6.15			U	
	Nafion Byproduct 2	749836-20-2	137.48	0.188	0.188	1.26	1.26			L	
	NFDHA	151772-58-6	ND	ND	ND	0.205	0.252			U	
	NVHOS	1132933-86-8	ND	ND	ND	1.26	1.26			U	
	PEPA	267239-61-2	ND	ND	ND	1.26	1.26			U	
	PFCEA-G	801212-59-9	ND	ND	ND	1.26	1.26			U	
	PFEESA	113507-82-7	ND	ND	ND	0.205	0.252			U	
	PFHxDA	67905-19-5	ND	ND	ND	1.26	1.26			U	
	PFMOBA	863090-89-5	ND	ND	ND	1.26	1.26			U	
PFOSDA	39492-91-6	ND	ND	ND	2.57	2.57			U		
PMPA	13140-29-9	ND	ND	ND	1.26	1.26			U		
R-EVE Acid		ND	ND	ND	1.26	1.26			U		
ES	MPFBA		5039.25	6.89				20-150%	100.8%		
	M5PFPeA		10033.61	13.7				20-150%	200.7%	Q	
	M3PFBS		14328.08	19.6				20-150%	286.6%	Q	
	M2-4:2 FTS		8171.72	11.2				20-150%	163.4%	Q	
	M5PFHxA		4669.06	6.38				20-150%	93.4%		
	M3HFPO-DA		4949.69	6.77				20-150%	99.0%		
	M4PFHpA		4466.91	6.11				20-150%	89.3%		
	M3PFHxS		3825.99	5.23				20-150%	76.5%		
	M2-6:2 FTS		4755.45	6.50				20-150%	95.1%		
	M8PFOA		4296.23	5.87				20-150%	85.9%		
	M9PFNA		3747.22	5.12				20-150%	74.9%		
	M8PFOS		3387.73	4.63				20-150%	67.8%		
	M2-8:2 FTS		2663.62	3.64				20-150%	53.3%		
	M8FOSA-I		2206.43	3.02				20-150%	44.1%		
	M6PFDA		3240.40	4.43				20-150%	64.8%		
	d3-N-MeFOSAA		2577.97	3.52				20-150%	51.6%		
	d5-N-EtFOSAA		2473.51	3.38				20-150%	49.5%		
	M7PFUdA		2718.51	3.72				20-150%	54.4%		
MPFDaA		2365.77	3.23				20-150%	47.3%			
M2PFTeDA		2317.08	3.17				20-150%	46.3%			

QC Data

Enthalpy Analytical

Job No.: 0221-723-1 PFAS by Isotope Dilution (non-potable water)
 County of Brunswick Site: Northwest Water Plant, Leland, NC

Enthalpy ID MB-11521-PFAS Prep Batch EU11521 Sample Vol (mL) 250
 Sample Name MB-11521-PFAS Prep Date 2021-02-12 15:53 Extract Vol (mL) 0.4
 Matrix Aqueous Analysis Date 2021-02-12 23:10 Dilution Factor 1
 Sampling Date

