Groundwater Remediation Systems
Quarterly Operations Report

July 1, 2023 through September 30, 2023

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3rd Quarter Groundwater Remediation System Operations Report
July 1, 2023 through September 30, 2023

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Table 1-1 – Summary of Operations

Operable Unit System	*Type*	*Target Contaminant*	*Number of Wells*	*Years of Operation*	*Run Time for Quarter (%)*	*Pounds VOCS Removed (Quarter/Cumulative)*
Operable Unit I						
South Boundary	Pump & Treat (AS)	VOC	2	Operate – 16 Standby – 6	Closure Approved 9/19	0 369
Operable Unit III						
South Boundary	Pump and Treat (AS)	VOC	8	26	97%	2.14 3,082
HFBR Pump and Recharge	Pump & Recirculate	Tritium	4	Operate – 9 Standby – 16	Closure Approved 3/19	NA 180
Industrial Park	Recirc./In-Well (AS/Carbon)	VOC	7	Operate – 16 Standby – 7	Standby	0 1,066
	Pump & Treat (Carbon)	VOC	2	Operate – 4 Standby – 3	Standby	0 10
Building 96	Pump & Treat (AS) Recirc./In-Well (AS/Carbon)	VOC	4	Operate – 21 Standby – 1	90% PP	0.1 146
Middle Road	Pump &Treat (AS)	VOC	7	22	97%	5.75 1,373
Western South Boundary	Pump & Treat (AS)	VOC	6	21	97% PP	2.52 210
North Street	Pump & Treat (Carbon)	VOC	2	Operate – 9 Standby – 7	Closure Approved 3/20	NA 342
North Street East	Pump & Treat (Carbon)	VOC/EDB	4	Operate – 13 Standby – 6	100%	0.35 49
LIPA/Airport	Pump & Treat (Carbon)	VOC	10	19	100%	1.55 504
Industrial Park East	Pump & Treat (Carbon)	VOC	2	Operate – 5 Standby – 4	Dismantled 2013	NA 38
Chemical Holes	Pump & Treat (IE)	Sr-90	3	Operate – 15 Standby – 5	Standby	NA
BGRR/WCF	Pump & Treat (IE)	Sr-90	9	18	50%	NA
Freon	Pump & Treat (AS)	Freon-11	1	Operate – 4 Standby – 6	Closure Approved 9/19	0 106
Carbon Tetrachloride	Pump & Treat (Carbon)	VOC/Carbon Tetrachloride	3	Operate – 5 Standby – 5	Closure Approved 10/09	0 349
Operable Unit IV						
AOC 5 1997 Spill	AS/SVE	VOC	71	Operate – 4 Standby – 2	Closure Approved 7/03	0 35
Operable Unit VI						
EDB	Pump & Treat (Carbon)	EDB	2	19	50%	NA*
Operable Unit X						***Pounds PFAS Rem.***
Current Firehouse	Pump & Treat (Carbon)	PFAS	9	<1	100%	0.34
Former Firehouse	Pump & Treat (Carbon)	PFAS	3	<1	100%	0.14

AS = air stripping
SVE = soil vapor extraction
IE = ion exchange
NA = not applicable
PP = system is pulse pumping
EDB = ethylene dibromide
PFAS = per- and polyfluoroalkyl substances
Shaded = system closed
* EDB detected at trace levels.

In response to the recently released New York State Department of Environmental Conservation (NYSDEC) Final Ambient Water Quality Guidance Values for perfluorooctanesulfonic acid (PFOS), perfluorooctanoic acid (PFOA), and 1,4-dioxane, select treatment systems are being sampled to establish a baseline for per & polyfluoroalkyl substances (PFAS) and 1,4-dioxane. The treatment systems are being sampled on a quarterly basis and include:

- OU III Western South Boundary
- OU III Middle Road
- OU III South Boundary
- OU III LIPA/Airport
- OU III North Street EDB
- OU VI EDB *(being sampled for 1,4-dioxane only)*
- OU III BGRR/WCF Sr-90

During the third quarter 2023, each of the Operable Unit (OU) III LIPA/Airport extraction wells, system influent, and system effluent were sampled in July, and the OU III South Boundary extraction wells were sampled in August to complete the first round (June through July) of treatment system monitoring. During the fourth quarter (October) 2023, each of the treatment systems influent and effluent were sampled per the proposed schedule. Each of the PFAS and 1,4-dioxane samples were analyzed by EPA Method 1633 and 8270 SIM, respectively.

A summary of the PFOS, PFOA, and 1,4-dioxane results reported through October 2023 (including non-detect results), compared to their NYSDEC Final Ambient Water Quality Guidance Values is provided in the following **Table 1-2**. The complete PFAS and 1,4-dioxane dataset (including non-detect results) through October 2023 is provided in the following **Table 1-3**.

The next treatment system sampling round for PFAS and 1,4-dioxane is scheduled to be performed in the first quarter (January) 2024 and includes each of the systems extraction wells, influent, and effluent.

Table 1-2

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
As of October 2023

Well/Sample ID	Screen Interval (ft. bls.)	Aquifer Seqment	Treatment System Extraction Well/Influent/Effluent	2017-2020			June - July 2023			October 2023		
				1,4-Dioxane	PFOS	PFOA	1,4-Dioxane	PFOS	PFOA	1,4-Dioxane	PFOS	PFOA
				0.35 µg/L	2.7 ng/L	6.7 ng/L	0.35 ug/L	2.7 ng/L	6.7 ng/L	0.35 ug/L	2.7 ng/L	6.7 ng/L
OU III Western South Boundary, Middle Road, and South Boundary Treatment Systems (Status: Active)												
Western South Boundary												
126-12	140-160	DG	WSB-1	2.99	5.66	3.17	3.9	3.58	2.64	NS	NS	NS
127-05	150-170	DG	WSB-2	5.38	1.53J	1.76U	3.9	2.37	2.07	NS	NS	NS
111-17	168-188	DG	WSB-3	3.81	1.1J	1.48	2	8.7	3.57	NS	NS	NS
119-13	170-190	DG	WSB-4	7.64	1.80U	1.80U	3.9	3.9	2.7	NS	NS	NS
130-12	160-190	DG	WSB-5	6.04	1.77U	1.77U	3.4	3.38	2.53	NS	NS	NS
130-13	196-216	DG	WSB-6	4.05	1.80U	1.80U	5.9	1.79U	1.93U	NS	NS	NS
121-55	---	---	WSB Influent to System	NA	NA	NA	4.4	2.27	1.63J	4.4	4.38	1.74J
Middle Road												
113-23	90-130	MG	Middle Road RW-1	NA	10.3	9.6	0.2U	10.2	4.47	NS	NS	NS
113-24	170-200	DG	Middle Road RW-2	NA	11.2	10.9	0.6B J+	11.6	6.68	NS	NS	NS
113-25	228-268	MAG	Middle Road RW-3	NA	3	5.82	1.4B J+	2.18	2.67	NS	NS	NS
113-26	150-180	DG	Middle Road RW-4	NA	7.14	8.79	2.2B J+	4.89	4.49	NS	NS	NS
113-27	150-180	DG	Middle Road RW-5	NA	7.19	5.83	1.4B J+	4.43	3.14J	NS	NS	NS
106-66	188-218	DG	Middle Road RW-6	NA	4.48	1.65J	3.3B J+	4.51	2.29	NS	NS	NS
113-33	202-222	DG	Middle Road RW-7	NA	2.15	5.35	2B J+	3.27	4.36	NS	NS	NS
113-34	---	---	Middle Road Influent to System	NA	5.93	7.01	1.2B J+	5.82	4.54	1.7	2.55	4.35
South Boundary												
121-17	150-190	DG	OU III South Boundary EW-3	NA	3.51	2.46	0.59	2.8	2.6	NS	NS	NS
121-16	160-200	DG	OU III South Boundary EW-4	NA	17.6	10.9	0.35	13	6.5	NS	NS	NS
121-15	160-200	DG	OU III South Boundary EW-5	NA	18.9	12.5	1.1	8.1	4.9	NS	NS	NS
122-14	160-200	DG	OU III South Boundary EW-6	NA	11.7	5.37	0.6	14	5.6	NS	NS	NS
122-13	170-210	DG	OU III South Boundary EW-7	NA	11.8	16.4	1.1	16	4.5	NS	NS	NS
122-12	190-250	DG/MAG	OU III South Boundary EW-8	NA	3.73	3.51	0.19J	21	6.1	NS	NS	NS
121-46	207-237	DG	OU III South Boundary EW-17	NA	10	5.55	1.2	8.2	6.9	NS	NS	NS
121-41	---	---	South Boundary Influent to System	NA	14.4	10.3	0.82	8.4	5.7	1.7	8.29	7.15
WSB/MR/SB Combined System Effluent*												
095-270	---	---	OUIII Combined System Effluent	NA	NA	NA	2.1B J+	5.24	4.11	2.8	2.76	2.13
095-126	---	---	OUIII Combined System Effluent	4.33	4.83	5.82	NS	NS	NS	NS	NS	NS
OU III LIPA/Airport VOC Treatment System (Status: LIPA in Standby, AP Active)												
000-453	217-237	DG	LIPA EW-1L	3.27	4.78	2.31	2.7	3.97	1.64J	NS	NS	NS
000-455	224-244	DG	LIPA EW-2L	2.7	6.32	3.74	0.36	2.4	0.898J	NS	NS	NS
000-457	216-236	DG	LIPA EW-3L	0.43	9.43	9.45	0.2U	3.48	1.03J	NS	NS	NS
000-461	304-324	MAG	LIPA EW-4L	0.26	1.82U	1.3J	0.18J	2.1	1.81J	NS	NS	NS
800-109	188-208	DG	AP RTW-1A	0.28	1.59J	3.59	0.36	1.30J	2.8	NS	NS	NS
800-110	188-208	DG	AP RTW-2A	0.51	1.80U	1.80U	0.89	1.64U	1.77U	NS	NS	NS
800-111	210-230	MAG	AP RTW-3A	0.12J	1.98	3.79	0.45	0.872J	2.43	NS	NS	NS
800-112	268-288	MAG	AP RTW-4A	2.12	1.81U	0.7J	2.4	1.72U	0.641J	NS	NS	NS
800-113	220-240	MAG	AP RTW-5A	3.15	1.80U	1.80U	3	1.86U	2.01U	NS	NS	NS
800-132	165-185	DG	AP RTW-6A	0.82	1.47	3.24	0.85	1.84	3.36	NS	NS	NS
800-122	---	---	LIPA/AP System Influent	1.39	1.79U	1.47J	0.62	1.61J	3.3	1.2	1.28J	2.47
800-124	---	---	LIPA/AP System Effluent	1.61	NA	NA	1.3D	1.68U	1.81U	1.2	1.69U	1.82U
OU III North Street East VOC/EDB Treatment System (Status: Active)												
000-561	195-215	DG	NSE-EDB-EW3	3.88	1.84U	4.32	1.2	0.615J	1.88J	NS	NS	NS
000-562	182-202	DG	NSE-EDB-EW4	0.86	0.681J	7.56	0.52	1.34J	2.13	NS	NS	NS
000-441	---	---	NSE System Influent	2.52	1.71U	4.71	0.81	0.967J	1.84J	0.76 HJ	1.04J	1.84J
000-444	---	---	NSE System Effluent	0.2U	1.78U	1.78U	0.92	1.73U	1.87U	0.68 HJ	1.87U	2.02U
OU VI EDB Treatment System (Status: Active)												
000-503	115-135	DG	EW-1E	0.15J	1.84U	1.84U	0.2U	NS	NS	NS	NS	NS
000-504	115-135	DG	EW-2E	0.13J	1.82U	1.82U	0.2U	NS	NS	NS	NS	NS
000-512	---	---	EDB System Influent	0.12J	1.75U	1.75U	0.2U	NS	NS	0.17 HJ	NA	NA
000-510	---	---	EDB System Effluent	0.17J	1.80U	1.80U	0.2U	NS	NS	0.18 HJ	NA	NA
BGRR/WCF Sr-90 Treatment System (Status: Active)												
065-368	33-53	SG	BGRR/WCF SR-1	0.2U	5.32	5.45	0.2U	11.9	4.98	NS	NS	NS
065-369	33-53	SG	BGRR/WCF SR-2	0.2U	3.6	2.57	0.2U	10.1	3.12	NS	NS	NS
075-676	51-71	SG	BGRR/WCF SR-3**	0.2U	2.44	6.22	0.2U	5.51	3.65	NS	NS	NS
075-677	35-75	SG	BGRR/WCF SR-4	0.2U	8.74	5.53	0.2U	6.82	3.25	NS	NS	NS
075-678	35-75	SG	BGRR/WCF SR-5	0.2U	7.02	3.27	0.2U	5.45	3.17	NS	NS	NS
065-403	85-105	SG	BGRR/WCF SR-6	0.2U	12.3	4.12	0.2U	6.28	3.84	NS	NS	NS
075-702	82-102	SG	BGRR/WCF SR-7	0.21	10.8	4.33	0.2U	7.33	4.17	NS	NS	NS
075-703	77-97	SG	BGRR/WCF SR-8	0.12J	8.12	3.72	0.2U	5.74	3.86	NS	NS	NS
075-704	67-87	SG	BGRR/WCF SR-9	0.11J	7.01	3.1	0.2U	4.79	2.03	NS	NS	NS
066-216	---	---	BGRR/WCF System Influent	NA	6.46	3.75	0.2U	10.4	3.73	0.12J	11.9	4.12
Carbon Midpoint	--	--	BGRR/WCF System Midpoint	NA	NA	NA	0.2U	4.43	3.83	NS	NS	NS
066-219	---	---	BGRR/WCF System Effluent	NA	3.69	4.22	0.2U	0.94J	2.43	0.13J	0.815J	3.24

Notes:

Active extraction well
Standby/Off extraction well
System Influent/Midpoint (sampled during current operation)
System Effluent (sampled during current operation)
Denotes 1,4-dioxane result exceeds NYSDEC AWQGV
Denotes PFOS/PFOA result exceeds NYSDEC AWQGV

PFOS and PFOA analyzed by EPA Method 1633. The results are reported in ng/L.
1,4-dioxane analyzed by EPA Method 8270 SIM. The results are reported in µg/L.

U - Analyte not detected above the method detection limit (MDL).
J - Analyte detected above MDL but below reporting limit, result estimated.
+ - Denotes an estimated result is biased high.
B - Analyte detected in laboratory QA/QC blank sample.
D - Results are reported from a sample that required a dilution.
H - Sample analyzed outside of method holding time.
BNL review qualifers, where present, are separated by a space.

NA - Not Analyzed
NS - Not Sampled
* - OUIII running on Bldg 517 air stripper only, effluent sample point 095-270.
** - BGRR/WCF SR-3 operated as needed
SG=Shallow Upper Glacial, MG=Middle Upper Glacial, DG=Deep Upper Glacial
Mag=Magothy

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 000-441

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	10/5/2023	7.1	7.1	0	NG/L	0	U	W
1633 TPFAS	10/5/2023	32.05	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	10/5/2023	7.21	7.21	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	10/5/2023	37.5	37.5	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	10/5/2023	37.5	37.5	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	10/5/2023	7.51	7.51	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	10/5/2023	7.1	7.1	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	10/5/2023	7.02	7.02	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	10/5/2023	7.04	7.04	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	10/5/2023	7.13	7.13	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	10/5/2023	7.51	7.51	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	10/5/2023	1.88	1.88	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	10/5/2023	1.88	1.88	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	10/5/2023	18.8	18.8	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	10/5/2023	1.88	1.88	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	10/5/2023	1.88	1.88	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	10/5/2023	18.8	18.8	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	10/5/2023	3.75	3.75	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	10/5/2023	3.34	3.34	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	10/5/2023	3.75	3.75	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	10/5/2023	3.75	3.75	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	10/5/2023	1.67	1.67	0	NG/L	0	U	W
Perfluorobutyric acid (PFBA)	10/5/2023	26.3	7.51	0	NG/L	0		W
Perfluorodecanesulfonate (PFDS)	10/5/2023	1.81	1.81	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	10/5/2023	1.88	1.88	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	10/5/2023	1.82	1.82	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	10/5/2023	1.88	1.88	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	10/5/2023	1.79	1.79	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	10/5/2023	1.88	1.88	0	NG/L	0	U	W
Perfluorohexanesulfonate (PFHxS)	10/5/2023	2.87	1.72	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	10/5/2023	1.88	1.88	0	NG/L	0	U	W
Perfluorononanesulfonate (PFNS)	10/5/2023	1.81	1.81	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	10/5/2023	1.88	1.88	0	NG/L	0	U	W
Perfluorooctane sulfonamide (PFOSAm)	10/5/2023	1.88	1.88	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	10/5/2023	1.04	1.74	0	NG/L	0	J	W
Perfluorooctanoic acid (PFOA)	10/5/2023	1.84	1.88	0	NG/L	0	J	W
Perfluoropentanesulfonate (PFPeS)	10/5/2023	1.77	1.77	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	10/5/2023	1.88	1.88	0	NG/L	0	U	W
Perfluorotetradecanoic acid (PFTeDA)	10/5/2023	1.88	1.88	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	10/5/2023	1.88	1.88	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	10/5/2023	1.88	1.88	0	NG/L	0	U	W
1,4-Dioxane	10/5/2023	0.76	0.2	0	UG/L	0	HJ	W
1,4-Dioxane	10/5/2023	0.86	0.2	0	UG/L	0	R	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/22/2023	7.06	7.06	0	NG/L	0	U	W
1633 TPFAS	6/22/2023	35.437	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/22/2023	7.17	7.17	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/22/2023	37.4	37.4	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/22/2023	37.4	37.4	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/22/2023	7.47	7.47	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/22/2023	7.06	7.06	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/22/2023	6.99	6.99	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/22/2023	7.01	7.01	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/22/2023	7.1	7.1	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/22/2023	7.47	7.47	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/22/2023	18.7	18.7	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/22/2023	18.7	18.7	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/22/2023	3.74	3.74	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/22/2023	3.33	3.33	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/22/2023	3.74	3.74	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/22/2023	3.74	3.74	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	6/22/2023	1.66	1.66	0	NG/L	0	U	W
Perfluorobutyric acid (PFBA)	6/22/2023	30.9	7.47	0	NG/L	0		W
Perfluorodecanesulfonate (PFDS)	6/22/2023	1.8	1.8	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/22/2023	1.81	1.81	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	6/22/2023	1.78	1.78	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
Perfluorohexanesulfonate (PFHxS)	6/22/2023	1.73	1.71	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
Perfluorononanesulfonate (PFNS)	6/22/2023	1.8	1.8	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	6/22/2023	0.967	1.73	0	NG/L	0	J	W
Perfluorooctanoic acid (PFOA)	6/22/2023	1.84	1.87	0	NG/L	0	J	W
Perfluoropentanesulfonate (PFPeS)	6/22/2023	1.76	1.76	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
Perfluorotetradecanoic acid (PFTeDA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
1,4-Dioxane	6/22/2023	0.81	0.2	0	UG/L	0		W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 000-444

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	10/5/2023	7.62	7.62	0	NG/L	0	U	W
1633 TPFAS	10/5/2023	26.4	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	10/5/2023	7.74	7.74	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	10/5/2023	40.3	40.3	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	10/5/2023	40.3	40.3	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	10/5/2023	8.07	8.07	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	10/5/2023	7.62	7.62	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	10/5/2023	7.54	7.54	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	10/5/2023	7.56	7.56	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	10/5/2023	7.66	7.66	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	10/5/2023	8.07	8.07	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	10/5/2023	2.02	2.02	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	10/5/2023	2.02	2.02	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	10/5/2023	20.2	20.2	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	10/5/2023	2.02	2.02	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	10/5/2023	2.02	2.02	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	10/5/2023	20.2	20.2	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	10/5/2023	4.03	4.03	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	10/5/2023	3.59	3.59	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	10/5/2023	4.03	4.03	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	10/5/2023	4.03	4.03	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	10/5/2023	1.79	1.79	0	NG/L	0	U	W
Perfluorobutyric acid (PFBA)	10/5/2023	26.4	8.07	0	NG/L	0		W
Perfluorodecanesulfonate (PFDS)	10/5/2023	1.95	1.95	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	10/5/2023	2.02	2.02	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	10/5/2023	1.96	1.96	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	10/5/2023	2.02	2.02	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	10/5/2023	1.92	1.92	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	10/5/2023	2.02	2.02	0	NG/L	0	U	W
Perfluorohexanesulfonate (PFHxS)	10/5/2023	1.84	1.84	0	NG/L	0	U	W
Perfluorohexanoic acid (PFHxA)	10/5/2023	2.02	2.02	0	NG/L	0	U	W
Perfluorononanesulfonate (PFNS)	10/5/2023	1.94	1.94	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	10/5/2023	2.02	2.02	0	NG/L	0	U	W
Perfluorooctane sulfonamide (PFOSAm)	10/5/2023	2.02	2.02	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	10/5/2023	1.87	1.87	0	NG/L	0	U	W
Perfluorooctanoic acid (PFOA)	10/5/2023	2.02	2.02	0	NG/L	0	U	W
Perfluoropentanesulfonate (PFPeS)	10/5/2023	1.9	1.9	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	10/5/2023	2.02	2.02	0	NG/L	0	U	W
Perfluorotetradecanoic acid (PFTeDA)	10/5/2023	2.02	2.02	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	10/5/2023	2.02	2.02	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	10/5/2023	2.02	2.02	0	NG/L	0	U	W
1,4-Dioxane	10/5/2023	0.68	0.2	0	UG/L	0	HJ	W
1,4-Dioxane	10/5/2023	0.91	0.22	0	UG/L	0	R	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/22/2023	7.06	7.06	0	NG/L	0	U	W
1633 TPFAS	6/22/2023	0	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/22/2023	7.17	7.17	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/22/2023	37.3	37.3	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/22/2023	37.3	37.3	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/22/2023	7.47	7.47	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/22/2023	7.06	7.06	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/22/2023	6.98	6.98	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/22/2023	7	7	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/22/2023	7.09	7.09	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/22/2023	7.47	7.47	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/22/2023	18.7	18.7	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/22/2023	18.7	18.7	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/22/2023	3.73	3.73	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/22/2023	3.32	3.32	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/22/2023	3.73	3.73	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/22/2023	3.73	3.73	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	6/22/2023	1.66	1.66	0	NG/L	0	U	W
Perfluorobutyric acid (PFBA)	6/22/2023	7.47	7.47	0	NG/L	0	U	W
Perfluorodecanesulfonate (PFDS)	6/22/2023	1.8	1.8	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/22/2023	1.81	1.81	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	6/22/2023	1.78	1.78	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
Perfluorohexanesulfonate (PFHxS)	6/22/2023	1.71	1.71	0	NG/L	0	U	W
Perfluorohexanoic acid (PFHxA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
Perfluorononanesulfonate (PFNS)	6/22/2023	1.8	1.8	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	6/22/2023	1.73	1.73	0	NG/L	0	U	W
Perfluorooctanoic acid (PFOA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
Perfluoropentanesulfonate (PFPeS)	6/22/2023	1.76	1.76	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
Perfluorotetradecanoic acid (PFTeDA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
1,4-Dioxane	6/22/2023	0.92	0.2	0	UG/L	0		W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 000-453

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/30/2023	6.81	6.81	0	NG/L	227	U	W
1633 TPFAS	6/30/2023	13.355	0	0	NG/L	227		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/30/2023	6.92	6.92	0	NG/L	227	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/30/2023	36	36	0	NG/L	227	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/30/2023	36	36	0	NG/L	227	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/30/2023	7.2	7.2	0	NG/L	227	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/30/2023	6.81	6.81	0	NG/L	227	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/30/2023	6.74	6.74	0	NG/L	227	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/30/2023	6.75	6.75	0	NG/L	227	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/30/2023	6.84	6.84	0	NG/L	227	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/30/2023	7.2	7.2	0	NG/L	227	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/30/2023	1.8	1.8	0	NG/L	227	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/30/2023	1.8	1.8	0	NG/L	227	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/30/2023	18	18	0	NG/L	227	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/30/2023	1.8	1.8	0	NG/L	227	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/30/2023	1.8	1.8	0	NG/L	227	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/30/2023	18	18	0	NG/L	227	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/30/2023	3.6	3.6	0	NG/L	227	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/30/2023	3.21	3.21	0	NG/L	227	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/30/2023	3.6	3.6	0	NG/L	227	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/30/2023	3.6	3.6	0	NG/L	227	U	W
Perfluorobutanesulfonate (PFBS)	6/30/2023	0.654	1.6	0	NG/L	227	J	W
Perfluorobutyric acid (PFBA)	6/30/2023	3.15	7.2	0	NG/L	227	J	W
Perfluorodecanesulfonate (PFDS)	6/30/2023	1.74	1.74	0	NG/L	227	U	W
Perfluorodecanoic acid (PFDA)	6/30/2023	1.8	1.8	0	NG/L	227	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/30/2023	1.75	1.75	0	NG/L	227	U	W
Perfluorododecanoic acid (PFDoA)	6/30/2023	1.8	1.8	0	NG/L	227	U	W
Perfluoroheptanesulfonate (PFHpS)	6/30/2023	1.72	1.72	0	NG/L	227	U	W
Perfluoroheptanoic acid (PFHpA)	6/30/2023	1.8	1.8	0	NG/L	227	U	W
Perfluorohexanesulfonate (PFHxS)	6/30/2023	1.9	1.65	0	NG/L	227		W
Perfluorohexanoic acid (PFHxA)	6/30/2023	1.39	1.8	0	NG/L	227	J	W
Perfluorononanesulfonate (PFNS)	6/30/2023	1.73	1.73	0	NG/L	227	U	W
Perfluorononanoic acid (PFNA)	6/30/2023	1.8	1.8	0	NG/L	227	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/30/2023	1.8	1.8	0	NG/L	227	U	W
Perfluorooctanesulfonate (PFOS)	6/30/2023	3.97	1.67	0	NG/L	227		W
Perfluorooctanoic acid (PFOA)	6/30/2023	1.64	1.8	0	NG/L	227	J	W
Perfluoropentanesulfonate (PFPeS)	6/30/2023	0.651	1.69	0	NG/L	227	J	W
Perfluoropentanoic acid (PFPeA)	6/30/2023	1.8	1.8	0	NG/L	227	U	W
Perfluorotetradecanoic acid (PFTeDA)	6/30/2023	1.8	1.8	0	NG/L	227	U	W
Perfluorotridecanoic acid (PFTrDA)	6/30/2023	1.8	1.8	0	NG/L	227	U	W
Perfluoroundecanoic acid (PFUdA)	6/30/2023	1.8	1.8	0	NG/L	227	U	W
1,4-Dioxane	6/30/2023	2.7	0.24	0	UG/L	227		W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 000-455

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/30/2023	7.16	7.16	0	NG/L	234	U	W
1633 TPFAS	6/30/2023	5.978	0	0	NG/L	234		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/30/2023	7.28	7.28	0	NG/L	234	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/30/2023	37.9	37.9	0	NG/L	234	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/30/2023	37.9	37.9	0	NG/L	234	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/30/2023	7.58	7.58	0	NG/L	234	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/30/2023	7.16	7.16	0	NG/L	234	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/30/2023	7.09	7.09	0	NG/L	234	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/30/2023	7.11	7.11	0	NG/L	234	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/30/2023	7.2	7.2	0	NG/L	234	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/30/2023	7.58	7.58	0	NG/L	234	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/30/2023	1.9	1.9	0	NG/L	234	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/30/2023	1.9	1.9	0	NG/L	234	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/30/2023	19	19	0	NG/L	234	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/30/2023	1.9	1.9	0	NG/L	234	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/30/2023	1.9	1.9	0	NG/L	234	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/30/2023	19	19	0	NG/L	234	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/30/2023	3.79	3.79	0	NG/L	234	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/30/2023	3.37	3.37	0	NG/L	234	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/30/2023	3.79	3.79	0	NG/L	234	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/30/2023	3.79	3.79	0	NG/L	234	U	W
Perfluorobutanesulfonate (PFBS)	6/30/2023	1.68	1.68	0	NG/L	234	U	W
Perfluorobutyric acid (PFBA)	6/30/2023	7.58	7.58	0	NG/L	234	U	W
Perfluorodecanesulfonate (PFDS)	6/30/2023	1.83	1.83	0	NG/L	234	U	W
Perfluorodecanoic acid (PFDA)	6/30/2023	1.9	1.9	0	NG/L	234	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/30/2023	1.84	1.84	0	NG/L	234	U	W
Perfluorododecanoic acid (PFDoA)	6/30/2023	1.9	1.9	0	NG/L	234	U	W
Perfluoroheptanesulfonate (PFHpS)	6/30/2023	1.81	1.81	0	NG/L	234	U	W
Perfluoroheptanoic acid (PFHpA)	6/30/2023	1.9	1.9	0	NG/L	234	U	W
Perfluorohexanesulfonate (PFHxS)	6/30/2023	2.68	1.73	0	NG/L	234		W
Perfluorohexanoic acid (PFHxA)	6/30/2023	1.9	1.9	0	NG/L	234	U	W
Perfluorononanesulfonate (PFNS)	6/30/2023	1.82	1.82	0	NG/L	234	U	W
Perfluorononanoic acid (PFNA)	6/30/2023	1.9	1.9	0	NG/L	234	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/30/2023	1.9	1.9	0	NG/L	234	U	W
Perfluorooctanesulfonate (PFOS)	6/30/2023	2.4	1.76	0	NG/L	234		W
Perfluorooctanoic acid (PFOA)	6/30/2023	0.898	1.9	0	NG/L	234	J	W
Perfluoropentanesulfonate (PFPeS)	6/30/2023	1.78	1.78	0	NG/L	234	U	W
Perfluoropentanoic acid (PFPeA)	6/30/2023	1.9	1.9	0	NG/L	234	U	W
Perfluorotetradecanoic acid (PFTeDA)	6/30/2023	1.9	1.9	0	NG/L	234	U	W
Perfluorotridecanoic acid (PFTrDA)	6/30/2023	1.9	1.9	0	NG/L	234	U	W
Perfluoroundecanoic acid (PFUdA)	6/30/2023	1.9	1.9	0	NG/L	234	U	W
1,4-Dioxane	6/30/2023	0.36	0.2	0	UG/L	234		W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 000-457

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/30/2023	7.37	7.37	0	NG/L	226	U	W
1633 TPFAS	6/30/2023	5.94	0	0	NG/L	226		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/30/2023	7.49	7.49	0	NG/L	226	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/30/2023	39	39	0	NG/L	226	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/30/2023	39	39	0	NG/L	226	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/30/2023	7.8	7.8	0	NG/L	226	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/30/2023	7.37	7.37	0	NG/L	226	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/30/2023	7.29	7.29	0	NG/L	226	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/30/2023	7.31	7.31	0	NG/L	226	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/30/2023	7.41	7.41	0	NG/L	226	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/30/2023	7.8	7.8	0	NG/L	226	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/30/2023	1.95	1.95	0	NG/L	226	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/30/2023	1.95	1.95	0	NG/L	226	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/30/2023	19.5	19.5	0	NG/L	226	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/30/2023	1.95	1.95	0	NG/L	226	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/30/2023	1.95	1.95	0	NG/L	226	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/30/2023	19.5	19.5	0	NG/L	226	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/30/2023	3.9	3.9	0	NG/L	226	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/30/2023	3.47	3.47	0	NG/L	226	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/30/2023	3.9	3.9	0	NG/L	226	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/30/2023	3.9	3.9	0	NG/L	226	U	W
Perfluorobutanesulfonate (PFBS)	6/30/2023	1.73	1.73	0	NG/L	226	U	W
Perfluorobutyric acid (PFBA)	6/30/2023	7.8	7.8	0	NG/L	226	U	W
Perfluorodecanesulfonate (PFDS)	6/30/2023	1.88	1.88	0	NG/L	226	U	W
Perfluorodecanoic acid (PFDA)	6/30/2023	1.95	1.95	0	NG/L	226	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/30/2023	1.89	1.89	0	NG/L	226	U	W
Perfluorododecanoic acid (PFDoA)	6/30/2023	1.95	1.95	0	NG/L	226	U	W
Perfluoroheptanesulfonate (PFHpS)	6/30/2023	1.86	1.86	0	NG/L	226	U	W
Perfluoroheptanoic acid (PFHpA)	6/30/2023	1.95	1.95	0	NG/L	226	U	W
Perfluorohexanesulfonate (PFHxS)	6/30/2023	1.43	1.78	0	NG/L	226	J	W
Perfluorohexanoic acid (PFHxA)	6/30/2023	1.95	1.95	0	NG/L	226	U	W
Perfluorononanesulfonate (PFNS)	6/30/2023	1.88	1.88	0	NG/L	226	U	W
Perfluorononanoic acid (PFNA)	6/30/2023	1.95	1.95	0	NG/L	226	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/30/2023	1.95	1.95	0	NG/L	226	U	W
Perfluorooctanesulfonate (PFOS)	6/30/2023	3.48	1.81	0	NG/L	226		W
Perfluorooctanoic acid (PFOA)	6/30/2023	1.03	1.95	0	NG/L	226	J	W
Perfluoropentanesulfonate (PFPeS)	6/30/2023	1.84	1.84	0	NG/L	226	U	W
Perfluoropentanoic acid (PFPeA)	6/30/2023	1.95	1.95	0	NG/L	226	U	W
Perfluorotetradecanoic acid (PFTeDA)	6/30/2023	1.95	1.95	0	NG/L	226	U	W
Perfluorotridecanoic acid (PFTrDA)	6/30/2023	1.95	1.95	0	NG/L	226	U	W
Perfluoroundecanoic acid (PFUdA)	6/30/2023	1.95	1.95	0	NG/L	226	U	W
1,4-Dioxane	6/30/2023	0.2	0.2	0	UG/L	226	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 000-461

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/30/2023	7.48	7.48	0	NG/L	314	U	W
1633 TPFAS	6/30/2023	20.358	0	0	NG/L	314		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/30/2023	7.6	7.6	0	NG/L	314	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/30/2023	39.6	39.6	0	NG/L	314	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/30/2023	39.6	39.6	0	NG/L	314	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/30/2023	7.92	7.92	0	NG/L	314	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/30/2023	7.48	7.48	0	NG/L	314	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/30/2023	7.4	7.4	0	NG/L	314	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/30/2023	7.42	7.42	0	NG/L	314	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/30/2023	7.52	7.52	0	NG/L	314	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/30/2023	7.92	7.92	0	NG/L	314	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/30/2023	1.98	1.98	0	NG/L	314	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/30/2023	1.98	1.98	0	NG/L	314	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/30/2023	19.8	19.8	0	NG/L	314	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/30/2023	1.98	1.98	0	NG/L	314	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/30/2023	1.98	1.98	0	NG/L	314	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/30/2023	19.8	19.8	0	NG/L	314	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/30/2023	3.96	3.96	0	NG/L	314	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/30/2023	3.52	3.52	0	NG/L	314	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/30/2023	3.96	3.96	0	NG/L	314	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/30/2023	3.96	3.96	0	NG/L	314	U	W
Perfluorobutanesulfonate (PFBS)	6/30/2023	0.846	1.76	0	NG/L	314	J	W
Perfluorobutyric acid (PFBA)	6/30/2023	3.71	7.92	0	NG/L	314	J	W
Perfluorodecanesulfonate (PFDS)	6/30/2023	1.91	1.91	0	NG/L	314	U	W
Perfluorodecanoic acid (PFDA)	6/30/2023	1.98	1.98	0	NG/L	314	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/30/2023	1.92	1.92	0	NG/L	314	U	W
Perfluorododecanoic acid (PFDoA)	6/30/2023	1.98	1.98	0	NG/L	314	U	W
Perfluoroheptanesulfonate (PFHpS)	6/30/2023	1.89	1.89	0	NG/L	314	U	W
Perfluoroheptanoic acid (PFHpA)	6/30/2023	1.65	1.98	0	NG/L	314	J	W
Perfluorohexanesulfonate (PFHxS)	6/30/2023	1.24	1.81	0	NG/L	314	J	W
Perfluorohexanoic acid (PFHxA)	6/30/2023	3.45	1.98	0	NG/L	314		W
Perfluorononanesulfonate (PFNS)	6/30/2023	1.9	1.9	0	NG/L	314	U	W
Perfluorononanoic acid (PFNA)	6/30/2023	1.98	1.98	0	NG/L	314	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/30/2023	1.98	1.98	0	NG/L	314	U	W
Perfluorooctanesulfonate (PFOS)	6/30/2023	2.1	1.84	0	NG/L	314		W
Perfluorooctanoic acid (PFOA)	6/30/2023	1.81	1.98	0	NG/L	314	J	W
Perfluoropentanesulfonate (PFPeS)	6/30/2023	0.842	1.86	0	NG/L	314	J	W
Perfluoropentanoic acid (PFPeA)	6/30/2023	4.71	1.98	0	NG/L	314		W
Perfluorotetradecanoic acid (PFTeDA)	6/30/2023	1.98	1.98	0	NG/L	314	U	W
Perfluorotridecanoic acid (PFTrDA)	6/30/2023	1.98	1.98	0	NG/L	314	U	W
Perfluoroundecanoic acid (PFUdA)	6/30/2023	1.98	1.98	0	NG/L	314	U	W
1,4-Dioxane	6/30/2023	0.18	0.2	0	UG/L	314	J	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 000-503

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
1,4-Dioxane	8/7/2023	0.2	0.2	0	UG/L	0	U	W

Site ID : 000-504

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
1,4-Dioxane	8/7/2023	0.2	0.2	0	UG/L	0	U	W

Site ID : 000-510

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
1,4-Dioxane	10/5/2023	0.18	0.24	0	UG/L	0	HJ	W
1,4-Dioxane	10/5/2023	0.23	0.2	0	UG/L	0	R	W
1,4-Dioxane	8/7/2023	0.2	0.2	0	UG/L	0	U	W

Site ID : 000-512

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
1,4-Dioxane	10/5/2023	0.17	0.2	0	UG/L	0	HJ	W
1,4-Dioxane	10/5/2023	0.29	0.2	0	UG/L	0	R	W
1,4-Dioxane	8/7/2023	0.2	0.2	0	UG/L	0	U	W

Site ID : 000-561

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/22/2023	7.29	7.29	0	NG/L	0	U	W
1633 TPFAS	6/22/2023	49.125	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/22/2023	7.4	7.4	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/22/2023	38.6	38.6	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/22/2023	38.6	38.6	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/22/2023	7.71	7.71	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/22/2023	7.29	7.29	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/22/2023	7.21	7.21	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/22/2023	7.23	7.23	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/22/2023	7.33	7.33	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/22/2023	7.71	7.71	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/22/2023	1.93	1.93	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/22/2023	1.93	1.93	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/22/2023	19.3	19.3	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/22/2023	1.93	1.93	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/22/2023	1.93	1.93	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/22/2023	19.3	19.3	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/22/2023	3.86	3.86	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/22/2023	3.43	3.43	0	NG/L	0	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Perfluoro-3-methoxypropanoic acid (PFMPA)	6/22/2023	3.86	3.86	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/22/2023	3.86	3.86	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	6/22/2023	1.71	1.71	0	NG/L	0	U	W
Perfluorobutyric acid (PFBA)	6/22/2023	45.6	7.71	0	NG/L	0		W
Perfluorodecanesulfonate (PFDS)	6/22/2023	1.86	1.86	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	6/22/2023	1.93	1.93	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/22/2023	1.87	1.87	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	6/22/2023	1.93	1.93	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	6/22/2023	1.84	1.84	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	6/22/2023	1.93	1.93	0	NG/L	0	U	W
Perfluorohexanesulfonate (PFHxS)	6/22/2023	1.03	1.76	0	NG/L	0	J	W
Perfluorohexanoic acid (PFHxA)	6/22/2023	1.93	1.93	0	NG/L	0	U	W
Perfluorononanesulfonate (PFNS)	6/22/2023	1.85	1.85	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	6/22/2023	1.93	1.93	0	NG/L	0	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/22/2023	1.93	1.93	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	6/22/2023	0.615	1.79	0	NG/L	0	J	W
Perfluorooctanoic acid (PFOA)	6/22/2023	1.88	1.93	0	NG/L	0	J	W
Perfluoropentanesulfonate (PFPeS)	6/22/2023	1.81	1.81	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	6/22/2023	1.93	1.93	0	NG/L	0	U	W
Perfluorotetradecanoic acid (PFTeDA)	6/22/2023	1.93	1.93	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	6/22/2023	1.93	1.93	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	6/22/2023	1.93	1.93	0	NG/L	0	U	W
1,4-Dioxane	6/22/2023	1.2	0.2	0	UG/L	0		W

Site ID : 000-562

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/22/2023	7.19	7.19	0	NG/L	0	U	W
1633 TPFAS	6/22/2023	25.678	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/22/2023	7.3	7.3	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/22/2023	38	38	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/22/2023	38	38	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/22/2023	7.6	7.6	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/22/2023	7.19	7.19	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/22/2023	7.11	7.11	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/22/2023	7.13	7.13	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/22/2023	7.22	7.22	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/22/2023	7.6	7.6	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/22/2023	1.9	1.9	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/22/2023	1.9	1.9	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/22/2023	19	19	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/22/2023	1.9	1.9	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/22/2023	1.9	1.9	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/22/2023	19	19	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/22/2023	3.8	3.8	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/22/2023	3.38	3.38	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/22/2023	3.8	3.8	0	NG/L	0	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Perfluoro-4-methoxybutanoic acid (PFMBA)	6/22/2023	3.8	3.8	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	6/22/2023	1.69	1.69	0	NG/L	0	U	W
Perfluorobutyric acid (PFBA)	6/22/2023	18	7.6	0	NG/L	0		W
Perfluorodecanesulfonate (PFDS)	6/22/2023	1.83	1.83	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	6/22/2023	1.9	1.9	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/22/2023	1.84	1.84	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	6/22/2023	1.9	1.9	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	6/22/2023	1.81	1.81	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	6/22/2023	1.9	1.9	0	NG/L	0	U	W
Perfluorohexanesulfonate (PFHxS)	6/22/2023	3.56	1.74	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	6/22/2023	0.648	1.9	0	NG/L	0	J	W
Perfluorononanesulfonate (PFNS)	6/22/2023	1.83	1.83	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	6/22/2023	1.9	1.9	0	NG/L	0	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/22/2023	1.9	1.9	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	6/22/2023	1.34	1.76	0	NG/L	0	J	W
Perfluorooctanoic acid (PFOA)	6/22/2023	2.13	1.9	0	NG/L	0		W
Perfluoropentanesulfonate (PFPeS)	6/22/2023	1.79	1.79	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	6/22/2023	1.9	1.9	0	NG/L	0	U	W
Perfluorotetradecanoic acid (PFTeDA)	6/22/2023	1.9	1.9	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	6/22/2023	1.9	1.9	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	6/22/2023	1.9	1.9	0	NG/L	0	U	W
1,4-Dioxane	6/22/2023	0.52	0.2	0	UG/L	0		W

Site ID : 065-368

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/23/2023	6.46	6.46	0	NG/L	0	U	W
1633 TPFAS	6/23/2023	33.806	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/23/2023	6.56	6.56	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/23/2023	34.2	34.2	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/23/2023	34.2	34.2	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/23/2023	6.83	6.83	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/23/2023	6.46	6.46	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/23/2023	6.39	6.39	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/23/2023	6.41	6.41	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/23/2023	6.49	6.49	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/23/2023	6.83	6.83	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/23/2023	1.71	1.71	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/23/2023	1.71	1.71	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/23/2023	17.1	17.1	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/23/2023	1.71	1.71	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/23/2023	1.71	1.71	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/23/2023	17.1	17.1	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/23/2023	3.42	3.42	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/23/2023	3.04	3.04	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/23/2023	3.42	3.42	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/23/2023	3.42	3.42	0	NG/L	0	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Perfluorobutanesulfonate (PFBS)	6/23/2023	0.598	1.52	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	6/23/2023	9.09	6.83	0	NG/L	0		W
Perfluorodecanesulfonate (PFDS)	6/23/2023	1.65	1.65	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	6/23/2023	1.71	1.71	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/23/2023	1.66	1.66	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	6/23/2023	1.71	1.71	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	6/23/2023	1.63	1.63	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	6/23/2023	1.21	1.71	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	6/23/2023	1.27	1.56	0	NG/L	0	J	W
Perfluorohexanoic acid (PFHxA)	6/23/2023	1.89	1.71	0	NG/L	0		W
Perfluorononanesulfonate (PFNS)	6/23/2023	1.64	1.64	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	6/23/2023	1.9	1.71	0	NG/L	0		W
Perfluorooctane sulfonamide (PFOSAm)	6/23/2023	1.71	1.71	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	6/23/2023	11.9	1.59	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	6/23/2023	4.98	1.71	0	NG/L	0		W
Perfluoropentanesulfonate (PFPeS)	6/23/2023	1.61	1.61	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	6/23/2023	0.968	1.71	0	NG/L	0	J	W
Perfluorotetradecanoic acid (PFTeDA)	6/23/2023	1.71	1.71	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	6/23/2023	1.71	1.71	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	6/23/2023	1.71	1.71	0	NG/L	0	U	W
1,4-Dioxane	6/23/2023	0.2	0.2	0	UG/L	0	U	W

