

Granular Activated Carbon (GAC) Study			Sampling Date:			05/03/18			05/16/18			05/30/18			06/13/18			06/27/18			07/11/18			07/26/18			08/08/18			08/22/18			09/05/18			10/03/18														
Location 75: GAC system installed 4/23/18			Flowmeter Reading (gallons):			1219.1			2857.1			4787.8			6685.7			8684.4			10617.2			12665.3			13870.1			15535.9			17257.8			20510.5														
GAC Treatment Stages:			Raw			Pre			Mid			Post			Raw			Pre			Mid			Post			Raw			Pre			Mid			Post			Raw			Pre			Mid			Post		
Chemical Name	CASN	Estimated Concentration	Reporting Units:			ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L											
2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-propanoic acid (PFPrOPrA, "GenX")	13252-13-6					919	999	-	-	771	-	-	950	5.75		826	0.973 J	-	904	0.855 J	-	910	3.64	0.793 J	932	2.06	-	806	5.87	-	919	8.55	-	782	9.16	-	807	17.5	-											
Perfluoro- 2-methoxyacetic acid (PFMOAA)	674-13-5	X				233	232	-	-	183	-	-	244	-		319	-	-	359	-	-	399	-	7.36	465	1.36 J	-	315	-	-	359	2.08 J	-	399	-	-	328	4.31	-											
Perfluoro- 3-methoxy- propanoic acid (PFMOPrA)	377-73-1	X				1190	1460	-	-	997	-	-	1340	7.46		1110	-	-	1140	7.38	-	1030	11.5	-	1350	8.76	-	1250	15.1	-	1250	26.2	-	1160	30.5	-	1110	71.5	-											
Perfluoro-4-methoxy- butanoic acid (PFMOBA)	863090-89-5	X				317	362	-	-	334	-	-	389	2.83 J		-	-	-	342	-	-	294	1.55 J	-	447	-	-	315	2.59 J	-	378	4.39	-	325	5.67	-	222	7.95	-											
Perfluoro- (3,5-dioxahexanoic) acid (PFO2HxA)	39492-88-1	X				325	385	-	-	300	-	-	366	-		325	-	-	399	-	-	363	-	5.33	542	-	-	328	-	-	391	1.41 J	-	340	1.75 J	-	339	4.1	-											
Perfluoro- (3,5,7-trioxaoctanoic) acid (PFO3OA)	39492-89-2	X				-	98.9	-	-	58.9	-	-	87.5	-		74.5	-	-	88.9 J	-	-	79.1	-	9.98	105	-	-	64.4	-	-	74	-	-	70.2	-	-	74.8	-	-											
Perfluoro- (3,5,7,9-tetraoxadecanoic) acid (PFO4DA)	39492-90-5	X				44	37.7	-	-	31.4	-	-	37	-		30	-	-	-	-	-	32.8	-	-	47.6 J	-	-	24.3	-	-	30.9	-	-	24.6	-	-	28.8	-	-											
Nafion Byproduct 1	29311-67-9	X				-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	1.30 J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Nafion Byproduct 2	749836-20-2	X				34.3	30.2	-	-	21.5	-	-	34	-		27.1	-	-	-	-	-	30.3	-	-	31.6 J	-	-	21.2	-	-	23.7	-	-	23.2	-	-	23.7	-	-											
Perfluoro- butane- sulfonate (PFBS)	375-73-5					1.20 J	1.11 J	-	-	1.19 J	-	-	1.38 J	-		1.36 J	-	-	1.33 J	-	-	1.12 J	-	-	1.64 J	-	-	1.31 J	-	-	1.47 J	-	-	1.37 J	-	-	1.18 J	-	-											
Perfluoro- butyric acid (PFBA)	375-22-4					-	10.4	-	-	-	-	-	11.4	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.681 J												
Perfluoro- pentanoic acid (PFPeA)	2706-90-3					13.8	13.1	-	-	13.7	-	-	13.4	-		14.1	-	-	14	-	-	12.7	-	-	16.3 J	-	-	14	-	-	15	-	-	13.6	-	-	13	-	-											
Perfluoro- pentane- sulfonate (PFPeS)	2706-91-4					-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Perfluoro- hexanesulfonate (PFHxS)	355-46-4					0.847 J	0.672 J	-	-	-	-	-	0.747 J	-		0.831 J	-	-	0.764 J	-	-	-	-	-	0.930 J	-	-	-	-	0.842 J	-	-	-	-	-	0.692 J	-	-	-											
Perfluoro- hexanoic acid (PFHxA)	307-24-4					3.66	3.43	-	-	3.61	-	-	3.87	-		4.11	-	-	3.95	-	-	3.43	-	-	4.41	-	-	3.57	-	-	4.28	-	-	4.14	-	-	3.89	-	-											