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags	
Acids	PFBA	375-22-4	ND	ND	ND	0.153	0.294			U	
	PFPeA	2706-90-3	ND	ND	ND	0.170	0.294			U	
	PFHxA	307-24-4	9.12	0.0146	0.0146	0.193	0.294			L	
	PFHpA	375-85-9	ND	ND	ND	0.122	0.294			U	
	PFOA	335-67-1	9.54	0.0153	0.0153	0.177	0.294			L	
	PFNA	375-95-1	ND	ND	ND	0.0761	0.294			U	
	PFDA	335-76-2	ND	ND	ND	0.0845	0.294			U	
	PFUnDA	2058-94-8	ND	ND	ND	0.185	0.294			U	
	PFDoDA	307-55-1	ND	ND	ND	0.202	0.294			U	
	PFTriDA	72629-94-8	ND	ND	ND	0.151	0.294			U	
	PFTeDA	376-06-7	ND	ND	ND	0.218	0.294			U	
	Sulfonates	PFBS	375-73-5	ND	ND	ND	0.355	0.355			U
		PFPeS	2706-91-4	ND	ND	ND	0.206	0.277			U
		PFHxS	355-46-4	ND	ND	ND	0.191	0.269			U
PFHpS		375-92-8	ND	ND	ND	0.135	0.280			U	
PFOS		1763-23-1	ND	ND	ND	0.160	0.274			U	
PFNS		68259-12-1	ND	ND	ND	0.0864	0.283			U	
PFDS		335-77-3	ND	ND	ND	0.192	0.285			U	
4:2 FTS		757124-72-4	ND	ND	ND	0.118	0.275			U	
6:2 FTS		27619-97-2	ND	ND	ND	0.116	0.280			U	
8:2 FTS		39108-34-4	ND	ND	ND	0.171	0.283			U	
other	PFOSA	754-91-6	ND	ND	ND	0.130	0.366			U	
	N-MeFOSAA	2355-31-9	ND	ND	ND	0.144	0.294			U	
	N-EiFOSAA	2991-50-6	ND	ND	ND	0.109	0.294			U	
	HFPO-DA	13252-13-6	ND	ND	ND	0.228	0.294			U	
	PFMOAA	674-13-5	ND	ND	ND	1.48	1.48			U	
	PFMOPrA	377-73-1	ND	ND	ND	0.240	0.294			U	
	PFO2HxA	39492-88-1	ND	ND	ND	1.48	1.48			U	
	PFO3OA	39492-89-2	ND	ND	ND	1.48	1.48			U	
	PFO4DA	39492-90-5	ND	ND	ND	1.48	3.01			U	
	Nafion Byproduct 1	29311-67-9	ND	ND	ND	0.240	0.294			U	
	ADONA	919005-14-4	ND	ND	ND	0.120	0.278			U	
	9Cl-PF3ONS	756426-58-1	ND	ND	ND	0.120	0.275			U	
	11Cl-PF3OUds	763051-92-9	ND	ND	ND	0.120	0.278			U	
	10:2 FTS	120226-60-0	ND	ND	ND	0.240	0.294			U	
	Byproduct 4		ND	ND	ND	1.48	1.48			U	
	Byproduct 5		ND	ND	ND	1.48	1.48			U	
	Byproduct 6		ND	ND	ND	1.48	1.48			U	
	EVE Acid	69087-46-3	ND	ND	ND	1.48	1.48			U	
	FBSA	30334-69-1	ND	ND	ND	0.240	0.294			U	
	Hydro-EVE Acid	773804-62-9	5.37	0.00859	0.00859	1.48	1.48			L	
	N-EiFOSA	4151-50-2	ND	ND	ND	0.240	0.294			U	
	N-EiFOSE	1691-99-2	ND	ND	ND	7.20	7.20			U	
	N-MeFOSA	31506-32-8	ND	ND	ND	0.240	0.294			U	
	N-MeFOSE	24448-09-7	ND	ND	ND	7.20	7.20			U	
	Nafion Byproduct 2	749836-20-2	ND	ND	ND	1.48	1.48			U	
	NFDHA	151772-58-6	ND	ND	ND	0.240	0.294			U	
	NVHOS	1132933-86-8	ND	ND	ND	1.48	1.48			U	
	PEPA	267239-61-2	ND	ND	ND	1.48	1.48			U	
	PFECA-G	801212-59-9	ND	ND	ND	1.48	1.48			U	
	PFEESA	113507-82-7	ND	ND	ND	0.240	0.294			U	
	PFHxDA	67905-19-5	ND	ND	ND	1.48	1.48			U	
	PFMOBA	863090-89-5	ND	ND	ND	1.48	1.48			U	
	PFOSDA	39492-91-6	ND	ND	ND	3.01	3.01			U	
PMPA	13140-29-9	ND	ND	ND	1.48	1.48			U		
R-EVE Acid		ND	ND	ND	1.48	1.48			U		
ES	MPFBA		4565.24	7.30				20-150%	91.3%		
	M5PFPeA		4365.43	6.98				20-150%	87.3%		
	M3PFBS		4148.95	6.64				20-150%	83.0%		
	M2-4:2 FTS		4163.11	6.66				20-150%	83.3%		
	M5PFHxA		4524.84	7.24				20-150%	90.5%		
	M3HFPO-DA		4552.56	7.28				20-150%	91.1%		
	M4PFHpA		4359.34	6.97				20-150%	87.2%		
	M3PFHxS		4697.02	7.52				20-150%	93.9%		
	M2-6:2 FTS		3748.42	6.00				20-150%	75.0%		
	M8PFOA		4072.45	6.52				20-150%	81.4%		
	M9PFNA		4667.45	7.47				20-150%	93.3%		
	M8PFOS		4222.65	6.76				20-150%	84.5%		
	M2-8:2 FTS		2867.44	4.59				20-150%	57.3%		
	M8FOSA-I		3354.90	5.37				20-150%	67.1%		
	M6PFDA		3955.44	6.33				20-150%	79.1%		
	d3-N-MeFOSAA		3365.73	5.39				20-150%	67.3%		
	d5-N-EiFOSAA		3258.52	5.21				20-150%	65.2%		
	M7PFUdA		3606.05	5.77				20-150%	72.1%		
	MPFDaA		3272.75	5.24				20-150%	65.5%		
	M2PFTeDA		2736.63	4.38				20-150%	54.7%		