Site ID : 065-369

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/23/2023	6.98	6.98	0	NG/L	0	U	W
1633 TPFAS	6/23/2023	27.814	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/23/2023	7.09	7.09	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/23/2023	36.9	36.9	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/23/2023	36.9	36.9	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/23/2023	7.39	7.39	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/23/2023	6.98	6.98	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/23/2023	6.91	6.91	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/23/2023	6.93	6.93	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/23/2023	7.02	7.02	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/23/2023	7.39	7.39	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/23/2023	1.85	1.85	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/23/2023	1.85	1.85	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/23/2023	18.5	18.5	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/23/2023	1.85	1.85	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/23/2023	1.85	1.85	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/23/2023	18.5	18.5	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/23/2023	3.69	3.69	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/23/2023	3.29	3.29	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/23/2023	3.69	3.69	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/23/2023	3.69	3.69	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	6/23/2023	0.663	1.64	0	NG/L	0	J	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Perfluorobutyric acid (PFBA)	6/23/2023	5.17	7.39	0	NG/L	0	J	W
Perfluorodecanesulfonate (PFDS)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	6/23/2023	1.85	1.85	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/23/2023	1.79	1.79	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	6/23/2023	1.85	1.85	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	6/23/2023	1.76	1.76	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	6/23/2023	0.934	1.85	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	6/23/2023	2.7	1.69	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	6/23/2023	1.63	1.85	0	NG/L	0	J	W
Perfluorononanesulfonate (PFNS)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	6/23/2023	1.6	1.85	0	NG/L	0	J	W
Perfluorooctane sulfonamide (PFOSAm)	6/23/2023	0.647	1.85	0	NG/L	0	J	W
Perfluorooctanesulfonate (PFOS)	6/23/2023	10.1	1.71	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	6/23/2023	3.12	1.85	0	NG/L	0		W
Perfluoropentanesulfonate (PFPeS)	6/23/2023	1.74	1.74	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	6/23/2023	1.25	1.85	0	NG/L	0	J	W
Perfluorotetradecanoic acid (PFTeDA)	6/23/2023	1.85	1.85	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	6/23/2023	1.85	1.85	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	6/23/2023	1.85	1.85	0	NG/L	0	U	W
1,4-Dioxane	6/23/2023	0.2	0.2	0	UG/L	0	U	W

Site ID : 065-403

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	9/20/2023	7.23	7.23	0	NG/L	95	U	W
1633 TPFAS	9/20/2023	23.042	0	0	NG/L	95		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	9/20/2023	7.35	7.35	0	NG/L	95	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	9/20/2023	38.3	38.3	0	NG/L	95	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	9/20/2023	38.3	38.3	0	NG/L	95	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	9/20/2023	7.65	7.65	0	NG/L	95	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	9/20/2023	7.23	7.23	0	NG/L	95	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	9/20/2023	7.16	7.16	0	NG/L	95	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	9/20/2023	7.17	7.17	0	NG/L	95	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	9/20/2023	7.27	7.27	0	NG/L	95	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	9/20/2023	7.65	7.65	0	NG/L	95	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	9/20/2023	1.91	1.91	0	NG/L	95	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	9/20/2023	1.91	1.91	0	NG/L	95	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	9/20/2023	19.1	19.1	0	NG/L	95	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	9/20/2023	1.91	1.91	0	NG/L	95	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	9/20/2023	1.91	1.91	0	NG/L	95	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	9/20/2023	19.1	19.1	0	NG/L	95	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	9/20/2023	3.83	3.83	0	NG/L	95	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	9/20/2023	3.41	3.41	0	NG/L	95	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	9/20/2023	3.83	3.83	0	NG/L	95	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	9/20/2023	3.83	3.83	0	NG/L	95	U	W
Perfluorobutanesulfonate (PFBS)	9/20/2023	0.934	1.7	0	NG/L	95	J	W
Perfluorobutyric acid (PFBA)	9/20/2023	4.8	7.65	0	NG/L	95	J	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Perfluorodecanesulfonate (PFDS)	9/20/2023	1.85	1.85	0	NG/L	95	U	W
Perfluorodecanoic acid (PFDA)	9/20/2023	1.91	1.91	0	NG/L	95	U	W
Perfluorododecane sulfonic acid (PFDoS)	9/20/2023	1.86	1.86	0	NG/L	95	U	W
Perfluorododecanoic acid (PFDoA)	9/20/2023	1.91	1.91	0	NG/L	95	U	W
Perfluoroheptanesulfonate (PFHpS)	9/20/2023	1.82	1.82	0	NG/L	95	U	W
Perfluoroheptanoic acid (PFHpA)	9/20/2023	1.31	1.91	0	NG/L	95	J	W
Perfluorohexanesulfonate (PFHxS)	9/20/2023	1.88	1.75	0	NG/L	95		W
Perfluorohexanoic acid (PFHxA)	9/20/2023	1.42	1.91	0	NG/L	95	J	W
Perfluorononanesulfonate (PFNS)	9/20/2023	1.84	1.84	0	NG/L	95	U	W
Perfluorononanoic acid (PFNA)	9/20/2023	0.858	1.91	0	NG/L	95	J	W
Perfluorooctane sulfonamide (PFOSAm)	9/20/2023	1.91	1.91	0	NG/L	95	U	W
Perfluorooctanesulfonate (PFOS)	9/20/2023	6.28	1.78	0	NG/L	95		W
Perfluorooctanoic acid (PFOA)	9/20/2023	3.84	1.91	0	NG/L	95		W
Perfluoropentanesulfonate (PFPeS)	9/20/2023	1.8	1.8	0	NG/L	95	U	W
Perfluoropentanoic acid (PFPeA)	9/20/2023	1.72	1.91	0	NG/L	95	J	W
Perfluorotetradecanoic acid (PFTeDA)	9/20/2023	1.91	1.91	0	NG/L	95	U	W
Perfluorotridecanoic acid (PFTrDA)	9/20/2023	1.91	1.91	0	NG/L	95	U	W
Perfluoroundecanoic acid (PFUdA)	9/20/2023	1.91	1.91	0	NG/L	95	U	W
1,4-Dioxane	9/20/2023	0.2	0.2	0	UG/L	95	U	W

Site ID : 066-216

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	10/18/2023	7.34	7.34	0	NG/L	0	U	W
1633 TPFAS	10/18/2023	32.506	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	10/18/2023	7.46	7.46	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	10/18/2023	38.9	38.9	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	10/18/2023	38.9	38.9	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	10/18/2023	7.77	7.77	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	10/18/2023	7.34	7.34	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	10/18/2023	7.27	7.27	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	10/18/2023	7.29	7.29	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	10/18/2023	7.38	7.38	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	10/18/2023	7.77	7.77	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	10/18/2023	1.94	1.94	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	10/18/2023	1.94	1.94	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	10/18/2023	19.4	19.4	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	10/18/2023	1.94	1.94	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	10/18/2023	1.94	1.94	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	10/18/2023	19.4	19.4	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	10/18/2023	3.89	3.89	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	10/18/2023	3.46	3.46	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	10/18/2023	3.89	3.89	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	10/18/2023	3.89	3.89	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	10/18/2023	0.756	1.72	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	10/18/2023	7.8	7.77	0	NG/L	0		W
Perfluorodecanesulfonate (PFDS)	10/18/2023	1.87	1.87	0	NG/L	0	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Perfluorodecanoic acid (PFDA)	10/18/2023	1.94	1.94	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	10/18/2023	1.94	1.94	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	10/18/2023	1.85	1.85	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	10/18/2023	1.15	1.94	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	10/18/2023	2.03	1.78	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	10/18/2023	1.23	1.94	0	NG/L	0	J	W
Perfluorononanesulfonate (PFNS)	10/18/2023	1.87	1.87	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	10/18/2023	1.88	1.94	0	NG/L	0	J	W
Perfluorooctane sulfonamide (PFOSAm)	10/18/2023	1.94	1.94	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	10/18/2023	11.9	1.8	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	10/18/2023	4.12	1.94	0	NG/L	0		W
Perfluoropentanesulfonate (PFPeS)	10/18/2023	1.83	1.83	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	10/18/2023	1.64	1.94	0	NG/L	0	J	W
Perfluorotetradecanoic acid (PFTeDA)	10/18/2023	1.94	1.94	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	10/18/2023	1.94	1.94	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	10/18/2023	1.94	1.94	0	NG/L	0	U	W
1,4-Dioxane	10/18/2023	0.12	0.2	0	UG/L	0	J	W
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/23/2023	6.87	6.87	0	NG/L	0	U	W
1633 TPFAS	6/23/2023	29.543	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/23/2023	6.98	6.98	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/23/2023	36.3	36.3	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/23/2023	36.3	36.3	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/23/2023	7.27	7.27	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/23/2023	6.87	6.87	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/23/2023	6.8	6.8	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/23/2023	6.81	6.81	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/23/2023	6.91	6.91	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/23/2023	7.27	7.27	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/23/2023	1.82	1.82	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/23/2023	1.82	1.82	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/23/2023	18.2	18.2	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/23/2023	1.82	1.82	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/23/2023	1.82	1.82	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/23/2023	18.2	18.2	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/23/2023	3.63	3.63	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/23/2023	3.23	3.23	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/23/2023	3.63	3.63	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/23/2023	3.63	3.63	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	6/23/2023	0.683	1.61	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	6/23/2023	6.18	7.27	0	NG/L	0	J	W
Perfluorodecanesulfonate (PFDS)	6/23/2023	1.75	1.75	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	6/23/2023	1.82	1.82	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/23/2023	1.76	1.76	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	6/23/2023	1.82	1.82	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	6/23/2023	1.73	1.73	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	6/23/2023	1.19	1.82	0	NG/L	0	J	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Perfluorohexanesulfonate (PFHxS)	6/23/2023	2.59	1.66	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	6/23/2023	1.74	1.82	0	NG/L	0	J	W
Perfluorononanesulfonate (PFNS)	6/23/2023	1.75	1.75	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	6/23/2023	1.73	1.82	0	NG/L	0	J	W
Perfluorooctane sulfonamide (PFOSAm)	6/23/2023	1.82	1.82	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	6/23/2023	10.4	1.69	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	6/23/2023	3.73	1.82	0	NG/L	0		W
Perfluoropentanesulfonate (PFPeS)	6/23/2023	1.71	1.71	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	6/23/2023	1.3	1.82	0	NG/L	0	J	W
Perfluorotetradecanoic acid (PFTeDA)	6/23/2023	1.82	1.82	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	6/23/2023	1.82	1.82	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	6/23/2023	1.82	1.82	0	NG/L	0	U	W
1,4-Dioxane	6/23/2023	0.2	0.2	0	UG/L	0	U	W

Site ID : 066-219

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	10/18/2023	6.94	6.94	0	NG/L	0	U	W
1633 TPFAS	10/18/2023	20.445	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	10/18/2023	7.05	7.05	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	10/18/2023	36.7	36.7	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	10/18/2023	36.7	36.7	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	10/18/2023	7.35	7.35	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	10/18/2023	6.94	6.94	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	10/18/2023	6.87	6.87	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	10/18/2023	6.89	6.89	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	10/18/2023	6.98	6.98	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	10/18/2023	7.35	7.35	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	10/18/2023	1.84	1.84	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	10/18/2023	1.84	1.84	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	10/18/2023	18.4	18.4	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	10/18/2023	1.84	1.84	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	10/18/2023	1.84	1.84	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	10/18/2023	18.4	18.4	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	10/18/2023	3.67	3.67	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	10/18/2023	3.27	3.27	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	10/18/2023	3.67	3.67	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	10/18/2023	3.67	3.67	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	10/18/2023	1.14	1.63	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	10/18/2023	8.31	7.35	0	NG/L	0		W
Perfluorodecanesulfonate (PFDS)	10/18/2023	1.77	1.77	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	10/18/2023	1.84	1.84	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	10/18/2023	1.78	1.78	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	10/18/2023	1.84	1.84	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	10/18/2023	1.75	1.75	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	10/18/2023	1.19	1.84	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	10/18/2023	0.681	1.68	0	NG/L	0	J	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Perfluorohexanoic acid (PFHxA)	10/18/2023	2.17	1.84	0	NG/L	0		W
Perfluorononanesulfonate (PFNS)	10/18/2023	1.77	1.77	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	10/18/2023	0.749	1.84	0	NG/L	0	J	W
Perfluorooctane sulfonamide (PFOSAm)	10/18/2023	1.84	1.84	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	10/18/2023	0.815	1.7	0	NG/L	0	J	W
Perfluorooctanoic acid (PFOA)	10/18/2023	3.24	1.84	0	NG/L	0		W
Perfluoropentanesulfonate (PFPeS)	10/18/2023	1.73	1.73	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	10/18/2023	2.15	1.84	0	NG/L	0		W
Perfluorotetradecanoic acid (PFTeDA)	10/18/2023	1.84	1.84	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	10/18/2023	1.84	1.84	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	10/18/2023	1.84	1.84	0	NG/L	0	U	W
1,4-Dioxane	10/18/2023	0.13	0.22	0	UG/L	0	J	W
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/23/2023	6.73	6.73	0	NG/L	0	U	W
1633 TPFAS	6/23/2023	15.146	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/23/2023	6.84	6.84	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/23/2023	35.6	35.6	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/23/2023	35.6	35.6	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/23/2023	7.13	7.13	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/23/2023	6.73	6.73	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/23/2023	6.66	6.66	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/23/2023	6.68	6.68	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/23/2023	6.77	6.77	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/23/2023	7.13	7.13	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/23/2023	17.8	17.8	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/23/2023	17.8	17.8	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/23/2023	3.56	3.56	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/23/2023	3.17	3.17	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/23/2023	3.56	3.56	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/23/2023	3.56	3.56	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	6/23/2023	0.976	1.58	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	6/23/2023	6.45	7.13	0	NG/L	0	J	W
Perfluorodecanesulfonate (PFDS)	6/23/2023	1.72	1.72	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/23/2023	1.73	1.73	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	6/23/2023	1.7	1.7	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	6/23/2023	1	1.78	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	6/23/2023	1.63	1.63	0	NG/L	0	U	W
Perfluorohexanoic acid (PFHxA)	6/23/2023	1.91	1.78	0	NG/L	0		W
Perfluorononanesulfonate (PFNS)	6/23/2023	1.71	1.71	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	6/23/2023	0.94	1.65	0	NG/L	0	J	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Perfluorooctanoic acid (PFOA)	6/23/2023	2.43	1.78	0	NG/L	0		W
Perfluoropentanesulfonate (PFPeS)	6/23/2023	1.68	1.68	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	6/23/2023	1.44	1.78	0	NG/L	0	J	W
Perfluorotetradecanoic acid (PFTeDA)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
1,4-Dioxane	6/23/2023	0.2	0.2	0	UG/L	0	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 075-676

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/23/2023	7.05	7.05	0	NG/L	0	U	W
1633 TPFAS	6/23/2023	26.86	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/23/2023	7.16	7.16	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/23/2023	37.3	37.3	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/23/2023	37.3	37.3	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/23/2023	7.46	7.46	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/23/2023	7.05	7.05	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/23/2023	6.97	6.97	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/23/2023	6.99	6.99	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/23/2023	7.09	7.09	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/23/2023	7.46	7.46	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/23/2023	1.86	1.86	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/23/2023	1.86	1.86	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/23/2023	18.6	18.6	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/23/2023	1.86	1.86	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/23/2023	1.86	1.86	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/23/2023	18.6	18.6	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/23/2023	3.73	3.73	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/23/2023	3.32	3.32	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/23/2023	3.73	3.73	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/23/2023	3.73	3.73	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	6/23/2023	1.05	1.65	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	6/23/2023	9.51	7.46	0	NG/L	0		W
Perfluorodecanesulfonate (PFDS)	6/23/2023	1.8	1.8	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	6/23/2023	1.86	1.86	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/23/2023	1.81	1.81	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	6/23/2023	1.86	1.86	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	6/23/2023	1.31	1.86	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	6/23/2023	1.18	1.7	0	NG/L	0	J	W
Perfluorohexanoic acid (PFHxA)	6/23/2023	2.76	1.86	0	NG/L	0		W
Perfluorononanesulfonate (PFNS)	6/23/2023	1.79	1.79	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	6/23/2023	1.86	1.86	0	NG/L	0	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/23/2023	1.86	1.86	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	6/23/2023	5.51	1.73	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	6/23/2023	3.65	1.86	0	NG/L	0		W
Perfluoropentanesulfonate (PFPeS)	6/23/2023	1.75	1.75	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	6/23/2023	1.89	1.86	0	NG/L	0		W
Perfluorotetradecanoic acid (PFTeDA)	6/23/2023	1.86	1.86	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	6/23/2023	1.86	1.86	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	6/23/2023	1.86	1.86	0	NG/L	0	U	W
1,4-Dioxane	6/23/2023	0.2	0.2	0	UG/L	0	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 075-677

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/23/2023	6.67	6.67	0	NG/L	0	U	W
1633 TPFAS	6/23/2023	23.736	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/23/2023	6.77	6.77	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/23/2023	35.3	35.3	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/23/2023	35.3	35.3	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/23/2023	7.06	7.06	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/23/2023	6.67	6.67	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/23/2023	6.6	6.6	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/23/2023	6.61	6.61	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/23/2023	6.7	6.7	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/23/2023	7.06	7.06	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/23/2023	1.76	1.76	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/23/2023	1.76	1.76	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/23/2023	17.6	17.6	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/23/2023	1.76	1.76	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/23/2023	1.76	1.76	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/23/2023	17.6	17.6	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/23/2023	3.53	3.53	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/23/2023	3.14	3.14	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/23/2023	3.53	3.53	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/23/2023	3.53	3.53	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	6/23/2023	0.906	1.56	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	6/23/2023	6.66	7.06	0	NG/L	0	J	W
Perfluorodecanesulfonate (PFDS)	6/23/2023	1.7	1.7	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	6/23/2023	1.76	1.76	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/23/2023	1.71	1.71	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	6/23/2023	1.76	1.76	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	6/23/2023	1.68	1.68	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	6/23/2023	0.686	1.76	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	6/23/2023	2.05	1.61	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	6/23/2023	1.73	1.76	0	NG/L	0	J	W
Perfluorononanesulfonate (PFNS)	6/23/2023	1.7	1.7	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	6/23/2023	0.624	1.76	0	NG/L	0	J	W
Perfluorooctane sulfonamide (PFOSAm)	6/23/2023	1.76	1.76	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	6/23/2023	6.82	1.64	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	6/23/2023	3.25	1.76	0	NG/L	0		W
Perfluoropentanesulfonate (PFPeS)	6/23/2023	1.66	1.66	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	6/23/2023	1.01	1.76	0	NG/L	0	J	W
Perfluorotetradecanoic acid (PFTeDA)	6/23/2023	1.76	1.76	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	6/23/2023	1.76	1.76	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	6/23/2023	1.76	1.76	0	NG/L	0	U	W
1,4-Dioxane	6/23/2023	0.2	0.2	0	UG/L	0	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 075-678

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/23/2023	6.61	6.61	0	NG/L	0	U	W
1633 TPFAS	6/23/2023	21.164	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/23/2023	6.72	6.72	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/23/2023	35	35	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/23/2023	35	35	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/23/2023	7	7	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/23/2023	6.61	6.61	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/23/2023	6.54	6.54	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/23/2023	6.56	6.56	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/23/2023	6.65	6.65	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/23/2023	7	7	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/23/2023	1.75	1.75	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/23/2023	1.75	1.75	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/23/2023	17.5	17.5	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/23/2023	1.75	1.75	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/23/2023	1.75	1.75	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/23/2023	17.5	17.5	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/23/2023	3.5	3.5	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/23/2023	3.11	3.11	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/23/2023	3.5	3.5	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/23/2023	3.5	3.5	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	6/23/2023	0.854	1.55	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	6/23/2023	5.44	7	0	NG/L	0	J	W
Perfluorodecanesulfonate (PFDS)	6/23/2023	1.69	1.69	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	6/23/2023	1.75	1.75	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/23/2023	1.7	1.7	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	6/23/2023	1.75	1.75	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	6/23/2023	1.67	1.67	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	6/23/2023	1.07	1.75	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	6/23/2023	1.32	1.6	0	NG/L	0	J	W
Perfluorohexanoic acid (PFHxA)	6/23/2023	2.43	1.75	0	NG/L	0		W
Perfluorononanesulfonate (PFNS)	6/23/2023	1.68	1.68	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	6/23/2023	1.75	1.75	0	NG/L	0	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/23/2023	1.75	1.75	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	6/23/2023	5.45	1.62	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	6/23/2023	3.17	1.75	0	NG/L	0		W
Perfluoropentanesulfonate (PFPeS)	6/23/2023	1.65	1.65	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	6/23/2023	1.43	1.75	0	NG/L	0	J	W
Perfluorotetradecanoic acid (PFTeDA)	6/23/2023	1.75	1.75	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	6/23/2023	1.75	1.75	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	6/23/2023	1.75	1.75	0	NG/L	0	U	W
1,4-Dioxane	6/23/2023	0.2	0.2	0	UG/L	0	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 075-702

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	9/20/2023	7	7	0	NG/L	92	U	W
1633 TPFAS	9/20/2023	29.937	0	0	NG/L	92		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	9/20/2023	7.11	7.11	0	NG/L	92	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	9/20/2023	37	37	0	NG/L	92	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	9/20/2023	37	37	0	NG/L	92	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	9/20/2023	7.41	7.41	0	NG/L	92	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	9/20/2023	7	7	0	NG/L	92	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	9/20/2023	6.93	6.93	0	NG/L	92	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	9/20/2023	6.94	6.94	0	NG/L	92	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	9/20/2023	7.04	7.04	0	NG/L	92	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	9/20/2023	7.41	7.41	0	NG/L	92	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	9/20/2023	1.85	1.85	0	NG/L	92	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	9/20/2023	1.85	1.85	0	NG/L	92	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	9/20/2023	18.5	18.5	0	NG/L	92	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	9/20/2023	1.85	1.85	0	NG/L	92	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	9/20/2023	1.85	1.85	0	NG/L	92	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	9/20/2023	18.5	18.5	0	NG/L	92	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	9/20/2023	3.7	3.7	0	NG/L	92	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	9/20/2023	3.3	3.3	0	NG/L	92	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	9/20/2023	3.7	3.7	0	NG/L	92	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	9/20/2023	3.7	3.7	0	NG/L	92	U	W
Perfluorobutanesulfonate (PFBS)	9/20/2023	0.983	1.64	0	NG/L	92	J	W
Perfluorobutyric acid (PFBA)	9/20/2023	6.42	7.41	0	NG/L	92	J	W
Perfluorodecanesulfonate (PFDS)	9/20/2023	1.79	1.79	0	NG/L	92	U	W
Perfluorodecanoic acid (PFDA)	9/20/2023	1.85	1.85	0	NG/L	92	U	W
Perfluorododecane sulfonic acid (PFDoS)	9/20/2023	1.8	1.8	0	NG/L	92	U	W
Perfluorododecanoic acid (PFDoA)	9/20/2023	1.85	1.85	0	NG/L	92	U	W
Perfluoroheptanesulfonate (PFHpS)	9/20/2023	1.76	1.76	0	NG/L	92	U	W
Perfluoroheptanoic acid (PFHpA)	9/20/2023	1.35	1.85	0	NG/L	92	J	W
Perfluorohexanesulfonate (PFHxS)	9/20/2023	3.17	1.69	0	NG/L	92		W
Perfluorohexanoic acid (PFHxA)	9/20/2023	3.1	1.85	0	NG/L	92		W
Perfluorononanesulfonate (PFNS)	9/20/2023	1.78	1.78	0	NG/L	92	U	W
Perfluorononanoic acid (PFNA)	9/20/2023	0.915	1.85	0	NG/L	92	J	W
Perfluorooctane sulfonamide (PFOSAm)	9/20/2023	1.85	1.85	0	NG/L	92	U	W
Perfluorooctanesulfonate (PFOS)	9/20/2023	7.33	1.72	0	NG/L	92		W
Perfluorooctanoic acid (PFOA)	9/20/2023	4.17	1.85	0	NG/L	92		W
Perfluoropentanesulfonate (PFPeS)	9/20/2023	0.599	1.74	0	NG/L	92	J	W
Perfluoropentanoic acid (PFPeA)	9/20/2023	1.9	1.85	0	NG/L	92		W
Perfluorotetradecanoic acid (PFTeDA)	9/20/2023	1.85	1.85	0	NG/L	92	U	W
Perfluorotridecanoic acid (PFTrDA)	9/20/2023	1.85	1.85	0	NG/L	92	U	W
Perfluoroundecanoic acid (PFUdA)	9/20/2023	1.85	1.85	0	NG/L	92	U	W
1,4-Dioxane	9/20/2023	0.2	0.2	0	UG/L	92	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 075-703

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/23/2023	7.04	7.04	0	NG/L	0	U	W
1633 TPFAS	6/23/2023	23.927	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/23/2023	7.15	7.15	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/23/2023	37.3	37.3	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/23/2023	37.3	37.3	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/23/2023	7.45	7.45	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/23/2023	7.04	7.04	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/23/2023	6.97	6.97	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/23/2023	6.99	6.99	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/23/2023	7.08	7.08	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/23/2023	7.45	7.45	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/23/2023	1.86	1.86	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/23/2023	1.86	1.86	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/23/2023	18.6	18.6	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/23/2023	1.86	1.86	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/23/2023	1.86	1.86	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/23/2023	18.6	18.6	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/23/2023	3.73	3.73	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/23/2023	3.32	3.32	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/23/2023	3.73	3.73	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/23/2023	3.73	3.73	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	6/23/2023	0.863	1.65	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	6/23/2023	4.14	7.45	0	NG/L	0	J	W
Perfluorodecanesulfonate (PFDS)	6/23/2023	1.8	1.8	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	6/23/2023	1.86	1.86	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/23/2023	1.81	1.81	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	6/23/2023	1.86	1.86	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	6/23/2023	1.19	1.86	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	6/23/2023	2.53	1.7	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	6/23/2023	2.93	1.86	0	NG/L	0		W
Perfluorononanesulfonate (PFNS)	6/23/2023	1.79	1.79	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	6/23/2023	0.764	1.86	0	NG/L	0	J	W
Perfluorooctane sulfonamide (PFOSAm)	6/23/2023	1.86	1.86	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	6/23/2023	5.74	1.73	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	6/23/2023	3.86	1.86	0	NG/L	0		W
Perfluoropentanesulfonate (PFPeS)	6/23/2023	1.75	1.75	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	6/23/2023	1.91	1.86	0	NG/L	0		W
Perfluorotetradecanoic acid (PFTeDA)	6/23/2023	1.86	1.86	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	6/23/2023	1.86	1.86	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	6/23/2023	1.86	1.86	0	NG/L	0	U	W
1,4-Dioxane	6/23/2023	0.2	0.2	0	UG/L	0	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 075-704

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/23/2023	6.56	6.56	0	NG/L	0	U	W
1633 TPFAS	6/23/2023	16.805	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/23/2023	6.66	6.66	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/23/2023	34.7	34.7	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/23/2023	34.7	34.7	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/23/2023	6.94	6.94	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/23/2023	6.56	6.56	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/23/2023	6.49	6.49	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/23/2023	6.5	6.5	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/23/2023	6.59	6.59	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/23/2023	6.94	6.94	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/23/2023	1.73	1.73	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/23/2023	1.73	1.73	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/23/2023	17.3	17.3	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/23/2023	1.73	1.73	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/23/2023	1.73	1.73	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/23/2023	17.3	17.3	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/23/2023	3.47	3.47	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/23/2023	3.09	3.09	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/23/2023	3.47	3.47	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/23/2023	3.47	3.47	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	6/23/2023	1.06	1.54	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	6/23/2023	4.67	6.94	0	NG/L	0	J	W
Perfluorodecanesulfonate (PFDS)	6/23/2023	1.67	1.67	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	6/23/2023	1.73	1.73	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/23/2023	1.68	1.68	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	6/23/2023	1.73	1.73	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	6/23/2023	1.65	1.65	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	6/23/2023	0.927	1.73	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	6/23/2023	2.48	1.59	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	6/23/2023	0.848	1.73	0	NG/L	0	J	W
Perfluorononanesulfonate (PFNS)	6/23/2023	1.67	1.67	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	6/23/2023	1.73	1.73	0	NG/L	0	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/23/2023	1.73	1.73	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	6/23/2023	4.79	1.61	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	6/23/2023	2.03	1.73	0	NG/L	0		W
Perfluoropentanesulfonate (PFPeS)	6/23/2023	1.63	1.63	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	6/23/2023	1.73	1.73	0	NG/L	0	U	W
Perfluorotetradecanoic acid (PFTeDA)	6/23/2023	1.73	1.73	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	6/23/2023	1.73	1.73	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	6/23/2023	1.73	1.73	0	NG/L	0	U	W
1,4-Dioxane	6/23/2023	0.2	0.2	0	UG/L	0	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 095-270

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	10/18/2023	7.12	7.12	0	NG/L	0	U	W
1633 TPFAS	10/18/2023	23.44	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	10/18/2023	7.23	7.23	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	10/18/2023	37.7	37.7	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	10/18/2023	37.7	37.7	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	10/18/2023	7.53	7.53	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	10/18/2023	7.12	7.12	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	10/18/2023	7.04	7.04	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	10/18/2023	7.06	7.06	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	10/18/2023	7.16	7.16	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	10/18/2023	7.53	7.53	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	10/18/2023	18.8	18.8	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	10/18/2023	18.8	18.8	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	10/18/2023	3.77	3.77	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	10/18/2023	3.35	3.35	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	10/18/2023	3.77	3.77	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	10/18/2023	3.77	3.77	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	10/18/2023	1.35	1.67	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	10/18/2023	5.84	7.53	0	NG/L	0	J	W
Perfluorodecanesulfonate (PFDS)	10/18/2023	1.82	1.82	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	10/18/2023	1.83	1.83	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	10/18/2023	1.79	1.79	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
Perfluorohexanesulfonate (PFHxS)	10/18/2023	8.79	1.72	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	10/18/2023	1.56	1.88	0	NG/L	0	J	W
Perfluorononanesulfonate (PFNS)	10/18/2023	1.81	1.81	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
Perfluorooctane sulfonamide (PFOSAm)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	10/18/2023	2.76	1.75	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	10/18/2023	2.13	1.88	0	NG/L	0		W
Perfluoropentanesulfonate (PFPeS)	10/18/2023	1.01	1.77	0	NG/L	0	J	W
Perfluoropentanoic acid (PFPeA)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
Perfluorotetradecanoic acid (PFTeDA)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
1,4-Dioxane	10/18/2023	2.8	0.22	0	UG/L	0		W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/26/2023	6.88	6.88	0	NG/L	0	U	W
1633 TPFAS	6/26/2023	41.512	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/26/2023	6.99	6.99	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/26/2023	36.4	36.4	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/26/2023	36.4	36.4	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/26/2023	7.28	7.28	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/26/2023	6.88	6.88	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/26/2023	6.81	6.81	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/26/2023	6.83	6.83	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/26/2023	6.92	6.92	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/26/2023	7.28	7.28	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/26/2023	1.82	1.82	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/26/2023	1.82	1.82	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/26/2023	18.2	18.2	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/26/2023	1.82	1.82	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/26/2023	1.82	1.82	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/26/2023	18.2	18.2	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/26/2023	3.64	3.64	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/26/2023	3.24	3.24	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/26/2023	3.64	3.64	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/26/2023	3.64	3.64	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	6/26/2023	1.67	1.61	0	NG/L	0		W
Perfluorobutyric acid (PFBA)	6/26/2023	7.09	7.28	0	NG/L	0	J	W
Perfluorodecanesulfonate (PFDS)	6/26/2023	1.76	1.76	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	6/26/2023	1.82	1.82	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/26/2023	1.77	1.77	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	6/26/2023	1.82	1.82	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	6/26/2023	0.672	1.73	0	NG/L	0	J	W
Perfluoroheptanoic acid (PFHpA)	6/26/2023	1.17	1.82	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	6/26/2023	14	1.66	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	6/26/2023	2.93	1.82	0	NG/L	0		W
Perfluorononanesulfonate (PFNS)	6/26/2023	1.75	1.75	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	6/26/2023	0.81	1.82	0	NG/L	0	J	W
Perfluorooctane sulfonamide (PFOSAm)	6/26/2023	8.85	8.85	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	6/26/2023	5.24	1.69	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	6/26/2023	4.11	1.82	0	NG/L	0		W
Perfluoropentanesulfonate (PFPeS)	6/26/2023	1.72	1.71	0	NG/L	0		W
Perfluoropentanoic acid (PFPeA)	6/26/2023	2.1	1.82	0	NG/L	0		W
Perfluorotetradecanoic acid (PFTeDA)	6/26/2023	1.82	1.82	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	6/26/2023	1.82	1.82	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	6/26/2023	1.82	1.82	0	NG/L	0	U	W
1,4-Dioxane	6/26/2023	1.7	0.2	0	UG/L	0	HR	W
1,4-Dioxane	6/26/2023	2.1	0.2	0	UG/L	0	J+	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 106-66

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/26/2023	6.47	6.47	0	NG/L	203	U	W
1633 TPFAS	6/26/2023	36.746	0	0	NG/L	203		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/26/2023	6.57	6.57	0	NG/L	203	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/26/2023	34.2	34.2	0	NG/L	203	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/26/2023	34.2	34.2	0	NG/L	203	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/26/2023	6.84	6.84	0	NG/L	203	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/26/2023	6.47	6.47	0	NG/L	203	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/26/2023	6.4	6.4	0	NG/L	203	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/26/2023	6.42	6.42	0	NG/L	203	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/26/2023	6.5	6.5	0	NG/L	203	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/26/2023	6.84	6.84	0	NG/L	203	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/26/2023	1.71	1.71	0	NG/L	203	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/26/2023	1.71	1.71	0	NG/L	203	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/26/2023	17.1	17.1	0	NG/L	203	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/26/2023	1.71	1.71	0	NG/L	203	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/26/2023	1.71	1.71	0	NG/L	203	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/26/2023	17.1	17.1	0	NG/L	203	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/26/2023	3.42	3.42	0	NG/L	203	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/26/2023	3.05	3.05	0	NG/L	203	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/26/2023	3.42	3.42	0	NG/L	203	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/26/2023	3.42	3.42	0	NG/L	203	U	W
Perfluorobutanesulfonate (PFBS)	6/26/2023	1.06	1.52	0	NG/L	203	J	W
Perfluorobutyric acid (PFBA)	6/26/2023	19.9	6.84	0	NG/L	203		W
Perfluorodecanesulfonate (PFDS)	6/26/2023	1.65	1.65	0	NG/L	203	U	W
Perfluorodecanoic acid (PFDA)	6/26/2023	1.71	1.71	0	NG/L	203	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/26/2023	1.66	1.66	0	NG/L	203	U	W
Perfluorododecanoic acid (PFDoA)	6/26/2023	1.71	1.71	0	NG/L	203	U	W
Perfluoroheptanesulfonate (PFHpS)	6/26/2023	1.63	1.63	0	NG/L	203	U	W
Perfluoroheptanoic acid (PFHpA)	6/26/2023	0.74	1.71	0	NG/L	203	J	W
Perfluorohexanesulfonate (PFHxS)	6/26/2023	5.87	1.56	0	NG/L	203		W
Perfluorohexanoic acid (PFHxA)	6/26/2023	1.41	1.71	0	NG/L	203	J	W
Perfluorononanesulfonate (PFNS)	6/26/2023	1.65	1.65	0	NG/L	203	U	W
Perfluorononanoic acid (PFNA)	6/26/2023	1.71	1.71	0	NG/L	203	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/26/2023	1.71	1.71	0	NG/L	203	U	W
Perfluorooctanesulfonate (PFOS)	6/26/2023	4.51	1.59	0	NG/L	203		W
Perfluorooctanoic acid (PFOA)	6/26/2023	2.29	1.71	0	NG/L	203		W
Perfluoropentanesulfonate (PFPeS)	6/26/2023	0.966	1.61	0	NG/L	203	J	W
Perfluoropentanoic acid (PFPeA)	6/26/2023	1.71	1.71	0	NG/L	203	U	W
Perfluorotetradecanoic acid (PFTeDA)	6/26/2023	1.71	1.71	0	NG/L	203	U	W
Perfluorotridecanoic acid (PFTrDA)	6/26/2023	1.71	1.71	0	NG/L	203	U	W
Perfluoroundecanoic acid (PFUdA)	6/26/2023	1.71	1.71	0	NG/L	203	U	W
1,4-Dioxane	6/26/2023	3.3	0.2	0	UG/L	203	J+	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 111-17

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/29/2023	7.55	7.55	0	NG/L	178	U	W
1633 TPFAS	6/29/2023	38.484	0	0	NG/L	178		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/29/2023	7.67	7.67	0	NG/L	178	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/29/2023	39.9	39.9	0	NG/L	178	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/29/2023	39.9	39.9	0	NG/L	178	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/29/2023	7.99	7.99	0	NG/L	178	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/29/2023	7.55	7.55	0	NG/L	178	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/29/2023	7.47	7.47	0	NG/L	178	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/29/2023	7.49	7.49	0	NG/L	178	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/29/2023	7.59	7.59	0	NG/L	178	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/29/2023	7.99	7.99	0	NG/L	178	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/29/2023	2	2	0	NG/L	178	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/29/2023	2	2	0	NG/L	178	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/29/2023	20	20	0	NG/L	178	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/29/2023	2	2	0	NG/L	178	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/29/2023	2	2	0	NG/L	178	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/29/2023	20	20	0	NG/L	178	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/29/2023	3.99	3.99	0	NG/L	178	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/29/2023	3.55	3.55	0	NG/L	178	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/29/2023	3.99	3.99	0	NG/L	178	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/29/2023	3.99	3.99	0	NG/L	178	U	W
Perfluorobutanesulfonate (PFBS)	6/29/2023	2.31	1.77	0	NG/L	178		W
Perfluorobutyric acid (PFBA)	6/29/2023	5.33	7.99	0	NG/L	178	J	W
Perfluorodecanesulfonate (PFDS)	6/29/2023	1.93	1.93	0	NG/L	178	U	W
Perfluorodecanoic acid (PFDA)	6/29/2023	2	2	0	NG/L	178	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/29/2023	1.94	1.94	0	NG/L	178	U	W
Perfluorododecanoic acid (PFDoA)	6/29/2023	2	2	0	NG/L	178	U	W
Perfluoroheptanesulfonate (PFHpS)	6/29/2023	0.834	1.9	0	NG/L	178	J	W
Perfluoroheptanoic acid (PFHpA)	6/29/2023	1.2	2	0	NG/L	178	J	W
Perfluorohexanesulfonate (PFHxS)	6/29/2023	10.6	1.82	0	NG/L	178		W
Perfluorohexanoic acid (PFHxA)	6/29/2023	2.16	2	0	NG/L	178		W
Perfluorononanesulfonate (PFNS)	6/29/2023	1.92	1.92	0	NG/L	178	U	W
Perfluorononanoic acid (PFNA)	6/29/2023	2	2	0	NG/L	178	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/29/2023	2	2	0	NG/L	178	U	W
Perfluorooctanesulfonate (PFOS)	6/29/2023	8.7	1.85	0	NG/L	178		W
Perfluorooctanoic acid (PFOA)	6/29/2023	3.57	2	0	NG/L	178		W
Perfluoropentanesulfonate (PFPeS)	6/29/2023	2.1	1.88	0	NG/L	178		W
Perfluoropentanoic acid (PFPeA)	6/29/2023	1.68	2	0	NG/L	178	J	W
Perfluorotetradecanoic acid (PFTeDA)	6/29/2023	2	2	0	NG/L	178	U	W
Perfluorotridecanoic acid (PFTrDA)	6/29/2023	2	2	0	NG/L	178	U	W
Perfluoroundecanoic acid (PFUdA)	6/29/2023	2	2	0	NG/L	178	U	W
1,4-Dioxane	6/29/2023	2	0.2	0	UG/L	178		W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 113-23

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/26/2023	6.88	6.88	0	NG/L	110	U	W
1633 TPFAS	6/26/2023	38.69	0	0	NG/L	110		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/26/2023	6.99	6.99	0	NG/L	110	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/26/2023	36.4	36.4	0	NG/L	110	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/26/2023	36.4	36.4	0	NG/L	110	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/26/2023	7.28	7.28	0	NG/L	110	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/26/2023	6.88	6.88	0	NG/L	110	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/26/2023	6.81	6.81	0	NG/L	110	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/26/2023	6.83	6.83	0	NG/L	110	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/26/2023	6.92	6.92	0	NG/L	110	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/26/2023	7.28	7.28	0	NG/L	110	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/26/2023	1.82	1.82	0	NG/L	110	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/26/2023	1.82	1.82	0	NG/L	110	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/26/2023	18.2	18.2	0	NG/L	110	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/26/2023	1.82	1.82	0	NG/L	110	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/26/2023	1.82	1.82	0	NG/L	110	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/26/2023	18.2	18.2	0	NG/L	110	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/26/2023	3.64	3.64	0	NG/L	110	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/26/2023	3.24	3.24	0	NG/L	110	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/26/2023	3.64	3.64	0	NG/L	110	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/26/2023	3.64	3.64	0	NG/L	110	U	W
Perfluorobutanesulfonate (PFBS)	6/26/2023	1.26	1.62	0	NG/L	110	J	W
Perfluorobutyric acid (PFBA)	6/26/2023	5.76	7.28	0	NG/L	110	J	W
Perfluorodecanesulfonate (PFDS)	6/26/2023	1.76	1.76	0	NG/L	110	U	W
Perfluorodecanoic acid (PFDA)	6/26/2023	8.4	8.4	0	NG/L	110	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/26/2023	1.77	1.77	0	NG/L	110	U	W
Perfluorododecanoic acid (PFDoA)	6/26/2023	1.82	1.82	0	NG/L	110	U	W
Perfluoroheptanesulfonate (PFHpS)	6/26/2023	1.74	1.74	0	NG/L	110	U	W
Perfluoroheptanoic acid (PFHpA)	6/26/2023	3.08	1.82	0	NG/L	110		W
Perfluorohexanesulfonate (PFHxS)	6/26/2023	3.14	1.66	0	NG/L	110		W
Perfluorohexanoic acid (PFHxA)	6/26/2023	5.01	1.82	0	NG/L	110		W
Perfluorononanesulfonate (PFNS)	6/26/2023	1.75	1.75	0	NG/L	110	U	W
Perfluorononanoic acid (PFNA)	6/26/2023	1.41	1.82	0	NG/L	110	J	W
Perfluorooctane sulfonamide (PFOSAm)	6/26/2023	1.82	1.82	0	NG/L	110	U	W
Perfluorooctanesulfonate (PFOS)	6/26/2023	10.2	1.69	0	NG/L	110		W
Perfluorooctanoic acid (PFOA)	6/26/2023	4.47	1.82	0	NG/L	110		W
Perfluoropentanesulfonate (PFPeS)	6/26/2023	0.68	1.71	0	NG/L	110	J	W
Perfluoropentanoic acid (PFPeA)	6/26/2023	3.68	1.82	0	NG/L	110		W
Perfluorotetradecanoic acid (PFTeDA)	6/26/2023	1.82	1.82	0	NG/L	110	U	W
Perfluorotridecanoic acid (PFTrDA)	6/26/2023	1.82	1.82	0	NG/L	110	U	W
Perfluoroundecanoic acid (PFUdA)	6/26/2023	1.82	1.82	0	NG/L	110	U	W
1,4-Dioxane	6/26/2023	0.2	0.2	0	UG/L	110	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 113-24