Perfluoro- heptanesulfonate (PFHpS)	375-92-8					-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Perfluoro- heptanoic acid (PFHpA)	375-85-9					2.6	2.28	-	-	2.2	-	-	2.59	-		2.19	-	-	2.33	-	-	1.86 J	-	-	3.13	-	-	2.48	-	-	2.23	-	-	2.38	-	-	2.64	-	-											
Perfluorooctane- sulfonate (PFOS)	1763-23-1					-	0.896 J	-	-	-	-	-	0.695 J	0.675 J		1.04 J	-	-	-	-	-	0.754 J	-	-	0.752 J	-	-	0.662 J	-	-	0.607 J	-	-	0.659 J	-	-	0.659 J	-	-											
Perfluoro- octanoic acid (PFOA)	335-67-1					9.5	8.49	-	-	9.55	-	-	9.65	-		9.23	-	-	10.1	-	-	7.38	-	-	11.5	-	-	8.48	-	-	9.19	-	-	9.40	-	-	8.89	-	-											
Perfluoro- nonane- sulfonate (PFNS)	68259-12-1					-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Perfluoro- nonanoic acid (PFNA)	375-95-1					-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Perfluoro- decanesulfonate (PFDS)	335-77-3					-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Perfluoro- decanoic acid (PFDA)	335-76-2					-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Perfluoro- undecanoic acid (PFUdA)	2058-94-8					-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Perfluoro- dodecanoic acid (PFDoA)	307-55-1					-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Perfluoro- tridecanoic acid (PFTrDA)	72629-94-8					-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Perfluoro- tetradecanoic acid (PFTeDA)	376-06-7					-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Fluorotelomer sulfonate 4:2 (4:2 FTS)	757124-72-4					-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Fluorotelomer sulfonate 6:2 (6:2 FTS)	27619-97-2					-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Fluorotelomer sulfonate 8:2 (8:2 FTS)	39108-34-4					-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Perfluoro- octane- sulfonamide (PFOSA)	754-91-6					-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
N-methylperfluoro- 1-octane-sulfon- amidoacetic acid (N-MeFOSAA)	2355-31-9					-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
N-ethylperfluoro- 1-octane- sulfon-amidoacetic acid (N-EtFOSAA)	2991-50-6					-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												

Data not available

GAC Treatment Stages: Raw = Untreated well water; Pre = Sediment & iron-filtered water; Mid = After 1st carbon tank & before the 2nd carbon tank; Post = After all GAC system treatment stages, "finished" water.

X = The reported PFAS concentrations are estimated for this compound. Samples were quantified using a non-certified calibration standard because a certified standard for this PFAS was not available at the time of analysis.

ng/L = Nanograms per liter, "parts-per-trillion".

J = Estimated concentration is greater than the analytical method detection limit and less than the sample-specific reporting limit.

- = Not detected. Sample reporting limits (RLs) are typically in the range of approximately 1 - 5 ng/L for treated water (Mid and Post). RLs may be higher (up to approximately 200 ng/L) for untreated water (Raw and Pre) when dilutions are required.

* = Data is not available for the Post sample for the 5/30/18 collection date due to sample collection error. For additional information, please contact the DEQ Division of Waste Management at 919-707-8200.