Enthalpy Analytical

Job No.: 0221-723-1 PFAS by Isotope Dilution (non-potable water)

County of Brunswick Site: Northwest Water Plant, Leland, NC

Enthalpy ID	OPR-11521-PFAS	Prep Batch	EU11521	Sample Vol (mL)	250
Sample Name	OPR-11521-PFAS	Prep Date	2021-02-12 15:53	Extract Vol (mL)	0.4
Matrix	Aqueous	Analysis Date	2021-02-12 23:33	Dilution Factor	1
Sampling Date					

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	15178.36	24.3	24.3	0.153	0.294		121.4%	
	PFPeA	2706-90-3	14285.06	22.9	22.9	0.170	0.294		114.3%	
	PFHxA	307-24-4	14046.73	22.5	22.5	0.193	0.294		112.4%	
	PFHpA	375-85-9	14336.49	22.9	22.9	0.122	0.294		114.7%	
	PFOA	335-67-1	13147.74	21.0	21.0	0.177	0.294		105.2%	
	PFNA	375-95-1	13789.51	22.1	22.1	0.0761	0.294		110.3%	
	PFDA	335-76-2	13733.79	22.0	22.0	0.0845	0.294		109.9%	
	PFUnDA	2058-94-8	14567.83	23.3	23.3	0.185	0.294		116.5%	
	PFDoDA	307-55-1	13145.19	21.0	21.0	0.202	0.294		105.2%	
	PFTTrDA	72629-94-8	18544.24	29.7	29.7	0.151	0.294		148.4%	
PFTeDA	376-06-7	14181.32	22.7	22.7	0.218	0.294		113.5%		
Sulfonates	PFBS	375-73-5	13654.84	21.8	21.8	0.355	0.355		123.2%	
	PFPeS	2706-91-4	14912.19	23.9	23.9	0.206	0.277		126.8%	
	PFHxS	355-46-4	12127.01	19.4	19.4	0.191	0.269		106.1%	
	PFHpS	375-92-8	12150.96	19.4	19.4	0.135	0.280		102.0%	
	PFOS	1763-23-1	11401.35	18.2	18.2	0.160	0.274		98.3%	
	PFNS	68259-12-1	12274.65	19.6	19.6	0.0864	0.283		102.1%	
	PFDS	335-77-3	11238.46	18.0	18.0	0.192	0.285		93.2%	
	4:2 FTS	757124-72-4	15225.31	24.4	24.4	0.118	0.275		130.0%	
6:2 FTS	27619-97-2	13101.46	21.0	21.0	0.116	0.280		110.2%		
8:2 FTS	39108-34-4	13103.15	21.0	21.0	0.171	0.283		109.2%		
Other	PFOSA	754-91-6	14589.71	23.3	23.3	0.130	0.366		116.7%	
	N-MeFOSAA	2355-31-9	13488.09	21.6	21.6	0.144	0.294		107.9%	
	N-EtFOSAA	2991-50-6	12848.44	20.6	20.6	0.109	0.294		102.8%	
	HFPO-DA	13252-13-6	13106.70	21.0	21.0	0.228	0.294		104.9%	
ES	MPFBA		4504.61	7.21				20-150%	90.1%	
	M5PFPeA		4632.80	7.41				20-150%	92.7%	
	M3PFBS		4324.89	6.92				20-150%	86.5%	
	M2-4:2 FTS		3524.68	5.64				20-150%	70.5%	
	M5PFHxA		5126.62	8.20				20-150%	102.5%	
	M3HFPO-DA		5264.47	8.42				20-150%	105.3%	
	M4PFHpA		4674.01	7.48				20-150%	93.5%	
	M3PFHxS		4506.12	7.21				20-150%	90.1%	
	M2-6:2 FTS		3355.45	5.37				20-150%	67.1%	
	M8PFOA		4697.37	7.52				20-150%	93.9%	
	M9PFNA		4716.29	7.55				20-150%	94.3%	
	M8PFOS		4261.23	6.82				20-150%	85.2%	
	M2-8:2 FTS		3298.63	5.28				20-150%	66.0%	
	M8FOSA-I		2760.39	4.42				20-150%	55.2%	
	M6PFDA		4193.38	6.71				20-150%	83.9%	
	d3-N-MeFOSAA		3470.81	5.55				20-150%	69.4%	
	d5-N-EtFOSAA		3254.01	5.21				20-150%	65.1%	
	M7PFUdA		4090.65	6.55				20-150%	81.8%	
MPFDoA		3777.37	6.04				20-150%	75.5%		
M2PFTeDA		2794.48	4.47				20-150%	55.9%		