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/26/2023	7	7	0	NG/L	185	U	W
1633 TPFAS	6/26/2023	67.207	0	0	NG/L	185		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/26/2023	7.12	7.12	0	NG/L	185	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/26/2023	37.1	37.1	0	NG/L	185	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/26/2023	37.1	37.1	0	NG/L	185	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/26/2023	7.41	7.41	0	NG/L	185	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/26/2023	7	7	0	NG/L	185	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/26/2023	6.93	6.93	0	NG/L	185	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/26/2023	6.95	6.95	0	NG/L	185	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/26/2023	7.04	7.04	0	NG/L	185	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/26/2023	7.41	7.41	0	NG/L	185	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/26/2023	1.85	1.85	0	NG/L	185	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/26/2023	1.85	1.85	0	NG/L	185	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/26/2023	18.5	18.5	0	NG/L	185	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/26/2023	1.85	1.85	0	NG/L	185	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/26/2023	1.85	1.85	0	NG/L	185	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/26/2023	18.5	18.5	0	NG/L	185	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/26/2023	3.71	3.71	0	NG/L	185	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/26/2023	3.3	3.3	0	NG/L	185	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/26/2023	3.71	3.71	0	NG/L	185	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/26/2023	3.71	3.71	0	NG/L	185	U	W
Perfluorobutanesulfonate (PFBS)	6/26/2023	1.96	1.64	0	NG/L	185		W
Perfluorobutyric acid (PFBA)	6/26/2023	7.03	7.41	0	NG/L	185	J	W
Perfluorodecanesulfonate (PFDS)	6/26/2023	1.79	1.79	0	NG/L	185	U	W
Perfluorodecanoic acid (PFDA)	6/26/2023	1.85	1.85	0	NG/L	185	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/26/2023	1.8	1.8	0	NG/L	185	U	W
Perfluorododecanoic acid (PFDoA)	6/26/2023	1.85	1.85	0	NG/L	185	U	W
Perfluoroheptanesulfonate (PFHpS)	6/26/2023	1.02	1.77	0	NG/L	185	J	W
Perfluoroheptanoic acid (PFHpA)	6/26/2023	2.12	1.85	0	NG/L	185		W
Perfluorohexanesulfonate (PFHxS)	6/26/2023	22.9	1.69	0	NG/L	185		W
Perfluorohexanoic acid (PFHxA)	6/26/2023	5.47	1.85	0	NG/L	185		W
Perfluorononanesulfonate (PFNS)	6/26/2023	1.78	1.78	0	NG/L	185	U	W
Perfluorononanoic acid (PFNA)	6/26/2023	1.97	1.85	0	NG/L	185		W
Perfluorooctane sulfonamide (PFOSAm)	6/26/2023	0.857	1.85	0	NG/L	185	J	W
Perfluorooctanesulfonate (PFOS)	6/26/2023	11.6	1.72	0	NG/L	185		W
Perfluorooctanoic acid (PFOA)	6/26/2023	6.68	1.85	0	NG/L	185		W
Perfluoropentanesulfonate (PFPeS)	6/26/2023	2.13	1.74	0	NG/L	185		W
Perfluoropentanoic acid (PFPeA)	6/26/2023	3.47	1.85	0	NG/L	185		W
Perfluorotetradecanoic acid (PFTeDA)	6/26/2023	1.85	1.85	0	NG/L	185	U	W
Perfluorotridecanoic acid (PFTrDA)	6/26/2023	1.85	1.85	0	NG/L	185	U	W
Perfluoroundecanoic acid (PFUdA)	6/26/2023	1.85	1.85	0	NG/L	185	U	W
1,4-Dioxane	6/26/2023	0.48	0.2	0	UG/L	185	HR	W
1,4-Dioxane	6/26/2023	0.6	0.2	0	UG/L	185	J+	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 113-25

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/26/2023	6.74	6.74	0	NG/L	248	U	W
1633 TPFAS	6/26/2023	28.78	0	0	NG/L	248		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/26/2023	6.85	6.85	0	NG/L	248	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/26/2023	35.7	35.7	0	NG/L	248	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/26/2023	35.7	35.7	0	NG/L	248	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/26/2023	7.14	7.14	0	NG/L	248	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/26/2023	6.74	6.74	0	NG/L	248	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/26/2023	6.67	6.67	0	NG/L	248	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/26/2023	6.69	6.69	0	NG/L	248	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/26/2023	6.78	6.78	0	NG/L	248	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/26/2023	7.14	7.14	0	NG/L	248	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/26/2023	1.78	1.78	0	NG/L	248	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/26/2023	1.78	1.78	0	NG/L	248	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/26/2023	17.8	17.8	0	NG/L	248	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/26/2023	1.78	1.78	0	NG/L	248	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/26/2023	1.78	1.78	0	NG/L	248	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/26/2023	17.8	17.8	0	NG/L	248	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/26/2023	3.57	3.57	0	NG/L	248	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/26/2023	3.18	3.18	0	NG/L	248	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/26/2023	3.57	3.57	0	NG/L	248	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/26/2023	3.57	3.57	0	NG/L	248	U	W
Perfluorobutanesulfonate (PFBS)	6/26/2023	1.08	1.58	0	NG/L	248	J	W
Perfluorobutyric acid (PFBA)	6/26/2023	5.31	7.14	0	NG/L	248	J	W
Perfluorodecanesulfonate (PFDS)	6/26/2023	1.72	1.72	0	NG/L	248	U	W
Perfluorodecanoic acid (PFDA)	6/26/2023	1.78	1.78	0	NG/L	248	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/26/2023	1.73	1.73	0	NG/L	248	U	W
Perfluorododecanoic acid (PFDoA)	6/26/2023	1.78	1.78	0	NG/L	248	U	W
Perfluoroheptanesulfonate (PFHpS)	6/26/2023	1.7	1.7	0	NG/L	248	U	W
Perfluoroheptanoic acid (PFHpA)	6/26/2023	0.79	1.78	0	NG/L	248	J	W
Perfluorohexanesulfonate (PFHxS)	6/26/2023	11.2	1.63	0	NG/L	248		W
Perfluorohexanoic acid (PFHxA)	6/26/2023	2.58	1.78	0	NG/L	248		W
Perfluorononanesulfonate (PFNS)	6/26/2023	1.72	1.72	0	NG/L	248	U	W
Perfluorononanoic acid (PFNA)	6/26/2023	1.78	1.78	0	NG/L	248	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/26/2023	7.72	7.72	0	NG/L	248	U	W
Perfluorooctanesulfonate (PFOS)	6/26/2023	2.18	1.66	0	NG/L	248		W
Perfluorooctanoic acid (PFOA)	6/26/2023	2.67	1.78	0	NG/L	248		W
Perfluoropentanesulfonate (PFPeS)	6/26/2023	1.34	1.68	0	NG/L	248	J	W
Perfluoropentanoic acid (PFPeA)	6/26/2023	1.63	1.78	0	NG/L	248	J	W
Perfluorotetradecanoic acid (PFTeDA)	6/26/2023	1.78	1.78	0	NG/L	248	U	W
Perfluorotridecanoic acid (PFTrDA)	6/26/2023	1.78	1.78	0	NG/L	248	U	W
Perfluoroundecanoic acid (PFUdA)	6/26/2023	1.78	1.78	0	NG/L	248	U	W
1,4-Dioxane	6/26/2023	1.1	0.2	0	UG/L	248	HR	W
1,4-Dioxane	6/26/2023	1.4	0.2	0	UG/L	248	J+	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 113-26

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/26/2023	6.68	6.68	0	NG/L	165	U	W
1633 TPFAS	6/26/2023	49.04	0	0	NG/L	165		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/26/2023	6.78	6.78	0	NG/L	165	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/26/2023	35.3	35.3	0	NG/L	165	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/26/2023	35.3	35.3	0	NG/L	165	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/26/2023	7.07	7.07	0	NG/L	165	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/26/2023	6.68	6.68	0	NG/L	165	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/26/2023	6.61	6.61	0	NG/L	165	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/26/2023	6.63	6.63	0	NG/L	165	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/26/2023	6.71	6.71	0	NG/L	165	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/26/2023	7.07	7.07	0	NG/L	165	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/26/2023	1.77	1.77	0	NG/L	165	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/26/2023	1.77	1.77	0	NG/L	165	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/26/2023	17.7	17.7	0	NG/L	165	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/26/2023	1.77	1.77	0	NG/L	165	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/26/2023	1.77	1.77	0	NG/L	165	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/26/2023	17.7	17.7	0	NG/L	165	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/26/2023	3.53	3.53	0	NG/L	165	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/26/2023	3.15	3.15	0	NG/L	165	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/26/2023	3.53	3.53	0	NG/L	165	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/26/2023	3.53	3.53	0	NG/L	165	U	W
Perfluorobutanesulfonate (PFBS)	6/26/2023	1.57	1.57	0	NG/L	165		W
Perfluorobutyric acid (PFBA)	6/26/2023	6.61	7.07	0	NG/L	165	J	W
Perfluorodecanesulfonate (PFDS)	6/26/2023	1.71	1.71	0	NG/L	165	U	W
Perfluorodecanoic acid (PFDA)	6/26/2023	1.77	1.77	0	NG/L	165	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/26/2023	1.71	1.71	0	NG/L	165	U	W
Perfluorododecanoic acid (PFDoA)	6/26/2023	1.77	1.77	0	NG/L	165	U	W
Perfluoroheptanesulfonate (PFHpS)	6/26/2023	1.68	1.68	0	NG/L	165	U	W
Perfluoroheptanoic acid (PFHpA)	6/26/2023	1.13	1.77	0	NG/L	165	J	W
Perfluorohexanesulfonate (PFHxS)	6/26/2023	19.8	1.61	0	NG/L	165		W
Perfluorohexanoic acid (PFHxA)	6/26/2023	3.78	1.77	0	NG/L	165		W
Perfluorononanesulfonate (PFNS)	6/26/2023	1.7	1.7	0	NG/L	165	U	W
Perfluorononanoic acid (PFNA)	6/26/2023	1.73	1.77	0	NG/L	165	J	W
Perfluorooctane sulfonamide (PFOSAm)	6/26/2023	0.8	1.77	0	NG/L	165	J	W
Perfluorooctanesulfonate (PFOS)	6/26/2023	4.89	1.64	0	NG/L	165		W
Perfluorooctanoic acid (PFOA)	6/26/2023	4.49	1.77	0	NG/L	165		W
Perfluoropentanesulfonate (PFPeS)	6/26/2023	1.99	1.66	0	NG/L	165		W
Perfluoropentanoic acid (PFPeA)	6/26/2023	2.25	1.77	0	NG/L	165		W
Perfluorotetradecanoic acid (PFTeDA)	6/26/2023	1.77	1.77	0	NG/L	165	U	W
Perfluorotridecanoic acid (PFTrDA)	6/26/2023	1.77	1.77	0	NG/L	165	U	W
Perfluoroundecanoic acid (PFUdA)	6/26/2023	1.77	1.77	0	NG/L	165	U	W
1,4-Dioxane	6/26/2023	1.7	0.2	0	UG/L	165	HR	W
1,4-Dioxane	6/26/2023	2.2	0.2	0	UG/L	165	J+	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 113-27

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/26/2023	15.1	15.1	0	NG/L	165	U	W
1633 TPFAS	6/26/2023	34.6	0	0	NG/L	165		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/26/2023	15.4	15.4	0	NG/L	165	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/26/2023	80	80	0	NG/L	165	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/26/2023	80	80	0	NG/L	165	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/26/2023	16	16	0	NG/L	165	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/26/2023	15.1	15.1	0	NG/L	165	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/26/2023	15	15	0	NG/L	165	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/26/2023	15	15	0	NG/L	165	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/26/2023	15.2	15.2	0	NG/L	165	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/26/2023	16	16	0	NG/L	165	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/26/2023	4	4	0	NG/L	165	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/26/2023	4	4	0	NG/L	165	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/26/2023	40	40	0	NG/L	165	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/26/2023	4	4	0	NG/L	165	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/26/2023	4	4	0	NG/L	165	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/26/2023	40	40	0	NG/L	165	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/26/2023	8	8	0	NG/L	165	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/26/2023	7.12	7.12	0	NG/L	165	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/26/2023	8	8	0	NG/L	165	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/26/2023	8	8	0	NG/L	165	U	W
Perfluorobutanesulfonate (PFBS)	6/26/2023	1.62	3.55	0	NG/L	165	J	W
Perfluorobutyric acid (PFBA)	6/26/2023	8.21	16	0	NG/L	165	J	W
Perfluorodecanesulfonate (PFDS)	6/26/2023	3.86	3.86	0	NG/L	165	U	W
Perfluorodecanoic acid (PFDA)	6/26/2023	4	4	0	NG/L	165	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/26/2023	3.88	3.88	0	NG/L	165	U	W
Perfluorododecanoic acid (PFDoA)	6/26/2023	4	4	0	NG/L	165	U	W
Perfluoroheptanesulfonate (PFHpS)	6/26/2023	3.81	3.81	0	NG/L	165	U	W
Perfluoroheptanoic acid (PFHpA)	6/26/2023	1.77	4	0	NG/L	165	J	W
Perfluorohexanesulfonate (PFHxS)	6/26/2023	4.94	3.66	0	NG/L	165		W
Perfluorohexanoic acid (PFHxA)	6/26/2023	3.47	4	0	NG/L	165	J	W
Perfluorononanesulfonate (PFNS)	6/26/2023	3.85	3.85	0	NG/L	165	U	W
Perfluorononanoic acid (PFNA)	6/26/2023	1.63	4	0	NG/L	165	J	W
Perfluorooctane sulfonamide (PFOSAm)	6/26/2023	4	4	0	NG/L	165	U	W
Perfluorooctanesulfonate (PFOS)	6/26/2023	4.43	3.71	0	NG/L	165		W
Perfluorooctanoic acid (PFOA)	6/26/2023	3.14	4	0	NG/L	165	J	W
Perfluoropentanesulfonate (PFPeS)	6/26/2023	1.53	3.76	0	NG/L	165	J	W
Perfluoropentanoic acid (PFPeA)	6/26/2023	3.86	4	0	NG/L	165	J	W
Perfluorotetradecanoic acid (PFTeDA)	6/26/2023	4	4	0	NG/L	165	U	W
Perfluorotridecanoic acid (PFTrDA)	6/26/2023	4	4	0	NG/L	165	U	W
Perfluoroundecanoic acid (PFUdA)	6/26/2023	4	4	0	NG/L	165	U	W
1,4-Dioxane	6/26/2023	1.4	1.4	0	UG/L	165	J+	W
1,4-Dioxane	6/26/2023	1.6	0.2	0	UG/L	165	HR	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 113-33

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/26/2023	6.81	6.81	0	NG/L	212	U	W
1633 TPFAS	6/26/2023	36.89	0	0	NG/L	212		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/26/2023	6.92	6.92	0	NG/L	212	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/26/2023	36	36	0	NG/L	212	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/26/2023	36	36	0	NG/L	212	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/26/2023	7.2	7.2	0	NG/L	212	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/26/2023	6.81	6.81	0	NG/L	212	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/26/2023	6.74	6.74	0	NG/L	212	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/26/2023	6.75	6.75	0	NG/L	212	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/26/2023	6.84	6.84	0	NG/L	212	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/26/2023	7.2	7.2	0	NG/L	212	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/26/2023	1.8	1.8	0	NG/L	212	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/26/2023	1.8	1.8	0	NG/L	212	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/26/2023	18	18	0	NG/L	212	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/26/2023	1.8	1.8	0	NG/L	212	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/26/2023	1.8	1.8	0	NG/L	212	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/26/2023	18	18	0	NG/L	212	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/26/2023	3.6	3.6	0	NG/L	212	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/26/2023	3.21	3.21	0	NG/L	212	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/26/2023	3.6	3.6	0	NG/L	212	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/26/2023	3.6	3.6	0	NG/L	212	U	W
Perfluorobutanesulfonate (PFBS)	6/26/2023	2.14	1.6	0	NG/L	212		W
Perfluorobutyric acid (PFBA)	6/26/2023	10.5	7.2	0	NG/L	212		W
Perfluorodecanesulfonate (PFDS)	6/26/2023	1.74	1.74	0	NG/L	212	U	W
Perfluorodecanoic acid (PFDA)	6/26/2023	1.8	1.8	0	NG/L	212	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/26/2023	1.75	1.75	0	NG/L	212	U	W
Perfluorododecanoic acid (PFDoA)	6/26/2023	1.8	1.8	0	NG/L	212	U	W
Perfluoroheptanesulfonate (PFHpS)	6/26/2023	1.72	1.72	0	NG/L	212	U	W
Perfluoroheptanoic acid (PFHpA)	6/26/2023	1.03	1.8	0	NG/L	212	J	W
Perfluorohexanesulfonate (PFHxS)	6/26/2023	9.69	1.65	0	NG/L	212		W
Perfluorohexanoic acid (PFHxA)	6/26/2023	2.32	1.8	0	NG/L	212		W
Perfluorononanesulfonate (PFNS)	6/26/2023	1.73	1.73	0	NG/L	212	U	W
Perfluorononanoic acid (PFNA)	6/26/2023	1.8	1.8	0	NG/L	212	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/26/2023	1.8	1.8	0	NG/L	212	U	W
Perfluorooctanesulfonate (PFOS)	6/26/2023	3.27	1.67	0	NG/L	212		W
Perfluorooctanoic acid (PFOA)	6/26/2023	4.36	1.8	0	NG/L	212		W
Perfluoropentanesulfonate (PFPeS)	6/26/2023	1.81	1.69	0	NG/L	212		W
Perfluoropentanoic acid (PFPeA)	6/26/2023	1.77	1.8	0	NG/L	212	J	W
Perfluorotetradecanoic acid (PFTeDA)	6/26/2023	1.8	1.8	0	NG/L	212	U	W
Perfluorotridecanoic acid (PFTrDA)	6/26/2023	1.8	1.8	0	NG/L	212	U	W
Perfluoroundecanoic acid (PFUdA)	6/26/2023	1.8	1.8	0	NG/L	212	U	W
1,4-Dioxane	6/26/2023	1.9	0.2	0	UG/L	212	HR	W
1,4-Dioxane	6/26/2023	2	0.2	0	UG/L	212	J+	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : 113-34

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	10/18/2023	7.26	7.26	0	NG/L	0	U	W
1633 TPFAS	10/18/2023	31.02	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	10/18/2023	7.38	7.38	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	10/18/2023	38.4	38.4	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	10/18/2023	38.4	38.4	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	10/18/2023	7.69	7.69	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	10/18/2023	7.26	7.26	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	10/18/2023	7.19	7.19	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	10/18/2023	7.21	7.21	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	10/18/2023	7.3	7.3	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	10/18/2023	7.69	7.69	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	10/18/2023	1.92	1.92	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	10/18/2023	1.92	1.92	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	10/18/2023	19.2	19.2	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	10/18/2023	1.92	1.92	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	10/18/2023	1.92	1.92	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	10/18/2023	19.2	19.2	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	10/18/2023	3.84	3.84	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	10/18/2023	3.42	3.42	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	10/18/2023	3.84	3.84	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	10/18/2023	3.84	3.84	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	10/18/2023	1.59	1.7	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	10/18/2023	7.37	7.69	0	NG/L	0	J	W
Perfluorodecanesulfonate (PFDS)	10/18/2023	1.85	1.85	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	10/18/2023	1.92	1.92	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	10/18/2023	1.86	1.86	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	10/18/2023	1.92	1.92	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	10/18/2023	1.83	1.83	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	10/18/2023	0.674	1.92	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	10/18/2023	10.5	1.76	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	10/18/2023	2.01	1.92	0	NG/L	0		W
Perfluorononanesulfonate (PFNS)	10/18/2023	1.85	1.85	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	10/18/2023	1.92	1.92	0	NG/L	0	U	W
Perfluorooctane sulfonamide (PFOSAm)	10/18/2023	1.92	1.92	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	10/18/2023	2.55	1.78	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	10/18/2023	4.35	1.92	0	NG/L	0		W
Perfluoropentanesulfonate (PFPeS)	10/18/2023	1.19	1.81	0	NG/L	0	J	W
Perfluoropentanoic acid (PFPeA)	10/18/2023	0.786	1.92	0	NG/L	0	J	W
Perfluorotetradecanoic acid (PFTeDA)	10/18/2023	1.92	1.92	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	10/18/2023	1.92	1.92	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	10/18/2023	1.92	1.92	0	NG/L	0	U	W
1,4-Dioxane	10/18/2023	1.7	0.22	0	UG/L	0		W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/26/2023	7.1	7.1	0	NG/L	0	U	W
1633 TPFAS	6/26/2023	49.721	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/26/2023	7.22	7.22	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/26/2023	37.6	37.6	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/26/2023	37.6	37.6	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/26/2023	7.52	7.52	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/26/2023	7.1	7.1	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/26/2023	7.03	7.03	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/26/2023	7.05	7.05	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/26/2023	7.14	7.14	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/26/2023	7.52	7.52	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/26/2023	1.88	1.88	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/26/2023	1.88	1.88	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/26/2023	18.8	18.8	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/26/2023	1.88	1.88	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/26/2023	1.88	1.88	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/26/2023	18.8	18.8	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/26/2023	3.76	3.76	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/26/2023	3.35	3.35	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/26/2023	3.76	3.76	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/26/2023	3.76	3.76	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	6/26/2023	1.58	1.67	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	6/26/2023	7.74	7.52	0	NG/L	0		W
Perfluorodecanesulfonate (PFDS)	6/26/2023	1.81	1.81	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	6/26/2023	1.88	1.88	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/26/2023	1.82	1.82	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	6/26/2023	1.88	1.88	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	6/26/2023	0.751	1.79	0	NG/L	0	J	W
Perfluoroheptanoic acid (PFHpA)	6/26/2023	1.29	1.88	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	6/26/2023	15.3	1.72	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	6/26/2023	3.46	1.88	0	NG/L	0		W
Perfluorononanesulfonate (PFNS)	6/26/2023	1.81	1.81	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	6/26/2023	1.03	1.88	0	NG/L	0	J	W
Perfluorooctane sulfonamide (PFOSAm)	6/26/2023	3.97	8.75	0	NG/L	0	J	W
Perfluorooctanesulfonate (PFOS)	6/26/2023	5.82	1.74	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	6/26/2023	4.54	1.88	0	NG/L	0		W
Perfluoropentanesulfonate (PFPeS)	6/26/2023	1.96	1.77	0	NG/L	0		W
Perfluoropentanoic acid (PFPeA)	6/26/2023	2.28	1.88	0	NG/L	0		W
Perfluorotetradecanoic acid (PFTeDA)	6/26/2023	1.88	1.88	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	6/26/2023	1.88	1.88	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	6/26/2023	1.88	1.88	0	NG/L	0	U	W
1,4-Dioxane	6/26/2023	1.2	0.2	0	UG/L	0	J+	W
1,4-Dioxane	6/26/2023	1.5	0.2	0	UG/L	0	HR	W

Site ID : 119-13

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/29/2023	6.99	6.99	0	NG/L	180	U	W
1633 TPFAS	6/29/2023	30.746	0	0	NG/L	180		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/29/2023	7.1	7.1	0	NG/L	180	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/29/2023	37	37	0	NG/L	180	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/29/2023	37	37	0	NG/L	180	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/29/2023	7.4	7.4	0	NG/L	180	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/29/2023	6.99	6.99	0	NG/L	180	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/29/2023	6.92	6.92	0	NG/L	180	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/29/2023	6.94	6.94	0	NG/L	180	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/29/2023	7.03	7.03	0	NG/L	180	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/29/2023	7.4	7.4	0	NG/L	180	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/29/2023	1.85	1.85	0	NG/L	180	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/29/2023	1.85	1.85	0	NG/L	180	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/29/2023	18.5	18.5	0	NG/L	180	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/29/2023	1.85	1.85	0	NG/L	180	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/29/2023	1.85	1.85	0	NG/L	180	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/29/2023	18.5	18.5	0	NG/L	180	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/29/2023	3.7	3.7	0	NG/L	180	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/29/2023	3.29	3.29	0	NG/L	180	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/29/2023	3.7	3.7	0	NG/L	180	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/29/2023	3.7	3.7	0	NG/L	180	U	W
Perfluorobutanesulfonate (PFBS)	6/29/2023	1.88	1.64	0	NG/L	180		W
Perfluorobutyric acid (PFBA)	6/29/2023	6.76	7.4	0	NG/L	180	J	W
Perfluorodecanesulfonate (PFDS)	6/29/2023	1.78	1.78	0	NG/L	180	U	W
Perfluorodecanoic acid (PFDA)	6/29/2023	1.85	1.85	0	NG/L	180	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/29/2023	1.79	1.79	0	NG/L	180	U	W
Perfluorododecanoic acid (PFDoA)	6/29/2023	1.85	1.85	0	NG/L	180	U	W
Perfluoroheptanesulfonate (PFHpS)	6/29/2023	1.76	1.76	0	NG/L	180	U	W
Perfluoroheptanoic acid (PFHpA)	6/29/2023	0.806	1.85	0	NG/L	180	J	W
Perfluorohexanesulfonate (PFHxS)	6/29/2023	9.67	1.69	0	NG/L	180		W
Perfluorohexanoic acid (PFHxA)	6/29/2023	1.99	1.85	0	NG/L	180		W
Perfluorononanesulfonate (PFNS)	6/29/2023	1.78	1.78	0	NG/L	180	U	W
Perfluorononanoic acid (PFNA)	6/29/2023	1.85	1.85	0	NG/L	180	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/29/2023	1.85	1.85	0	NG/L	180	U	W
Perfluorooctanesulfonate (PFOS)	6/29/2023	3.9	1.72	0	NG/L	180		W
Perfluorooctanoic acid (PFOA)	6/29/2023	2.7	1.85	0	NG/L	180		W
Perfluoropentanesulfonate (PFPeS)	6/29/2023	1.51	1.74	0	NG/L	180	J	W
Perfluoropentanoic acid (PFPeA)	6/29/2023	1.53	1.85	0	NG/L	180	J	W
Perfluorotetradecanoic acid (PFTeDA)	6/29/2023	1.85	1.85	0	NG/L	180	U	W
Perfluorotridecanoic acid (PFTrDA)	6/29/2023	1.85	1.85	0	NG/L	180	U	W
Perfluoroundecanoic acid (PFUdA)	6/29/2023	1.85	1.85	0	NG/L	180	U	W
1,4-Dioxane	6/29/2023	3.9	0.2	0	UG/L	180		W

Site ID : 121-15

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	8/8/2023	6.1	6.1	0	NG/L	180	U	W
1633 TPFAS	8/8/2023	49.48	0	0	NG/L	180		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	8/8/2023	6.1	6.1	0	NG/L	180	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	8/8/2023	38	38	0	NG/L	180	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	8/8/2023	38	38	0	NG/L	180	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	8/8/2023	7.6	7.6	0	NG/L	180	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	8/8/2023	6.1	6.1	0	NG/L	180	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	8/8/2023	6.1	6.1	0	NG/L	180	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	8/8/2023	6.1	6.1	0	NG/L	180	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	8/8/2023	6.1	6.1	0	NG/L	180	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	8/8/2023	6.1	6.1	0	NG/L	180	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	8/8/2023	1.5	1.5	0	NG/L	180	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	8/8/2023	1.5	1.5	0	NG/L	180	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	8/8/2023	15	15	0	NG/L	180	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	8/8/2023	1.5	1.5	0	NG/L	180	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	8/8/2023	1.5	1.5	0	NG/L	180	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	8/8/2023	15	15	0	NG/L	180	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	8/8/2023	3	3	0	NG/L	180	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	8/8/2023	3	3	0	NG/L	180	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	8/8/2023	3	3	0	NG/L	180	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	8/8/2023	3	3	0	NG/L	180	U	W
Perfluorobutanesulfonate (PFBS)	8/8/2023	1.1	1.5	0	NG/L	180	J	W
Perfluorobutyric acid (PFBA)	8/8/2023	12	6.1	0	NG/L	180		W
Perfluorodecanesulfonate (PFDS)	8/8/2023	1.5	1.5	0	NG/L	180	U	W
Perfluorodecanoic acid (PFDA)	8/8/2023	0.28	1.5	0	NG/L	180	J	W
Perfluorododecane sulfonic acid (PFDoS)	8/8/2023	1.5	1.5	0	NG/L	180	U	W
Perfluorododecanoic acid (PFDoA)	8/8/2023	1.5	1.5	0	NG/L	180	U	W
Perfluoroheptanesulfonate (PFHpS)	8/8/2023	1.5	1.5	0	NG/L	180	U	W
Perfluoroheptanoic acid (PFHpA)	8/8/2023	1.5	1.5	0	NG/L	180		W
Perfluorohexanesulfonate (PFHxS)	8/8/2023	13	1.5	0	NG/L	180		W
Perfluorohexanoic acid (PFHxA)	8/8/2023	3.6	1.5	0	NG/L	180		W
Perfluorononanesulfonate (PFNS)	8/8/2023	1.5	1.5	0	NG/L	180	U	W
Perfluorononanoic acid (PFNA)	8/8/2023	0.39	1.5	0	NG/L	180	J	W
Perfluorooctane sulfonamide (PFOSAm)	8/8/2023	0.91	1.5	0	NG/L	180	J	W
Perfluorooctanesulfonate (PFOS)	8/8/2023	8.1	1.5	0	NG/L	180		W
Perfluorooctanoic acid (PFOA)	8/8/2023	4.9	1.5	0	NG/L	180		W
Perfluoropentanesulfonate (PFPeS)	8/8/2023	1.3	1.5	0	NG/L	180	J	W
Perfluoropentanoic acid (PFPeA)	8/8/2023	2.4	3	0	NG/L	180	J	W
Perfluorotetradecanoic acid (PFTeDA)	8/8/2023	1.5	1.5	0	NG/L	180	U	W
Perfluorotridecanoic acid (PFTrDA)	8/8/2023	1.5	1.5	0	NG/L	180	U	W
Perfluoroundecanoic acid (PFUdA)	8/8/2023	1.5	1.5	0	NG/L	180	U	W
1,4-Dioxane	6/28/2023	1.1	0.2	0	UG/L	180		W
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/28/2023	1510	1510	0	NG/L	180	R	W
1633 TPFAS	6/28/2023	0	0	0	NG/L	180	R	W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/28/2023	1540	1540	0	NG/L	180	R	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/28/2023	8000	8000	0	NG/L	180	R	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/28/2023	8000	8000	0	NG/L	180	R	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/28/2023	1600	1600	0	NG/L	180	R	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/28/2023	1510	1510	0	NG/L	180	R	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/28/2023	1500	1500	0	NG/L	180	R	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/28/2023	1500	1500	0	NG/L	180	R	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/28/2023	1520	1520	0	NG/L	180	R	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/28/2023	1600	1600	0	NG/L	180	R	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/28/2023	400	400	0	NG/L	180	R	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/28/2023	400	400	0	NG/L	180	R	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/28/2023	4000	4000	0	NG/L	180	R	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/28/2023	400	400	0	NG/L	180	R	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/28/2023	400	400	0	NG/L	180	R	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/28/2023	4000	4000	0	NG/L	180	R	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/28/2023	800	800	0	NG/L	180	R	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/28/2023	712	712	0	NG/L	180	R	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/28/2023	800	800	0	NG/L	180	R	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/28/2023	800	800	0	NG/L	180	R	W
Perfluorobutanesulfonate (PFBS)	6/28/2023	355	355	0	NG/L	180	R	W
Perfluorobutyric acid (PFBA)	6/28/2023	1600	1600	0	NG/L	180	R	W
Perfluorodecanesulfonate (PFDS)	6/28/2023	386	386	0	NG/L	180	R	W
Perfluorodecanoic acid (PFDA)	6/28/2023	400	400	0	NG/L	180	R	W
Perfluorododecane sulfonic acid (PFDoS)	6/28/2023	388	388	0	NG/L	180	R	W
Perfluorododecanoic acid (PFDoA)	6/28/2023	400	400	0	NG/L	180	R	W
Perfluoroheptanesulfonate (PFHpS)	6/28/2023	381	381	0	NG/L	180	R	W
Perfluoroheptanoic acid (PFHpA)	6/28/2023	400	400	0	NG/L	180	R	W
Perfluorohexanesulfonate (PFHxS)	6/28/2023	366	366	0	NG/L	180	R	W
Perfluorohexanoic acid (PFHxA)	6/28/2023	400	400	0	NG/L	180	R	W
Perfluorononanesulfonate (PFNS)	6/28/2023	385	385	0	NG/L	180	R	W
Perfluorononanoic acid (PFNA)	6/28/2023	400	400	0	NG/L	180	R	W
Perfluorooctane sulfonamide (PFOSAm)	6/28/2023	400	400	0	NG/L	180	R	W
Perfluorooctanesulfonate (PFOS)	6/28/2023	371	371	0	NG/L	180	R	W
Perfluorooctanoic acid (PFOA)	6/28/2023	400	400	0	NG/L	180	R	W
Perfluoropentanesulfonate (PFPeS)	6/28/2023	376	376	0	NG/L	180	R	W
Perfluoropentanoic acid (PFPeA)	6/28/2023	400	400	0	NG/L	180	R	W
Perfluorotetradecanoic acid (PFTeDA)	6/28/2023	400	400	0	NG/L	180	R	W
Perfluorotridecanoic acid (PFTrDA)	6/28/2023	400	400	0	NG/L	180	R	W
Perfluoroundecanoic acid (PFUdA)	6/28/2023	400	400	0	NG/L	180	R	W

Site ID : 121-16

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	8/8/2023	5.5	5.5	0	NG/L	180	U	W
1633 TPFAS	8/8/2023	79.81	0	0	NG/L	180		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	8/8/2023	5.5	5.5	0	NG/L	180	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	8/8/2023	35	35	0	NG/L	180	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	8/8/2023	35	35	0	NG/L	180	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	8/8/2023	6.9	6.9	0	NG/L	180	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	8/8/2023	0.4	5.5	0	NG/L	180	J	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	8/8/2023	5.5	5.5	0	NG/L	180	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	8/8/2023	5.5	5.5	0	NG/L	180	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	8/8/2023	0.55	5.5	0	NG/L	180	J	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	8/8/2023	0.52	5.5	0	NG/L	180	J	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	8/8/2023	1.4	1.4	0	NG/L	180	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	8/8/2023	1.4	1.4	0	NG/L	180	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	8/8/2023	14	14	0	NG/L	180	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	8/8/2023	1.4	1.4	0	NG/L	180	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	8/8/2023	1.4	1.4	0	NG/L	180	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	8/8/2023	14	14	0	NG/L	180	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	8/8/2023	2.8	2.8	0	NG/L	180	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	8/8/2023	2.8	2.8	0	NG/L	180	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	8/8/2023	2.8	2.8	0	NG/L	180	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	8/8/2023	2.8	2.8	0	NG/L	180	U	W
Perfluorobutanesulfonate (PFBS)	8/8/2023	1.8	1.4	0	NG/L	180		W
Perfluorobutyric acid (PFBA)	8/8/2023	5.6	5.5	0	NG/L	180		W
Perfluorodecanesulfonate (PFDS)	8/8/2023	1.4	1.4	0	NG/L	180	U	W
Perfluorodecanoic acid (PFDA)	8/8/2023	0.29	1.4	0	NG/L	180	J	W
Perfluorododecane sulfonic acid (PFDoS)	8/8/2023	1.4	1.4	0	NG/L	180	U	W
Perfluorododecanoic acid (PFDoA)	8/8/2023	1.4	1.4	0	NG/L	180	U	W
Perfluoroheptanesulfonate (PFHpS)	8/8/2023	1	1.4	0	NG/L	180	J	W
Perfluoroheptanoic acid (PFHpA)	8/8/2023	1.7	1.4	0	NG/L	180		W
Perfluorohexanesulfonate (PFHxS)	8/8/2023	35	1.4	0	NG/L	180		W
Perfluorohexanoic acid (PFHxA)	8/8/2023	6.3	1.4	0	NG/L	180		W
Perfluorononanesulfonate (PFNS)	8/8/2023	1.4	1.4	0	NG/L	180	U	W
Perfluorononanoic acid (PFNA)	8/8/2023	0.85	1.4	0	NG/L	180	J	W
Perfluorooctane sulfonamide (PFOSAm)	8/8/2023	1.8	1.4	0	NG/L	180		W
Perfluorooctanesulfonate (PFOS)	8/8/2023	13	1.4	0	NG/L	180		W
Perfluorooctanoic acid (PFOA)	8/8/2023	6.5	1.4	0	NG/L	180		W
Perfluoropentanesulfonate (PFPeS)	8/8/2023	2.1	1.4	0	NG/L	180		W
Perfluoropentanoic acid (PFPeA)	8/8/2023	2.4	2.8	0	NG/L	180	J	W
Perfluorotetradecanoic acid (PFTeDA)	8/8/2023	1.4	1.4	0	NG/L	180	U	W
Perfluorotridecanoic acid (PFTrDA)	8/8/2023	1.4	1.4	0	NG/L	180	U	W
Perfluoroundecanoic acid (PFUdA)	8/8/2023	1.4	1.4	0	NG/L	180	U	W
1,4-Dioxane	6/28/2023	0.35	0.2	0	UG/L	180		W
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/28/2023	3780	3780	0	NG/L	180	R	W
1633 TPFAS	6/28/2023	0	0	0	NG/L	180	R	W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/28/2023	3840	3840	0	NG/L	180	R	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/28/2023	20000	20000	0	NG/L	180	R	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/28/2023	20000	20000	0	NG/L	180	R	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/28/2023	4000	4000	0	NG/L	180	R	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/28/2023	3780	3780	0	NG/L	180	R	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/28/2023	3740	3740	0	NG/L	180	R	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/28/2023	3750	3750	0	NG/L	180	R	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/28/2023	3800	3800	0	NG/L	180	R	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/28/2023	4000	4000	0	NG/L	180	R	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/28/2023	1000	1000	0	NG/L	180	R	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/28/2023	1000	1000	0	NG/L	180	R	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/28/2023	10000	10000	0	NG/L	180	R	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/28/2023	1000	1000	0	NG/L	180	R	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/28/2023	1000	1000	0	NG/L	180	R	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/28/2023	10000	10000	0	NG/L	180	R	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/28/2023	2000	2000	0	NG/L	180	R	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/28/2023	1780	1780	0	NG/L	180	R	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/28/2023	2000	2000	0	NG/L	180	R	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/28/2023	2000	2000	0	NG/L	180	R	W
Perfluorobutanesulfonate (PFBS)	6/28/2023	887	887	0	NG/L	180	R	W
Perfluorobutyric acid (PFBA)	6/28/2023	4000	4000	0	NG/L	180	R	W
Perfluorodecanesulfonate (PFDS)	6/28/2023	965	965	0	NG/L	180	R	W
Perfluorodecanoic acid (PFDA)	6/28/2023	1000	1000	0	NG/L	180	R	W
Perfluorododecane sulfonic acid (PFDoS)	6/28/2023	970	970	0	NG/L	180	R	W
Perfluorododecanoic acid (PFDoA)	6/28/2023	1000	1000	0	NG/L	180	R	W
Perfluoroheptanesulfonate (PFHpS)	6/28/2023	953	953	0	NG/L	180	R	W
Perfluoroheptanoic acid (PFHpA)	6/28/2023	1000	1000	0	NG/L	180	R	W
Perfluorohexanesulfonate (PFHxS)	6/28/2023	914	914	0	NG/L	180	R	W
Perfluorohexanoic acid (PFHxA)	6/28/2023	1000	1000	0	NG/L	180	R	W
Perfluorononanesulfonate (PFNS)	6/28/2023	962	962	0	NG/L	180	R	W
Perfluorononanoic acid (PFNA)	6/28/2023	1000	1000	0	NG/L	180	R	W
Perfluorooctane sulfonamide (PFOSAm)	6/28/2023	1000	1000	0	NG/L	180	R	W
Perfluorooctanesulfonate (PFOS)	6/28/2023	928	928	0	NG/L	180	R	W
Perfluorooctanoic acid (PFOA)	6/28/2023	1000	1000	0	NG/L	180	R	W
Perfluoropentanesulfonate (PFPeS)	6/28/2023	941	941	0	NG/L	180	R	W
Perfluoropentanoic acid (PFPeA)	6/28/2023	1000	1000	0	NG/L	180	R	W
Perfluorotetradecanoic acid (PFTeDA)	6/28/2023	1000	1000	0	NG/L	180	R	W
Perfluorotridecanoic acid (PFTrDA)	6/28/2023	1000	1000	0	NG/L	180	R	W
Perfluoroundecanoic acid (PFUdA)	6/28/2023	1000	1000	0	NG/L	180	R	W