Narrative Summary



Enthalpy Analytical

Job No.: 0221-723-1 PFAS by Isotope Dilution (non-potable water)

County of Brunswick Site: Northwest Water Plant, Leland, NC

Enthalpy ID	MB-11521-PFAS	Prep Batch	EU11521	Sample Vol (mL)	250
Sample Name	MB-11521-PFAS	Prep Date	2021-02-12 15:53	Extract Vol (mL)	0.4
Matrix	Aqueous	Analysis Date	2021-02-12 23:10	Dilution Factor	1
Sampling Date					

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags	
Acids	PFBA	375-22-4	ND	ND	ND	0.153	0.294			U	
	PFPeA	2706-90-3	ND	ND	ND	0.170	0.294			U	
	PFHxA	307-24-4	9.12	0.0146	0.0146	0.193	0.294			L	
	PFHpA	375-85-9	ND	ND	ND	0.122	0.294			U	
	PFOA	335-67-1	9.54	0.0153	0.0153	0.177	0.294			L	
	PFNA	375-95-1	ND	ND	ND	0.0761	0.294			U	
	PFDA	335-76-2	ND	ND	ND	0.0845	0.294			U	
	PFUnDA	2058-94-8	ND	ND	ND	0.185	0.294			U	
	PFDoDA	307-55-1	ND	ND	ND	0.202	0.294			U	
	PFTriDA	72629-94-8	ND	ND	ND	0.151	0.294			U	
	PFTeDA	376-06-7	ND	ND	ND	0.218	0.294			U	
	Sulfonates	PFBS	375-73-5	ND	ND	ND	0.355	0.355			U
		PFPeS	2706-91-4	ND	ND	ND	0.206	0.277			U
		PFHxS	355-46-4	ND	ND	ND	0.191	0.269			U
PFHpS		375-92-8	ND	ND	ND	0.135	0.280			U	
PFOS		1763-23-1	ND	ND	ND	0.160	0.274			U	
PFNS		68259-12-1	ND	ND	ND	0.0864	0.283			U	
PFDS		335-77-3	ND	ND	ND	0.192	0.285			U	
4:2 FTS		757124-72-4	ND	ND	ND	0.118	0.275			U	
6:2 FTS		27619-97-2	ND	ND	ND	0.116	0.280			U	
8:2 FTS		39108-34-4	ND	ND	ND	0.171	0.283			U	
other	PFOSA	754-91-6	ND	ND	ND	0.130	0.366			U	
	N-MeFOSAA	2355-31-9	ND	ND	ND	0.144	0.294			U	
	N-EtFOSAA	2991-50-6	ND	ND	ND	0.109	0.294			U	
	HFPO-DA	13252-13-6	ND	ND	ND	0.228	0.294			U	
	PFMOAA	674-13-5	ND	ND	ND	1.48	1.48			U	
	PFMOPrA	377-73-1	ND	ND	ND	0.240	0.294			U	
	PFO2HxA	39492-88-1	ND	ND	ND	1.48	1.48			U	
	PFO3OA	39492-89-2	ND	ND	ND	1.48	1.48			U	
	PFO4DA	39492-90-5	ND	ND	ND	1.48	3.01			U	
	Nafion Byproduct 1	29311-67-9	ND	ND	ND	0.240	0.294			U	
	ADONA	919005-14-4	ND	ND	ND	0.120	0.278			U	
	9Cl-PF3ONS	756426-58-1	ND	ND	ND	0.120	0.275			U	
	11Cl-PF3OUds	763051-92-9	ND	ND	ND	0.120	0.278			U	
	10:2 FTS	120226-60-0	ND	ND	ND	0.240	0.294			U	
	Byproduct 4		ND	ND	ND	1.48	1.48			U	
	Byproduct 5		ND	ND	ND	1.48	1.48			U	
	Byproduct 6		ND	ND	ND	1.48	1.48			U	
	EVE Acid	69087-46-3	ND	ND	ND	1.48	1.48			U	
	FBSA	30334-69-1	ND	ND	ND	0.240	0.294			U	
	Hydro-EVE Acid	773804-62-9	5.37	0.00859	0.00859	1.48	1.48			L	
	N-EtFOA	4151-50-2	ND	ND	ND	0.240	0.294			U	
	N-EtFOSE	1691-99-2	ND	ND	ND	7.20	7.20			U	
	N-MeFOA	31506-32-8	ND	ND	ND	0.240	0.294			U	
	N-MeFOSE	24448-09-7	ND	ND	ND	7.20	7.20			U	
	Nafion Byproduct 2	749836-20-2	ND	ND	ND	1.48	1.48			U	
	NFDHA	151772-58-6	ND	ND	ND	0.240	0.294			U	
	NVHOS	1132933-86-8	ND	ND	ND	1.48	1.48			U	
	PEPA	267239-61-2	ND	ND	ND	1.48	1.48			U	
	PFCEA-G	801212-59-9	ND	ND	ND	1.48	1.48			U	
	PFEESA	113507-82-7	ND	ND	ND	0.240	0.294			U	
	PFHxDA	67905-19-5	ND	ND	ND	1.48	1.48			U	
	PFMOBA	863090-89-5	ND	ND	ND	1.48	1.48			U	
	PFO5DA	39492-91-6	ND	ND	ND	3.01	3.01			U	
	PMPA	13140-29-9	ND	ND	ND	1.48	1.48			U	
R-EVE Acid		ND	ND	ND	1.48	1.48			U		
ES	MPFBA		4565.24	7.30				20-150%	91.3%		
	M5PFPeA		4365.43	6.98				20-150%	87.3%		
	M3PFBS		4148.95	6.64				20-150%	83.0%		
	M2-4:2 FTS		4163.11	6.66				20-150%	83.3%		
	M5PFHxA		4524.84	7.24				20-150%	90.5%		
	M3HFPO-DA		4552.56	7.28				20-150%	91.1%		
	M4PFHpA		4359.34	6.97				20-150%	87.2%		
	M3PFHxS		4697.02	7.52				20-150%	93.9%		
	M2-6:2 FTS		3748.42	6.00				20-150%	75.0%		
	M8PFOA		4072.45	6.52				20-150%	81.4%		
	M9PFNA		4667.45	7.47				20-150%	93.3%		
	M8PFOS		4222.65	6.76				20-150%	84.5%		
	M2-8:2 FTS		2867.44	4.59				20-150%	57.3%		
	M8FOSA-I		3354.90	5.37				20-150%	67.1%		
	M6PFDA		3955.44	6.33				20-150%	79.1%		
	d3-N-MeFOSAA		3365.73	5.39				20-150%	67.3%		
	d5-N-EtFOSAA		3258.52	5.21				20-150%	65.2%		
	M7PFUdA		3606.05	5.77				20-150%	72.1%		
MPFDaA		3272.75	5.24				20-150%	65.5%			
M2PFTeDA		2736.63	4.38				20-150%	54.7%			

Enthalpy Analytical

Job No.: 0221-723-1 PFAS by Isotope Dilution (non-potable water)

County of Brunswick Site: Northwest Water Plant, Leland, NC

Enthalpy ID	OPR-11521-PFAS	Prep Batch	EU11521	Sample Vol (mL)	250
Sample Name	OPR-11521-PFAS	Prep Date	2021-02-12 15:53	Extract Vol (mL)	0.4
Matrix	Aqueous	Analysis Date	2021-02-12 23:33	Dilution Factor	1
Sampling Date					

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	15178.36	24.3	24.3	0.153	0.294		121.4%	
	PFPeA	2706-90-3	14285.06	22.9	22.9	0.170	0.294		114.3%	
	PFHxA	307-24-4	14046.73	22.5	22.5	0.193	0.294		112.4%	
	PFHpA	375-85-9	14336.49	22.9	22.9	0.122	0.294		114.7%	
	PFOA	335-67-1	13147.74	21.0	21.0	0.177	0.294		105.2%	
	PFNA	375-95-1	13789.51	22.1	22.1	0.0761	0.294		110.3%	
	PFDA	335-76-2	13733.79	22.0	22.0	0.0845	0.294		109.9%	
	PFUnDA	2058-94-8	14567.83	23.3	23.3	0.185	0.294		116.5%	
	PFDoDA	307-55-1	13145.19	21.0	21.0	0.202	0.294		105.2%	
	PFTTrDA	72629-94-8	18544.24	29.7	29.7	0.151	0.294		148.4%	
PFTeDA	376-06-7	14181.32	22.7	22.7	0.218	0.294		113.5%		
Sulfonates	PFBS	375-73-5	13654.84	21.8	21.8	0.355	0.355		123.2%	
	PFPeS	2706-91-4	14912.19	23.9	23.9	0.206	0.277		126.8%	
	PFHxS	355-46-4	12127.01	19.4	19.4	0.191	0.269		106.1%	
	PFHpS	375-92-8	12150.96	19.4	19.4	0.135	0.280		102.0%	
	PFOS	1763-23-1	11401.35	18.2	18.2	0.160	0.274		98.3%	
	PFNS	68259-12-1	12274.65	19.6	19.6	0.0864	0.283		102.1%	
	PFDS	335-77-3	11238.46	18.0	18.0	0.192	0.285		93.2%	
	4:2 FTS	757124-72-4	15225.31	24.4	24.4	0.118	0.275		130.0%	
6:2 FTS	27619-97-2	13101.46	21.0	21.0	0.116	0.280		110.2%		
8:2 FTS	39108-34-4	13103.15	21.0	21.0	0.171	0.283		109.2%		
Other	PFOSA	754-91-6	14589.71	23.3	23.3	0.130	0.366		116.7%	
	N-MeFOSAA	2355-31-9	13488.09	21.6	21.6	0.144	0.294		107.9%	
	N-EtFOSAA	2991-50-6	12848.44	20.6	20.6	0.109	0.294		102.8%	
	HFPO-DA	13252-13-6	13106.70	21.0	21.0	0.228	0.294		104.9%	
ES	MPFBA		4504.61	7.21				20-150%	90.1%	
	M5PFPeA		4632.80	7.41				20-150%	92.7%	
	M3PFBS		4324.89	6.92				20-150%	86.5%	
	M2-4:2 FTS		3524.68	5.64				20-150%	70.5%	
	M5PFHxA		5126.62	8.20				20-150%	102.5%	
	M3HFPO-DA		5264.47	8.42				20-150%	105.3%	
	M4PFHpA		4674.01	7.48				20-150%	93.5%	
	M3PFHxS		4506.12	7.21				20-150%	90.1%	
	M2-6:2 FTS		3355.45	5.37				20-150%	67.1%	
	M8PFOA		4697.37	7.52				20-150%	93.9%	
	M9PFNA		4716.29	7.55				20-150%	94.3%	
	M8PFOS		4261.23	6.82				20-150%	85.2%	
	M2-8:2 FTS		3298.63	5.28				20-150%	66.0%	
	M8FOSA-I		2760.39	4.42				20-150%	55.2%	
	M6PFDA		4193.38	6.71				20-150%	83.9%	
	d3-N-MeFOSAA		3470.81	5.55				20-150%	69.4%	
	d5-N-EtFOSAA		3254.01	5.21				20-150%	65.1%	
	M7PFUdA		4090.65	6.55				20-150%	81.8%	
MPFDoA		3777.37	6.04				20-150%	75.5%		
M2PFTeDA		2794.48	4.47				20-150%	55.9%		



General Reporting Notes – Data Qualifiers