Site ID : 121-17

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	8/8/2023	6.3	6.3	0	NG/L	170	U	W
1633 TPFAS	8/8/2023	23.82	0	0	NG/L	170		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	8/8/2023	6.3	6.3	0	NG/L	170	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	8/8/2023	39	39	0	NG/L	170	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	8/8/2023	39	39	0	NG/L	170	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	8/8/2023	7.8	7.8	0	NG/L	170	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	8/8/2023	6.3	6.3	0	NG/L	170	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	8/8/2023	6.3	6.3	0	NG/L	170	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	8/8/2023	6.3	6.3	0	NG/L	170	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	8/8/2023	6.3	6.3	0	NG/L	170	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	8/8/2023	6.3	6.3	0	NG/L	170	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	8/8/2023	1.6	1.6	0	NG/L	170	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	8/8/2023	1.6	1.6	0	NG/L	170	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	8/8/2023	16	16	0	NG/L	170	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	8/8/2023	1.6	1.6	0	NG/L	170	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	8/8/2023	1.6	1.6	0	NG/L	170	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	8/8/2023	16	16	0	NG/L	170	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	8/8/2023	3.1	3.1	0	NG/L	170	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	8/8/2023	3.1	3.1	0	NG/L	170	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	8/8/2023	3.1	3.1	0	NG/L	170	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	8/8/2023	3.1	3.1	0	NG/L	170	U	W
Perfluorobutanesulfonate (PFBS)	8/8/2023	0.91	1.6	0	NG/L	170	J	W
Perfluorobutyric acid (PFBA)	8/8/2023	9.6	6.3	0	NG/L	170		W
Perfluorodecanesulfonate (PFDS)	8/8/2023	1.6	1.6	0	NG/L	170	U	W
Perfluorodecanoic acid (PFDA)	8/8/2023	1.6	1.6	0	NG/L	170	U	W
Perfluorododecane sulfonic acid (PFDoS)	8/8/2023	1.6	1.6	0	NG/L	170	U	W
Perfluorododecanoic acid (PFDoA)	8/8/2023	1.6	1.6	0	NG/L	170	U	W
Perfluoroheptanesulfonate (PFHpS)	8/8/2023	1.6	1.6	0	NG/L	170	U	W
Perfluoroheptanoic acid (PFHpA)	8/8/2023	0.65	1.6	0	NG/L	170	J	W
Perfluorohexanesulfonate (PFHxS)	8/8/2023	4.9	1.6	0	NG/L	170		W
Perfluorohexanoic acid (PFHxA)	8/8/2023	1.1	1.6	0	NG/L	170	J	W
Perfluorononanesulfonate (PFNS)	8/8/2023	1.6	1.6	0	NG/L	170	U	W
Perfluorononanoic acid (PFNA)	8/8/2023	1.6	1.6	0	NG/L	170	U	W
Perfluorooctane sulfonamide (PFOSAm)	8/8/2023	1.6	1.6	0	NG/L	170	U	W
Perfluorooctanesulfonate (PFOS)	8/8/2023	2.8	1.6	0	NG/L	170		W
Perfluorooctanoic acid (PFOA)	8/8/2023	2.6	1.6	0	NG/L	170		W
Perfluoropentanesulfonate (PFPeS)	8/8/2023	0.72	1.6	0	NG/L	170	J	W
Perfluoropentanoic acid (PFPeA)	8/8/2023	0.54	3.1	0	NG/L	170	J	W
Perfluorotetradecanoic acid (PFTeDA)	8/8/2023	1.6	1.6	0	NG/L	170	U	W
Perfluorotridecanoic acid (PFTrDA)	8/8/2023	1.6	1.6	0	NG/L	170	U	W
Perfluoroundecanoic acid (PFUdA)	8/8/2023	1.6	1.6	0	NG/L	170	U	W
1,4-Dioxane	6/28/2023	0.59	0.2	0	UG/L	170		W
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/28/2023	7.07	7.07	0	NG/L	170	U	W
1633 TPFAS	6/28/2023	26.07	0	0	NG/L	170		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/28/2023	7.18	7.18	0	NG/L	170	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/28/2023	37.4	37.4	0	NG/L	170	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/28/2023	37.4	37.4	0	NG/L	170	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/28/2023	7.48	7.48	0	NG/L	170	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/28/2023	7.07	7.07	0	NG/L	170	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/28/2023	6.99	6.99	0	NG/L	170	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/28/2023	7.01	7.01	0	NG/L	170	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/28/2023	7.1	7.1	0	NG/L	170	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/28/2023	7.48	7.48	0	NG/L	170	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/28/2023	1.87	1.87	0	NG/L	170	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/28/2023	1.87	1.87	0	NG/L	170	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/28/2023	18.7	18.7	0	NG/L	170	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/28/2023	1.87	1.87	0	NG/L	170	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/28/2023	1.87	1.87	0	NG/L	170	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/28/2023	18.7	18.7	0	NG/L	170	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/28/2023	3.74	3.74	0	NG/L	170	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/28/2023	3.33	3.33	0	NG/L	170	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/28/2023	3.74	3.74	0	NG/L	170	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/28/2023	3.74	3.74	0	NG/L	170	U	W
Perfluorobutanesulfonate (PFBS)	6/28/2023	1.02	1.66	0	NG/L	170	J	W
Perfluorobutyric acid (PFBA)	6/28/2023	9.3	7.48	0	NG/L	170		W
Perfluorodecanesulfonate (PFDS)	6/28/2023	1.8	1.8	0	NG/L	170	U	W
Perfluorodecanoic acid (PFDA)	6/28/2023	1.87	1.87	0	NG/L	170	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/28/2023	1.81	1.81	0	NG/L	170	U	W
Perfluorododecanoic acid (PFDoA)	6/28/2023	1.87	1.87	0	NG/L	170	U	W
Perfluoroheptanesulfonate (PFHpS)	6/28/2023	1.78	1.78	0	NG/L	170	U	W
Perfluoroheptanoic acid (PFHpA)	6/28/2023	1.02	1.87	0	NG/L	170	J	W
Perfluorohexanesulfonate (PFHxS)	6/28/2023	4.12	1.71	0	NG/L	170		W
Perfluorohexanoic acid (PFHxA)	6/28/2023	1.98	1.87	0	NG/L	170		W
Perfluorononanesulfonate (PFNS)	6/28/2023	1.8	1.8	0	NG/L	170	U	W
Perfluorononanoic acid (PFNA)	6/28/2023	1.87	1.87	0	NG/L	170	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/28/2023	1.87	1.87	0	NG/L	170	U	W
Perfluorooctanesulfonate (PFOS)	6/28/2023	2.99	1.74	0	NG/L	170		W
Perfluorooctanoic acid (PFOA)	6/28/2023	2.82	1.87	0	NG/L	170		W
Perfluoropentanesulfonate (PFPeS)	6/28/2023	1.1	1.76	0	NG/L	170	J	W
Perfluoropentanoic acid (PFPeA)	6/28/2023	1.72	1.87	0	NG/L	170	J	W
Perfluorotetradecanoic acid (PFTeDA)	6/28/2023	1.87	1.87	0	NG/L	170	U	W
Perfluorotridecanoic acid (PFTrDA)	6/28/2023	1.87	1.87	0	NG/L	170	U	W
Perfluoroundecanoic acid (PFUdA)	6/28/2023	1.87	1.87	0	NG/L	170	U	W

Site ID : 121-41

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	10/18/2023	7.11	7.11	0	NG/L	0	U	W
1633 TPFAS	10/18/2023	76.027	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	10/18/2023	7.22	7.22	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	10/18/2023	37.6	37.6	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	10/18/2023	37.6	37.6	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	10/18/2023	7.52	7.52	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	10/18/2023	7.11	7.11	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	10/18/2023	7.04	7.04	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	10/18/2023	7.05	7.05	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	10/18/2023	7.15	7.15	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	10/18/2023	7.52	7.52	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	10/18/2023	18.8	18.8	0	NG/L	0	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

N-Methylperfluorooctane sulfonamide (NMeFOSAA)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	10/18/2023	18.8	18.8	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	10/18/2023	3.76	3.76	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	10/18/2023	3.35	3.35	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	10/18/2023	3.76	3.76	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	10/18/2023	3.76	3.76	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	10/18/2023	1.66	1.67	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	10/18/2023	7.54	7.52	0	NG/L	0		W
Perfluorodecanesulfonate (PFDS)	10/18/2023	1.82	1.82	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	10/18/2023	1.82	1.82	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	10/18/2023	0.865	1.79	0	NG/L	0	J	W
Perfluoroheptanoic acid (PFHpA)	10/18/2023	1.88	1.88	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	10/18/2023	37.5	1.72	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	10/18/2023	6.11	1.88	0	NG/L	0		W
Perfluorononanesulfonate (PFNS)	10/18/2023	1.81	1.81	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	10/18/2023	0.692	1.88	0	NG/L	0	J	W
Perfluorooctane sulfonamide (PFOSAm)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	10/18/2023	8.29	1.75	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	10/18/2023	7.15	1.88	0	NG/L	0		W
Perfluoropentanesulfonate (PFPeS)	10/18/2023	2.29	1.77	0	NG/L	0		W
Perfluoropentanoic acid (PFPeA)	10/18/2023	2.05	1.88	0	NG/L	0		W
Perfluorotetradecanoic acid (PFTeDA)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	10/18/2023	1.88	1.88	0	NG/L	0	U	W
1,4-Dioxane	10/18/2023	1.7	0.22	0	UG/L	0		W
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	8/8/2023	6	6	0	NG/L	0	U	W
1633 TPFAS	8/8/2023	66.64	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	8/8/2023	6	6	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	8/8/2023	38	38	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	8/8/2023	38	38	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	8/8/2023	7.5	7.5	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	8/8/2023	6	6	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	8/8/2023	6	6	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	8/8/2023	6	6	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	8/8/2023	6	6	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	8/8/2023	6	6	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	8/8/2023	1.5	1.5	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	8/8/2023	1.5	1.5	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	8/8/2023	15	15	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	8/8/2023	1.5	1.5	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	8/8/2023	1.5	1.5	0	NG/L	0	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	8/8/2023	15	15	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	8/8/2023	3	3	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	8/8/2023	3	3	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	8/8/2023	3	3	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	8/8/2023	3	3	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	8/8/2023	1.5	1.5	0	NG/L	0		W
Perfluorobutyric acid (PFBA)	8/8/2023	8.1	6	0	NG/L	0		W
Perfluorodecanesulfonate (PFDS)	8/8/2023	1.5	1.5	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	8/8/2023	1.5	1.5	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	8/8/2023	1.5	1.5	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	8/8/2023	1.5	1.5	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	8/8/2023	1.5	1.5	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	8/8/2023	1.4	1.5	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	8/8/2023	32	1.5	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	8/8/2023	4.7	1.5	0	NG/L	0		W
Perfluorononanesulfonate (PFNS)	8/8/2023	1.5	1.5	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	8/8/2023	0.62	1.5	0	NG/L	0	J	W
Perfluorooctane sulfonamide (PFOSAm)	8/8/2023	0.22	1.5	0	NG/L	0	J	W
Perfluorooctanesulfonate (PFOS)	8/8/2023	8.4	1.5	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	8/8/2023	5.7	1.5	0	NG/L	0		W
Perfluoropentanesulfonate (PFPeS)	8/8/2023	2	1.5	0	NG/L	0		W
Perfluoropentanoic acid (PFPeA)	8/8/2023	2	3	0	NG/L	0	J	W
Perfluorotetradecanoic acid (PFTeDA)	8/8/2023	1.5	1.5	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	8/8/2023	1.5	1.5	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	8/8/2023	1.5	1.5	0	NG/L	0	U	W
1,4-Dioxane	6/28/2023	0.82	0.2	0	UG/L	0		W
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/28/2023	189	189	0	NG/L	222	R	W
1633 TPFAS	6/28/2023	68.8	0	0	NG/L	222	R	W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/28/2023	192	192	0	NG/L	222	R	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/28/2023	1000	1000	0	NG/L	222	R	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/28/2023	1000	1000	0	NG/L	222	R	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/28/2023	200	200	0	NG/L	222	R	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/28/2023	189	189	0	NG/L	222	R	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/28/2023	187	187	0	NG/L	222	R	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/28/2023	188	188	0	NG/L	222	R	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/28/2023	190	190	0	NG/L	222	R	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/28/2023	200	200	0	NG/L	222	R	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/28/2023	50	50	0	NG/L	222	R	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/28/2023	50	50	0	NG/L	222	R	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/28/2023	500	500	0	NG/L	222	R	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/28/2023	50	50	0	NG/L	222	R	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/28/2023	50	50	0	NG/L	222	R	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/28/2023	500	500	0	NG/L	222	R	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/28/2023	100	100	0	NG/L	222	R	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/28/2023	89	89	0	NG/L	222	R	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/28/2023	100	100	0	NG/L	222	R	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Perfluoro-4-methoxybutanoic acid (PFMBA)	6/28/2023	100	100	0	NG/L	222	R	W
Perfluorobutanesulfonate (PFBS)	6/28/2023	44.4	44.4	0	NG/L	222	R	W
Perfluorobutyric acid (PFBA)	6/28/2023	200	200	0	NG/L	222	R	W
Perfluorodecanesulfonate (PFDS)	6/28/2023	48.3	48.3	0	NG/L	222	R	W
Perfluorodecanoic acid (PFDA)	6/28/2023	50	50	0	NG/L	222	R	W
Perfluorododecane sulfonic acid (PFDoS)	6/28/2023	48.5	48.5	0	NG/L	222	R	W
Perfluorododecanoic acid (PFDoA)	6/28/2023	50	50	0	NG/L	222	R	W
Perfluoroheptanesulfonate (PFHpS)	6/28/2023	47.7	47.7	0	NG/L	222	R	W
Perfluoroheptanoic acid (PFHpA)	6/28/2023	50	50	0	NG/L	222	R	W
Perfluorohexanesulfonate (PFHxS)	6/28/2023	28.2	45.7	0	NG/L	222	R	W
Perfluorohexanoic acid (PFHxA)	6/28/2023	50	50	0	NG/L	222	R	W
Perfluorononanesulfonate (PFNS)	6/28/2023	48.1	48.1	0	NG/L	222	R	W
Perfluorononanoic acid (PFNA)	6/28/2023	50	50	0	NG/L	222	R	W
Perfluorooctane sulfonamide (PFOSAm)	6/28/2023	50	50	0	NG/L	222	R	W
Perfluorooctanesulfonate (PFOS)	6/28/2023	21.5	46.4	0	NG/L	222	R	W
Perfluorooctanoic acid (PFOA)	6/28/2023	19.1	50	0	NG/L	222	R	W
Perfluoropentanesulfonate (PFPeS)	6/28/2023	47.1	47.1	0	NG/L	222	R	W
Perfluoropentanoic acid (PFPeA)	6/28/2023	50	50	0	NG/L	222	R	W
Perfluorotetradecanoic acid (PFTeDA)	6/28/2023	50	50	0	NG/L	222	R	W
Perfluorotridecanoic acid (PFTrDA)	6/28/2023	50	50	0	NG/L	222	R	W
Perfluoroundecanoic acid (PFUdA)	6/28/2023	50	50	0	NG/L	222	R	W

Site ID : 121-46

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	8/8/2023	5.9	5.9	0	NG/L	222	U	W
1633 TPFAS	8/8/2023	67.43	0	0	NG/L	222		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	8/8/2023	5.9	5.9	0	NG/L	222	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	8/8/2023	37	37	0	NG/L	222	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	8/8/2023	37	37	0	NG/L	222	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	8/8/2023	7.4	7.4	0	NG/L	222	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	8/8/2023	5.9	5.9	0	NG/L	222	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	8/8/2023	5.9	5.9	0	NG/L	222	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	8/8/2023	5.9	5.9	0	NG/L	222	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	8/8/2023	5.9	5.9	0	NG/L	222	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	8/8/2023	5.9	5.9	0	NG/L	222	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	8/8/2023	1.5	1.5	0	NG/L	222	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	8/8/2023	1.5	1.5	0	NG/L	222	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	8/8/2023	15	15	0	NG/L	222	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	8/8/2023	1.5	1.5	0	NG/L	222	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	8/8/2023	1.5	1.5	0	NG/L	222	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	8/8/2023	15	15	0	NG/L	222	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	8/8/2023	3	3	0	NG/L	222	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	8/8/2023	3	3	0	NG/L	222	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	8/8/2023	3	3	0	NG/L	222	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	8/8/2023	3	3	0	NG/L	222	U	W
Perfluorobutanesulfonate (PFBS)	8/8/2023	1.6	1.5	0	NG/L	222		W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Perfluorobutyric acid (PFBA)	8/8/2023	8.3	5.9	0	NG/L	222		W
Perfluorodecanesulfonate (PFDS)	8/8/2023	1.5	1.5	0	NG/L	222	U	W
Perfluorodecanoic acid (PFDA)	8/8/2023	0.14	1.5	0	NG/L	222	J	W
Perfluorododecane sulfonic acid (PFDoS)	8/8/2023	1.5	1.5	0	NG/L	222	U	W
Perfluorododecanoic acid (PFDoA)	8/8/2023	1.5	1.5	0	NG/L	222	U	W
Perfluoroheptanesulfonate (PFHpS)	8/8/2023	1.5	1.5	0	NG/L	222	U	W
Perfluoroheptanoic acid (PFHpA)	8/8/2023	1.5	1.5	0	NG/L	222		W
Perfluorohexanesulfonate (PFHxS)	8/8/2023	30	1.5	0	NG/L	222		W
Perfluorohexanoic acid (PFHxA)	8/8/2023	4.9	1.5	0	NG/L	222		W
Perfluorononanesulfonate (PFNS)	8/8/2023	1.5	1.5	0	NG/L	222	U	W
Perfluorononanoic acid (PFNA)	8/8/2023	0.59	1.5	0	NG/L	222	J	W
Perfluorooctane sulfonamide (PFOSAm)	8/8/2023	1.5	1.5	0	NG/L	222		W
Perfluorooctanesulfonate (PFOS)	8/8/2023	8.2	1.5	0	NG/L	222		W
Perfluorooctanoic acid (PFOA)	8/8/2023	6.9	1.5	0	NG/L	222		W
Perfluoropentanesulfonate (PFPeS)	8/8/2023	1.7	1.5	0	NG/L	222		W
Perfluoropentanoic acid (PFPeA)	8/8/2023	2.1	3	0	NG/L	222	J	W
Perfluorotetradecanoic acid (PFTeDA)	8/8/2023	1.5	1.5	0	NG/L	222	U	W
Perfluorotridecanoic acid (PFTrDA)	8/8/2023	1.5	1.5	0	NG/L	222	U	W
Perfluoroundecanoic acid (PFUdA)	8/8/2023	1.5	1.5	0	NG/L	222	U	W
1,4-Dioxane	6/28/2023	1.2	0.2	0	UG/L	222		W
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/28/2023	6.76	6.76	0	NG/L	222	U	W
1633 TPFAS	6/28/2023	56.174	0	0	NG/L	222		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/28/2023	6.87	6.87	0	NG/L	222	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/28/2023	35.8	35.8	0	NG/L	222	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/28/2023	35.8	35.8	0	NG/L	222	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/28/2023	7.15	7.15	0	NG/L	222	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/28/2023	6.76	6.76	0	NG/L	222	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/28/2023	6.69	6.69	0	NG/L	222	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/28/2023	6.71	6.71	0	NG/L	222	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/28/2023	6.79	6.79	0	NG/L	222	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/28/2023	7.15	7.15	0	NG/L	222	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/28/2023	1.79	1.79	0	NG/L	222	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/28/2023	1.79	1.79	0	NG/L	222	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/28/2023	17.9	17.9	0	NG/L	222	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/28/2023	1.79	1.79	0	NG/L	222	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/28/2023	1.79	1.79	0	NG/L	222	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/28/2023	17.9	17.9	0	NG/L	222	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/28/2023	3.58	3.58	0	NG/L	222	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/28/2023	3.18	3.18	0	NG/L	222	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/28/2023	3.58	3.58	0	NG/L	222	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/28/2023	3.58	3.58	0	NG/L	222	U	W
Perfluorobutanesulfonate (PFBS)	6/28/2023	1.9	1.59	0	NG/L	222		W
Perfluorobutyric acid (PFBA)	6/28/2023	8.11	7.15	0	NG/L	222		W
Perfluorodecanesulfonate (PFDS)	6/28/2023	1.73	1.73	0	NG/L	222	U	W
Perfluorodecanoic acid (PFDA)	6/28/2023	1.79	1.79	0	NG/L	222	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/28/2023	1.73	1.73	0	NG/L	222	U	W
Perfluorododecanoic acid (PFDoA)	6/28/2023	1.79	1.79	0	NG/L	222	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Perfluoroheptanesulfonate (PFHpS)	6/28/2023	0.784	1.7	0	NG/L	222	J	W
Perfluoroheptanoic acid (PFHpA)	6/28/2023	1.64	1.79	0	NG/L	222	J	W
Perfluorohexanesulfonate (PFHxS)	6/28/2023	21.7	1.63	0	NG/L	222		W
Perfluorohexanoic acid (PFHxA)	6/28/2023	3.82	1.79	0	NG/L	222		W
Perfluorononanesulfonate (PFNS)	6/28/2023	1.72	1.72	0	NG/L	222	U	W
Perfluorononanoic acid (PFNA)	6/28/2023	0.885	1.79	0	NG/L	222	J	W
Perfluorooctane sulfonamide (PFOSAm)	6/28/2023	0.935	1.79	0	NG/L	222	J	W
Perfluorooctanesulfonate (PFOS)	6/28/2023	6.71	1.66	0	NG/L	222		W
Perfluorooctanoic acid (PFOA)	6/28/2023	5.22	1.79	0	NG/L	222		W
Perfluoropentanesulfonate (PFPeS)	6/28/2023	1.71	1.68	0	NG/L	222		W
Perfluoropentanoic acid (PFPeA)	6/28/2023	2.76	1.79	0	NG/L	222		W
Perfluorotetradecanoic acid (PFTeDA)	6/28/2023	1.79	1.79	0	NG/L	222	U	W
Perfluorotridecanoic acid (PFTrDA)	6/28/2023	1.79	1.79	0	NG/L	222	U	W
Perfluoroundecanoic acid (PFUdA)	6/28/2023	1.79	1.79	0	NG/L	222	U	W

Site ID : 121-55

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	10/18/2023	6.99	6.99	0	NG/L	0	U	W
1633 TPFAS	10/18/2023	20.108	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	10/18/2023	7.1	7.1	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	10/18/2023	37	37	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	10/18/2023	37	37	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	10/18/2023	7.39	7.39	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	10/18/2023	6.99	6.99	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	10/18/2023	6.91	6.91	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	10/18/2023	6.93	6.93	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	10/18/2023	7.02	7.02	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	10/18/2023	7.39	7.39	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	10/18/2023	1.85	1.85	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	10/18/2023	1.85	1.85	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	10/18/2023	18.5	18.5	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	10/18/2023	1.85	1.85	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	10/18/2023	1.85	1.85	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	10/18/2023	18.5	18.5	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	10/18/2023	3.7	3.7	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	10/18/2023	3.29	3.29	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	10/18/2023	3.7	3.7	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	10/18/2023	3.7	3.7	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	10/18/2023	1.32	1.64	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	10/18/2023	3.3	7.39	0	NG/L	0	J	W
Perfluorodecanesulfonate (PFDS)	10/18/2023	1.78	1.78	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	10/18/2023	1.85	1.85	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	10/18/2023	1.79	1.79	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	10/18/2023	1.85	1.85	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	10/18/2023	1.76	1.76	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	10/18/2023	1.85	1.85	0	NG/L	0	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Perfluorohexanesulfonate (PFHxS)	10/18/2023	7.54	1.69	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	10/18/2023	0.808	1.85	0	NG/L	0	J	W
Perfluorononanesulfonate (PFNS)	10/18/2023	1.78	1.78	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	10/18/2023	1.85	1.85	0	NG/L	0	U	W
Perfluorooctane sulfonamide (PFOSAm)	10/18/2023	1.85	1.85	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	10/18/2023	4.38	1.72	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	10/18/2023	1.74	1.85	0	NG/L	0	J	W
Perfluoropentanesulfonate (PFPeS)	10/18/2023	1.02	1.74	0	NG/L	0	J	W
Perfluoropentanoic acid (PFPeA)	10/18/2023	1.85	1.85	0	NG/L	0	U	W
Perfluorotetradecanoic acid (PFTeDA)	10/18/2023	1.85	1.85	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	10/18/2023	1.85	1.85	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	10/18/2023	1.85	1.85	0	NG/L	0	U	W
1,4-Dioxane	10/18/2023	4.4	0.24	0	UG/L	0		W
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/29/2023	6.72	6.72	0	NG/L	0	U	W
1633 TPFAS	6/29/2023	18.884	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/29/2023	6.83	6.83	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/29/2023	35.6	35.6	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/29/2023	35.6	35.6	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/29/2023	7.11	7.11	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/29/2023	6.72	6.72	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/29/2023	6.65	6.65	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/29/2023	6.67	6.67	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/29/2023	6.75	6.75	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/29/2023	7.11	7.11	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/29/2023	1.78	1.78	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/29/2023	1.78	1.78	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/29/2023	17.8	17.8	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/29/2023	1.78	1.78	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/29/2023	1.78	1.78	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/29/2023	17.8	17.8	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/29/2023	3.56	3.56	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/29/2023	3.16	3.16	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/29/2023	3.56	3.56	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/29/2023	3.56	3.56	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	6/29/2023	1.12	1.58	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	6/29/2023	5.62	7.11	0	NG/L	0	J	W
Perfluorodecanesulfonate (PFDS)	6/29/2023	1.72	1.72	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	6/29/2023	1.78	1.78	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/29/2023	1.72	1.72	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	6/29/2023	1.78	1.78	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	6/29/2023	1.69	1.69	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	6/29/2023	1.78	1.78	0	NG/L	0	U	W
Perfluorohexanesulfonate (PFHxS)	6/29/2023	6.08	1.62	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	6/29/2023	1.23	1.78	0	NG/L	0	J	W
Perfluorononanesulfonate (PFNS)	6/29/2023	1.71	1.71	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	6/29/2023	1.78	1.78	0	NG/L	0	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/29/2023	1.78	1.78	0	NG/L	0	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Perfluorooctanesulfonate (PFOS)	6/29/2023	2.27	1.65	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	6/29/2023	1.63	1.78	0	NG/L	0	J	W
Perfluoropentanesulfonate (PFPeS)	6/29/2023	0.934	1.67	0	NG/L	0	J	W
Perfluoropentanoic acid (PFPeA)	6/29/2023	1.78	1.78	0	NG/L	0	U	W
Perfluorotetradecanoic acid (PFTeDA)	6/29/2023	1.78	1.78	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	6/29/2023	1.78	1.78	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	6/29/2023	1.78	1.78	0	NG/L	0	U	W
1,4-Dioxane	6/29/2023	4.4	0.2	0	UG/L	0		W

Site ID : 122-12

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	8/8/2023	6	6	0	NG/L	250	U	W
1633 TPFAS	8/8/2023	58.71	0	0	NG/L	250		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	8/8/2023	6	6	0	NG/L	250	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	8/8/2023	37	37	0	NG/L	250	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	8/8/2023	37	37	0	NG/L	250	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	8/8/2023	7.5	7.5	0	NG/L	250	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	8/8/2023	6	6	0	NG/L	250	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	8/8/2023	6	6	0	NG/L	250	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	8/8/2023	6	6	0	NG/L	250	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	8/8/2023	6	6	0	NG/L	250	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	8/8/2023	6	6	0	NG/L	250	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	8/8/2023	1.5	1.5	0	NG/L	250	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	8/8/2023	1.5	1.5	0	NG/L	250	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	8/8/2023	15	15	0	NG/L	250	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	8/8/2023	1.5	1.5	0	NG/L	250	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	8/8/2023	1.5	1.5	0	NG/L	250	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	8/8/2023	15	15	0	NG/L	250	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	8/8/2023	3	3	0	NG/L	250	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	8/8/2023	3	3	0	NG/L	250	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	8/8/2023	3	3	0	NG/L	250	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	8/8/2023	3	3	0	NG/L	250	U	W
Perfluorobutanesulfonate (PFBS)	8/8/2023	0.73	1.5	0	NG/L	250	J	W
Perfluorobutyric acid (PFBA)	8/8/2023	2.1	6	0	NG/L	250	J	W
Perfluorodecanesulfonate (PFDS)	8/8/2023	1.5	1.5	0	NG/L	250	U	W
Perfluorodecanoic acid (PFDA)	8/8/2023	1.5	1.5	0	NG/L	250	U	W
Perfluorododecane sulfonic acid (PFDoS)	8/8/2023	1.5	1.5	0	NG/L	250	U	W
Perfluorododecanoic acid (PFDoA)	8/8/2023	1.5	1.5	0	NG/L	250	U	W
Perfluoroheptanesulfonate (PFHpS)	8/8/2023	0.58	1.5	0	NG/L	250	J	W
Perfluoroheptanoic acid (PFHpA)	8/8/2023	1.1	1.5	0	NG/L	250	J	W
Perfluorohexanesulfonate (PFHxS)	8/8/2023	22	1.5	0	NG/L	250		W
Perfluorohexanoic acid (PFHxA)	8/8/2023	3	1.5	0	NG/L	250		W
Perfluorononanesulfonate (PFNS)	8/8/2023	1.5	1.5	0	NG/L	250	U	W
Perfluorononanoic acid (PFNA)	8/8/2023	1.5	1.5	0	NG/L	250	U	W
Perfluorooctane sulfonamide (PFOSAm)	8/8/2023	0.19	1.5	0	NG/L	250	J	W
Perfluorooctanesulfonate (PFOS)	8/8/2023	21	1.5	0	NG/L	250		W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Perfluorooctanoic acid (PFOA)	8/8/2023	6.1	1.5	0	NG/L	250		W
Perfluoropentanesulfonate (PFPeS)	8/8/2023	0.91	1.5	0	NG/L	250	J	W
Perfluoropentanoic acid (PFPeA)	8/8/2023	1	3	0	NG/L	250	J	W
Perfluorotetradecanoic acid (PFTeDA)	8/8/2023	1.5	1.5	0	NG/L	250	U	W
Perfluorotridecanoic acid (PFTrDA)	8/8/2023	1.5	1.5	0	NG/L	250	U	W
Perfluoroundecanoic acid (PFUdA)	8/8/2023	1.5	1.5	0	NG/L	250	U	W
1,4-Dioxane	6/28/2023	0.19	0.2	0	UG/L	250	J	W
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/28/2023	75.6	75.6	0	NG/L	250	R	W
1633 TPFAS	6/28/2023	63.7	0	0	NG/L	250	R	W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/28/2023	76.8	76.8	0	NG/L	250	R	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/28/2023	400	400	0	NG/L	250	R	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/28/2023	400	400	0	NG/L	250	R	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/28/2023	80	80	0	NG/L	250	R	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/28/2023	75.6	75.6	0	NG/L	250	R	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/28/2023	74.8	74.8	0	NG/L	250	R	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/28/2023	75	75	0	NG/L	250	R	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/28/2023	76	76	0	NG/L	250	R	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/28/2023	80	80	0	NG/L	250	R	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/28/2023	20	20	0	NG/L	250	R	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/28/2023	20	20	0	NG/L	250	R	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/28/2023	200	200	0	NG/L	250	R	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/28/2023	20	20	0	NG/L	250	R	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/28/2023	20	20	0	NG/L	250	R	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/28/2023	200	200	0	NG/L	250	R	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/28/2023	40	40	0	NG/L	250	R	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/28/2023	35.6	35.6	0	NG/L	250	R	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/28/2023	40	40	0	NG/L	250	R	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/28/2023	40	40	0	NG/L	250	R	W
Perfluorobutanesulfonate (PFBS)	6/28/2023	17.7	17.7	0	NG/L	250	R	W
Perfluorobutyric acid (PFBA)	6/28/2023	80	80	0	NG/L	250	R	W
Perfluorodecanesulfonate (PFDS)	6/28/2023	19.3	19.3	0	NG/L	250	R	W
Perfluorodecanoic acid (PFDA)	6/28/2023	20	20	0	NG/L	250	R	W
Perfluorododecane sulfonic acid (PFDoS)	6/28/2023	19.4	19.4	0	NG/L	250	R	W
Perfluorododecanoic acid (PFDoA)	6/28/2023	20	20	0	NG/L	250	R	W
Perfluoroheptanesulfonate (PFHpS)	6/28/2023	19.1	19.1	0	NG/L	250	R	W
Perfluoroheptanoic acid (PFHpA)	6/28/2023	20	20	0	NG/L	250	R	W
Perfluorohexanesulfonate (PFHxS)	6/28/2023	21.6	18.3	0	NG/L	250	R	W
Perfluorohexanoic acid (PFHxA)	6/28/2023	11.6	20	0	NG/L	250	R	W
Perfluorononanesulfonate (PFNS)	6/28/2023	19.2	19.2	0	NG/L	250	R	W
Perfluorononanoic acid (PFNA)	6/28/2023	20	20	0	NG/L	250	R	W
Perfluorooctane sulfonamide (PFOSAm)	6/28/2023	20	20	0	NG/L	250	R	W
Perfluorooctanesulfonate (PFOS)	6/28/2023	20.1	18.6	0	NG/L	250	R	W
Perfluorooctanoic acid (PFOA)	6/28/2023	10.4	20	0	NG/L	250	R	W
Perfluoropentanesulfonate (PFPeS)	6/28/2023	18.8	18.8	0	NG/L	250	R	W
Perfluoropentanoic acid (PFPeA)	6/28/2023	20	20	0	NG/L	250	R	W
Perfluorotetradecanoic acid (PFTeDA)	6/28/2023	20	20	0	NG/L	250	R	W
Perfluorotridecanoic acid (PFTrDA)	6/28/2023	20	20	0	NG/L	250	R	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Perfluoroundecanoic acid (PFUdA)	6/28/2023	20	20	0	NG/L	250	R	W

Site ID : 122-13

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	8/28/2023	6.1	6.1	0	NG/L	190	U	W
1633 TPFAS	8/28/2023	52.47	0	0	NG/L	190		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	8/28/2023	6.1	6.1	0	NG/L	190	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	8/28/2023	38	38	0	NG/L	190	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	8/28/2023	38	38	0	NG/L	190	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	8/28/2023	7.6	7.6	0	NG/L	190	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	8/28/2023	6.1	6.1	0	NG/L	190	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	8/28/2023	6.1	6.1	0	NG/L	190	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	8/28/2023	6.1	6.1	0	NG/L	190	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	8/28/2023	6.1	6.1	0	NG/L	190	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	8/28/2023	6.1	6.1	0	NG/L	190	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	8/28/2023	1.5	1.5	0	NG/L	190	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	8/28/2023	1.5	1.5	0	NG/L	190	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	8/28/2023	15	15	0	NG/L	190	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	8/28/2023	1.5	1.5	0	NG/L	190	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	8/28/2023	1.5	1.5	0	NG/L	190	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	8/28/2023	15	15	0	NG/L	190	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	8/28/2023	3	3	0	NG/L	190	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	8/28/2023	3	3	0	NG/L	190	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	8/28/2023	3	3	0	NG/L	190	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	8/28/2023	3	3	0	NG/L	190	U	W
Perfluorobutanesulfonate (PFBS)	8/28/2023	1.7	1.5	0	NG/L	190		W
Perfluorobutyric acid (PFBA)	8/28/2023	7.4	6.1	0	NG/L	190		W
Perfluorodecanesulfonate (PFDS)	8/28/2023	1.5	1.5	0	NG/L	190	U	W
Perfluorodecanoic acid (PFDA)	8/28/2023	0.27	1.5	0	NG/L	190	J	W
Perfluorododecane sulfonic acid (PFDoS)	8/28/2023	1.5	1.5	0	NG/L	190	U	W
Perfluorododecanoic acid (PFDoA)	8/28/2023	1.5	1.5	0	NG/L	190	U	W
Perfluoroheptanesulfonate (PFHpS)	8/28/2023	1.5	1.5	0	NG/L	190	U	W
Perfluoroheptanoic acid (PFHpA)	8/28/2023	1.5	1.5	0	NG/L	190		W
Perfluorohexanesulfonate (PFHxS)	8/28/2023	12	1.5	0	NG/L	190		W
Perfluorohexanoic acid (PFHxA)	8/28/2023	3.1	1.5	0	NG/L	190		W
Perfluorononanesulfonate (PFNS)	8/28/2023	1.5	1.5	0	NG/L	190	U	W
Perfluorononanoic acid (PFNA)	8/28/2023	1.7	1.5	0	NG/L	190		W
Perfluorooctane sulfonamide (PFOSAm)	8/28/2023	1.5	1.5	0	NG/L	190	U	W
Perfluorooctanesulfonate (PFOS)	8/28/2023	16	1.5	0	NG/L	190		W
Perfluorooctanoic acid (PFOA)	8/28/2023	4.5	1.5	0	NG/L	190		W
Perfluoropentanesulfonate (PFPeS)	8/28/2023	1.4	1.5	0	NG/L	190	J	W
Perfluoropentanoic acid (PFPeA)	8/28/2023	2.9	3	0	NG/L	190	J	W
Perfluorotetradecanoic acid (PFTeDA)	8/28/2023	1.5	1.5	0	NG/L	190	U	W
Perfluorotridecanoic acid (PFTrDA)	8/28/2023	1.5	1.5	0	NG/L	190	U	W
Perfluoroundecanoic acid (PFUdA)	8/28/2023	1.5	1.5	0	NG/L	190	U	W
1,4-Dioxane	8/28/2023	0.5	0.2	0	UG/L	170		W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

1,4-Dioxane	6/28/2023	1.1	0.2	0	UG/L	190		W
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/28/2023	30.2	30.2	0	NG/L	190	R	W
1633 TPFAS	6/28/2023	78.21	0	0	NG/L	190	R	W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/28/2023	30.7	30.7	0	NG/L	190	R	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/28/2023	160	160	0	NG/L	190	R	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/28/2023	160	160	0	NG/L	190	R	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/28/2023	32	32	0	NG/L	190	R	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/28/2023	30.2	30.2	0	NG/L	190	R	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/28/2023	29.9	29.9	0	NG/L	190	R	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/28/2023	30	30	0	NG/L	190	R	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/28/2023	30.4	30.4	0	NG/L	190	R	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/28/2023	32	32	0	NG/L	190	R	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/28/2023	8	8	0	NG/L	190	R	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/28/2023	8	8	0	NG/L	190	R	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/28/2023	80	80	0	NG/L	190	R	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/28/2023	8	8	0	NG/L	190	R	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/28/2023	8	8	0	NG/L	190	R	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/28/2023	80	80	0	NG/L	190	R	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/28/2023	16	16	0	NG/L	190	R	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/28/2023	14.2	14.2	0	NG/L	190	R	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/28/2023	16	16	0	NG/L	190	R	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/28/2023	16	16	0	NG/L	190	R	W
Perfluorobutanesulfonate (PFBS)	6/28/2023	3.5	7.1	0	NG/L	190	R	W
Perfluorobutyric acid (PFBA)	6/28/2023	16.5	32	0	NG/L	190	R	W
Perfluorodecanesulfonate (PFDS)	6/28/2023	7.72	7.72	0	NG/L	190	R	W
Perfluorodecanoic acid (PFDA)	6/28/2023	8	8	0	NG/L	190	R	W
Perfluorododecane sulfonic acid (PFDoS)	6/28/2023	7.76	7.76	0	NG/L	190	R	W
Perfluorododecanoic acid (PFDoA)	6/28/2023	8	8	0	NG/L	190	R	W
Perfluoroheptanesulfonate (PFHpS)	6/28/2023	7.62	7.62	0	NG/L	190	R	W
Perfluoroheptanoic acid (PFHpA)	6/28/2023	3.55	8	0	NG/L	190	R	W
Perfluorohexanesulfonate (PFHxS)	6/28/2023	21	7.31	0	NG/L	190	R	W
Perfluorohexanoic acid (PFHxA)	6/28/2023	8.08	8	0	NG/L	190	R	W
Perfluorononanesulfonate (PFNS)	6/28/2023	7.7	7.7	0	NG/L	190	R	W
Perfluorononanoic acid (PFNA)	6/28/2023	8	8	0	NG/L	190	R	W
Perfluorooctane sulfonamide (PFOSAm)	6/28/2023	8	8	0	NG/L	190	R	W
Perfluorooctanesulfonate (PFOS)	6/28/2023	8.06	7.42	0	NG/L	190	R	W
Perfluorooctanoic acid (PFOA)	6/28/2023	6.44	8	0	NG/L	190	R	W
Perfluoropentanesulfonate (PFPeS)	6/28/2023	3.27	7.53	0	NG/L	190	R	W
Perfluoropentanoic acid (PFPeA)	6/28/2023	7.81	8	0	NG/L	190	R	W
Perfluorotetradecanoic acid (PFTeDA)	6/28/2023	8	8	0	NG/L	190	R	W
Perfluorotridecanoic acid (PFTrDA)	6/28/2023	8	8	0	NG/L	190	R	W
Perfluoroundecanoic acid (PFUdA)	6/28/2023	8	8	0	NG/L	190	R	W

Site ID : 122-14

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	8/8/2023	6.4	6.4	0	NG/L	180	U	W
1633 TPFAS	8/8/2023	86.14	0	0	NG/L	180		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	8/8/2023	6.4	6.4	0	NG/L	180	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	8/8/2023	40	40	0	NG/L	180	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	8/8/2023	40	40	0	NG/L	180	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	8/8/2023	7.9	7.9	0	NG/L	180	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	8/8/2023	6.4	6.4	0	NG/L	180	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	8/8/2023	6.4	6.4	0	NG/L	180	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	8/8/2023	6.4	6.4	0	NG/L	180	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	8/8/2023	6.4	6.4	0	NG/L	180	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	8/8/2023	6.4	6.4	0	NG/L	180	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	8/8/2023	1.6	1.6	0	NG/L	180	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	8/8/2023	1.6	1.6	0	NG/L	180	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	8/8/2023	16	16	0	NG/L	180	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	8/8/2023	1.6	1.6	0	NG/L	180	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	8/8/2023	1.6	1.6	0	NG/L	180	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	8/8/2023	16	16	0	NG/L	180	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	8/8/2023	3.2	3.2	0	NG/L	180	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	8/8/2023	3.2	3.2	0	NG/L	180	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	8/8/2023	3.2	3.2	0	NG/L	180	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	8/8/2023	3.2	3.2	0	NG/L	180	U	W
Perfluorobutanesulfonate (PFBS)	8/8/2023	2.1	1.6	0	NG/L	180		W
Perfluorobutyric acid (PFBA)	8/8/2023	12	6.4	0	NG/L	180		W
Perfluorodecanesulfonate (PFDS)	8/8/2023	1.6	1.6	0	NG/L	180	U	W
Perfluorodecanoic acid (PFDA)	8/8/2023	0.43	1.6	0	NG/L	180	J	W
Perfluorododecane sulfonic acid (PFDoS)	8/8/2023	1.6	1.6	0	NG/L	180	U	W
Perfluorododecanoic acid (PFDoA)	8/8/2023	1.6	1.6	0	NG/L	180	U	W
Perfluoroheptanesulfonate (PFHpS)	8/8/2023	1.6	1.6	0	NG/L	180	U	W
Perfluoroheptanoic acid (PFHpA)	8/8/2023	4.2	1.6	0	NG/L	180		W
Perfluorohexanesulfonate (PFHxS)	8/8/2023	23	1.6	0	NG/L	180		W
Perfluorohexanoic acid (PFHxA)	8/8/2023	10	1.6	0	NG/L	180		W
Perfluorononanesulfonate (PFNS)	8/8/2023	1.6	1.6	0	NG/L	180	U	W
Perfluorononanoic acid (PFNA)	8/8/2023	2.2	1.6	0	NG/L	180		W
Perfluorooctane sulfonamide (PFOSAm)	8/8/2023	0.43	1.6	0	NG/L	180	J	W
Perfluorooctanesulfonate (PFOS)	8/8/2023	14	1.6	0	NG/L	180		W
Perfluorooctanoic acid (PFOA)	8/8/2023	5.6	1.6	0	NG/L	180		W
Perfluoropentanesulfonate (PFPeS)	8/8/2023	2.5	1.6	0	NG/L	180		W
Perfluoropentanoic acid (PFPeA)	8/8/2023	9.3	3.2	0	NG/L	180		W
Perfluorotetradecanoic acid (PFTeDA)	8/8/2023	1.6	1.6	0	NG/L	180	U	W
Perfluorotridecanoic acid (PFTrDA)	8/8/2023	1.6	1.6	0	NG/L	180	U	W
Perfluoroundecanoic acid (PFUdA)	8/8/2023	0.38	1.6	0	NG/L	180	J	W
1,4-Dioxane	6/28/2023	0.6	0.2	0	UG/L	180		W
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/28/2023	756	756	0	NG/L	180	R	W
1633 TPFAS	6/28/2023	72	0	0	NG/L	180	R	W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/28/2023	768	768	0	NG/L	180	R	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/28/2023	4000	4000	0	NG/L	180	R	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/28/2023	4000	4000	0	NG/L	180	R	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/28/2023	800	800	0	NG/L	180	R	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/28/2023	756	756	0	NG/L	180	R	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/28/2023	748	748	0	NG/L	180	R	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/28/2023	750	750	0	NG/L	180	R	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/28/2023	760	760	0	NG/L	180	R	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/28/2023	800	800	0	NG/L	180	R	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/28/2023	200	200	0	NG/L	180	R	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/28/2023	200	200	0	NG/L	180	R	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/28/2023	2000	2000	0	NG/L	180	R	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/28/2023	200	200	0	NG/L	180	R	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/28/2023	200	200	0	NG/L	180	R	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/28/2023	2000	2000	0	NG/L	180	R	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/28/2023	400	400	0	NG/L	180	R	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/28/2023	356	356	0	NG/L	180	R	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/28/2023	400	400	0	NG/L	180	R	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/28/2023	400	400	0	NG/L	180	R	W
Perfluorobutanesulfonate (PFBS)	6/28/2023	177	177	0	NG/L	180	R	W
Perfluorobutyric acid (PFBA)	6/28/2023	800	800	0	NG/L	180	R	W
Perfluorodecanesulfonate (PFDS)	6/28/2023	193	193	0	NG/L	180	R	W
Perfluorodecanoic acid (PFDA)	6/28/2023	200	200	0	NG/L	180	R	W
Perfluorododecane sulfonic acid (PFDoS)	6/28/2023	194	194	0	NG/L	180	R	W
Perfluorododecanoic acid (PFDoA)	6/28/2023	200	200	0	NG/L	180	R	W
Perfluoroheptanesulfonate (PFHpS)	6/28/2023	191	191	0	NG/L	180	R	W
Perfluoroheptanoic acid (PFHpA)	6/28/2023	200	200	0	NG/L	180	R	W
Perfluorohexanesulfonate (PFHxS)	6/28/2023	183	183	0	NG/L	180	R	W
Perfluorohexanoic acid (PFHxA)	6/28/2023	200	200	0	NG/L	180	R	W
Perfluorononanesulfonate (PFNS)	6/28/2023	192	192	0	NG/L	180	R	W
Perfluorononanoic acid (PFNA)	6/28/2023	200	200	0	NG/L	180	R	W
Perfluorooctane sulfonamide (PFOSAm)	6/28/2023	200	200	0	NG/L	180	R	W
Perfluorooctanesulfonate (PFOS)	6/28/2023	72	186	0	NG/L	180	R	W
Perfluorooctanoic acid (PFOA)	6/28/2023	200	200	0	NG/L	180	R	W
Perfluoropentanesulfonate (PFPeS)	6/28/2023	188	188	0	NG/L	180	R	W
Perfluoropentanoic acid (PFPeA)	6/28/2023	200	200	0	NG/L	180	R	W
Perfluorotetradecanoic acid (PFTeDA)	6/28/2023	200	200	0	NG/L	180	R	W
Perfluorotridecanoic acid (PFTrDA)	6/28/2023	200	200	0	NG/L	180	R	W
Perfluoroundecanoic acid (PFUdA)	6/28/2023	200	200	0	NG/L	180	R	W