The following are general reporting notes that are applicable to all Enthalpy Analytical, LLC - Wilmington, NC data reports, unless specifically noted otherwise.

General Data Qualifiers

- B – The analyte was found in the method blank, at a concentration that was at least 10% of the concentration in the sample.
- Cxx – Two or more congeners co-elute. In EDDs, C denotes the lowest IUPAC congener in a co-elution group and additional co-eluters for the group ('xx') are shown with the number of the lowest IUPAC co-eluter.
- E – The reported concentration exceeds the calibration range (upper point of the calibration curve). For HRMS data, this condition does not imply additional measurement uncertainty. For LC-MS/MS data, these values should be considered as having measurement uncertainty higher than values within the calibration range.
- EDL – Estimated Detection Level. Specific to Dioxin/Furan tests and equivalent to MDL
- EMPC – Estimated Maximum Possible Concentration Specific to Dioxin/Furan tests to indicate the signal/noise ratio was not sufficient for peak identification (the determined ion-abundance ratio was outside the allowed theoretical range), or where there was a co-eluting interference. Indicates that a peak was identified but did not meet the method specified ion-abundance ratio.
- IR – The ion ratio between the primary and secondary ions was observed to be outside the method criteria therefore the actual analyte concentration cannot be accurately determined as defined by DoD QSM Table B-15.
- J – The analyte has a concentration below the minimum calibration level (LOQ value) but greater than the LOD. These values should be considered as having measurement uncertainty higher than values within the calibration range
- L - Indicates that an analyte has a concentration below the Minimum Detection Limit (MDL). The reported concentration is not recommended for regulatory use as the analyte signal may have a signal-to-noise ratio less than the criteria deemed necessary to be considered a detected analyte.
- LOD – Limit of Detection: For reports conforming to the DOD ELAP QSM, this is the QSM-defined LOD. For reports conforming to TNI requirements (but not DOD ELAP QSM requirements), this value is the minimum detection limit (MDL). The LOD is adjusted for sample weight or volume.
- LOQ – Limit of Quantiation: For reports conforming to the DOD ELAP QSM, this is the QSM-defined LOQ. For reports conforming to TNI requirements (but not DOD ELAP QSM requirements), this value is the reporting limit (RL). The LOD is adjusted for sample weight or volume.
- <LOD() – Analyte was not found at a concentration high enough to be reported as detected. It is reported as less than the LOD, and the LOD is given in the parentheses.