Site ID : 126-12

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/29/2023	6.77	6.77	0	NG/L	150	U	W
1633 TPFAS	6/29/2023	25.714	0	0	NG/L	150		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/29/2023	6.88	6.88	0	NG/L	150	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/29/2023	35.8	35.8	0	NG/L	150	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/29/2023	35.8	35.8	0	NG/L	150	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/29/2023	7.16	7.16	0	NG/L	150	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/29/2023	6.77	6.77	0	NG/L	150	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/29/2023	6.7	6.7	0	NG/L	150	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/29/2023	6.72	6.72	0	NG/L	150	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/29/2023	6.81	6.81	0	NG/L	150	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/29/2023	7.16	7.16	0	NG/L	150	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/29/2023	1.79	1.79	0	NG/L	150	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/29/2023	1.79	1.79	0	NG/L	150	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/29/2023	17.9	17.9	0	NG/L	150	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/29/2023	1.79	1.79	0	NG/L	150	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/29/2023	1.79	1.79	0	NG/L	150	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/29/2023	17.9	17.9	0	NG/L	150	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/29/2023	3.58	3.58	0	NG/L	150	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/29/2023	3.19	3.19	0	NG/L	150	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/29/2023	3.58	3.58	0	NG/L	150	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/29/2023	3.58	3.58	0	NG/L	150	U	W
Perfluorobutanesulfonate (PFBS)	6/29/2023	1.29	1.59	0	NG/L	150	J	W
Perfluorobutyric acid (PFBA)	6/29/2023	6.44	7.16	0	NG/L	150	J	W
Perfluorodecanesulfonate (PFDS)	6/29/2023	1.73	1.73	0	NG/L	150	U	W
Perfluorodecanoic acid (PFDA)	6/29/2023	1.79	1.79	0	NG/L	150	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/29/2023	1.74	1.74	0	NG/L	150	U	W
Perfluorododecanoic acid (PFDoA)	6/29/2023	1.79	1.79	0	NG/L	150	U	W
Perfluoroheptanesulfonate (PFHpS)	6/29/2023	1.71	1.71	0	NG/L	150	U	W
Perfluoroheptanoic acid (PFHpA)	6/29/2023	0.734	1.79	0	NG/L	150	J	W
Perfluorohexanesulfonate (PFHxS)	6/29/2023	7.94	1.64	0	NG/L	150		W
Perfluorohexanoic acid (PFHxA)	6/29/2023	1.79	1.79	0	NG/L	150	J	W
Perfluorononanesulfonate (PFNS)	6/29/2023	1.72	1.72	0	NG/L	150	U	W
Perfluorononanoic acid (PFNA)	6/29/2023	1.79	1.79	0	NG/L	150	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/29/2023	1.79	1.79	0	NG/L	150	U	W
Perfluorooctanesulfonate (PFOS)	6/29/2023	3.58	1.66	0	NG/L	150		W
Perfluorooctanoic acid (PFOA)	6/29/2023	2.64	1.79	0	NG/L	150		W
Perfluoropentanesulfonate (PFPeS)	6/29/2023	1.3	1.69	0	NG/L	150	J	W
Perfluoropentanoic acid (PFPeA)	6/29/2023	1.79	1.79	0	NG/L	150	U	W
Perfluorotetradecanoic acid (PFTeDA)	6/29/2023	1.79	1.79	0	NG/L	150	U	W
Perfluorotridecanoic acid (PFTrDA)	6/29/2023	1.79	1.79	0	NG/L	150	U	W
Perfluoroundecanoic acid (PFUdA)	6/29/2023	1.79	1.79	0	NG/L	150	U	W
1,4-Dioxane	6/29/2023	3.9	0.2	0	UG/L	150		W

Site ID : 127-05

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/29/2023	7.4	7.4	0	NG/L	160	U	W
1633 TPFAS	6/29/2023	23.386	0	0	NG/L	160		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/29/2023	7.52	7.52	0	NG/L	160	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/29/2023	39.2	39.2	0	NG/L	160	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/29/2023	39.2	39.2	0	NG/L	160	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/29/2023	7.84	7.84	0	NG/L	160	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/29/2023	7.4	7.4	0	NG/L	160	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/29/2023	7.33	7.33	0	NG/L	160	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/29/2023	7.35	7.35	0	NG/L	160	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/29/2023	7.44	7.44	0	NG/L	160	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/29/2023	7.84	7.84	0	NG/L	160	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/29/2023	1.96	1.96	0	NG/L	160	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/29/2023	1.96	1.96	0	NG/L	160	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/29/2023	19.6	19.6	0	NG/L	160	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/29/2023	1.96	1.96	0	NG/L	160	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/29/2023	1.96	1.96	0	NG/L	160	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/29/2023	19.6	19.6	0	NG/L	160	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/29/2023	3.92	3.92	0	NG/L	160	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/29/2023	3.49	3.49	0	NG/L	160	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/29/2023	3.92	3.92	0	NG/L	160	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/29/2023	3.92	3.92	0	NG/L	160	U	W
Perfluorobutanesulfonate (PFBS)	6/29/2023	1.22	1.74	0	NG/L	160	J	W
Perfluorobutyric acid (PFBA)	6/29/2023	7.16	7.84	0	NG/L	160	J	W
Perfluorodecanesulfonate (PFDS)	6/29/2023	1.89	1.89	0	NG/L	160	U	W
Perfluorodecanoic acid (PFDA)	6/29/2023	1.96	1.96	0	NG/L	160	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/29/2023	1.9	1.9	0	NG/L	160	U	W
Perfluorododecanoic acid (PFDoA)	6/29/2023	1.96	1.96	0	NG/L	160	U	W
Perfluoroheptanesulfonate (PFHpS)	6/29/2023	1.87	1.87	0	NG/L	160	U	W
Perfluoroheptanoic acid (PFHpA)	6/29/2023	0.91	1.96	0	NG/L	160	J	W
Perfluorohexanesulfonate (PFHxS)	6/29/2023	5.96	1.79	0	NG/L	160		W
Perfluorohexanoic acid (PFHxA)	6/29/2023	1.4	1.96	0	NG/L	160	J	W
Perfluorononanesulfonate (PFNS)	6/29/2023	1.88	1.88	0	NG/L	160	U	W
Perfluorononanoic acid (PFNA)	6/29/2023	1.96	1.96	0	NG/L	160	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/29/2023	0.826	1.96	0	NG/L	160	J	W
Perfluorooctanesulfonate (PFOS)	6/29/2023	2.37	1.82	0	NG/L	160		W
Perfluorooctanoic acid (PFOA)	6/29/2023	2.07	1.96	0	NG/L	160		W
Perfluoropentanesulfonate (PFPeS)	6/29/2023	1.47	1.84	0	NG/L	160	J	W
Perfluoropentanoic acid (PFPeA)	6/29/2023	1.96	1.96	0	NG/L	160	U	W
Perfluorotetradecanoic acid (PFTeDA)	6/29/2023	1.96	1.96	0	NG/L	160	U	W
Perfluorotridecanoic acid (PFTrDA)	6/29/2023	1.96	1.96	0	NG/L	160	U	W
Perfluoroundecanoic acid (PFUdA)	6/29/2023	1.96	1.96	0	NG/L	160	U	W
1,4-Dioxane	6/29/2023	3.9	0.2	0	UG/L	160		W

Site ID : 130-12

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/29/2023	7.04	7.04	0	NG/L	175	U	W
1633 TPFAS	6/29/2023	26.86	0	0	NG/L	175		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/29/2023	7.15	7.15	0	NG/L	175	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/29/2023	37.2	37.2	0	NG/L	175	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/29/2023	37.2	37.2	0	NG/L	175	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/29/2023	7.45	7.45	0	NG/L	175	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/29/2023	7.04	7.04	0	NG/L	175	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/29/2023	6.96	6.96	0	NG/L	175	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/29/2023	6.98	6.98	0	NG/L	175	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/29/2023	7.08	7.08	0	NG/L	175	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/29/2023	7.45	7.45	0	NG/L	175	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/29/2023	1.86	1.86	0	NG/L	175	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/29/2023	1.86	1.86	0	NG/L	175	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/29/2023	18.6	18.6	0	NG/L	175	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/29/2023	1.86	1.86	0	NG/L	175	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/29/2023	1.86	1.86	0	NG/L	175	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/29/2023	18.6	18.6	0	NG/L	175	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/29/2023	3.72	3.72	0	NG/L	175	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/29/2023	3.31	3.31	0	NG/L	175	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/29/2023	3.72	3.72	0	NG/L	175	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/29/2023	3.72	3.72	0	NG/L	175	U	W
Perfluorobutanesulfonate (PFBS)	6/29/2023	1.48	1.65	0	NG/L	175	J	W
Perfluorobutyric acid (PFBA)	6/29/2023	6.78	7.45	0	NG/L	175	J	W
Perfluorodecanesulfonate (PFDS)	6/29/2023	1.8	1.8	0	NG/L	175	U	W
Perfluorodecanoic acid (PFDA)	6/29/2023	1.86	1.86	0	NG/L	175	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/29/2023	1.81	1.81	0	NG/L	175	U	W
Perfluorododecanoic acid (PFDoA)	6/29/2023	1.86	1.86	0	NG/L	175	U	W
Perfluoroheptanesulfonate (PFHpS)	6/29/2023	1.77	1.77	0	NG/L	175	U	W
Perfluoroheptanoic acid (PFHpA)	6/29/2023	1.86	1.86	0	NG/L	175	U	W
Perfluorohexanesulfonate (PFHxS)	6/29/2023	9.63	1.7	0	NG/L	175		W
Perfluorohexanoic acid (PFHxA)	6/29/2023	1.51	1.86	0	NG/L	175	J	W
Perfluorononanesulfonate (PFNS)	6/29/2023	1.79	1.79	0	NG/L	175	U	W
Perfluorononanoic acid (PFNA)	6/29/2023	1.86	1.86	0	NG/L	175	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/29/2023	1.86	1.86	0	NG/L	175	U	W
Perfluorooctanesulfonate (PFOS)	6/29/2023	3.38	1.73	0	NG/L	175		W
Perfluorooctanoic acid (PFOA)	6/29/2023	2.53	1.86	0	NG/L	175		W
Perfluoropentanesulfonate (PFPeS)	6/29/2023	1.55	1.75	0	NG/L	175	J	W
Perfluoropentanoic acid (PFPeA)	6/29/2023	1.86	1.86	0	NG/L	175	U	W
Perfluorotetradecanoic acid (PFTeDA)	6/29/2023	1.86	1.86	0	NG/L	175	U	W
Perfluorotridecanoic acid (PFTrDA)	6/29/2023	1.86	1.86	0	NG/L	175	U	W
Perfluoroundecanoic acid (PFUdA)	6/29/2023	1.86	1.86	0	NG/L	175	U	W
1,4-Dioxane	6/29/2023	3.4	0.2	0	UG/L	175		W

Site ID : 130-13

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/29/2023	7.29	7.29	0	NG/L	206	U	W
1633 TPFAS	6/29/2023	5.949	0	0	NG/L	206		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/29/2023	7.4	7.4	0	NG/L	206	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/29/2023	38.6	38.6	0	NG/L	206	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/29/2023	38.6	38.6	0	NG/L	206	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/29/2023	7.71	7.71	0	NG/L	206	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/29/2023	7.29	7.29	0	NG/L	206	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/29/2023	7.21	7.21	0	NG/L	206	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/29/2023	7.23	7.23	0	NG/L	206	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/29/2023	7.33	7.33	0	NG/L	206	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/29/2023	7.71	7.71	0	NG/L	206	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/29/2023	1.93	1.93	0	NG/L	206	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/29/2023	1.93	1.93	0	NG/L	206	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/29/2023	19.3	19.3	0	NG/L	206	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/29/2023	1.93	1.93	0	NG/L	206	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/29/2023	1.93	1.93	0	NG/L	206	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/29/2023	19.3	19.3	0	NG/L	206	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/29/2023	3.86	3.86	0	NG/L	206	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/29/2023	3.43	3.43	0	NG/L	206	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/29/2023	3.86	3.86	0	NG/L	206	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/29/2023	3.86	3.86	0	NG/L	206	U	W
Perfluorobutanesulfonate (PFBS)	6/29/2023	0.621	1.71	0	NG/L	206	J	W
Perfluorobutyric acid (PFBA)	6/29/2023	4.47	7.71	0	NG/L	206	J	W
Perfluorodecanesulfonate (PFDS)	6/29/2023	1.86	1.86	0	NG/L	206	U	W
Perfluorodecanoic acid (PFDA)	6/29/2023	1.93	1.93	0	NG/L	206	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/29/2023	1.87	1.87	0	NG/L	206	U	W
Perfluorododecanoic acid (PFDoA)	6/29/2023	1.93	1.93	0	NG/L	206	U	W
Perfluoroheptanesulfonate (PFHpS)	6/29/2023	1.84	1.84	0	NG/L	206	U	W
Perfluoroheptanoic acid (PFHpA)	6/29/2023	1.93	1.93	0	NG/L	206	U	W
Perfluorohexanesulfonate (PFHxS)	6/29/2023	0.858	1.76	0	NG/L	206	J	W
Perfluorohexanoic acid (PFHxA)	6/29/2023	1.93	1.93	0	NG/L	206	U	W
Perfluorononanesulfonate (PFNS)	6/29/2023	1.86	1.86	0	NG/L	206	U	W
Perfluorononanoic acid (PFNA)	6/29/2023	1.93	1.93	0	NG/L	206	U	W
Perfluorooctane sulfonamide (PFOSAm)	6/29/2023	1.93	1.93	0	NG/L	206	U	W
Perfluorooctanesulfonate (PFOS)	6/29/2023	1.79	1.79	0	NG/L	206	U	W
Perfluorooctanoic acid (PFOA)	6/29/2023	1.93	1.93	0	NG/L	206	U	W
Perfluoropentanesulfonate (PFPeS)	6/29/2023	1.81	1.81	0	NG/L	206	U	W
Perfluoropentanoic acid (PFPeA)	6/29/2023	1.93	1.93	0	NG/L	206	U	W
Perfluorotetradecanoic acid (PFTeDA)	6/29/2023	1.93	1.93	0	NG/L	206	U	W
Perfluorotridecanoic acid (PFTrDA)	6/29/2023	1.93	1.93	0	NG/L	206	U	W
Perfluoroundecanoic acid (PFUdA)	6/29/2023	1.93	1.93	0	NG/L	206	U	W
1,4-Dioxane	6/29/2023	5.9	0.21	0	UG/L	206		W

Site ID : 800-109

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	7/10/2023	6.59	6.59	0	NG/L	198	U	W
1633 TPFAS	7/10/2023	15.95	0	0	NG/L	198		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	7/10/2023	6.7	6.7	0	NG/L	198	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	7/10/2023	34.9	34.9	0	NG/L	198	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	7/10/2023	34.9	34.9	0	NG/L	198	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7/10/2023	6.98	6.98	0	NG/L	198	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	7/10/2023	6.59	6.59	0	NG/L	198	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	7/10/2023	6.52	6.52	0	NG/L	198	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	7/10/2023	6.54	6.54	0	NG/L	198	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	7/10/2023	6.63	6.63	0	NG/L	198	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	7/10/2023	6.98	6.98	0	NG/L	198	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	7/10/2023	1.74	1.74	0	NG/L	198	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	7/10/2023	1.74	1.74	0	NG/L	198	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	7/10/2023	17.4	17.4	0	NG/L	198	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	7/10/2023	1.74	1.74	0	NG/L	198	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	7/10/2023	1.74	1.74	0	NG/L	198	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	7/10/2023	17.4	17.4	0	NG/L	198	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	7/10/2023	3.49	3.49	0	NG/L	198	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	7/10/2023	3.1	3.1	0	NG/L	198	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	7/10/2023	3.49	3.49	0	NG/L	198	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	7/10/2023	3.49	3.49	0	NG/L	198	U	W
Perfluorobutanesulfonate (PFBS)	7/10/2023	2.15	1.55	0	NG/L	198		W
Perfluorobutyric acid (PFBA)	7/10/2023	6.98	6.98	0	NG/L	198	U	W
Perfluorodecanesulfonate (PFDS)	7/10/2023	1.68	1.68	0	NG/L	198	U	W
Perfluorodecanoic acid (PFDA)	7/10/2023	1.74	1.74	0	NG/L	198	U	W
Perfluorododecane sulfonic acid (PFDoS)	7/10/2023	1.69	1.69	0	NG/L	198	U	W
Perfluorododecanoic acid (PFDoA)	7/10/2023	1.74	1.74	0	NG/L	198	U	W
Perfluoroheptanesulfonate (PFHpS)	7/10/2023	1.66	1.66	0	NG/L	198	U	W
Perfluoroheptanoic acid (PFHpA)	7/10/2023	1.17	1.74	0	NG/L	198	J	W
Perfluorohexanesulfonate (PFHxS)	7/10/2023	1.57	1.59	0	NG/L	198	J	W
Perfluorohexanoic acid (PFHxA)	7/10/2023	3.82	1.74	0	NG/L	198		W
Perfluorononanesulfonate (PFNS)	7/10/2023	1.68	1.68	0	NG/L	198	U	W
Perfluorononanoic acid (PFNA)	7/10/2023	1.74	1.74	0	NG/L	198	U	W
Perfluorooctane sulfonamide (PFOSAm)	7/10/2023	1.74	1.74	0	NG/L	198	U	W
Perfluorooctanesulfonate (PFOS)	7/10/2023	1.3	1.62	0	NG/L	198	J	W
Perfluorooctanoic acid (PFOA)	7/10/2023	2.8	1.74	0	NG/L	198		W
Perfluoropentanesulfonate (PFPeS)	7/10/2023	1.64	1.64	0	NG/L	198	U	W
Perfluoropentanoic acid (PFPeA)	7/10/2023	3.14	1.74	0	NG/L	198		W
Perfluorotetradecanoic acid (PFTeDA)	7/10/2023	1.74	1.74	0	NG/L	198	U	W
Perfluorotridecanoic acid (PFTrDA)	7/10/2023	1.74	1.74	0	NG/L	198	U	W
Perfluoroundecanoic acid (PFUdA)	7/10/2023	1.74	1.74	0	NG/L	198	U	W
1,4-Dioxane	7/10/2023	0.36	0.2	0	UG/L	198		W

Site ID : 800-110

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	7/10/2023	6.69	6.69	0	NG/L	198	U	W
1633 TPFAS	7/10/2023	0	0	0	NG/L	198		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	7/10/2023	6.79	6.79	0	NG/L	198	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	7/10/2023	35.4	35.4	0	NG/L	198	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	7/10/2023	35.4	35.4	0	NG/L	198	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7/10/2023	7.08	7.08	0	NG/L	198	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	7/10/2023	6.69	6.69	0	NG/L	198	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	7/10/2023	6.62	6.62	0	NG/L	198	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	7/10/2023	6.63	6.63	0	NG/L	198	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	7/10/2023	6.72	6.72	0	NG/L	198	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	7/10/2023	7.08	7.08	0	NG/L	198	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	7/10/2023	1.77	1.77	0	NG/L	198	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	7/10/2023	1.77	1.77	0	NG/L	198	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	7/10/2023	17.7	17.7	0	NG/L	198	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	7/10/2023	1.77	1.77	0	NG/L	198	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	7/10/2023	1.77	1.77	0	NG/L	198	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	7/10/2023	17.7	17.7	0	NG/L	198	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	7/10/2023	3.54	3.54	0	NG/L	198	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	7/10/2023	3.15	3.15	0	NG/L	198	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	7/10/2023	3.54	3.54	0	NG/L	198	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	7/10/2023	3.54	3.54	0	NG/L	198	U	W
Perfluorobutanesulfonate (PFBS)	7/10/2023	1.57	1.57	0	NG/L	198	U	W
Perfluorobutyric acid (PFBA)	7/10/2023	7.08	7.08	0	NG/L	198	U	W
Perfluorodecanesulfonate (PFDS)	7/10/2023	1.71	1.71	0	NG/L	198	U	W
Perfluorodecanoic acid (PFDA)	7/10/2023	1.77	1.77	0	NG/L	198	U	W
Perfluorododecane sulfonic acid (PFDoS)	7/10/2023	1.72	1.72	0	NG/L	198	U	W
Perfluorododecanoic acid (PFDoA)	7/10/2023	1.77	1.77	0	NG/L	198	U	W
Perfluoroheptanesulfonate (PFHpS)	7/10/2023	1.69	1.69	0	NG/L	198	U	W
Perfluoroheptanoic acid (PFHpA)	7/10/2023	1.77	1.77	0	NG/L	198	U	W
Perfluorohexanesulfonate (PFHxS)	7/10/2023	1.62	1.62	0	NG/L	198	U	W
Perfluorohexanoic acid (PFHxA)	7/10/2023	1.77	1.77	0	NG/L	198	U	W
Perfluorononanesulfonate (PFNS)	7/10/2023	1.7	1.7	0	NG/L	198	U	W
Perfluorononanoic acid (PFNA)	7/10/2023	1.77	1.77	0	NG/L	198	U	W
Perfluorooctane sulfonamide (PFOSAm)	7/10/2023	1.77	1.77	0	NG/L	198	U	W
Perfluorooctanesulfonate (PFOS)	7/10/2023	1.64	1.64	0	NG/L	198	U	W
Perfluorooctanoic acid (PFOA)	7/10/2023	1.77	1.77	0	NG/L	198	U	W
Perfluoropentanesulfonate (PFPeS)	7/10/2023	1.66	1.66	0	NG/L	198	U	W
Perfluoropentanoic acid (PFPeA)	7/10/2023	1.77	1.77	0	NG/L	198	U	W
Perfluorotetradecanoic acid (PFTeDA)	7/10/2023	1.77	1.77	0	NG/L	198	U	W
Perfluorotridecanoic acid (PFTrDA)	7/10/2023	1.77	1.77	0	NG/L	198	U	W
Perfluoroundecanoic acid (PFUdA)	7/10/2023	1.77	1.77	0	NG/L	198	U	W
1,4-Dioxane	7/10/2023	0.89	0.2	0	UG/L	198		W

Site ID : 800-111

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	7/10/2023	6.98	6.98	0	NG/L	220	U	W
1633 TPFAS	7/10/2023	16.652	0	0	NG/L	220		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	7/10/2023	7.09	7.09	0	NG/L	220	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	7/10/2023	36.9	36.9	0	NG/L	220	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	7/10/2023	36.9	36.9	0	NG/L	220	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7/10/2023	7.39	7.39	0	NG/L	220	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	7/10/2023	6.98	6.98	0	NG/L	220	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	7/10/2023	6.91	6.91	0	NG/L	220	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	7/10/2023	6.93	6.93	0	NG/L	220	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	7/10/2023	7.02	7.02	0	NG/L	220	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	7/10/2023	7.39	7.39	0	NG/L	220	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	7/10/2023	1.85	1.85	0	NG/L	220	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	7/10/2023	1.85	1.85	0	NG/L	220	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	7/10/2023	18.5	18.5	0	NG/L	220	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	7/10/2023	1.85	1.85	0	NG/L	220	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	7/10/2023	1.85	1.85	0	NG/L	220	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	7/10/2023	18.5	18.5	0	NG/L	220	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	7/10/2023	3.69	3.69	0	NG/L	220	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	7/10/2023	3.29	3.29	0	NG/L	220	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	7/10/2023	3.69	3.69	0	NG/L	220	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	7/10/2023	3.69	3.69	0	NG/L	220	U	W
Perfluorobutanesulfonate (PFBS)	7/10/2023	5.19	1.64	0	NG/L	220		W
Perfluorobutyric acid (PFBA)	7/10/2023	7.39	7.39	0	NG/L	220	U	W
Perfluorodecanesulfonate (PFDS)	7/10/2023	1.78	1.78	0	NG/L	220	U	W
Perfluorodecanoic acid (PFDA)	7/10/2023	1.85	1.85	0	NG/L	220	U	W
Perfluorododecane sulfonic acid (PFDoS)	7/10/2023	1.79	1.79	0	NG/L	220	U	W
Perfluorododecanoic acid (PFDoA)	7/10/2023	1.85	1.85	0	NG/L	220	U	W
Perfluoroheptanesulfonate (PFHpS)	7/10/2023	1.76	1.76	0	NG/L	220	U	W
Perfluoroheptanoic acid (PFHpA)	7/10/2023	1.18	1.85	0	NG/L	220	J	W
Perfluorohexanesulfonate (PFHxS)	7/10/2023	1.09	1.69	0	NG/L	220	J	W
Perfluorohexanoic acid (PFHxA)	7/10/2023	2.86	1.85	0	NG/L	220		W
Perfluorononanesulfonate (PFNS)	7/10/2023	1.78	1.78	0	NG/L	220	U	W
Perfluorononanoic acid (PFNA)	7/10/2023	1.85	1.85	0	NG/L	220	U	W
Perfluorooctane sulfonamide (PFOSAm)	7/10/2023	1.85	1.85	0	NG/L	220	U	W
Perfluorooctanesulfonate (PFOS)	7/10/2023	0.872	1.71	0	NG/L	220	J	W
Perfluorooctanoic acid (PFOA)	7/10/2023	2.43	1.85	0	NG/L	220		W
Perfluoropentanesulfonate (PFPeS)	7/10/2023	1.74	1.74	0	NG/L	220	U	W
Perfluoropentanoic acid (PFPeA)	7/10/2023	3.03	1.85	0	NG/L	220		W
Perfluorotetradecanoic acid (PFTeDA)	7/10/2023	1.85	1.85	0	NG/L	220	U	W
Perfluorotridecanoic acid (PFTrDA)	7/10/2023	1.85	1.85	0	NG/L	220	U	W
Perfluoroundecanoic acid (PFUdA)	7/10/2023	1.85	1.85	0	NG/L	220	U	W
1,4-Dioxane	7/10/2023	0.45	0.2	0	UG/L	220		W

Site ID : 800-112

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	7/12/2023	6.99	6.99	0	NG/L	278	U	W
1633 TPFAS	7/12/2023	10.987	0	0	NG/L	278		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	7/12/2023	7.1	7.1	0	NG/L	278	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	7/12/2023	37	37	0	NG/L	278	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	7/12/2023	37	37	0	NG/L	278	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7/12/2023	7.4	7.4	0	NG/L	278	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	7/12/2023	6.99	6.99	0	NG/L	278	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	7/12/2023	6.92	6.92	0	NG/L	278	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	7/12/2023	6.94	6.94	0	NG/L	278	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	7/12/2023	7.03	7.03	0	NG/L	278	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	7/12/2023	7.4	7.4	0	NG/L	278	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	7/12/2023	1.85	1.85	0	NG/L	278	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	7/12/2023	1.85	1.85	0	NG/L	278	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	7/12/2023	18.5	18.5	0	NG/L	278	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	7/12/2023	1.85	1.85	0	NG/L	278	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	7/12/2023	1.85	1.85	0	NG/L	278	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	7/12/2023	18.5	18.5	0	NG/L	278	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	7/12/2023	3.7	3.7	0	NG/L	278	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	7/12/2023	3.29	3.29	0	NG/L	278	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	7/12/2023	3.7	3.7	0	NG/L	278	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	7/12/2023	3.7	3.7	0	NG/L	278	U	W
Perfluorobutanesulfonate (PFBS)	7/12/2023	0.887	1.64	0	NG/L	278	J	W
Perfluorobutyric acid (PFBA)	7/12/2023	7.75	7.4	0	NG/L	278		W
Perfluorodecanesulfonate (PFDS)	7/12/2023	1.78	1.78	0	NG/L	278	U	W
Perfluorodecanoic acid (PFDA)	7/12/2023	1.85	1.85	0	NG/L	278	U	W
Perfluorododecane sulfonic acid (PFDoS)	7/12/2023	1.79	1.79	0	NG/L	278	U	W
Perfluorododecanoic acid (PFDoA)	7/12/2023	1.85	1.85	0	NG/L	278	U	W
Perfluoroheptanesulfonate (PFHpS)	7/12/2023	1.76	1.76	0	NG/L	278	U	W
Perfluoroheptanoic acid (PFHpA)	7/12/2023	1.85	1.85	0	NG/L	278	U	W
Perfluorohexanesulfonate (PFHxS)	7/12/2023	1.69	1.69	0	NG/L	278	U	W
Perfluorohexanoic acid (PFHxA)	7/12/2023	0.866	1.85	0	NG/L	278	J	W
Perfluorononanesulfonate (PFNS)	7/12/2023	1.78	1.78	0	NG/L	278	U	W
Perfluorononanoic acid (PFNA)	7/12/2023	1.85	1.85	0	NG/L	278	U	W
Perfluorooctane sulfonamide (PFOSAm)	7/12/2023	1.85	1.85	0	NG/L	278	U	W
Perfluorooctanesulfonate (PFOS)	7/12/2023	1.72	1.72	0	NG/L	278	U	W
Perfluorooctanoic acid (PFOA)	7/12/2023	0.641	1.85	0	NG/L	278	J	W
Perfluoropentanesulfonate (PFPeS)	7/12/2023	1.74	1.74	0	NG/L	278	U	W
Perfluoropentanoic acid (PFPeA)	7/12/2023	0.843	1.85	0	NG/L	278	J	W
Perfluorotetradecanoic acid (PFTeDA)	7/12/2023	1.85	1.85	0	NG/L	278	U	W
Perfluorotridecanoic acid (PFTrDA)	7/12/2023	1.85	1.85	0	NG/L	278	U	W
Perfluoroundecanoic acid (PFUdA)	7/12/2023	1.85	1.85	0	NG/L	278	U	W
1,4-Dioxane	7/12/2023	2.4	0.2	0	UG/L	278		W

Site ID : 800-113

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	7/10/2023	7.59	7.59	0	NG/L	230	U	W
1633 TPFAS	7/10/2023	14.8	0	0	NG/L	230		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	7/10/2023	7.71	7.71	0	NG/L	230	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	7/10/2023	40.2	40.2	0	NG/L	230	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	7/10/2023	40.2	40.2	0	NG/L	230	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7/10/2023	8.03	8.03	0	NG/L	230	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	7/10/2023	7.59	7.59	0	NG/L	230	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	7/10/2023	7.51	7.51	0	NG/L	230	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	7/10/2023	7.53	7.53	0	NG/L	230	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	7/10/2023	7.63	7.63	0	NG/L	230	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	7/10/2023	8.03	8.03	0	NG/L	230	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	7/10/2023	2.01	2.01	0	NG/L	230	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	7/10/2023	2.01	2.01	0	NG/L	230	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	7/10/2023	20.1	20.1	0	NG/L	230	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	7/10/2023	2.01	2.01	0	NG/L	230	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	7/10/2023	2.01	2.01	0	NG/L	230	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	7/10/2023	20.1	20.1	0	NG/L	230	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	7/10/2023	4.02	4.02	0	NG/L	230	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	7/10/2023	3.57	3.57	0	NG/L	230	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	7/10/2023	4.02	4.02	0	NG/L	230	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	7/10/2023	4.02	4.02	0	NG/L	230	U	W
Perfluorobutanesulfonate (PFBS)	7/10/2023	1.78	1.78	0	NG/L	230	U	W
Perfluorobutyric acid (PFBA)	7/10/2023	14.8	8.03	0	NG/L	230		W
Perfluorodecanesulfonate (PFDS)	7/10/2023	1.94	1.94	0	NG/L	230	U	W
Perfluorodecanoic acid (PFDA)	7/10/2023	2.01	2.01	0	NG/L	230	U	W
Perfluorododecane sulfonic acid (PFDoS)	7/10/2023	1.95	1.95	0	NG/L	230	U	W
Perfluorododecanoic acid (PFDoA)	7/10/2023	2.01	2.01	0	NG/L	230	U	W
Perfluoroheptanesulfonate (PFHpS)	7/10/2023	1.91	1.91	0	NG/L	230	U	W
Perfluoroheptanoic acid (PFHpA)	7/10/2023	2.01	2.01	0	NG/L	230	U	W
Perfluorohexanesulfonate (PFHxS)	7/10/2023	1.84	1.84	0	NG/L	230	U	W
Perfluorohexanoic acid (PFHxA)	7/10/2023	2.01	2.01	0	NG/L	230	U	W
Perfluorononanesulfonate (PFNS)	7/10/2023	1.93	1.93	0	NG/L	230	U	W
Perfluorononanoic acid (PFNA)	7/10/2023	2.01	2.01	0	NG/L	230	U	W
Perfluorooctane sulfonamide (PFOSAm)	7/10/2023	2.01	2.01	0	NG/L	230	U	W
Perfluorooctanesulfonate (PFOS)	7/10/2023	1.86	1.86	0	NG/L	230	U	W
Perfluorooctanoic acid (PFOA)	7/10/2023	2.01	2.01	0	NG/L	230	U	W
Perfluoropentanesulfonate (PFPeS)	7/10/2023	1.89	1.89	0	NG/L	230	U	W
Perfluoropentanoic acid (PFPeA)	7/10/2023	2.01	2.01	0	NG/L	230	U	W
Perfluorotetradecanoic acid (PFTeDA)	7/10/2023	2.01	2.01	0	NG/L	230	U	W
Perfluorotridecanoic acid (PFTrDA)	7/10/2023	2.01	2.01	0	NG/L	230	U	W
Perfluoroundecanoic acid (PFUdA)	7/10/2023	2.01	2.01	0	NG/L	230	U	W
1,4-Dioxane	7/10/2023	3	0.2	0	UG/L	230		W

Site ID : 800-122

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	10/12/2023	7.28	7.28	0	NG/L	0	U	W
1633 TPFAS	10/12/2023	24.82	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	10/12/2023	7.39	7.39	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	10/12/2023	38.5	38.5	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	10/12/2023	38.5	38.5	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	10/12/2023	7.7	7.7	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	10/12/2023	7.28	7.28	0	NG/L	0	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	10/12/2023	7.2	7.2	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	10/12/2023	7.22	7.22	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	10/12/2023	7.31	7.31	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	10/12/2023	7.7	7.7	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	10/12/2023	1.92	1.92	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	10/12/2023	1.92	1.92	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	10/12/2023	19.2	19.2	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	10/12/2023	1.92	1.92	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	10/12/2023	1.92	1.92	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	10/12/2023	19.2	19.2	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	10/12/2023	3.85	3.85	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	10/12/2023	3.43	3.43	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	10/12/2023	3.85	3.85	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	10/12/2023	3.85	3.85	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	10/12/2023	1.79	1.71	0	NG/L	0		W
Perfluorobutyric acid (PFBA)	10/12/2023	4.53	7.7	0	NG/L	0	J	W
Perfluorodecanesulfonate (PFDS)	10/12/2023	1.86	1.86	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	10/12/2023	1.92	1.92	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	10/12/2023	1.87	1.87	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	10/12/2023	1.92	1.92	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	10/12/2023	1.83	1.83	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	10/12/2023	1.99	1.92	0	NG/L	0		W
Perfluorohexanesulfonate (PFHxS)	10/12/2023	1.82	1.76	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	10/12/2023	4.21	1.92	0	NG/L	0		W
Perfluorononanesulfonate (PFNS)	10/12/2023	1.85	1.85	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	10/12/2023	1.92	1.92	0	NG/L	0	U	W
Perfluorooctane sulfonamide (PFOSAm)	10/12/2023	1.92	1.92	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	10/12/2023	1.28	1.79	0	NG/L	0	J	W
Perfluorooctanoic acid (PFOA)	10/12/2023	2.47	1.92	0	NG/L	0		W
Perfluoropentanesulfonate (PFPeS)	10/12/2023	1.81	1.81	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	10/12/2023	6.73	1.92	0	NG/L	0		W
Perfluorotetradecanoic acid (PFTeDA)	10/12/2023	1.92	1.92	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	10/12/2023	1.92	1.92	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	10/12/2023	1.92	1.92	0	NG/L	0	U	W
1,4-Dioxane	10/12/2023	1.2	0.2	0	UG/L	0		W
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	7/10/2023	7.14	7.14	0	NG/L	0	U	W
1633 TPFAS	7/10/2023	33.09	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	7/10/2023	7.25	7.25	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	7/10/2023	37.8	37.8	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	7/10/2023	37.8	37.8	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7/10/2023	7.55	7.55	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	7/10/2023	7.14	7.14	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	7/10/2023	7.06	7.06	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	7/10/2023	7.08	7.08	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	7/10/2023	2.5	7.18	0	NG/L	0	J	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	7/10/2023	7.55	7.55	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	7/10/2023	1.89	1.89	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	7/10/2023	1.89	1.89	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	7/10/2023	18.9	18.9	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	7/10/2023	1.89	1.89	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	7/10/2023	1.89	1.89	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	7/10/2023	18.9	18.9	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	7/10/2023	3.78	3.78	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	7/10/2023	3.36	3.36	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	7/10/2023	3.78	3.78	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	7/10/2023	3.78	3.78	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	7/10/2023	2.39	1.68	0	NG/L	0		W
Perfluorobutyric acid (PFBA)	7/10/2023	3.11	7.55	0	NG/L	0	J	W
Perfluorodecanesulfonate (PFDS)	7/10/2023	1.82	1.82	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	7/10/2023	1.89	1.89	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	7/10/2023	1.83	1.83	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	7/10/2023	1.89	1.89	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	7/10/2023	1.8	1.8	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	7/10/2023	2.27	1.89	0	NG/L	0		W
Perfluorohexanesulfonate (PFHxS)	7/10/2023	2.27	1.73	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	7/10/2023	6.49	1.89	0	NG/L	0		W
Perfluorononanesulfonate (PFNS)	7/10/2023	1.82	1.82	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	7/10/2023	1.89	1.89	0	NG/L	0	U	W
Perfluorooctane sulfonamide (PFOSAm)	7/10/2023	1.89	1.89	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	7/10/2023	1.61	1.75	0	NG/L	0	J	W
Perfluorooctanoic acid (PFOA)	7/10/2023	3.3	1.89	0	NG/L	0		W
Perfluoropentanesulfonate (PFPeS)	7/10/2023	1.78	1.78	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	7/10/2023	9.15	1.89	0	NG/L	0		W
Perfluorotetradecanoic acid (PFTeDA)	7/10/2023	1.89	1.89	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	7/10/2023	1.89	1.89	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	7/10/2023	1.89	1.89	0	NG/L	0	U	W
1,4-Dioxane	7/10/2023	0.62	0.2	0	UG/L	0		W

Site ID : 800-124

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	10/12/2023	6.89	6.89	0	NG/L	0	U	W
1633 TPFAS	10/12/2023	7.57	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	10/12/2023	7	7	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	10/12/2023	36.4	36.4	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	10/12/2023	36.4	36.4	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	10/12/2023	7.29	7.29	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	10/12/2023	6.89	6.89	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	10/12/2023	6.81	6.81	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	10/12/2023	6.83	6.83	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	10/12/2023	6.92	6.92	0	NG/L	0	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	10/12/2023	7.29	7.29	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	10/12/2023	1.82	1.82	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	10/12/2023	1.82	1.82	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	10/12/2023	18.2	18.2	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	10/12/2023	1.82	1.82	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	10/12/2023	1.82	1.82	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	10/12/2023	18.2	18.2	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	10/12/2023	3.64	3.64	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	10/12/2023	3.24	3.24	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	10/12/2023	3.64	3.64	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	10/12/2023	3.64	3.64	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	10/12/2023	1.62	1.62	0	NG/L	0	U	W
Perfluorobutyric acid (PFBA)	10/12/2023	6.27	7.29	0	NG/L	0	J	W
Perfluorodecanesulfonate (PFDS)	10/12/2023	1.76	1.76	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	10/12/2023	1.82	1.82	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	10/12/2023	1.77	1.77	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	10/12/2023	1.82	1.82	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	10/12/2023	1.74	1.74	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	10/12/2023	1.82	1.82	0	NG/L	0	U	W
Perfluorohexanesulfonate (PFHxS)	10/12/2023	1.67	1.67	0	NG/L	0	U	W
Perfluorohexanoic acid (PFHxA)	10/12/2023	1.82	1.82	0	NG/L	0	U	W
Perfluorononanesulfonate (PFNS)	10/12/2023	1.75	1.75	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	10/12/2023	1.82	1.82	0	NG/L	0	U	W
Perfluorooctane sulfonamide (PFOSAm)	10/12/2023	1.82	1.82	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	10/12/2023	1.69	1.69	0	NG/L	0	U	W
Perfluorooctanoic acid (PFOA)	10/12/2023	1.82	1.82	0	NG/L	0	U	W
Perfluoropentanesulfonate (PFPeS)	10/12/2023	1.71	1.71	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	10/12/2023	1.3	1.82	0	NG/L	0	J	W
Perfluorotetradecanoic acid (PFTeDA)	10/12/2023	1.82	1.82	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	10/12/2023	1.82	1.82	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	10/12/2023	1.82	1.82	0	NG/L	0	U	W
1,4-Dioxane	10/12/2023	1.2	0.2	0	UG/L	0		W
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	7/10/2023	6.84	6.84	0	NG/L	0	U	W
1633 TPFAS	7/10/2023	4.67	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	7/10/2023	6.95	6.95	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	7/10/2023	36.2	36.2	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	7/10/2023	36.2	36.2	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7/10/2023	7.24	7.24	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	7/10/2023	6.84	6.84	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	7/10/2023	6.77	6.77	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	7/10/2023	6.79	6.79	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	7/10/2023	6.88	6.88	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	7/10/2023	7.24	7.24	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	7/10/2023	1.81	1.81	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	7/10/2023	1.81	1.81	0	NG/L	0	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	7/10/2023	18.1	18.1	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	7/10/2023	1.81	1.81	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	7/10/2023	1.81	1.81	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	7/10/2023	18.1	18.1	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	7/10/2023	3.62	3.62	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	7/10/2023	3.22	3.22	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	7/10/2023	3.62	3.62	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	7/10/2023	3.62	3.62	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	7/10/2023	1.61	1.61	0	NG/L	0	U	W
Perfluorobutyric acid (PFBA)	7/10/2023	4.67	7.24	0	NG/L	0	J	W
Perfluorodecanesulfonate (PFDS)	7/10/2023	1.75	1.75	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	7/10/2023	1.81	1.81	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	7/10/2023	1.76	1.76	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	7/10/2023	1.81	1.81	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	7/10/2023	1.72	1.72	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	7/10/2023	1.81	1.81	0	NG/L	0	U	W
Perfluorohexanesulfonate (PFHxS)	7/10/2023	1.65	1.65	0	NG/L	0	U	W
Perfluorohexanoic acid (PFHxA)	7/10/2023	1.81	1.81	0	NG/L	0	U	W
Perfluorononanesulfonate (PFNS)	7/10/2023	1.74	1.74	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	7/10/2023	1.81	1.81	0	NG/L	0	U	W
Perfluorooctane sulfonamide (PFOSAm)	7/10/2023	1.81	1.81	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	7/10/2023	1.68	1.68	0	NG/L	0	U	W
Perfluorooctanoic acid (PFOA)	7/10/2023	1.81	1.81	0	NG/L	0	U	W
Perfluoropentanesulfonate (PFPeS)	7/10/2023	1.7	1.7	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	7/10/2023	1.81	1.81	0	NG/L	0	U	W
Perfluorotetradecanoic acid (PFTeDA)	7/10/2023	1.81	1.81	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	7/10/2023	1.81	1.81	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	7/10/2023	1.81	1.81	0	NG/L	0	U	W
1,4-Dioxane	7/10/2023	1.3	1	0	UG/L	0	D	W

Site ID : 800-132

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	7/10/2023	6.63	6.63	0	NG/L	175	U	W
1633 TPFAS	7/10/2023	40.42	0	0	NG/L	175		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	7/10/2023	6.74	6.74	0	NG/L	175	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	7/10/2023	35.1	35.1	0	NG/L	175	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	7/10/2023	35.1	35.1	0	NG/L	175	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7/10/2023	7.02	7.02	0	NG/L	175	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	7/10/2023	6.63	6.63	0	NG/L	175	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	7/10/2023	6.56	6.56	0	NG/L	175	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	7/10/2023	6.58	6.58	0	NG/L	175	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	7/10/2023	3	6.67	0	NG/L	175	J	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	7/10/2023	7.02	7.02	0	NG/L	175	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	7/10/2023	1.75	1.75	0	NG/L	175	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	7/10/2023	1.75	1.75	0	NG/L	175	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	7/10/2023	17.5	17.5	0	NG/L	175	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	7/10/2023	1.75	1.75	0	NG/L	175	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	7/10/2023	1.75	1.75	0	NG/L	175	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	7/10/2023	17.5	17.5	0	NG/L	175	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	7/10/2023	3.51	3.51	0	NG/L	175	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	7/10/2023	3.12	3.12	0	NG/L	175	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	7/10/2023	3.51	3.51	0	NG/L	175	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	7/10/2023	3.51	3.51	0	NG/L	175	U	W
Perfluorobutanesulfonate (PFBS)	7/10/2023	2.79	1.56	0	NG/L	175		W
Perfluorobutyric acid (PFBA)	7/10/2023	3.85	7.02	0	NG/L	175	J	W
Perfluorodecanesulfonate (PFDS)	7/10/2023	1.69	1.69	0	NG/L	175	U	W
Perfluorodecanoic acid (PFDA)	7/10/2023	1.75	1.75	0	NG/L	175	U	W
Perfluorododecane sulfonic acid (PFDoS)	7/10/2023	1.7	1.7	0	NG/L	175	U	W
Perfluorododecanoic acid (PFDoA)	7/10/2023	1.75	1.75	0	NG/L	175	U	W
Perfluoroheptanesulfonate (PFHpS)	7/10/2023	1.67	1.67	0	NG/L	175	U	W
Perfluoroheptanoic acid (PFHpA)	7/10/2023	2.72	1.75	0	NG/L	175		W
Perfluorohexanesulfonate (PFHxS)	7/10/2023	2.66	1.6	0	NG/L	175		W
Perfluorohexanoic acid (PFHxA)	7/10/2023	8.2	1.75	0	NG/L	175		W
Perfluorononanesulfonate (PFNS)	7/10/2023	1.69	1.69	0	NG/L	175	U	W
Perfluorononanoic acid (PFNA)	7/10/2023	1.75	1.75	0	NG/L	175	U	W
Perfluorooctane sulfonamide (PFOSAm)	7/10/2023	1.75	1.75	0	NG/L	175	U	W
Perfluorooctanesulfonate (PFOS)	7/10/2023	1.84	1.63	0	NG/L	175		W
Perfluorooctanoic acid (PFOA)	7/10/2023	3.36	1.75	0	NG/L	175		W
Perfluoropentanesulfonate (PFPeS)	7/10/2023	1.65	1.65	0	NG/L	175	U	W
Perfluoropentanoic acid (PFPeA)	7/10/2023	12	1.75	0	NG/L	175		W
Perfluorotetradecanoic acid (PFTeDA)	7/10/2023	1.75	1.75	0	NG/L	175	U	W
Perfluorotridecanoic acid (PFTrDA)	7/10/2023	1.75	1.75	0	NG/L	175	U	W
Perfluoroundecanoic acid (PFUdA)	7/10/2023	1.75	1.75	0	NG/L	175	U	W
1,4-Dioxane	7/10/2023	0.85	0.2	0	UG/L	175		W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Site ID : Carbon Midpoint

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6/23/2023	6.75	6.75	0	NG/L	0	U	W
1633 TPFAS	6/23/2023	23.357	0	0	NG/L	0		W
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6/23/2023	6.85	6.85	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	6/23/2023	35.7	35.7	0	NG/L	0	U	W
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6/23/2023	35.7	35.7	0	NG/L	0	U	W
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6/23/2023	7.14	7.14	0	NG/L	0	U	W
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6/23/2023	6.75	6.75	0	NG/L	0	U	W
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6/23/2023	6.67	6.67	0	NG/L	0	U	W
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6/23/2023	6.69	6.69	0	NG/L	0	U	W
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6/23/2023	6.78	6.78	0	NG/L	0	U	W
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6/23/2023	7.14	7.14	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	6/23/2023	17.8	17.8	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	6/23/2023	17.8	17.8	0	NG/L	0	U	W
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6/23/2023	3.57	3.57	0	NG/L	0	U	W
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6/23/2023	3.18	3.18	0	NG/L	0	U	W
Perfluoro-3-methoxypropanoic acid (PFMPA)	6/23/2023	3.57	3.57	0	NG/L	0	U	W
Perfluoro-4-methoxybutanoic acid (PFMBA)	6/23/2023	3.57	3.57	0	NG/L	0	U	W
Perfluorobutanesulfonate (PFBS)	6/23/2023	0.867	1.58	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	6/23/2023	6.47	7.14	0	NG/L	0	J	W
Perfluorodecanesulfonate (PFDS)	6/23/2023	1.72	1.72	0	NG/L	0	U	W
Perfluorodecanoic acid (PFDA)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
Perfluorododecane sulfonic acid (PFDoS)	6/23/2023	1.73	1.73	0	NG/L	0	U	W
Perfluorododecanoic acid (PFDoA)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
Perfluoroheptanesulfonate (PFHpS)	6/23/2023	1.7	1.7	0	NG/L	0	U	W
Perfluoroheptanoic acid (PFHpA)	6/23/2023	1.2	1.78	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	6/23/2023	1.83	1.63	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	6/23/2023	2.09	1.78	0	NG/L	0		W
Perfluorononanesulfonate (PFNS)	6/23/2023	1.72	1.72	0	NG/L	0	U	W
Perfluorononanoic acid (PFNA)	6/23/2023	1.21	1.78	0	NG/L	0	J	W
Perfluorooctane sulfonamide (PFOSAm)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
Perfluorooctanesulfonate (PFOS)	6/23/2023	4.43	1.66	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	6/23/2023	3.83	1.78	0	NG/L	0		W
Perfluoropentanesulfonate (PFPeS)	6/23/2023	1.68	1.68	0	NG/L	0	U	W
Perfluoropentanoic acid (PFPeA)	6/23/2023	1.43	1.78	0	NG/L	0	J	W
Perfluorotetradecanoic acid (PFTeDA)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
Perfluorotridecanoic acid (PFTrDA)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
Perfluoroundecanoic acid (PFUdA)	6/23/2023	1.78	1.78	0	NG/L	0	U	W
1,4-Dioxane	6/23/2023	0.2	0.2	0	UG/L	0	U	W

Table 1-3

Groundwater Treatment System Monitoring for PFAS and 1,4-Dioxane
June through September 2023

Qualifiers:

D = Compound was identified in an analysis at a secondary dilution factor.
J = Estimated value.
J+ = Estimated value, biased high.
H = Qualified due to holding time violation.
R = The data are unusable/unreliable.
U = Compound not detected.

OU I/RA V South Boundary Pump & Treat System (System Closed)

Process: Groundwater extraction and air stripping treatment, with discharge to the RA V recharge basin.

Goal: Reach Maximum Contaminant Levels (MCLs) in core monitoring wells within 30 years for the Upper Glacial aquifer (by 2030). The system was placed in standby in September 2013 and the Petition for Closure of the OU I South Boundary Groundwater Treatment System was approved by the regulators in September 2019.

Start Date: January 1997

Table 2-1
Pumping Rates (gpm)

Extraction Well	EW-1*	EW-2*
Site ID #	115-27	115-43
Screen Interval (ft bls)	150-190	104-124/134-154
Desired Rate (GPM)	0	0
July	Off	Off
August	Off	Off
September	Off	Off
Actual (Avg. over Qtr.)	Off	Off

* The system was shut down and approved for closure in September 2019.

OU I/RA V South Boundary Pump & Treat System
(System Closed)

Figure 2-1
Cumulative Mass Removal of VOCs vs. Time

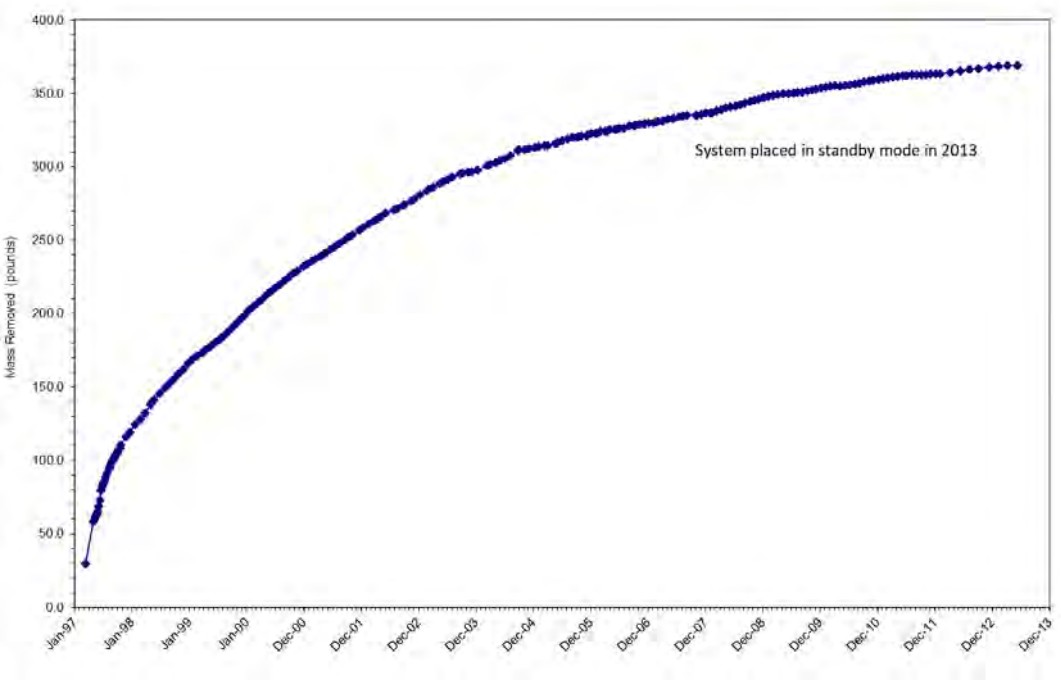
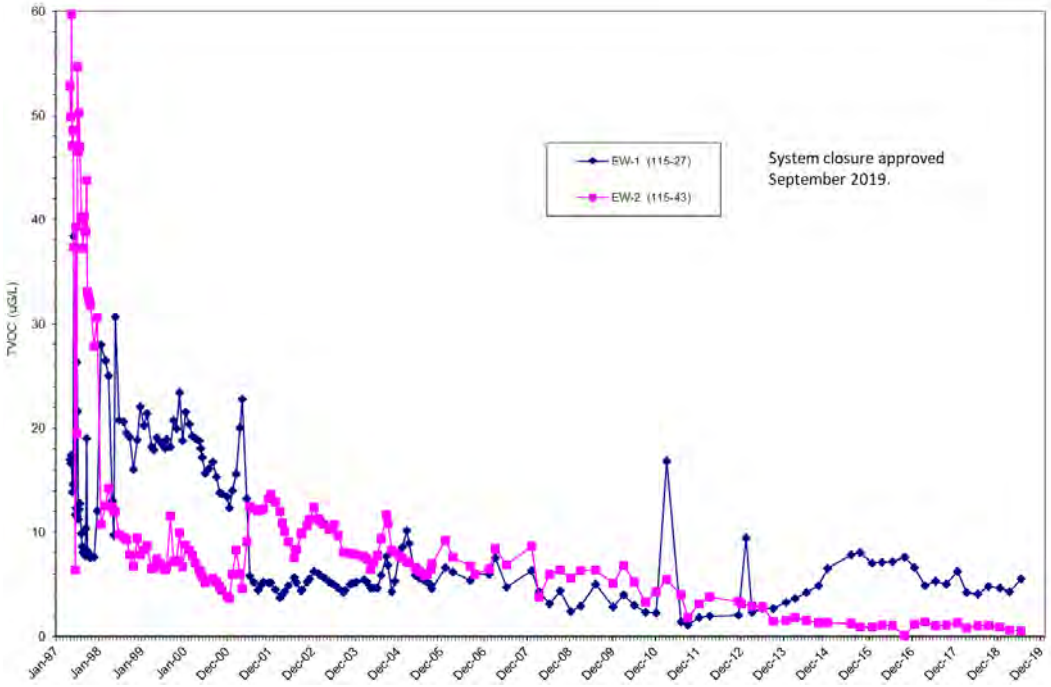


Figure 2-2
Extraction Well TVOC Concentrations vs. Time



OU I/RA V South Boundary Pump & Treat System
(System Closed)

Table 2-2
Effluent Water Quality
SPDES Equivalency Permit Concentrations - July 1 through September 30, 2023

Parameter	Permit Limit	Max. Measured Value	Units	Frequency
Flow	**Monitor**	**NA**	**GPD**	**Continuous**
pH (range)	**6.0- 9.0**	**NA**	**SU**	**Weekly**
Benzene	**0.8**	**NA**	**µg/L**	**Monthly**
Chloroform	**7.0**	**NA**	**µg/L**	**Monthly**
Chloroethane	**5.0**	**NA**	**µg/L**	**Monthly**
1,2-Dichloroethane	**5.0**	**NA**	**µg/L**	**Monthly**
1,1-Dichloroethene	**5.0**	**NA**	**µg/L**	**Monthly**
1,1,1-Trichloroethane	**5.0**	**NA**	**µg/L**	**Monthly**
Carbon Tetrachloride	**5.0**	**NA**	**µg/L**	**Quarterly**
1,2-Dichloropropane	**5.0**	**NA**	**µg/L**	**Quarterly**
Methylene Chloride	**5.0**	**NA**	**µg/L**	**Quarterly**
Trichloroethylene	**5.0**	**NA**	**µg/L**	**Quarterly**
Vinyl Chloride	**2.0**	**NA**	**µg/L**	**Quarterly**
1,2-Xylene	**5.0**	**NA**	**µg/L**	**Quarterly**
Sum of 1,3 and 1,4-Xylenes	**10.0**	**NA**	**µg/L**	**Quarterly**

NA = Not applicable, the system was closed in September 2019.

Monitoring Activities

In addition to the OU I/RA V South Boundary monitoring wells, Current Landfill monitoring well data are included since this is one of the sources of the OU I/RA V plume. The OU I/RA V South Boundary monitoring well network is shown on **Figure 2-3** and the 'Hits Only' third quarter 2023 data are summarized in **Table 2-3.**

System Operations

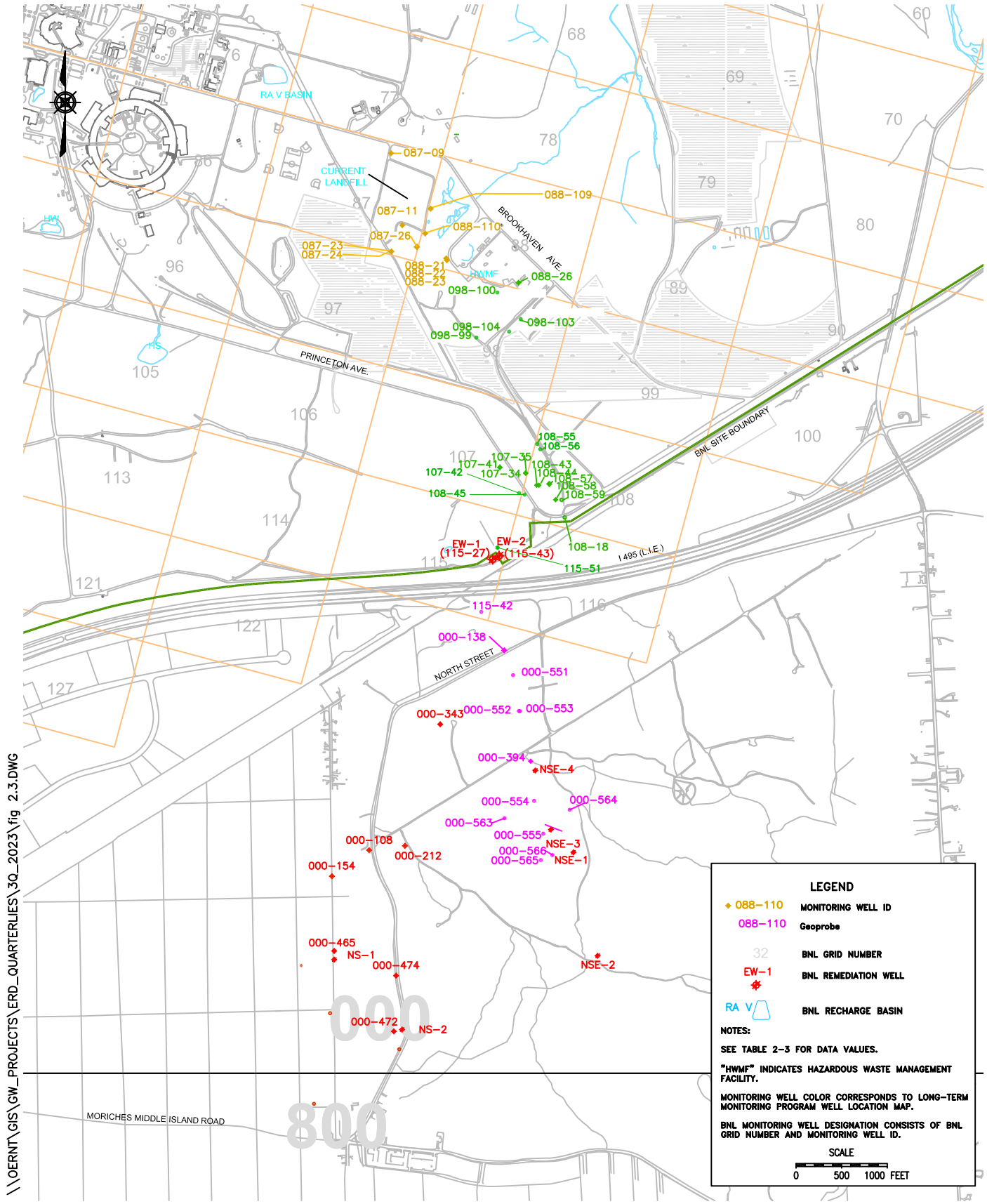
July through September 2023:

The system remained closed.

OU I/RA V South Boundary Pump & Treat System (System Closed)

Planned Operational Changes

- No changes to the VOC treatment system.
- Install temporary wells in November 2023 to fill monitoring data gaps and characterize the extent of the Sr-90 plume.



\\OERNT\GIS\GW_PROJECTS\ERD_QUARTERLIES\3Q_2023\fig 2.3.DWG

ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU I/RA V SOUTH BOUNDARY
OUIII NORTH STREET/NORTH STREET EAST MONITORING WELL NETWORK

SITEWIDE REMEDIATION SYSTEMS
THIRD QUARTER 2023 OPERATIONS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
JEB	–	08/08/11	NA
CHKD:	APPD:	REV.:	NOTES:
LDS	––	10/30/23	–

FIGURE NO.: 2-3

Table 2-3
OU I RA V South Boundary Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 088-109

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/14/2023	33.81	--	--	UG/L	13.50		
1,1-Dichloroethane	09/14/2023	9.3	0.5	--	UG/L	13.50		
Benzene	09/14/2023	0.51	0.5	--	UG/L	13.50		
Chloroethane	09/14/2023	24	0.5	--	UG/L	13.50		

Site ID : 088-26

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	09/23/2023	1.7	0.548	0.473	PCI/L	25.00		

Site ID : 098-100

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	09/23/2023	65.1	0.643	2.45	PCI/L	17.50		

Site ID : 098-103

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	09/23/2023	26.6	0.558	1.56	PCI/L	20.00		

Site ID : 098-104

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	09/23/2023	224	0.76	4.78	PCI/L	20.00		

Site ID : 098-21

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	09/27/2023	1.64	0.668	0.505	PCI/L	28.80		

Site ID : 098-30

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	09/27/2023	49.5	0.698	2.08	PCI/L	37.80		

Site ID : 098-99

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/14/2023	3.2	--	--	UG/L	44.50		
1,1-Dichloroethane	09/14/2023	3.2	0.5	--	UG/L	44.50		

Site ID : 107-34

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	09/20/2023	2.29	0.552	0.532	PCI/L	55.00		

Site ID : 107-35

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	09/20/2023	4.43	0.752	0.797	PCI/L	65.00		

Site ID : 107-40

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/20/2023	1.46	--	--	UG/L	145.00		

Table 2-3
OU I RA V South Boundary Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 107-40

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1,1-Dichloroethane	09/20/2023	1.03	0.5	--	UG/L	145.00		
Chloroethane	09/20/2023	0.43	0.5	--	UG/L	145.00	J	

Site ID : 108-43

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	09/19/2023	3.48	0.362	0.535	PCI/L	65.00		

Site ID : 108-45

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	09/19/2023	1.25	0.525	0.415	PCI/L	69.50		

Site ID : 108-55

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	09/26/2023	12.1	0.556	1.03	PCI/L	59.00		

Site ID : 108-56

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	09/26/2023	6.04	0.438	0.703	PCI/L	59.00		

Site ID : 108-57

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	09/19/2023	7.33	0.36	0.758	PCI/L	70.00		

Site ID : 108-58

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	09/19/2023	7.03	0.411	0.781	PCI/L	70.00		

Site ID : 115-13

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/26/2023	1.48	--	--	UG/L	145.00		
Chloroform	09/26/2023	1.48	0.5	--	UG/L	145.00		

Site ID : 115-16

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/27/2023	2.2	--	--	UG/L	130.00		
1,1-Dichloroethane	09/27/2023	1.22	0.5	--	UG/L	130.00		
Chloroethane	09/27/2023	0.98	0.5	--	UG/L	130.00	J	

Qualifiers :
D = Compound was identified in an analysis at a secondary dilution factor.
E = Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
J = Estimated value.
N2 = Not usable based on the results that are not distinguishable from background. The value is less than or equal to the sum of the MDA and the uncertainty or RDL.
U = Compound not detected.

Organic Compounds :
B = Compound was found in both the sample And associated laboratory blank.

Inorganic Compounds :
B = Result Is between instrument detection limit And contract required reporting limit.

OU III South Boundary Pump and Treat System

Process: Groundwater extraction and air stripping treatment, with discharge to both the OU III and RAV recharge basins.

Goal: Reach Maximum Contaminant Levels (MCLs) in core monitoring wells in OU III within 30 years for the Upper Glacial aquifer (by 2030).

Start Date: June 1997

Table 3-1
Pumping Rates (gpm)

Extraction Well	EW-3	EW-4	EW-5	EW-6	EW-7	EW-8	EW-12	EW-17
Site ID	121-17	121-16	121-15	122-14	122-13	122-12	122-30	121-46
Screen Interval (ft bls)	150-190	160-180 &190-200	160-200	160-200	170-210	190-210 & 230-250	180-220	207-237
Desired Flow Rate (gpm)	0*	0*	0*	0*	0*	0*	0*	150
July (Avg monthly gpm)	0	0	0	0	0	0	0	129
August " "	0	0	0	0	0	0	0	180
September " "	0	0	0	0	0	0	0	155
Actual (Avg. over Qtr)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**155**

*Extraction wells placed in standby mode: EW-12 (2003), EW-8 (2006), EW-6 (2007), EW-7 (2007), EW-3 (2015), EW-5 (2015), and EW-4 (2021).

OU III South Boundary Pump and Treat System

Figure 3-1
Cumulative Mass Removal of VOCs vs. Time

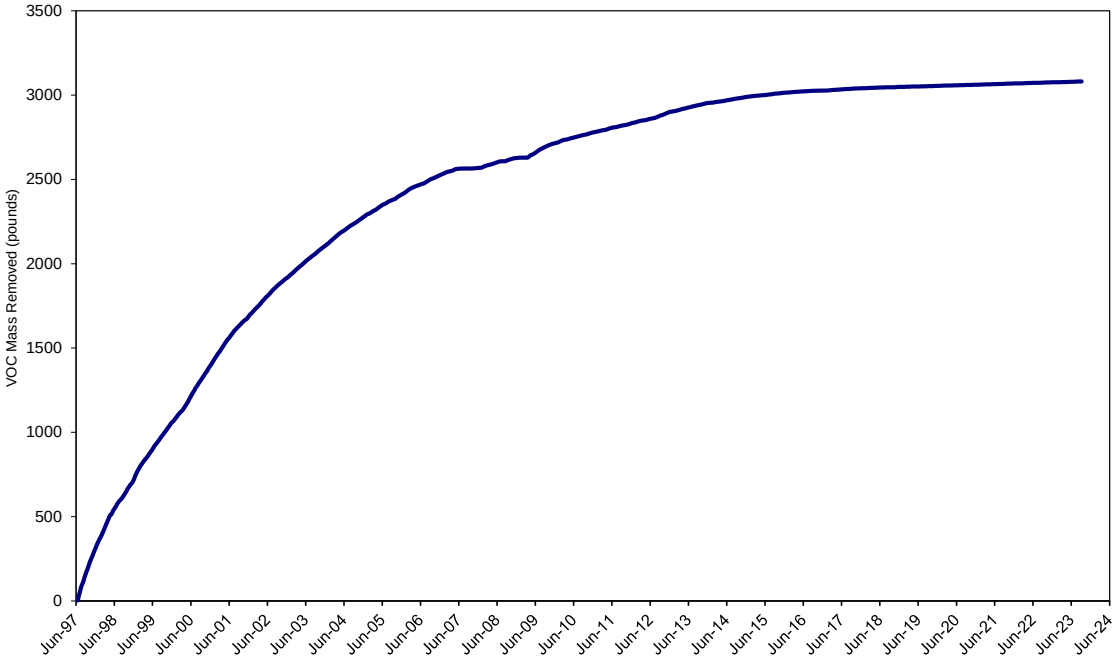
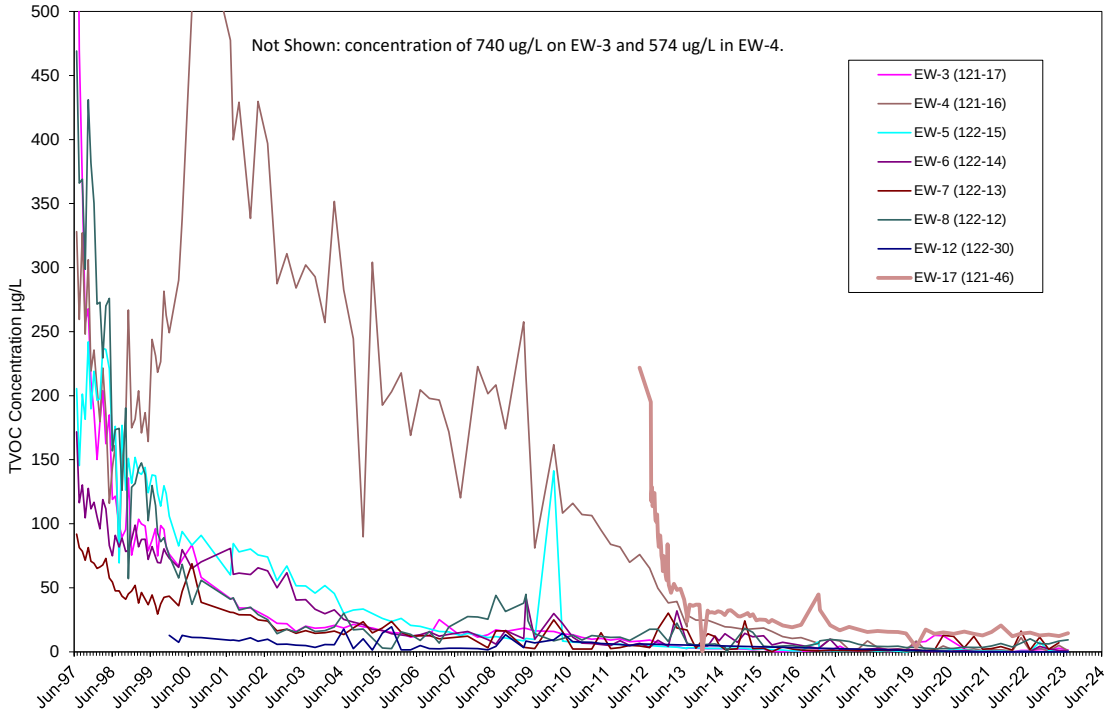


Figure 3-2
Extraction Well TVOC Concentration vs. Time



OU III South Boundary Pump and Treat System

Table 3-2
Effluent Water Quality
SPDES Equivalency Permit Concentrations - July 1 through September 30, 2023

Parameter	Permit Limit	Max. Measured Value	Units	Frequency
Flow	**Monitor**	**1,515,940[1]**	**GPD**	**Continuous**
pH (range)	**6.5 - 8.5**	**6.82 – 7.82[2]**	**SU**	**Monthly[3]**
Carbon Tetrachloride	**5.0**	**<0.50**	**µg/L**	**Monthly[3]**
Chloroform	**7.0**	**<0.50**	**µg/L**	**Monthly[3]**
Dichlorodifluoromethane	**5.0**	**<0.50**	**µg/L**	**Monthly[3]**
1,1-Dichloroethane	**5.0**	**<0.50**	**µg/L**	**Monthly[3]**
1,1-Dichloroethylene	**5.0**	**<0.50**	**µg/L**	**Monthly[3]**
Methyl Chloride	**5.0**	**<0.50**	**µg/L**	**Monthly[3]**
Tetrachloroethylene	**5.0**	**<0.50**	**µg/L**	**Monthly[3]**
Toluene	**5.0**	**<0.50**	**µg/L**	**Monthly[3]**
1,1,1-Trichloroethane	**5.0**	**<0.50**	**µg/L**	**Monthly[3]**
1,1,2 Trichloroethane	**5.0**	**<0.50**	**µg/L**	**Monthly[3]**
Trichloroethylene	**10.0**	**<0.50**	**µg/L**	**Monthly[3]**

[1] The maximum monthly average flow rate for both the OU III South Boundary, Middle Road, and Western South Boundary Systems, during the operational period.
[2] The minimum and maximum pH values during the operational period.
[3] Beginning in April 2003, a SPDES modification was approved revising the pH and volatile organic sampling to once a month.

Monitoring Activities

The OU III South Boundary monitoring well data shows the highest concentration of TVOCs in plume core monitoring well 121-53 at 154 µg/L. The highest individual VOC concentration recorded in this well was tetrachloroethylene (PCE) at 130 µg/L. The TVOC concentration in monitoring well 121-54, approximately 200 feet to the east of 121-53, and at a similar depth was 67 µg/L. PCE was recorded at 59 µg/L in this well. The OU III South Boundary monitoring well network is shown on **Figure 3-3.** The 'Hits Only' third quarter 2023 monitoring well data are summarized in **Table 3-3.**

OU III South Boundary Pump and Treat System

System Operations

July 2023:

The system operated normally for the month with extraction well EW-17 in full-time operation. Wells EW-3, EW-4, EW-5, EW-6, EW-7, EW-8, and EW-12 remained in standby mode. An effluent sample was taken from the OU III Middle Road air stripping tower (095-270) and the system treated approximately 6 million gallons of water.

August 2023:

The system operated normally for the month with extraction well EW-17 in full-time operation. Wells EW-3, EW-4, EW-5, EW-6, EW-7, EW-8, and EW-12 remained in standby mode. An effluent sample was taken from the OU III Middle Road air stripping tower (095-270) and the system treated approximately 8 million gallons of water.

September 2023:

The system operated normally during the beginning of the month. The system was turned off for tree trimming of overhead powerlines during the last four days of the month. The system operated with extraction well EW-17 in full time operation. Wells EW-3, EW-4, EW-5, EW-6, EW-7, EW-8, and EW-12 remained in standby mode. An effluent sample was taken from the OU III Middle Road air stripping tower (095-270) and the system treated approximately 7 million gallons of water.

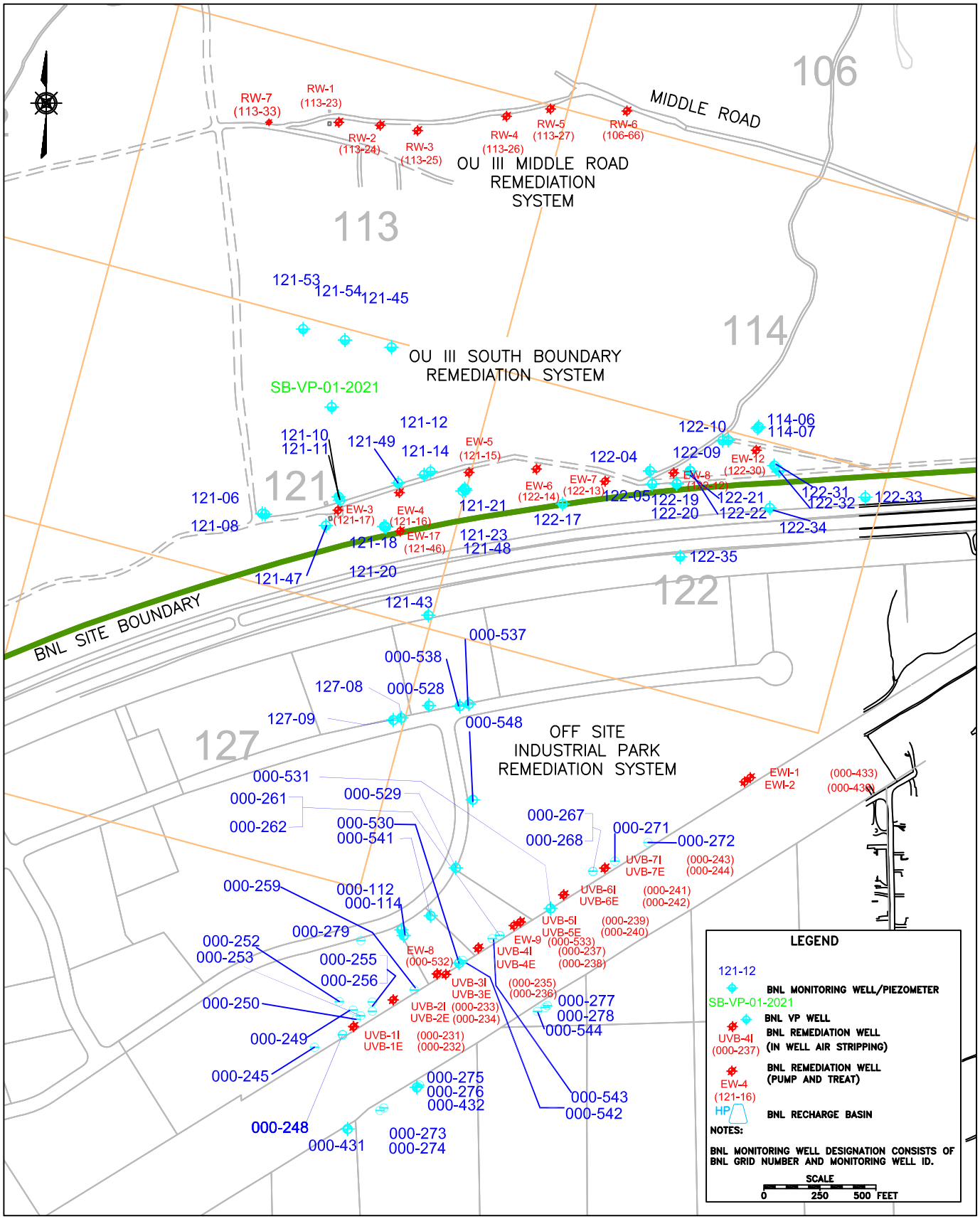
The system treated approximately 21 million gallons of water during the third quarter of 2023. The treatment system 'Hits Only' data, including individual extraction wells, influent, and effluent is summarized in **Table 3-4** through **Table 3-6.**

Planned Operational Changes

- Maintain extraction wells EW-3, EW-4, EW-5, EW-6, EW-7, EW-8, and EW-12 in standby mode. The system's extraction wells will continue to be sampled on a quarterly basis, with the exception of EW-12. The wells will be restarted if extraction or monitoring well data indicate TVOC concentrations exceed the 50 µg/L capture goal. During the third quarter, TVOC concentrations in extraction wells EW-3, EW-4 EW-5, EW-6, EW-7, EW-8, and adjacent monitoring wells were each less than 50 µg/L.
- Continue to operate extraction well EW-17 on a full-time basis. During the third quarter, TVOC concentrations in extraction well EW-17 were less than 50 µg/L.
- Discontinue sampling for tritium on the influent of the OU III South Boundary Treatment System as tritium has not been detected at this location for over 20 years.

OU III South Boundary Pump and Treat System

- Install a permanent monitoring well at the location of the vertical profile SB-VP-01-2021 installed during 2021.
- The concentrations of VOCs in the Deep Upper Glacial aquifer in this area of the site are not declining at a rate that will meet the ROD cleanup goal by 2030. To address this, per the 2021 CERCLA Five-Year Review Report (BNL 2021) recommendations, groundwater modeling simulations will be performed to evaluate the best locations, extraction rates, and number of extraction wells to design an appropriate system modification. The regional groundwater model will be reviewed prior to this modeling effort and updated as necessary to accurately represent the Upton Unit and its lower hydraulic conductivity.