General Reporting Notes – Data Qualifiers

- ND – Indicates a non-detect.
- NR – Indicates a value that is not reportable due to issues observed in sample preparation or analysis.
- PR – The associated congener(s) is(are) poorly resolved.
- QI – Indicates the presence of a quantitative interference.
- RL – Reporting Limit. Lowest reportable value. The level is higher than the MDL.
- SI – Denotes “Single Ion Mode” and is utilized for PCBs where the secondary ion trace has a significantly elevated noise level due to background PFK. Responses for such peaks are calculated using an EMPC approach based solely on the primary ion area(s) and may be considered estimates.
- U – The analyte was not detected.
- V – The labeled standard recovery is not within method control limits.
- X – Results from re-injection/repeat/second-column analysis.

Lab Identifiers/ Data Attributes

- AR – Indicates use of the archived portion of the sample extract.
- CU – Indicates a sample that required additional clean-up prior to HRMS injection/processing.
- D – Dilution Data. Result was obtained from the analysis of a dilution. The number that follows the “D” indicates the dilution factor.
- DE – Indicates a dilution performed with the addition of ES (Extraction Standard) solution.
- DUP – Designation for a duplicate sample.
- MS – Designation for a matrix spike.
- MSD – Designation for a matrix spike duplicate.
- RJ – Indicates a reinjection of the sample extract.
- S – Indicates a sample split. The number that follows the “S” indicates the split factor.
- R – Indicates a re-extraction of the sample.