\\OERNT\GIS\GW_PROJECTS\ERD_QUARTERLIES\3Q_2023\FIG 3-3.DWG

ENVIRONMENTAL PROTECTION DIVISION

TITLE: OU III SOUTH BOUNDARY/INDUSTRIAL PARK/INDUSTRIAL PARK AREA MONITORING WELL NETWORKS
SITEWIDE REMEDIATION SYSTEMS
THIRD QUARTER 2023 OPERATIONS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
JEB	–	09/12/14	–
CHKD:	APPD:	REV.:	NOTES:
LDS	–	10/30/23	–

FIGURE NO.: 3–3

Table 3-3
OU III South Boundary Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 121-06

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/08/2023	0.77	--	--	UG/L	45.00		
Chloroform	09/08/2023	0.77	0.5	--	UG/L	45.00		

Site ID : 121-12

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/08/2023	1.7	--	--	UG/L	50.00		
Chloroform	09/08/2023	1.7	0.5	--	UG/L	50.00		

Site ID : 121-18

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/08/2023	1.2	--	--	UG/L	70.00		
Chloroform	09/08/2023	1.2	0.5	--	UG/L	70.00		

Site ID : 121-21

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/08/2023	0.97	--	--	UG/L	70.00		
Chloroform	09/08/2023	0.97	0.5	--	UG/L	70.00		

Site ID : 121-45

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/08/2023	4.71	--	--	UG/L	199.00		
1,1,1-Trichloroethane	09/08/2023	0.17	0.5	--	UG/L	199.00	J	
Chloroform	09/08/2023	0.34	0.5	--	UG/L	199.00	J	
Tetrachloroethylene	09/08/2023	3.8	0.5	--	UG/L	199.00		
Trichloroethylene	09/08/2023	0.4	0.5	--	UG/L	199.00	J	

Site ID : 121-49

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/08/2023	12.69	--	--	UG/L	215.00		
Carbon tetrachloride	09/08/2023	0.18	0.5	--	UG/L	215.00	J	
Chloroform	09/08/2023	0.32	0.5	--	UG/L	215.00	J	
Tetrachloroethylene	09/08/2023	12	0.5	--	UG/L	215.00		
Trichloroethylene	09/08/2023	0.19	0.5	--	UG/L	215.00	J	

Site ID : 121-53

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/07/2023	154.06	--	--	UG/L	229.00		
1,1,1-Trichloroethane	09/07/2023	1.9	0.5	--	UG/L	229.00		
1,1,2,2-Tetrachloroethane	09/07/2023	0.25	0.5	--	UG/L	229.00	J	

Table 3-3
OU III South Boundary Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 121-53

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1,1-Dichloroethane	09/07/2023	0.33	0.5	--	UG/L	229.00	J	
1,1-Dichloroethylene	09/07/2023	2.1	0.5	--	UG/L	229.00		
Carbon tetrachloride	09/07/2023	15	0.5	--	UG/L	229.00		
Chloroform	09/07/2023	1.1	0.5	--	UG/L	229.00		
Dichlorodifluoromethane	09/07/2023	0.18	0.5	--	UG/L	229.00	J	
Tetrachloroethylene	09/07/2023	130	2.5	--	UG/L	229.00	D	
Trichloroethylene	09/07/2023	3.2	0.5	--	UG/L	229.00		

Site ID : 121-54

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/07/2023	67.2	--	--	UG/L	220.00		
1,1,1-Trichloroethane	09/07/2023	0.23	0.5	--	UG/L	220.00	J	
1,1-Dichloroethylene	09/07/2023	0.43	0.5	--	UG/L	220.00	J	
Carbon tetrachloride	09/07/2023	6.4	0.5	--	UG/L	220.00		
Chloroform	09/07/2023	0.47	0.5	--	UG/L	220.00	J	
Tetrachloroethylene	09/07/2023	59	2	--	UG/L	220.00	D	
Trichloroethylene	09/07/2023	0.67	0.5	--	UG/L	220.00		

Site ID : 122-10

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/08/2023	0.52	--	--	UG/L	154.50		
Chloroform	09/08/2023	0.35	0.5	--	UG/L	154.50	J	
Tetrachloroethylene	09/08/2023	0.17	0.5	--	UG/L	154.50	J	

Table 3-4
OU III South Boundary Extraction Well Data
'Hits Only' July through September 2023

Site ID : 121-15 (EW-5)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	0.83	--	--	UG/L	0.00		
Chloroform	07/13/2023	0.34	0.5	--	UG/L	0.00	J	
Tetrachloroethylene	07/13/2023	0.49	0.5	--	UG/L	0.00	J	
1633 TPFAS	08/08/2023	49.48	--	--	NG/L	180.00		
Perfluorobutanesulfonate (PFBS)	08/08/2023	1.1	1.5	--	NG/L	180.00	J	
Perfluorobutyric acid (PFBA)	08/08/2023	12	6.1	--	NG/L	180.00		
Perfluorodecanoic acid (PFDA)	08/08/2023	0.28	1.5	--	NG/L	180.00	J	
Perfluoroheptanoic acid (PFHpA)	08/08/2023	1.5	1.5	--	NG/L	180.00		
Perfluorohexanesulfonate (PFHxS)	08/08/2023	13	1.5	--	NG/L	180.00		
Perfluorohexanoic acid (PFHxA)	08/08/2023	3.6	1.5	--	NG/L	180.00		
Perfluorononanoic acid (PFNA)	08/08/2023	0.39	1.5	--	NG/L	180.00	J	
Perfluorooctane sulfonamide (PFOSAm)	08/08/2023	0.91	1.5	--	NG/L	180.00	J	
Perfluorooctanesulfonate (PFOS)	08/08/2023	8.1	1.5	--	NG/L	180.00		
Perfluorooctanoic acid (PFOA)	08/08/2023	4.9	1.5	--	NG/L	180.00		
Perfluoropentanesulfonate (PFPeS)	08/08/2023	1.3	1.5	--	NG/L	180.00	J	
Perfluoropentanoic acid (PFPeA)	08/08/2023	2.4	3	--	NG/L	180.00	J	

Site ID : 121-16 (EW-4)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	0.8	--	--	UG/L	0.00		
Chloroform	07/13/2023	0.28	0.5	--	UG/L	0.00	J	
Tetrachloroethylene	07/13/2023	0.52	0.5	--	UG/L	0.00		
1633 TPFAS	08/08/2023	79.81	--	--	NG/L	180.00		
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	08/08/2023	0.4	5.5	--	NG/L	180.00	J	
Fluorotelomer sulfonate 6:2 (6:2 FTS)	08/08/2023	0.55	5.5	--	NG/L	180.00	J	
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	08/08/2023	0.52	5.5	--	NG/L	180.00	J	
Perfluorobutanesulfonate (PFBS)	08/08/2023	1.8	1.4	--	NG/L	180.00		
Perfluorobutyric acid (PFBA)	08/08/2023	5.6	5.5	--	NG/L	180.00		
Perfluorodecanoic acid (PFDA)	08/08/2023	0.29	1.4	--	NG/L	180.00	J	
Perfluoroheptanesulfonate (PFHpS)	08/08/2023	1	1.4	--	NG/L	180.00	J	
Perfluoroheptanoic acid (PFHpA)	08/08/2023	1.7	1.4	--	NG/L	180.00		
Perfluorohexanesulfonate (PFHxS)	08/08/2023	35	1.4	--	NG/L	180.00		
Perfluorohexanoic acid (PFHxA)	08/08/2023	6.3	1.4	--	NG/L	180.00		
Perfluorononanoic acid (PFNA)	08/08/2023	0.85	1.4	--	NG/L	180.00	J	

Table 3-4
OU III South Boundary Extraction Well Data
'Hits Only' July through September 2023

Site ID : 121-16 (EW-4)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorooctane sulfonamide (PFOSAm)	08/08/2023	1.8	1.4	--	NG/L	180.00		
Perfluorooctanesulfonate (PFOS)	08/08/2023	13	1.4	--	NG/L	180.00		
Perfluorooctanoic acid (PFOA)	08/08/2023	6.5	1.4	--	NG/L	180.00		
Perfluoropentanesulfonate (PFPeS)	08/08/2023	2.1	1.4	--	NG/L	180.00		
Perfluoropentanoic acid (PFPeA)	08/08/2023	2.4	2.8	--	NG/L	180.00	J	

Site ID : 121-17 (EW-3)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	1.47	--	--	UG/L	0.00		
Chloroform	07/13/2023	0.31	0.5	--	UG/L	0.00	J	
Methyl tert-butyl ether	07/13/2023	0.48	0.5	--	UG/L	0.00	J	
Tetrachloroethylene	07/13/2023	0.68	0.5	--	UG/L	0.00		
1633 TPFAS	08/08/2023	23.82	--	--	NG/L	170.00		
Perfluorobutanesulfonate (PFBS)	08/08/2023	0.91	1.6	--	NG/L	170.00	J	
Perfluorobutyric acid (PFBA)	08/08/2023	9.6	6.3	--	NG/L	170.00		
Perfluoroheptanoic acid (PFHpA)	08/08/2023	0.65	1.6	--	NG/L	170.00	J	
Perfluorohexanesulfonate (PFHxS)	08/08/2023	4.9	1.6	--	NG/L	170.00		
Perfluorohexanoic acid (PFHxA)	08/08/2023	1.1	1.6	--	NG/L	170.00	J	
Perfluorooctanesulfonate (PFOS)	08/08/2023	2.8	1.6	--	NG/L	170.00		
Perfluorooctanoic acid (PFOA)	08/08/2023	2.6	1.6	--	NG/L	170.00		
Perfluoropentanesulfonate (PFPeS)	08/08/2023	0.72	1.6	--	NG/L	170.00	J	
Perfluoropentanoic acid (PFPeA)	08/08/2023	0.54	3.1	--	NG/L	170.00	J	

Site ID : 121-46 (EW-17)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	14.61	--	--	UG/L	0.00		
1,1,1-Trichloroethane	07/13/2023	0.32	0.5	--	UG/L	0.00	J	
1,1-Dichloroethylene	07/13/2023	0.4	0.5	--	UG/L	0.00	J	
Carbon tetrachloride	07/13/2023	1.9	0.5	--	UG/L	0.00		
Chloroform	07/13/2023	0.5	0.5	--	UG/L	0.00		
Tetrachloroethylene	07/13/2023	11	0.5	--	UG/L	0.00		
Trichloroethylene	07/13/2023	0.49	0.5	--	UG/L	0.00	J	
1633 TPFAS	08/08/2023	67.43	--	--	NG/L	222.00		
Perfluorobutanesulfonate (PFBS)	08/08/2023	1.6	1.5	--	NG/L	222.00		
Perfluorobutyric acid (PFBA)	08/08/2023	8.3	5.9	--	NG/L	222.00		

Table 3-4
OU III South Boundary Extraction Well Data
'Hits Only' July through September 2023

Site ID : 121-46 (EW-17)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorodecanoic acid (PFDA)	08/08/2023	0.14	1.5	--	NG/L	222.00	J	
Perfluoroheptanoic acid (PFHpA)	08/08/2023	1.5	1.5	--	NG/L	222.00		
Perfluorohexanesulfonate (PFHxS)	08/08/2023	30	1.5	--	NG/L	222.00		
Perfluorohexanoic acid (PFHxA)	08/08/2023	4.9	1.5	--	NG/L	222.00		
Perfluorononanoic acid (PFNA)	08/08/2023	0.59	1.5	--	NG/L	222.00	J	
Perfluorooctane sulfonamide (PFOSAm)	08/08/2023	1.5	1.5	--	NG/L	222.00		
Perfluorooctanesulfonate (PFOS)	08/08/2023	8.2	1.5	--	NG/L	222.00		
Perfluorooctanoic acid (PFOA)	08/08/2023	6.9	1.5	--	NG/L	222.00		
Perfluoropentanesulfonate (PFPeS)	08/08/2023	1.7	1.5	--	NG/L	222.00		
Perfluoropentanoic acid (PFPeA)	08/08/2023	2.1	3	--	NG/L	222.00	J	

Site ID : 122-12 (EW-8)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	9.45	--	--	UG/L	0.00		
cis-1,2-Dichloroethylene	07/13/2023	3.2	0.5	--	UG/L	0.00		
Tetrachloroethylene	07/13/2023	5.7	0.5	--	UG/L	0.00		
Trichloroethylene	07/13/2023	0.55	0.5	--	UG/L	0.00		
1633 TPFAS	08/08/2023	58.71	--	--	NG/L	250.00		
Perfluorobutanesulfonate (PFBS)	08/08/2023	0.73	1.5	--	NG/L	250.00	J	
Perfluorobutyric acid (PFBA)	08/08/2023	2.1	6	--	NG/L	250.00	J	
Perfluoroheptanesulfonate (PFHpS)	08/08/2023	0.58	1.5	--	NG/L	250.00	J	
Perfluoroheptanoic acid (PFHpA)	08/08/2023	1.1	1.5	--	NG/L	250.00	J	
Perfluorohexanesulfonate (PFHxS)	08/08/2023	22	1.5	--	NG/L	250.00		
Perfluorohexanoic acid (PFHxA)	08/08/2023	3	1.5	--	NG/L	250.00		
Perfluorooctane sulfonamide (PFOSAm)	08/08/2023	0.19	1.5	--	NG/L	250.00	J	
Perfluorooctanesulfonate (PFOS)	08/08/2023	21	1.5	--	NG/L	250.00		
Perfluorooctanoic acid (PFOA)	08/08/2023	6.1	1.5	--	NG/L	250.00		
Perfluoropentanesulfonate (PFPeS)	08/08/2023	0.91	1.5	--	NG/L	250.00	J	
Perfluoropentanoic acid (PFPeA)	08/08/2023	1	3	--	NG/L	250.00	J	

Site ID : 122-13 (EW-7)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/28/2023	52.47	--	--	NG/L	190.00		
1,4-Dioxane	08/28/2023	0.5	0.2	--	UG/L	170.00		
Perfluorobutanesulfonate (PFBS)	08/28/2023	1.7	1.5	--	NG/L	190.00		

Table 3-4
OU III South Boundary Extraction Well Data
'Hits Only' July through September 2023

Site ID : 122-13 (EW-7)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorobutyric acid (PFBA)	08/28/2023	7.4	6.1	--	NG/L	190.00		
Perfluorodecanoic acid (PFDA)	08/28/2023	0.27	1.5	--	NG/L	190.00	J	
Perfluoroheptanoic acid (PFHpA)	08/28/2023	1.5	1.5	--	NG/L	190.00		
Perfluorohexanesulfonate (PFHxS)	08/28/2023	12	1.5	--	NG/L	190.00		
Perfluorohexanoic acid (PFHxA)	08/28/2023	3.1	1.5	--	NG/L	190.00		
Perfluorononanoic acid (PFNA)	08/28/2023	1.7	1.5	--	NG/L	190.00		
Perfluorooctanesulfonate (PFOS)	08/28/2023	16	1.5	--	NG/L	190.00		
Perfluorooctanoic acid (PFOA)	08/28/2023	4.5	1.5	--	NG/L	190.00		
Perfluoropentanesulfonate (PFPeS)	08/28/2023	1.4	1.5	--	NG/L	190.00	J	
Perfluoropentanoic acid (PFPeA)	08/28/2023	2.9	3	--	NG/L	190.00	J	

Site ID : 122-14 (EW-6)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	0.48	--	--	UG/L	0.00		
Tetrachloroethylene	07/13/2023	0.48	0.5	--	UG/L	0.00	J	
1633 TPFAS	08/08/2023	86.14	--	--	NG/L	180.00		
Perfluorobutanesulfonate (PFBS)	08/08/2023	2.1	1.6	--	NG/L	180.00		
Perfluorobutyric acid (PFBA)	08/08/2023	12	6.4	--	NG/L	180.00		
Perfluorodecanoic acid (PFDA)	08/08/2023	0.43	1.6	--	NG/L	180.00	J	
Perfluoroheptanoic acid (PFHpA)	08/08/2023	4.2	1.6	--	NG/L	180.00		
Perfluorohexanesulfonate (PFHxS)	08/08/2023	23	1.6	--	NG/L	180.00		
Perfluorohexanoic acid (PFHxA)	08/08/2023	10	1.6	--	NG/L	180.00		
Perfluorononanoic acid (PFNA)	08/08/2023	2.2	1.6	--	NG/L	180.00		
Perfluorooctane sulfonamide (PFOSAm)	08/08/2023	0.43	1.6	--	NG/L	180.00	J	
Perfluorooctanesulfonate (PFOS)	08/08/2023	14	1.6	--	NG/L	180.00		
Perfluorooctanoic acid (PFOA)	08/08/2023	5.6	1.6	--	NG/L	180.00		
Perfluoropentanesulfonate (PFPeS)	08/08/2023	2.5	1.6	--	NG/L	180.00		
Perfluoropentanoic acid (PFPeA)	08/08/2023	9.3	3.2	--	NG/L	180.00		
Perfluoroundecanoic acid (PFUdA)	08/08/2023	0.38	1.6	--	NG/L	180.00	J	

Table 3-5
OU III South Boundary Influent Data
'Hits Only' July through September 2023

Site ID : 121-41 (System Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	13.64	--	--	UG/L	0.00		
1,1,1-Trichloroethane	07/13/2023	0.32	0.5	--	UG/L	0.00	J	
1,1-Dichloroethylene	07/13/2023	0.34	0.5	--	UG/L	0.00	J	
Carbon tetrachloride	07/13/2023	2.1	0.5	--	UG/L	0.00		
Chloroform	07/13/2023	0.49	0.5	--	UG/L	0.00	J	
Tetrachloroethylene	07/13/2023	10	0.5	--	UG/L	0.00		
Trichloroethylene	07/13/2023	0.39	0.5	--	UG/L	0.00	J	
1633 TPFAS	08/08/2023	66.64	--	--	NG/L	0.00		
Perfluorobutanesulfonate (PFBS)	08/08/2023	1.5	1.5	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	08/08/2023	8.1	6	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	08/08/2023	1.4	1.5	--	NG/L	0.00	J	
Perfluorohexanesulfonate (PFHxS)	08/08/2023	32	1.5	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	08/08/2023	4.7	1.5	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	08/08/2023	0.62	1.5	--	NG/L	0.00	J	
Perfluorooctane sulfonamide (PFOSAm)	08/08/2023	0.22	1.5	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	08/08/2023	8.4	1.5	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	08/08/2023	5.7	1.5	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	08/08/2023	2	1.5	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	08/08/2023	2	3	--	NG/L	0.00	J	
8260 TVOC	08/11/2023	13.87	--	--	UG/L	0.00		
1,1,1-Trichloroethane	08/11/2023	0.37	0.5	--	UG/L	0.00	J	
1,1-Dichloroethylene	08/11/2023	0.36	0.5	--	UG/L	0.00	J	
Carbon tetrachloride	08/11/2023	2.2	0.5	--	UG/L	0.00		
Chloroform	08/11/2023	0.55	0.5	--	UG/L	0.00		
Tetrachloroethylene	08/11/2023	10	0.5	--	UG/L	0.00		
Trichloroethylene	08/11/2023	0.39	0.5	--	UG/L	0.00	J	
8260 TVOC	09/08/2023	11.53	--	--	UG/L	0.00		
1,1,1-Trichloroethane	09/08/2023	0.27	0.5	--	UG/L	0.00	J	
1,1-Dichloroethylene	09/08/2023	0.27	0.5	--	UG/L	0.00	J	
Carbon tetrachloride	09/08/2023	1.5	0.5	--	UG/L	0.00		
Chloroform	09/08/2023	0.42	0.5	--	UG/L	0.00	J	
Tetrachloroethylene	09/08/2023	8.7	0.5	--	UG/L	0.00		
Trichloroethylene	09/08/2023	0.37	0.5	--	UG/L	0.00	J	

Table 3-6
OU III South Boundary Effluent Data
'Hits Only' July through September 2023

Site ID : 095-270 (System Effluent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	0	--	--	UG/L	0.00		
8260 TVOC	08/11/2023	0	--	--	UG/L	0.00		
8260 TVOC	09/08/2023	0	--	--	UG/L	0.00		

Qualifiers :
D = Compound was identified in an analysis at a secondary dilution factor.
E = Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
J = Estimated value.
N2 = Not usable based on the results that are not distinguishable from background. The value is less than or equal to the sum of the MDA and the uncertainty or RDL.
U = Compound not detected.

Organic Compounds :
B = Compound was found in both the sample And associated laboratory blank.

Inorganic Compounds :
B = Result Is between instrument detection limit And contract required reporting limit.

OU III Middle Road Pump & Treat System

Process: Groundwater extraction and air stripping treatment, with discharge to both the OU III and RAV recharge basins.

Goal: Reach Maximum Contaminant Levels (MCLs) in core monitoring wells in OU III within 30 years for the Upper Glacial aquifer (by 2030).

Start Date: October 23, 2001

Table 4-1
Pumping Rates (gpm)

Extraction Well	RW-1	RW-2	RW-3	RW-4	RW-5	RW-6	RW-7
Site ID #	113-23	113-24	113-25	113-26	113-27	106-66	113-33
Screen Interval (ft bls)	90-130	170-200	228-268	150-180	150-180	188-218	202-222
Desired Flow Rate (gpm)	0*	150	125	0*	0*	0*	150
July (Avg monthly gpm)	0	76**	109	0	0	0	120
August " " "	0	104**	153	0	0	0	176
September " " "	0	85	94	0	0	0	136
Actual (Avg. over Qtr.)	**0**	**88**	**119**	**0**	**0**	**0**	**144**

* Extraction wells placed in standby mode: RW-4 and RW-5 (2003), RW-6 (2006), and RW-1 (2015).
** Pump down for repairs 7/25 to 8/8/2023

OU III Middle Road Pump & Treat System

Figure 4-1
Cumulative Mass Removal of VOCs vs. Time

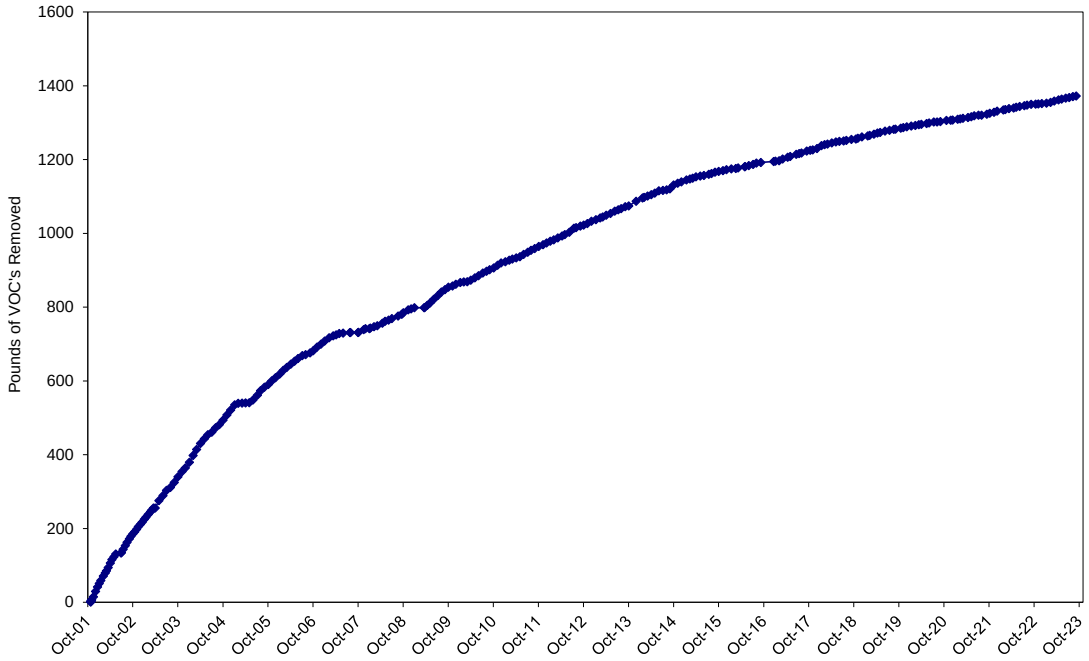
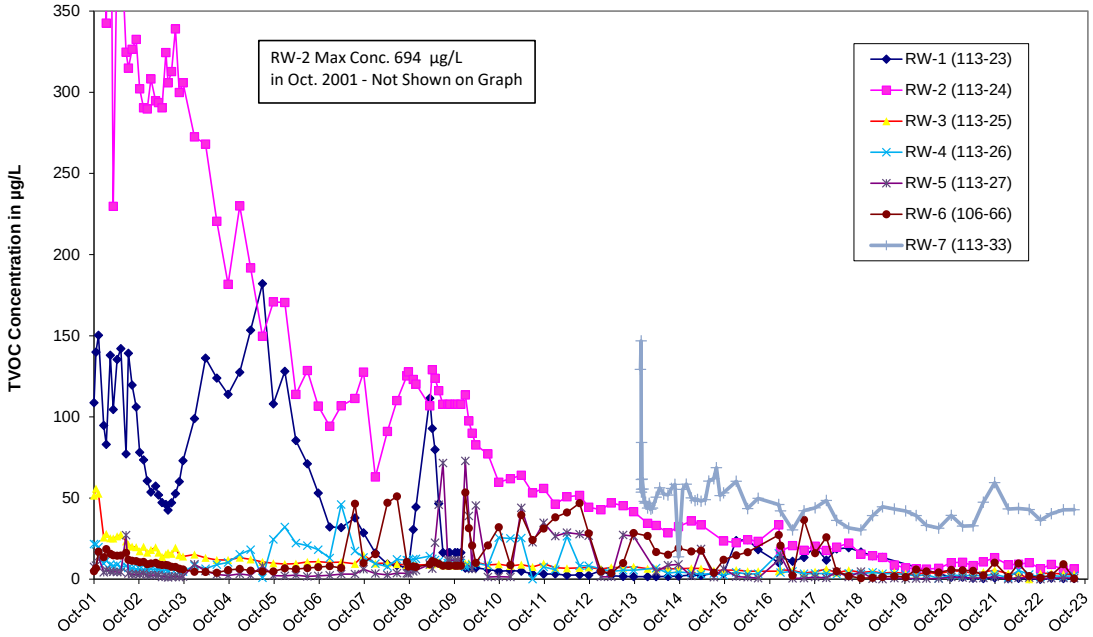


Figure 4-2
Extraction Well TVOC Concentrations vs. Time



OU III Middle Road Pump & Treat System

Table 4-2
Effluent Water Quality
SPDES Equivalency Permit Concentrations - July 1 through September 30, 2023

Parameter	Permit Limit	Max. Measured Value	Units	Frequency
Flow	**Monitor**	**1,515,940[1]**	**GPD**	**Continuous**
pH (range)	**6.5 - 8.5**	**6.82– 7.82[2]**	**SU**	**Monthly[3]**
Carbon Tetrachloride	**5**	**<0.50**	**µg/L**	**Monthly[3]**
Chloroform	**7**	**<0.50**	**µg/L**	**Monthly[3]**
Dichlorodifluoromethane	**5**	**<0.50**	**µg/L**	**Monthly[3]**
1,1-Dichloroethane	**5**	**<0.50**	**µg/L**	**Monthly[3]**
1,1-Dichloroethylene	**5**	**<0.50**	**µg/L**	**Monthly[3]**
Methyl Chloride	**5**	**<0.50**	**µg/L**	**Monthly[3]**
Tetrachloroethylene	**5**	**<0.50**	**µg/L**	**Monthly[3]**
Toluene	**5**	**<0.50**	**µg/L**	**Monthly[3]**
1,1,1-Trichloroethane	**5**	**<0.50**	**µg/L**	**Monthly[3]**
1,1,2 Trichloroethane	**5**	**<0.50**	**µg/L**	**Monthly[3]**
Trichloroethylene	**10**	**<0.50**	**µg/L**	**Monthly[3]**

[1] The maximum monthly average flow for the OU III Middle Road, South Boundary, and Western South Boundary Systems during the operational period.
[2] The minimum and maximum pH values during the operational period.
[3] Beginning in April 2003, a SPDES modification was approved revising the pH and volatile organic sampling to once a month.

Monitoring Activities

The OU III Middle Road well data show the highest concentration of TVOCs recorded in plume core monitoring well 105-68 at 150 µg/L. The highest individual VOC in this well was PCE, recorded at 130 µg/L. Wells 105-66 and 105-67, located east of 105-68 also had elevated TVOC concentrations at 142 µg/L and 96 µg/L, respectively. The OU III Middle Road monitoring well network is shown on **Figure 4-3.** The 'Hits Only' third quarter 2023 data are summarized in **Table 4-3.**

OU III Middle Road Pump & Treat System

System Operations

July 2023:

Extraction wells RW-3 and RW-7 were in full-time operation. Extraction well RW-2 was offline for repairs during the last week of July. Wells RW-1, RW-4, RW-5, and RW-6 remained in standby mode. An effluent sample was collected from OU III Middle Road air stripping tower (095-270) and the system treated approximately 13 million gallons of water.

August 2023:

Extraction wells RW-3 and RW-7 were in full-time operation. Extraction well RW-2 was offline for repairs during the first week of August. Wells RW-1, RW-4, RW-5, and RW-6 remained in standby mode. An effluent sample was collected from OU III Middle Road air stripping tower (095-270) and the system treated approximately 19 million gallons of water.

September 2023:

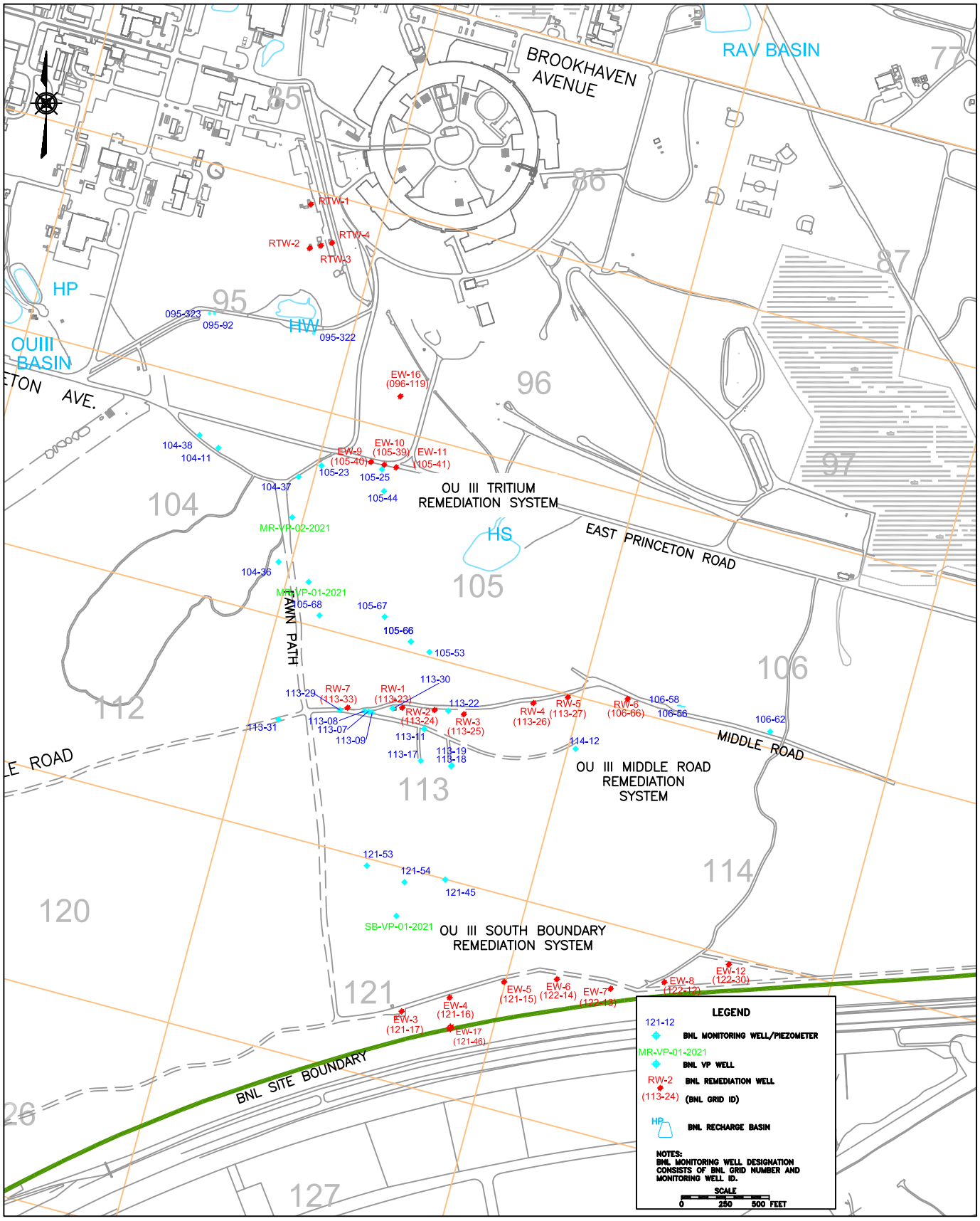
The system operated normally during the beginning of the month. The system was turned off for tree trimming of overhead powerlines during the last four days of the month. Extraction wells RW-2, RW-3, and RW-7 were in full-time operation. Wells RW-1, RW- 4, RW-5, and RW-6 remained in standby mode. An effluent sample was collected from the OU III Middle Road air stripping tower (095-270) and the system treated approximately 14 million gallons of water.

The system treated approximately 46 million gallons of water during the third quarter of 2023. The treatment system 'Hits Only' data, including individual extraction wells, influent, and effluent is summarized in **Table 4-4** through **Table 4-6.**

Planned Operational Changes

- Continue operation of extraction wells RW-2, RW-3, and RW-7. Maintain RW-1, RW-4, RW-5, and RW-6 in standby mode. Restart the well(s) if extraction or monitoring well data indicate that TVOC concentrations exceed the 50 µg/L capture goal. TVOC concentrations in extraction wells RW-1, RW-4, RW-5 and RW-6 and adjacent monitoring wells were below 50 µg/L in the third quarter.
- Discontinue sampling for tritium on the influent of the Middle Road Treatment System as tritium has not been detected at this location for over 20 years.
- Install two new permanent monitoring wells at the locations of vertical profile locations MR-VP-01-2021 and MR-VP-02-2021, installed during 2021.
- The concentrations of VOCs in the Deep Upper Glacial aquifer in this area of the site are not declining at a rate that will meet the ROD cleanup goal by 2030. To address this, per

the 2021 CERCLA Five-Year Review Report (BNL 2021) recommendations, groundwater modeling simulations will be performed to evaluate the best locations, extraction rates, and number of extraction wells to design an appropriate system modification. The regional groundwater model will be reviewed prior to this modeling effort and updated as necessary to accurately represent the Upton Unit and its lower hydraulic conductivity.



\\OERNT\GIS\GW_PROJECTS\ERD_QUARTERLIES\3Q_2023\FIG 4-3.DWG

ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III MIDDLE ROAD MONITORING WELL NETWORK

SITEWIDE REMEDIATION SYSTEMS
THIRD QUARTER 2023 OPERATIONS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
JEB	–	02/08/07	–
CHKD:	APPD:	REV.:	NOTES:
LDS	––	10/30/23	–

FIGURE NO.: 4–3

Table 4-3
OU III Middle Road Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 095-322

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/06/2023	28.79	--	--	UG/L	180.00		
1,1,1-Trichloroethane	09/06/2023	1.9	0.5	--	UG/L	180.00		
1,1-Dichloroethane	09/06/2023	0.32	0.5	--	UG/L	180.00	J	
1,1-Dichloroethylene	09/06/2023	3.9	0.5	--	UG/L	180.00		
Chloroform	09/06/2023	0.47	0.5	--	UG/L	180.00	J	
Tetrachloroethylene	09/06/2023	15	0.5	--	UG/L	180.00		
Trichloroethylene	09/06/2023	7.2	0.5	--	UG/L	180.00		

Site ID : 095-323

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/06/2023	15.16	--	--	UG/L	205.00		
1,1,1-Trichloroethane	09/06/2023	1.2	0.5	--	UG/L	205.00		
1,1,2,2-Tetrachloroethane	09/06/2023	0.91	0.5	--	UG/L	205.00		
1,1-Dichloroethylene	09/06/2023	0.58	0.5	--	UG/L	205.00		
Chloroform	09/06/2023	0.57	0.5	--	UG/L	205.00		
Tetrachloroethylene	09/06/2023	8.3	0.5	--	UG/L	205.00		
Trichloroethylene	09/06/2023	3.6	0.5	--	UG/L	205.00		

Site ID : 104-37

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/07/2023	82.35	--	--	UG/L	209.00		
1,1,1-Trichloroethane	09/07/2023	2	0.5	--	UG/L	209.00		
1,1,2,2-Tetrachloroethane	09/07/2023	1.2	0.5	--	UG/L	209.00		
1,1-Dichloroethylene	09/07/2023	2.7	0.5	--	UG/L	209.00		
Carbon tetrachloride	09/07/2023	2.2	0.5	--	UG/L	209.00		
Chloroform	09/07/2023	0.55	0.5	--	UG/L	209.00		
Tetrachloroethylene	09/07/2023	70	2	--	UG/L	209.00	D	
Trichloroethylene	09/07/2023	3.7	0.5	--	UG/L	209.00		

Site ID : 105-23

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/07/2023	15.65	--	--	UG/L	180.00		
1,1,1-Trichloroethane	09/07/2023	0.3	0.5	--	UG/L	180.00	J	
1,1-Dichloroethylene	09/07/2023	0.23	0.5	--	UG/L	180.00	J	
Carbon tetrachloride	09/07/2023	0.45	0.5	--	UG/L	180.00	J	
Chloroform	09/07/2023	0.34	0.5	--	UG/L	180.00	J	

Table 4-3
OU III Middle Road Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 105-23

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Tetrachloroethylene	09/07/2023	14	0.5	--	UG/L	180.00		
Trichloroethylene	09/07/2023	0.33	0.5	--	UG/L	180.00	J	

Site ID : 105-44

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/21/2023	39.56	--	--	NG/L	152.50		
Perfluorobutanesulfonate (PFBS)	07/21/2023	0.94	1.5	--	NG/L	152.50	J	
Perfluorobutyric acid (PFBA)	07/21/2023	6.5	5.8	--	NG/L	152.50		
Perfluoroheptanoic acid (PFHpA)	07/21/2023	1.7	1.5	--	NG/L	152.50		
Perfluorohexanesulfonate (PFHxS)	07/21/2023	10	1.5	--	NG/L	152.50		
Perfluorohexanoic acid (PFHxA)	07/21/2023	3.6	1.5	--	NG/L	152.50		
Perfluorononanoic acid (PFNA)	07/21/2023	0.29	1.5	--	NG/L	152.50	J	
Perfluorooctanesulfonate (PFOS)	07/21/2023	7	1.5	--	NG/L	152.50		
Perfluorooctanoic acid (PFOA)	07/21/2023	4.2	1.5	--	NG/L	152.50		
Perfluoropentanesulfonate (PFPeS)	07/21/2023	0.93	1.5	--	NG/L	152.50	J	
Perfluoropentanoic acid (PFPeA)	07/21/2023	4.4	2.9	--	NG/L	152.50		

Site ID : 105-66

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/05/2023	142.44	--	--	UG/L	184.00		
1,1,1-Trichloroethane	09/05/2023	1	0.5	--	UG/L	184.00		
1,1,2,2-Tetrachloroethane	09/05/2023	0.35	0.5	--	UG/L	184.00	J	
1,1-Dichloroethylene	09/05/2023	0.94	0.5	--	UG/L	184.00		
Carbon tetrachloride	09/05/2023	5.3	0.5	--	UG/L	184.00		
Chloroform	09/05/2023	0.55	0.5	--	UG/L	184.00		
Tetrachloroethylene	09/05/2023	130	5	--	UG/L	184.00	D	
Trichloroethylene	09/05/2023	4.3	0.5	--	UG/L	184.00		

Site ID : 105-67

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/05/2023	96.37	--	--	UG/L	185.00		
1,1,1-Trichloroethane	09/05/2023	2.8	0.5	--	UG/L	185.00		
1,1,2,2-Tetrachloroethane	09/05/2023	0.46	0.5	--	UG/L	185.00	J	
1,1-Dichloroethylene	09/05/2023	2.2	0.5	--	UG/L	185.00		
Chloroform	09/05/2023	0.45	0.5	--	UG/L	185.00	J	
Methyl tert-butyl ether	09/05/2023	0.16	0.5	--	UG/L	185.00	J	

Table 4-3
OU III Middle Road Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 105-67

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Tetrachloroethylene	09/05/2023	89	2.5	--	UG/L	185.00	D	
Trichloroethylene	09/05/2023	1.3	0.5	--	UG/L	185.00		

Site ID : 105-68

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/05/2023	149.75	--	--	UG/L	205.00		
1,1,1-Trichloroethane	09/05/2023	0.67	0.5	--	UG/L	205.00		
1,1,2,2-Tetrachloroethane	09/05/2023	2.2	0.5	--	UG/L	205.00		
1,1-Dichloroethylene	09/05/2023	0.78	0.5	--	UG/L	205.00		
Carbon tetrachloride	09/05/2023	4.4	0.5	--	UG/L	205.00		
Chloroform	09/05/2023	0.7	0.5	--	UG/L	205.00		
Tetrachloroethylene	09/05/2023	130	5	--	UG/L	205.00	D	
Trichloroethylene	09/05/2023	11	0.5	--	UG/L	205.00		

Site ID : 113-17

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/06/2023	19.63	--	--	UG/L	177.00		
Carbon tetrachloride	09/06/2023	0.33	0.5	--	UG/L	177.00	J	
Chloroform	09/06/2023	0.78	0.5	--	UG/L	177.00		
Tetrachloroethylene	09/06/2023	18	0.5	--	UG/L	177.00		
Trichloroethylene	09/06/2023	0.52	0.5	--	UG/L	177.00		

Site ID : 113-19

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/08/2023	21.45	--	--	UG/L	230.00		
1,1,1-Trichloroethane	09/08/2023	7.1	0.5	--	UG/L	230.00		
1,1-Dichloroethane	09/08/2023	1	0.5	--	UG/L	230.00		
1,1-Dichloroethylene	09/08/2023	4.1	0.5	--	UG/L	230.00		
Carbon tetrachloride	09/08/2023	4.5	0.5	--	UG/L	230.00		
Chloroform	09/08/2023	0.64	0.5	--	UG/L	230.00		
cis-1,2-Dichloroethylene	09/08/2023	0.31	0.5	--	UG/L	230.00	J	
Trichloroethylene	09/08/2023	3.8	0.5	--	UG/L	230.00		

Site ID : 113-29

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/05/2023	0.87	--	--	UG/L	190.00		
Chloroform	09/05/2023	0.25	0.5	--	UG/L	190.00	J	

Table 4-3
OU III Middle Road Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 113-29

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Tetrachloroethylene	09/05/2023	0.62	0.5	--	UG/L	190.00		

Site ID : 113-30

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/06/2023	3.09	--	--	UG/L	190.00		
Carbon tetrachloride	09/06/2023	0.32	0.5	--	UG/L	190.00	J	
Chloroform	09/06/2023	0.17	0.5	--	UG/L	190.00	J	
Tetrachloroethylene	09/06/2023	2.6	0.5	--	UG/L	190.00		

Site ID : 113-31

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/05/2023	2.34	--	--	UG/L	190.00		
1,1,1-Trichloroethane	09/05/2023	1.2	0.5	--	UG/L	190.00		
1,1-Dichloroethylene	09/05/2023	0.42	0.5	--	UG/L	190.00	J	
Chloroform	09/05/2023	0.2	0.5	--	UG/L	190.00	J	
Trichloroethylene	09/05/2023	0.52	0.5	--	UG/L	190.00		

Site ID : 114-12

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/05/2023	0.41	--	--	UG/L	155.00		
Chloroform	09/05/2023	0.41	0.5	--	UG/L	155.00	J	

Site ID : 121-45

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/08/2023	4.71	--	--	UG/L	199.00		
1,1,1-Trichloroethane	09/08/2023	0.17	0.5	--	UG/L	199.00	J	
Chloroform	09/08/2023	0.34	0.5	--	UG/L	199.00	J	
Tetrachloroethylene	09/08/2023	3.8	0.5	--	UG/L	199.00		
Trichloroethylene	09/08/2023	0.4	0.5	--	UG/L	199.00	J	

Site ID : 121-53

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/07/2023	154.06	--	--	UG/L	229.00		
1,1,1-Trichloroethane	09/07/2023	1.9	0.5	--	UG/L	229.00		
1,1,2,2-Tetrachloroethane	09/07/2023	0.25	0.5	--	UG/L	229.00	J	
1,1-Dichloroethane	09/07/2023	0.33	0.5	--	UG/L	229.00	J	
1,1-Dichloroethylene	09/07/2023	2.1	0.5	--	UG/L	229.00		
Carbon tetrachloride	09/07/2023	15	0.5	--	UG/L	229.00		

Table 4-3
OU III Middle Road Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 121-53

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Chloroform	09/07/2023	1.1	0.5	--	UG/L	229.00		
Dichlorodifluoromethane	09/07/2023	0.18	0.5	--	UG/L	229.00	J	
Tetrachloroethylene	09/07/2023	130	2.5	--	UG/L	229.00	D	
Trichloroethylene	09/07/2023	3.2	0.5	--	UG/L	229.00		

Site ID : 121-54

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/07/2023	67.2	--	--	UG/L	220.00		
1,1,1-Trichloroethane	09/07/2023	0.23	0.5	--	UG/L	220.00	J	
1,1-Dichloroethylene	09/07/2023	0.43	0.5	--	UG/L	220.00	J	
Carbon tetrachloride	09/07/2023	6.4	0.5	--	UG/L	220.00		
Chloroform	09/07/2023	0.47	0.5	--	UG/L	220.00	J	
Tetrachloroethylene	09/07/2023	59	2	--	UG/L	220.00	D	
Trichloroethylene	09/07/2023	0.67	0.5	--	UG/L	220.00		

Table 4-4
OU III Middle Road Extraction Well Data
'Hits Only' July through September 2023

Site ID : 106-66 (RW-6)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	0.34	--	--	UG/L	0.00		
Tetrachloroethylene	07/13/2023	0.34	0.5	--	UG/L	0.00	J	

Site ID : 113-23 (RW-1)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	0.44	--	--	UG/L	0.00		
Chloroform	07/13/2023	0.44	0.5	--	UG/L	0.00	J	

Site ID : 113-24 (RW-2)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	6.35	--	--	UG/L	0.00		
Carbon tetrachloride	07/13/2023	0.43	0.5	--	UG/L	0.00	J	
Chloroform	07/13/2023	0.35	0.5	--	UG/L	0.00	J	
Tetrachloroethylene	07/13/2023	5.2	0.5	--	UG/L	0.00		
Trichloroethylene	07/13/2023	0.37	0.5	--	UG/L	0.00	J	

Site ID : 113-25 (RW-3)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	3.05	--	--	UG/L	0.00		
1,1,1-Trichloroethane	07/13/2023	1.4	0.5	--	UG/L	0.00		
1,1-Dichloroethane	07/13/2023	0.32	0.5	--	UG/L	0.00	J	
1,1-Dichloroethylene	07/13/2023	0.55	0.5	--	UG/L	0.00		
Trichloroethylene	07/13/2023	0.78	0.5	--	UG/L	0.00		

Site ID : 113-26 (RW-4)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	2.21	--	--	UG/L	0.00		
1,1-Dichloroethylene	07/13/2023	0.18	0.5	--	UG/L	0.00	J	
Carbon tetrachloride	07/13/2023	0.5	0.5	--	UG/L	0.00		
Chloroform	07/13/2023	0.63	0.5	--	UG/L	0.00		
Tetrachloroethylene	07/13/2023	0.3	0.5	--	UG/L	0.00	J	
Trichloroethylene	07/13/2023	0.6	0.5	--	UG/L	0.00		

Site ID : 113-27 (RW-5)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	0.63	--	--	UG/L	0.00		
Chloroform	07/13/2023	0.63	0.5	--	UG/L	0.00		

Site ID : 113-33 (RW-7)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	42.84	--	--	UG/L	0.00		

Table 4-4
OU III Middle Road Extraction Well Data
'Hits Only' July through September 2023

Site ID : 113-33 (RW-7)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1,1,1-Trichloroethane	07/13/2023	0.67	0.5	--	UG/L	0.00		
1,1-Dichloroethylene	07/13/2023	0.38	0.5	--	UG/L	0.00	J	
Carbon tetrachloride	07/13/2023	3.1	0.5	--	UG/L	0.00		
Chloroform	07/13/2023	0.51	0.5	--	UG/L	0.00		
Dichlorodifluoromethane	07/13/2023	0.33	0.5	--	UG/L	0.00	J	
Tetrachloroethylene	07/13/2023	37	0.5	--	UG/L	0.00		
Trichloroethylene	07/13/2023	0.85	0.5	--	UG/L	0.00		

Table 4-5
OU III Middle Road Influent Data
'Hits Only' July through September 2023

Site ID : 113-34 (Combo Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	15.34	--	--	UG/L	0.00		
1,1,1-Trichloroethane	07/13/2023	0.74	0.5	--	UG/L	0.00		
1,1-Dichloroethylene	07/13/2023	0.33	0.5	--	UG/L	0.00	J	
Carbon tetrachloride	07/13/2023	0.25	0.5	--	UG/L	0.00	J	
Chloroform	07/13/2023	0.34	0.5	--	UG/L	0.00	J	
Tetrachloroethylene	07/13/2023	13	0.5	--	UG/L	0.00		
Trichloroethylene	07/13/2023	0.68	0.5	--	UG/L	0.00		
8260 TVOC	08/11/2023	16.57	--	--	UG/L	0.00		
1,1,1-Trichloroethane	08/11/2023	0.76	0.5	--	UG/L	0.00		
1,1-Dichloroethylene	08/11/2023	0.4	0.5	--	UG/L	0.00	J	
Carbon tetrachloride	08/11/2023	0.37	0.5	--	UG/L	0.00	J	
Chloroform	08/11/2023	0.38	0.5	--	UG/L	0.00	J	
Tetrachloroethylene	08/11/2023	14	0.5	--	UG/L	0.00		
Trichloroethylene	08/11/2023	0.66	0.5	--	UG/L	0.00		
8260 TVOC	09/08/2023	15.04	--	--	UG/L	0.00		
1,1,1-Trichloroethane	09/08/2023	0.61	0.5	--	UG/L	0.00		
Carbon tetrachloride	09/08/2023	0.57	0.5	--	UG/L	0.00		
Chloroform	09/08/2023	0.33	0.5	--	UG/L	0.00	J	
Tetrachloroethylene	09/08/2023	13	0.5	--	UG/L	0.00		
Trichloroethylene	09/08/2023	0.53	0.5	--	UG/L	0.00		

Table 4-6
OU III Middle Road Effluent Data
'Hits Only' July through September 2023

Site ID : 095-270 (System Effluent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	0	--	--	UG/L	0.00		
8260 TVOC	08/11/2023	0	--	--	UG/L	0.00		
8260 TVOC	09/08/2023	0	--	--	UG/L	0.00		

Qualifiers :
D = Compound was identified in an analysis at a secondary dilution factor.
E = Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
J = Estimated value.
N2 = Not usable based on the results that are not distinguishable from background. The value is less than or equal to the sum of the MDA and the uncertainty or RDL.
U = Compound not detected.