PFAS Compound Acronym List

Acronym	Compound Name	CAS #
Target Analytes		
PFBA	Perfluorobutanoic Acid	375-22-4
PFPeA	Perfluoropentanoic Acid	2706-90-3
PFHxA	Perfluorohexanoic Acid	307-24-4
PFHpA	Perfluoroheptanoic Acid	375-85-9
PFOA	Perfluorooctanoic Acid	335-67-1
PFNA	Perfluorononanoic Acid	375-95-1
PFDA	Perfluorodecanoic acid	335-76-2
PFUnA (PFUnDA)	Perfluoroundecanoic acid	2058-94-8
PFDoA (PFDoDA)	Perfluorododecanoic acid	307-55-1
PFTriA (PFTriA)	Perfluorotridecanoic acid	72629-94-8
PFTeDA (PFTA)	Perfluorotetradecanoic acid	376-06-7
PFBS	Perfluorobutane sulfonic acid	375-73-5
PFPeS	Perfluoropentane sulfonic acid	2706-91-4
PFHxS	Perfluorohexane sulfonic acid	355-46-4
PFHpS	Perfluoroheptane sulfonic acid	375-92-8
PFOS	Perfluorooctane sulfonic acid	1763-23-1
PFNS	Perfluorononane sulfonic acid	68259-12-1
PFDS	Perfluorodecane sulfonic acid	757124-72-4
4:2 FTS	4:2 fluorotelomer sulfonic acid	27619-97-2
6:2 FTS	6:2 fluorotelomer sulfonic acid	39108-34-4
8:2 FTS	8:2 fluorotelomer sulfonic acid	13252-13-6
PFOSA (FOSA)	Perfluorooctane sulfonamide	754-91-6
N-MeFOSAA	N-methyl perfluorooctane sulfonamido acetic acid	2355-31-9
N-EtFOSAA	N-ethyl perfluorooctane sulfonamido acetic acid	2991-50-6
HFPO-DA	2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-propanoic acid (Gen-X)	13252-13-6
* 11Cl-PF3OUdS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	674-13-5
* 9Cl-PF3ONS	9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	919005-14-4
* ADONA	4,8-dioxa-3H-perfluorononanoic acid	756426-58-1
* PFMOAA	Perfluoro-2-methoxyacetic acid	763051-92-9
* PFMOPrA	Perfluoro-3-methoxypropanoic acid	377-73-1
* PFO2HxA	Perfluoro (3,5-dioxahexanoic) acid	39492-88-1
* PFO3OA	Perfluoro (3,5,7-trioxaoctanoic) acid	39492-89-2
* PFO4DA	Perfluoro (3,5,7,9-tetraoxadecanoic) acid	39492-90-5
* PFO5DA	Perfluoro(3,5,7,9,11-pentaoxadodecanoic) acid	39492-91-6
* Nafion Byproduct 1	Nafion Byproduct 1	29311-67-9
* Nafion Byproduct 2	Nafion Byproduct 2	749836-20-2
* PFEESA	Perfluoro(2-ethoxyethane)sulphonic acid	113507-82-7
* PFMOBA	Perfluoro-4-methoxybutanic acid	863090-89-5
* PEPA	Perfluoro-2-ethoxypropanoic acid	267239-61-2
* PMPA	Perfluoro-2-methoxypropanoic acid	13140-29-9
* 10:2 FTS	Fluorotelomer sulfonate 10:2	120226-60-0
* N-EtFOSA	N-ethylperfluoro-1-octanesulfonamide	4151-50-2
* N-EtFOSE	2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	1691-99-2
* N-MeFOSA	N-methylperfluoro-1-octanesulfonamide	31506-32-8
* N-MeFOSE	2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	24448-09-7
* PFECA-G	4-(Heptafluoroisopropoxy)hexafluorobutanoic acid	801212-59-9
* PFHxDA	Perfluorohexadecanoic acid	67905-19-5



Extraction Standards		
MPFBA	Perfluoro-n-[13C4]butanoic acid	
M5PFPeA	Perfluoro-n-[13C5]pentanoic acid	
M3PFBS	Sodium perfluoro-1-[2,3,4-13C3]-butanesulfonic acid	
M2-4:2 FTS	Sodium 1H,1H,2H,2H-perfluoro-1-[1,2-13C2]-hexane sulfonic acid	
M5PFHxA	Perfluoro-n-[1,2,3,4,6-13C5]hexanoic acid	
M3HFPO-DA	2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-13C3-propanoic acid	
M4PFHpA	Perfluoro-n-[1,2,3,4-13C4]heptanoic acid	
M3PFHxS	Sodium perfluoro-1-[1,2,3-13C3]-hexanesulfonic acid	
M2-6:2 FTS	Sodium 1H,1H,2H,2H-perfluoro-1-[1,2-13C2]-octane sulfonic acid	
M8PFOA	Perfluoro-n-[13C8]octanoic acid	
M9PFNA	Perfluoro-n-[13C9]nonanoic acid	
M8PFOS	Sodium perfluoro-1-[13C8]-octanesulfonic acid	
M2-8:2 FTS	Sodium 1H,1H,2H,2H-perfluoro-1-[1,2-13C2]-decane sulfonic acid	
M8FOSA	Perfluoro-1-[13C8]octanesulfonamide	
M6PFDA	Perfluoro-n-[1,2,3,4,5,6-13C6]decanoic acid	
d3-N-MeFOSAA	N-methyl-d3-perfluoro-1-octanesulfonamide	
d5-N-EtFOSAA	N-ethyl-d5-perfluoro-1-octanesulfonamide	
M7PFUnDA (M7PFUdA)	Perfluoro-n-[1,2,3,4,5,6,7-13C7]undecanoic acid	
MPFDoA	Perfluoro-n-[1,2-13C2]dodecanoic acid	
M2PFTeDA	Perfluoro-n-[1,2-13C2]tetradecanoic acid	
Injection Standards		
M3PFBA	Perfluoro-n-[2,3,4-13C3]butanoic acid	
M2PFOA	Perfluoro-n-[1,2-13C2]octanoic acid	
MPFDA	Perfluoro-n-[1,2-13C2]decanoic acid	
MPFOS	Sodium perfluoro-1-[1,2,3,4-13C4]-octanesulfonic acid	

* Analytes are currently not accredited under TNI Standard. Accreditation pending.

Sample Custody

**This Is The Last Page
Of This Report.**