Organic Compounds :
B = Compound was found in both the sample And associated laboratory blank.

Inorganic Compounds :
B = Result Is between instrument detection limit And contract required reporting limit.

OU III Industrial Park In-Well Air Stripping System

Process: Groundwater extraction and in-well air stripping treatment, with discharge in the same well (recirculating well technology) for wells UVB-1 through UVB-7, and groundwater extraction and liquid phase granular activated carbon treatment, with discharge to injection wells for wells EW-8 and EW-9.

Goal: Reach Maximum Contaminant Levels (MCLs) in core monitoring wells within 30 years for the Upper Glacial aquifer (by 2030), and 65 years for the Magothy aquifer (by 2065).

Start Date: September 1999

Table 5-1
Pumping Rates (gpm)

Recirculation Treatment Well	UVB-1	UVB-2	UVB-3	UVB-4	UVB-5	UVB-6	UVB-7	EW-8	EW-9
Site Id #	000-231	000-233	000-235	000-237	000-239	000-241	000-243	000-532	000-533
Screened Interval (feet below grade)	220-240	195-215	194-214	170-190	180-200	190-210	205-225	230-250	220-240
Desired Flow Rate (GPM)	*0	*0	*0	*0	*0	*0	*0	**0	**0
July	*0	*0	*0	*0	*0	*0	*0	**0	**0
August	*0	*0	*0	*0	*0	*0	*0	**0	**0
September	*0	*0	*0	*0	*0	*0	*0	**0	**0
Actual (Avg.over Qtr.)	*0	*0	*0	*0	*0	*0	*0	**0	**0

* Wells UVB-1 through UVB-7 were placed in stand-by mode January 2017. Wells EW-8 and EW-9 started full-time operation in January 2015.
** Wells EW-8 and EW-9 started one month on and one month off pulsed pumping February 2018 and were placed in stand-by mode July 2019.

OU III Industrial Park In-Well Air Stripping System

Figure 5-1
Cumulative Mass Removal of VOCs vs. Time

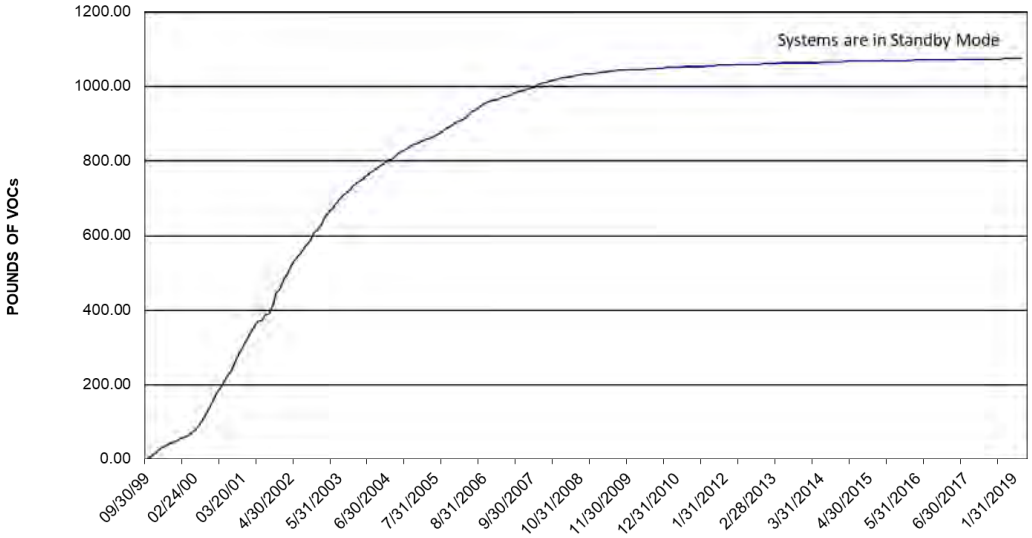
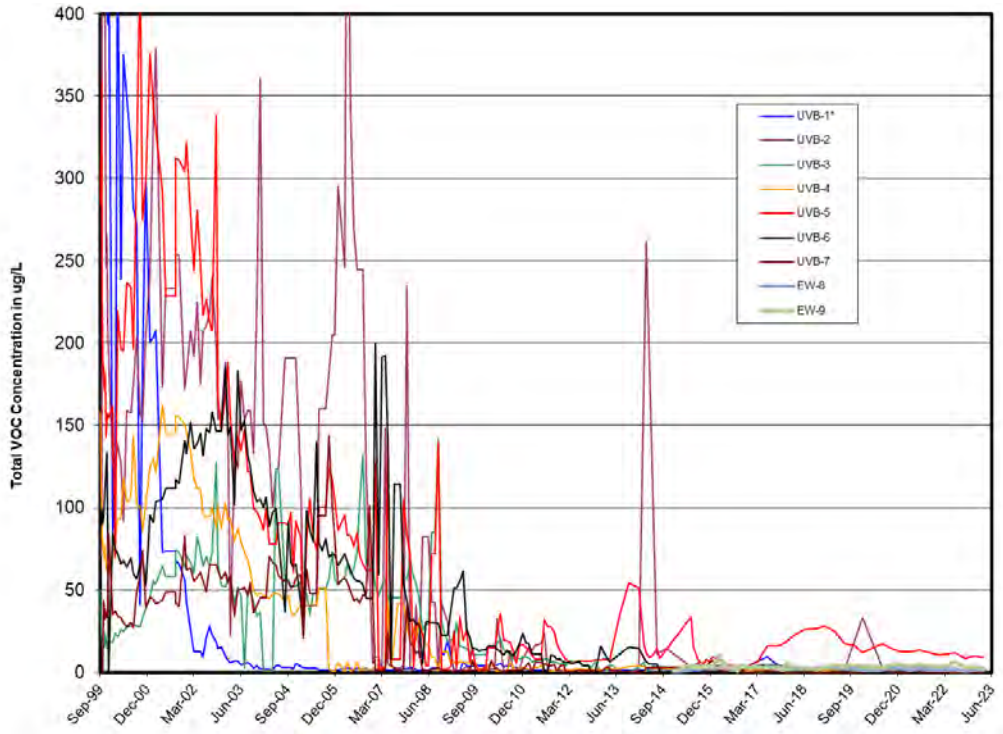


Figure 5-2
Influent TVOC Concentrations vs. Time



*Startup concentrations for UVB-1 are not illustrated on this graph, TVOC concentration of 1,900 µg/L in September 1999, and 1,485 µg/L in October 1999.

OU III Industrial Park In-Well Air Stripping System

Table 5-2
Effluent Water Quality
SPDES Equivalency Permit Concentrations - July 1 through September 30, 2023

Parameter	Permit Limit	Max. Measured Value	Units	Frequency
Flow	**Monitor**	**NA**	**GPM**	**Continuous**
pH (range)	**5.0 - 8.5**	**NA**	**SU**	**Weekly**
Carbon Tetrachloride	**5.0**	**NA**	**µg/L**	**Monthly[1]**
Chloroform	**7.0**	**NA**	**µg/L**	**Monthly[1]**
1,2-Dichloroethane	**0.6**	**NA**	**µg/L**	**Monthly[1]**
1,1-Dichloroethylene	**5.0**	**NA**	**µg/L**	**Monthly[1]**
Tetrachloroethylene	**5.0**	**NA**	**µg/L**	**Monthly[1]**
Trichloroethene	**5.0**	**NA**	**µg/L**	**Monthly[1]**
1,1,1-Trichloroethane	**5.0**	**NA**	**µg/L**	**Monthly[1]**

[1] The minimum measurement frequency shall be monthly following a period of 24 consecutive weekly sampling events showing no exceedances of the stated discharge limitations. Monthly sampling was initiated in August 2015.
NA = Not applicable. The system was placed in standby mode in July 2019.

Monitoring Activities:

The OU III Industrial Park monitoring well data show the concentration of TVOCs ranged from 9.4 µg/L in monitoring well 000-529 to 16.6 µg/L in 000-530 during the third quarter 2023. The OU III Industrial Park monitoring wells are shown on **Figure 5-3.** The **'**Hits Only' third quarter 2023 data are summarized in **Table 5-3**.

System Operation

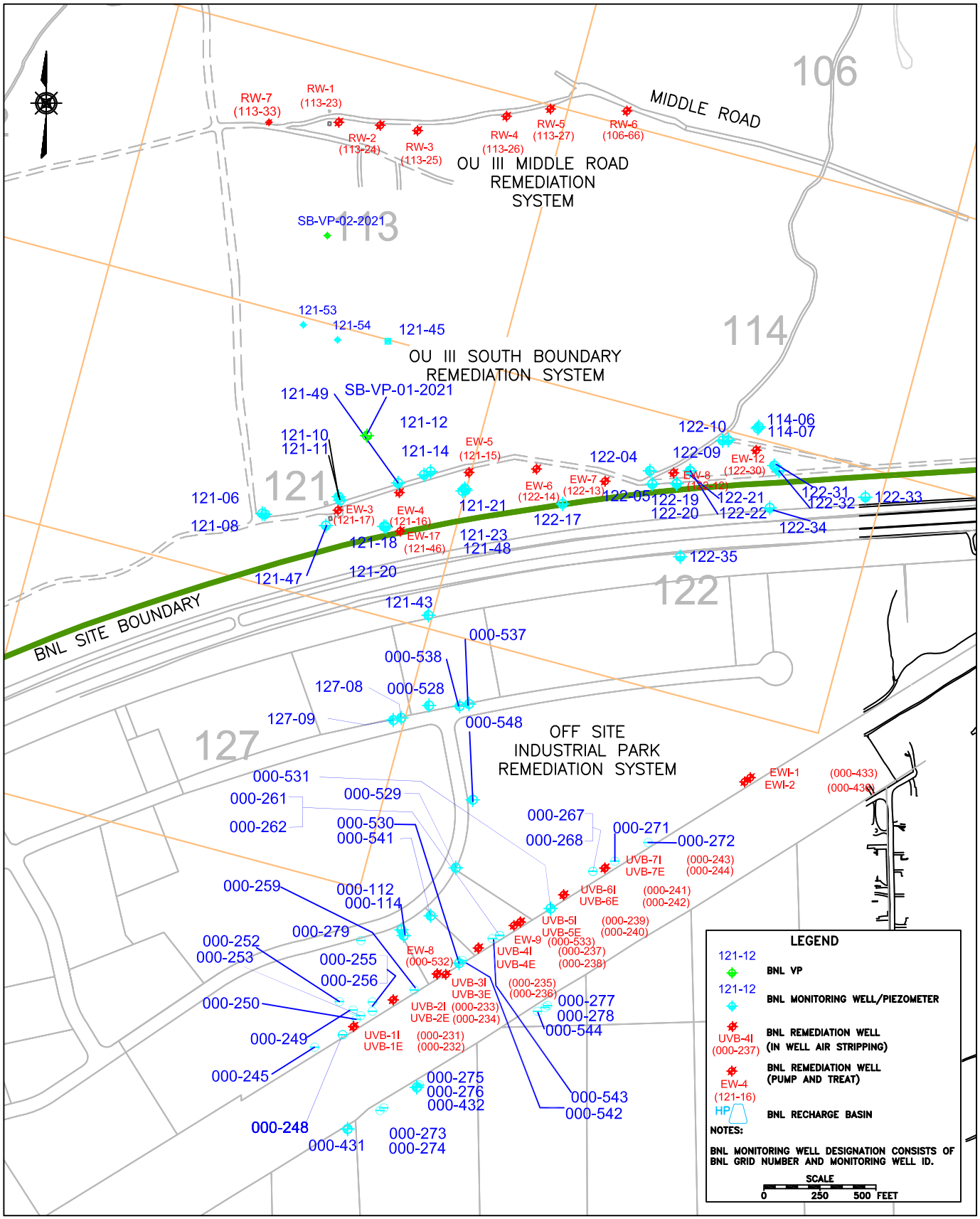
July through September 2023:

Extraction wells UVB-1 through UVB-7, EW-8, and EW-9 remained in stand-by mode. However, the extraction wells were each turned on temporarily to facilitate sampling. The treatment system 'Hits Only' extraction well/influent data is summarized in **Table 5-5**.

OU III Industrial Park In-Well Air Stripping System

Planned Operational Changes

- Maintain the seven UVB wells, EW-8, and EW-9 in standby. If TVOC concentrations exceed the 50 µg/L capture goal the wells may be restarted. During the third quarter, TVOC concentrations in treatment wells UVB-1 through UVB-7, extraction wells EW-8 and EW-9, and each associated monitoring wells were below 50 µg/L.



\\OERNT\GIS\GW_PROJECTS\ERD_QUARTERLIES\3Q_2023\FIG 5-3.DWG

ENVIRONMENTAL PROTECTION DIVISION

TITLE: OU III SOUTH BOUNDARY/INDUSTRIAL PARK/INDUSTRIAL PARK AREA MONITORING WELL NETWORKS
SITEWIDE REMEDIATION SYSTEMS
THIRD QUARTER 2023 OPERATIONS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
JEB	–	09/12/14	–
CHKD:	APPD:	REV.:	NOTES:
LDS	–	10/30/23	–

FIGURE NO.: 5–3

Table 5-3
OU III Industrial Park Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 000-529

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	08/29/2023	9.43	--	--	UG/L	219.00		
1,1,1-Trichloroethane	08/29/2023	2.1	0.5	--	UG/L	219.00		
1,1-Dichloroethylene	08/29/2023	1.1	0.5	--	UG/L	219.00		
Carbon tetrachloride	08/29/2023	0.6	0.5	--	UG/L	219.00		
Chloroform	08/29/2023	0.63	0.5	--	UG/L	219.00		
Tetrachloroethylene	08/29/2023	3.7	0.5	--	UG/L	219.00		
Trichloroethylene	08/29/2023	1.3	0.5	--	UG/L	219.00		

Site ID : 000-530

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	08/30/2023	16.63	--	--	UG/L	210.00		
1,1,1-Trichloroethane	08/30/2023	7.2	0.5	--	UG/L	210.00		
1,1-Dichloroethane	08/30/2023	2.7	0.5	--	UG/L	210.00		
1,1-Dichloroethylene	08/30/2023	5.8	0.5	--	UG/L	210.00		
Trichloroethylene	08/30/2023	0.93	0.5	--	UG/L	210.00		

Site ID : 000-531

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	08/29/2023	11.69	--	--	UG/L	205.00		
1,1,1-Trichloroethane	08/29/2023	1.1	0.5	--	UG/L	205.00		
1,1-Dichloroethylene	08/29/2023	1.2	0.5	--	UG/L	205.00		
Carbon tetrachloride	08/29/2023	3.4	0.5	--	UG/L	205.00		
Chloroform	08/29/2023	0.76	0.5	--	UG/L	205.00		
cis-1,2-Dichloroethylene	08/29/2023	0.5	0.5	--	UG/L	205.00		
Tetrachloroethylene	08/29/2023	0.33	0.5	--	UG/L	205.00	J	
Trichloroethylene	08/29/2023	4.4	0.5	--	UG/L	205.00		

Site ID : 000-538

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	08/28/2023	14.92	--	--	UG/L	215.00		
1,1,1-Trichloroethane	08/28/2023	2.7	0.5	--	UG/L	215.00		
1,1-Dichloroethylene	08/28/2023	1.2	0.5	--	UG/L	215.00		
Carbon tetrachloride	08/28/2023	0.55	0.5	--	UG/L	215.00		
Chloroform	08/28/2023	0.43	0.5	--	UG/L	215.00	J	
cis-1,2-Dichloroethylene	08/28/2023	0.34	0.5	--	UG/L	215.00	J	
Tetrachloroethylene	08/28/2023	5.8	0.5	--	UG/L	215.00		

Table 5-3
OU III Industrial Park Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 000-538

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Trichloroethylene	08/28/2023	3.9	0.5	--	UG/L	215.00		

Table 5-5
OU III Industrial Park Influent Data
'Hits Only' July through September 2023

Site ID : 000-231 (UVB-1 Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/12/2023	0.22	--	--	UG/L	230.00		
1,1,1-Trichloroethane	07/12/2023	0.22	0.5	--	UG/L	230.00	J	

Site ID : 000-237 (UVB-4 Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/12/2023	0.19	--	--	UG/L	180.00		
Tetrachloroethylene	07/12/2023	0.19	0.5	--	UG/L	180.00	J	

Site ID : 000-239 (UVB-5 Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/12/2023	8.41	--	--	UG/L	190.00		
1,1,1-Trichloroethane	07/12/2023	0.51	0.5	--	UG/L	190.00		
1,1-Dichloroethylene	07/12/2023	0.3	0.5	--	UG/L	190.00	J	
Carbon tetrachloride	07/12/2023	1.8	0.5	--	UG/L	190.00		
Chloroform	07/12/2023	0.48	0.5	--	UG/L	190.00	J	
cis-1,2-Dichloroethylene	07/12/2023	0.57	0.5	--	UG/L	190.00		
m/p xylene	07/12/2023	0.3	1	--	UG/L	190.00	J	
Tetrachloroethylene	07/12/2023	1.5	0.5	--	UG/L	190.00		
Toluene	07/12/2023	0.35	0.5	--	UG/L	190.00	J	
Trichloroethylene	07/12/2023	2.3	0.5	--	UG/L	190.00		
Xylene (total)	07/12/2023	0.3	1.5	--	UG/L	190.00	J	

Site ID : 000-241 (UVB-6 Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/12/2023	0.19	--	--	UG/L	200.00		
1,1,1-Trichloroethane	07/12/2023	0.19	0.5	--	UG/L	200.00	J	

Site ID : 000-243 (UVB-7 Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/12/2023	0	--	--	UG/L	215.00		

Qualifiers :
D = Compound was identified in an analysis at a secondary dilution factor.
E = Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
J = Estimated value.
N2 = Not usable based on the results that are not distinguishable from background. The value is less than or equal to the sum of the MDA and the uncertainty or RDL.
U = Compound not detected.

Organic Compounds :
B = Compound was found in both the sample And associated laboratory blank.

Inorganic Compounds :
B = Result Is between instrument detection limit And contract required reporting limit.

OU III Former Carbon Tetrachloride Pump & Treat System (System Closed)

The Draft Petition for Closure for the OU III Carbon Tetrachloride Groundwater Removal Action was submitted to the regulators for review in August 2009. Following the incorporation of EPA comments, in October 2009, the Final Petition for Closure of the OU III Carbon Tetrachloride Groundwater Removal Action was issued to the regulators. EPA and NYSDEC provided approval in October 2009. Since that time, activities have been concluded with decommissioning and dismantling of the Carbon Tetrachloride treatment system. A decommissioning report was submitted to the regulators in March 2011.

OU III Building 96 Pump & Treat System

Process: Three re-circulation extraction wells are each connected to individual shallow tray air-stripping units. One extraction well is connected to a shallow tray air-stripping unit with discharge to a drainage channel directed to Recharge Basin HS.

Goal: Remediation of volatile organic compounds (VOCs) in the source area and reaching Maximum Contaminant Levels (MCLs) in core monitoring wells within 30 years for the Upper Glacial aquifer (by 2030).

Start Date: February 2001

Table 7-1
Pumping Rates (gpm)

Recirculation Treatment Well	RTW-1	RTW-2	RTW-3	RTW-4
Site Id #	095-151	095-153	095-155	095-157
Screen Interval (feet bls)	48-58	48-58	48-58	48-58
Desired Flow Rate (gpm)	60	0	0	0
July	0	0	0	0
August	44	0	0	0
September	0	0	0	0
Actual (Avg. over Qtr.)	**44**	**0**	**0**	**0**

RTW-1 was restarted in 2008 with discharge to Recharge Basin HS. RTW-2 and RTW-3 were placed in standby mode in January 2016. RTW-4 was placed in standby mode in 2012. RTW-2 was restarted November 2018 and placed back in standby June 2020. In June 2019, the RTW-1 pumping rate was increased from 30 gpm to 60 gpm. In May 2022, RTW-1 began pulsed pumping.

OU III Building 96 Pump & Treat System

Figure 7-1
Cumulative Mass Removal of VOCs vs. Time

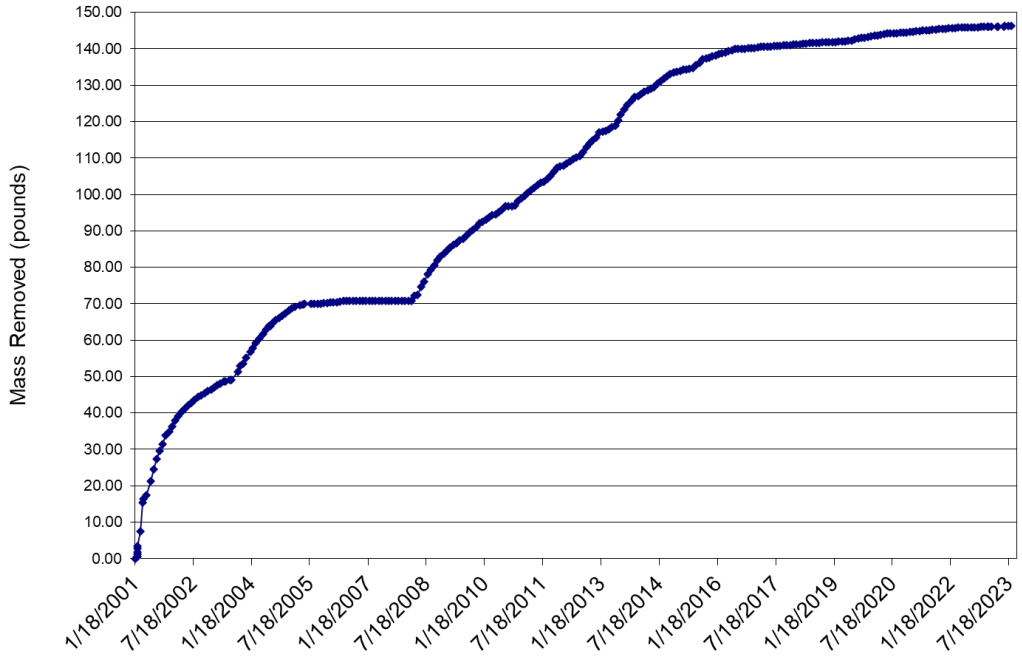
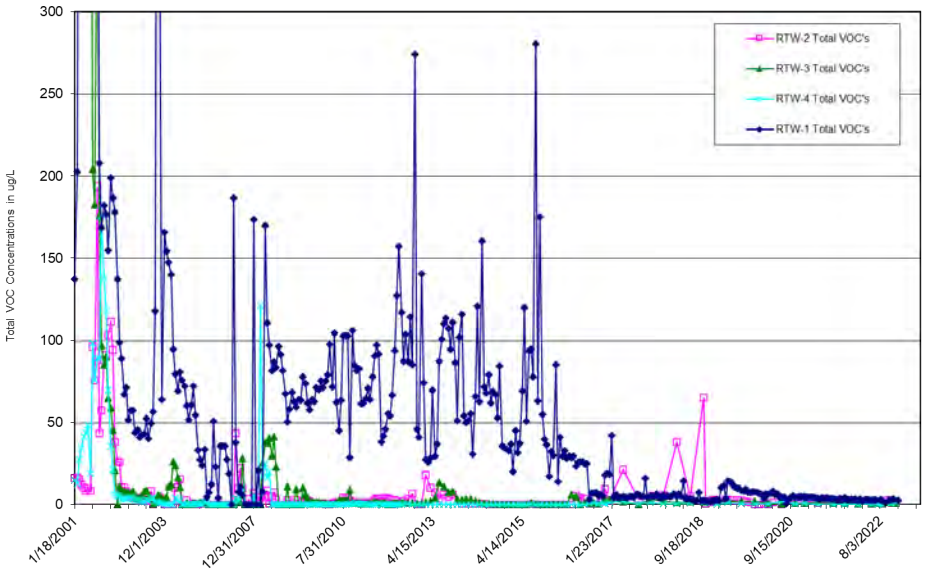


Figure 7-2
Influent TVOC Concentrations vs. Time



OU III Building 96 Pump & Treat System

Table 7-2
Effluent Water Quality
SPDES Equivalency Permit Concentrations – July 1, 2023 – September 30, 2023

Parameter	Permit Limit	Max. Measured Value	Units	Frequency
Flow	65	44	GPM	Continuous
pH (range)	5.0 - 8.5	6.9 – 6.9*	SU	Monthly
Tetrachloroethylene	5.0	<0.5	µg/L	Monthly
1,1,1-Trichloroethane	5.0	<0.5	µg/L	Monthly
Thallium, Total	Monitor	<2.0	µg/L	Monthly
Trichlorofluoromethane	5.0	<0.5	µg/L	Monthly
Methyl Bromide	5.0	<0.5	µg/L	Monthly
Methyl Chloride	5.0	<0.5	µg/L	Monthly
Methylene Chloride	5.0	<0.5	µg/L	Monthly
1,2-Dichloroethane	0.6	<0.5	µg/L	Monthly
Perfluorooctanesulfonic acid (PFOS)	Monitor	9.7	ng/L	Quarterly
Perfluorooctanoic acid (PFOA)	Monitor	3.5	ng/L	Quarterly

* Minimum to maximum recorded value for pH during this operational period.

In September 2022, a SPDES equivalency permit renewal was issued by NYSDEC. Sampling for PFOS and PFOA is required on a quarterly basis using EPA Method 1633 for the analysis. RTW-1 was off for pulsed pumping during July and September; therefore, system samples were collected during August only.

Monitoring Activities

During the third quarter 2023, the highest concentration of tetrachloroethylene (PCE) (the primary VOC of concern in this area) in the building 96 monitoring wells was 75 µg/L in monitoring well 085-379. The maximum PCE detection in extraction well RTW-1 in the third quarter was 1.8 µg/L. There were no detections of trichlorofluoromethane (freon 11) in the monitoring wells during the third quarter. The OU III Building 96 monitoring well network is shown on **Figure 7-3.** The 'Hits Only' third quarter 2023 data are summarized in **Table 7-3.**

OU III Building 96 Pump & Treat System

System Operations

July 2023:

The system was off for pulsed pumping. Wells RTW-2, RTW-3 and RTW-4 remained in standby mode.

August 2023:

Well RTW-1 was off from August 10 through 14 with electrical issues. Wells RTW-2, RTW-3 and RTW-4 remained in standby mode. The system treated approximately 1.9 million gallons of water.

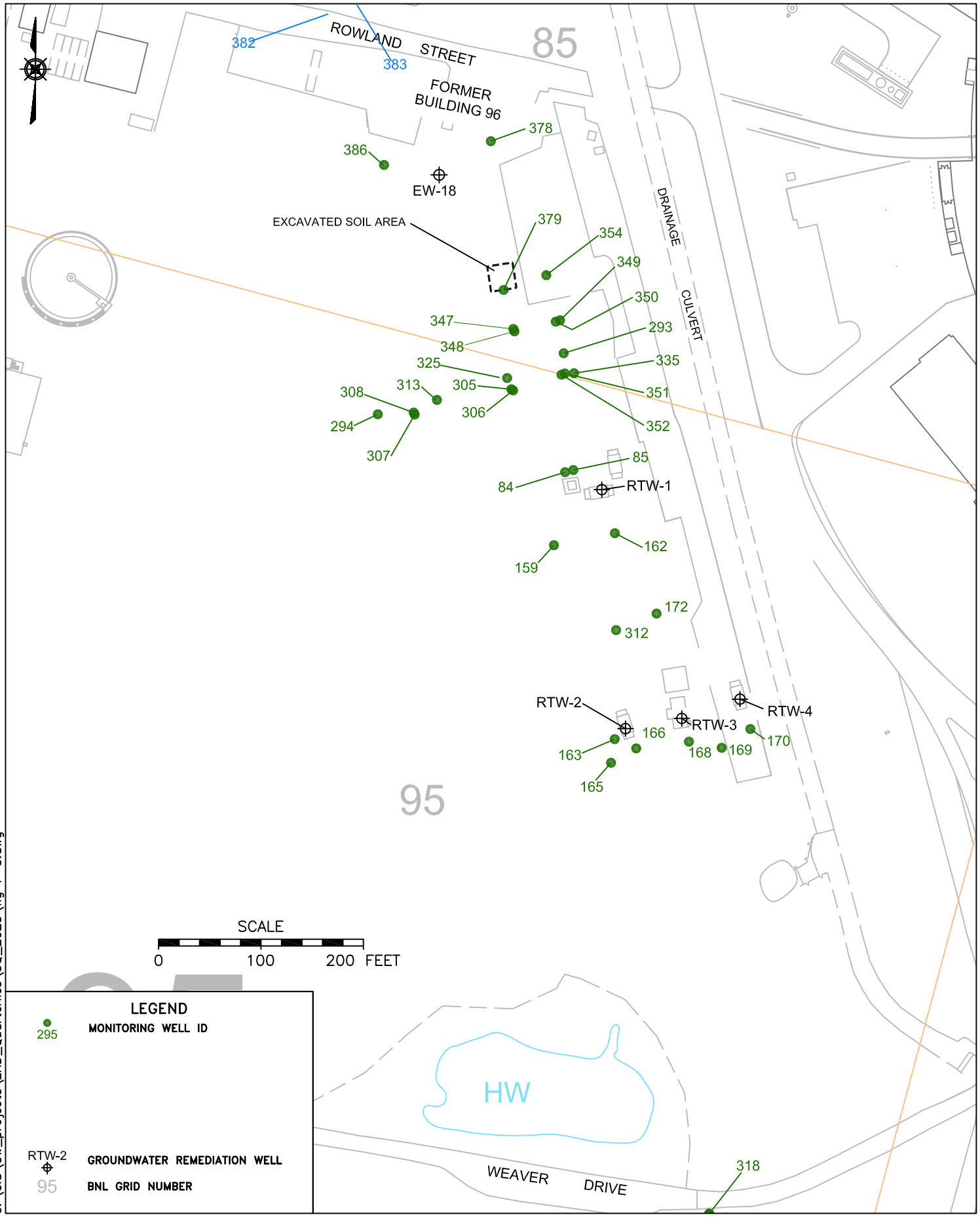
September 2023:

The system was off for pulsed pumping. Wells RTW-2, RTW-3 and RTW-4 remained in standby mode.

The system treated approximately 1.9 million gallons of water during the third quarter of 2023. The extraction wells maintained in standby mode were temporarily turned on to facilitate sampling. The treatment system 'Hits Only' data, including individual extraction well influent, and effluent (RTW-1), is shown in **Table 7-5** through **Table 7-6**.

Planned Operational Changes

- Maintain extraction well RTW-1 in a pulsed pumping mode and operate every other month. Continue to monitor for any rebound of VOC concentrations over the system capture goal. During the third quarter, 085-379 was the only monitoring well exceeding the 50 µg/L TVOC capture goal with a concentration of 75 µg/L. Well 085-379 is approximately 200 feet north of RTW-1.
- Per a recommendation in the 2021 CERCLA Five-Year Review Report, continue to monitor VOC concentrations in the plume source area and evaluate/implement a liquid carbon with zero-valent iron in-situ treatment for the immediate source area.
- Maintain treatment wells RTW-2, RTW-3, and RTW-4 in standby mode, and restart the wells if extraction or monitoring well data indicate that TVOC concentrations exceed 50 µg/L. During the third quarter of 2023, the maximum TVOC concentration recorded in standby extraction wells was 1.4 µg/L in RTW-4.



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ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III BUILDING 96 MONITORING WELL NETWORK

SITEWIDE REMEDIATION SYSTEMS
THIRD QUARTER 2023 OPERATIONS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	06/15/18	–
CHKD:	APPD:	REV.:	NOTES:
LDS	--	10/30/23	–

FIGURE NO.: 7-3

Table 7-3
OU III Building 96 Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 085-335

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/28/2023	10	--	--	UG/L	35.00		
Tetrachloroethylene	07/28/2023	10	0.5	--	UG/L	35.00		

Site ID : 085-348

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/19/2023	12	--	--	UG/L	34.50		
Tetrachloroethylene	07/19/2023	12	0.5	--	UG/L	34.50		

Site ID : 085-349

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/17/2023	16.22	--	--	UG/L	24.50		
1,1,1-Trichloroethane	07/17/2023	0.22	0.5	--	UG/L	24.50	J	
Tetrachloroethylene	07/17/2023	16	0.5	--	UG/L	24.50		

Site ID : 085-350

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/17/2023	15.48	--	--	NG/L	34.50		
8260 TVOC	07/17/2023	4.5	--	--	UG/L	34.50		
Perfluorobutanesulfonate (PFBS)	07/17/2023	1.7	1.3	--	NG/L	34.50		
Perfluorobutyric acid (PFBA)	07/17/2023	3.5	5.3	--	NG/L	34.50	J	
Perfluoroheptanoic acid (PFHpA)	07/17/2023	0.77	1.3	--	NG/L	34.50	J	
Perfluorohexanoic acid (PFHxA)	07/17/2023	0.87	1.3	--	NG/L	34.50	J	
Perfluorooctanesulfonate (PFOS)	07/17/2023	4.4	1.3	--	NG/L	34.50		
Perfluorooctanoic acid (PFOA)	07/17/2023	3.4	1.3	--	NG/L	34.50		
Perfluoropentanoic acid (PFPeA)	07/17/2023	0.84	2.7	--	NG/L	34.50	J	
Tetrachloroethylene	07/17/2023	4.5	0.5	--	UG/L	34.50		

Site ID : 085-351

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/28/2023	2.2	--	--	UG/L	26.00		
Tetrachloroethylene	07/28/2023	2.2	0.5	--	UG/L	26.00		

Site ID : 085-352

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/28/2023	15	--	--	UG/L	34.50		
Tetrachloroethylene	07/28/2023	15	0.5	--	UG/L	34.50		

Site ID : 085-354

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/17/2023	7.98	--	--	UG/L	24.50		

Table 7-3
OU III Building 96 Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 085-354

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1,1,1-Trichloroethane	07/17/2023	0.18	0.5	--	UG/L	24.50	J	
Tetrachloroethylene	07/17/2023	7.8	0.5	--	UG/L	24.50		

Site ID : 085-379

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/19/2023	75.57	--	--	UG/L	23.86		
1,1,1-Trichloroethane	07/19/2023	0.33	0.5	--	UG/L	23.86	J	
Tetrachloroethylene	07/19/2023	75	2	--	UG/L	23.86	D	
Trichloroethylene	07/19/2023	0.24	0.5	--	UG/L	23.86	J	

Site ID : 095-159

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/27/2023	49.29	--	--	UG/L	50.00		
1,1,1-Trichloroethane	07/27/2023	0.82	0.5	--	UG/L	50.00		
1,1-Dichloroethylene	07/27/2023	0.25	0.5	--	UG/L	50.00	J	
Chloroform	07/27/2023	0.22	0.5	--	UG/L	50.00	J	
Tetrachloroethylene	07/27/2023	48	1	--	UG/L	50.00	D	

Site ID : 095-162

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/27/2023	1.38	--	--	UG/L	50.00		
Chloroform	07/27/2023	0.98	0.5	--	UG/L	50.00		
Tetrachloroethylene	07/27/2023	0.4	0.5	--	UG/L	50.00	J	

Site ID : 095-163

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/27/2023	1.6	--	--	UG/L	50.00		
Tetrachloroethylene	07/27/2023	1.6	0.5	--	UG/L	50.00		

Site ID : 095-165

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/27/2023	1.2	--	--	UG/L	50.00		
Tetrachloroethylene	07/27/2023	1.2	0.5	--	UG/L	50.00		

Site ID : 095-166

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/26/2023	0.17	--	--	UG/L	50.00		
Chloroform	07/26/2023	0.17	0.5	--	UG/L	50.00	J	

Site ID : 095-168

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/26/2023	1	--	--	UG/L	50.00		

Table 7-3
OU III Building 96 Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 095-168

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Chloroform	07/26/2023	1	0.5	--	UG/L	50.00		

Site ID : 095-169

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/26/2023	1.42	--	--	UG/L	50.00		
Chloroform	07/26/2023	1.2	0.5	--	UG/L	50.00		
Tetrachloroethylene	07/26/2023	0.22	0.5	--	UG/L	50.00	J	

Site ID : 095-170

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/25/2023	24.77	--	--	NG/L	50.00		
8260 TVOC	07/25/2023	1.4	--	--	UG/L	50.00		
Chloroform	07/25/2023	1.4	0.5	--	UG/L	50.00		
Perfluorobutanesulfonate (PFBS)	07/25/2023	0.43	1.4	--	NG/L	50.00	J	
Perfluorobutyric acid (PFBA)	07/25/2023	14	5.7	--	NG/L	50.00		
Perfluorodecanoic acid (PFDA)	07/25/2023	0.32	1.4	--	NG/L	50.00	J	
Perfluoroheptanoic acid (PFHpA)	07/25/2023	1	1.4	--	NG/L	50.00	J	
Perfluorohexanesulfonate (PFHxS)	07/25/2023	0.75	1.4	--	NG/L	50.00	J	
Perfluorohexanoic acid (PFHxA)	07/25/2023	2.2	1.4	--	NG/L	50.00		
Perfluorononanoic acid (PFNA)	07/25/2023	0.47	1.4	--	NG/L	50.00	J	
Perfluorooctanesulfonate (PFOS)	07/25/2023	2.4	1.4	--	NG/L	50.00		
Perfluorooctanoic acid (PFOA)	07/25/2023	1.4	1.4	--	NG/L	50.00		
Perfluoropentanoic acid (PFPeA)	07/25/2023	1.8	2.8	--	NG/L	50.00	J	

Site ID : 095-172

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/27/2023	1.69	--	--	UG/L	50.00		
Chloroform	07/27/2023	1.3	0.5	--	UG/L	50.00		
Tetrachloroethylene	07/27/2023	0.39	0.5	--	UG/L	50.00	J	

Site ID : 095-305

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/28/2023	2.9	--	--	UG/L	24.00		
Tetrachloroethylene	07/28/2023	2.9	0.5	--	UG/L	24.00		

Site ID : 095-306

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/28/2023	15	--	--	UG/L	34.50		

Table 7-3
OU III Building 96 Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 095-306

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Tetrachloroethylene	07/28/2023	15	0.5	--	UG/L	34.50		

Site ID : 095-312

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/27/2023	0.43	--	--	UG/L	50.00		
Chloroform	07/27/2023	0.25	0.5	--	UG/L	50.00	J	
Tetrachloroethylene	07/27/2023	0.18	0.5	--	UG/L	50.00	J	

Site ID : 095-325

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/28/2023	22.55	--	--	UG/L	45.00		
cis-1,2-Dichloroethylene	07/28/2023	0.55	0.5	--	UG/L	45.00		
Tetrachloroethylene	07/28/2023	22	0.5	--	UG/L	45.00		

Site ID : 095-84

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/19/2023	31	--	--	UG/L	25.87		
Tetrachloroethylene	07/19/2023	31	0.5	--	UG/L	25.87		

Table 7-5
OU III Building 96 Influent Data
'Hits Only' July through September 2023

Site ID : 095-151 (RTW-1 Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/14/2023	31.1	--	--	NG/L	0.00		
8260 TVOC	08/14/2023	2.47	--	--	UG/L	0.00		
Chloroform	08/14/2023	0.67	0.5	--	UG/L	0.00		
Perfluorobutanesulfonate (PFBS)	08/14/2023	1.2	1.7	--	NG/L	0.00	J	
Perfluorobutyric acid (PFBA)	08/14/2023	9.3	6.6	--	NG/L	0.00		
Perfluorodecanoic acid (PFDA)	08/14/2023	0.25	1.7	--	NG/L	0.00	J	
Perfluoroheptanoic acid (PFHpA)	08/14/2023	1.2	1.7	--	NG/L	0.00	J	
Perfluorohexanesulfonate (PFHxS)	08/14/2023	2.3	1.7	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	08/14/2023	2.4	1.7	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	08/14/2023	0.69	1.7	--	NG/L	0.00	J	
Perfluorooctane sulfonamide (PFOSAm)	08/14/2023	0.16	1.7	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	08/14/2023	8.3	1.7	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	08/14/2023	3.3	1.7	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	08/14/2023	2	3.3	--	NG/L	0.00	J	
Tetrachloroethylene	08/14/2023	1.8	0.5	--	UG/L	0.00		

Site ID : 095-153 (RTW-2 Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/12/2023	0.86	--	--	UG/L	0.00		
Chloroform	07/12/2023	0.61	0.5	--	UG/L	0.00		
Tetrachloroethylene	07/12/2023	0.25	0.5	--	UG/L	0.00	J	

Site ID : 095-155 (RTW-3 Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/12/2023	1.2	--	--	UG/L	0.00		
Chloroform	07/12/2023	1.2	0.5	--	UG/L	0.00		

Site ID : 095-157 (RTW-4 Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/12/2023	1.4	--	--	UG/L	0.00		
Chloroform	07/12/2023	1.4	0.5	--	UG/L	0.00		

Table 7-6
OU III Building 96 Effluent Data
'Hits Only' July through September 2023

Site ID : 095-152 (RTW-1 Effluent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/14/2023	32.86	--	--	NG/L	0.00		
8260 TVOC	08/14/2023	0	--	--	UG/L	0.00		
Perfluorobutanesulfonate (PFBS)	08/14/2023	1.3	1.5	--	NG/L	0.00	J	
Perfluorobutyric acid (PFBA)	08/14/2023	9.3	6	--	NG/L	0.00		
Perfluorodecanoic acid (PFDA)	08/14/2023	0.3	1.5	--	NG/L	0.00	J	
Perfluoroheptanoic acid (PFHpA)	08/14/2023	1.2	1.5	--	NG/L	0.00	J	
Perfluorohexanesulfonate (PFHxS)	08/14/2023	2.3	1.5	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	08/14/2023	2.2	1.5	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	08/14/2023	0.64	1.5	--	NG/L	0.00	J	
Perfluorooctane sulfonamide (PFOSAm)	08/14/2023	0.42	1.5	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	08/14/2023	9.7	1.5	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	08/14/2023	3.5	1.5	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	08/14/2023	2	3	--	NG/L	0.00	J	

Qualifiers :
D = Compound was identified in an analysis at a secondary dilution factor.
E = Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
J = Estimated value.
N2 = Not usable based on the results that are not distinguishable from background. The value is less than or equal to the sum of the MDA and the uncertainty or RDL.
U = Compound not detected.

Organic Compounds :
B = Compound was found in both the sample And associated laboratory blank.

Inorganic Compounds :
B = Result Is between instrument detection limit And contract required reporting limit.

OU IV Former Air Sparge/Soil Vapor Extraction System (System Closed)

A petition was submitted in June 2002 for closure of this project. The EPA and DEC provided their approval for system closure in July 2003. The system was decommissioned in the fall of 2003. Per the *2010 Groundwater Status Report*, groundwater monitoring related to the OU IV Air Sparge/Soil Vapor Extraction System is concluded.

OU VI Ethylene Dibromide Pump & Treat System

Process: Groundwater extraction and liquid phase granular activated carbon (GAC) treatment, with discharge to injection wells.

Goal: Reach the ethylene dibromide (EDB) Maximum Contaminant Level (MCL) in core monitoring wells within 30 years for the Upper Glacial aquifer (by 2030).

Start Date: October 2004

Table 9-1
Pumping Rates (gpm)

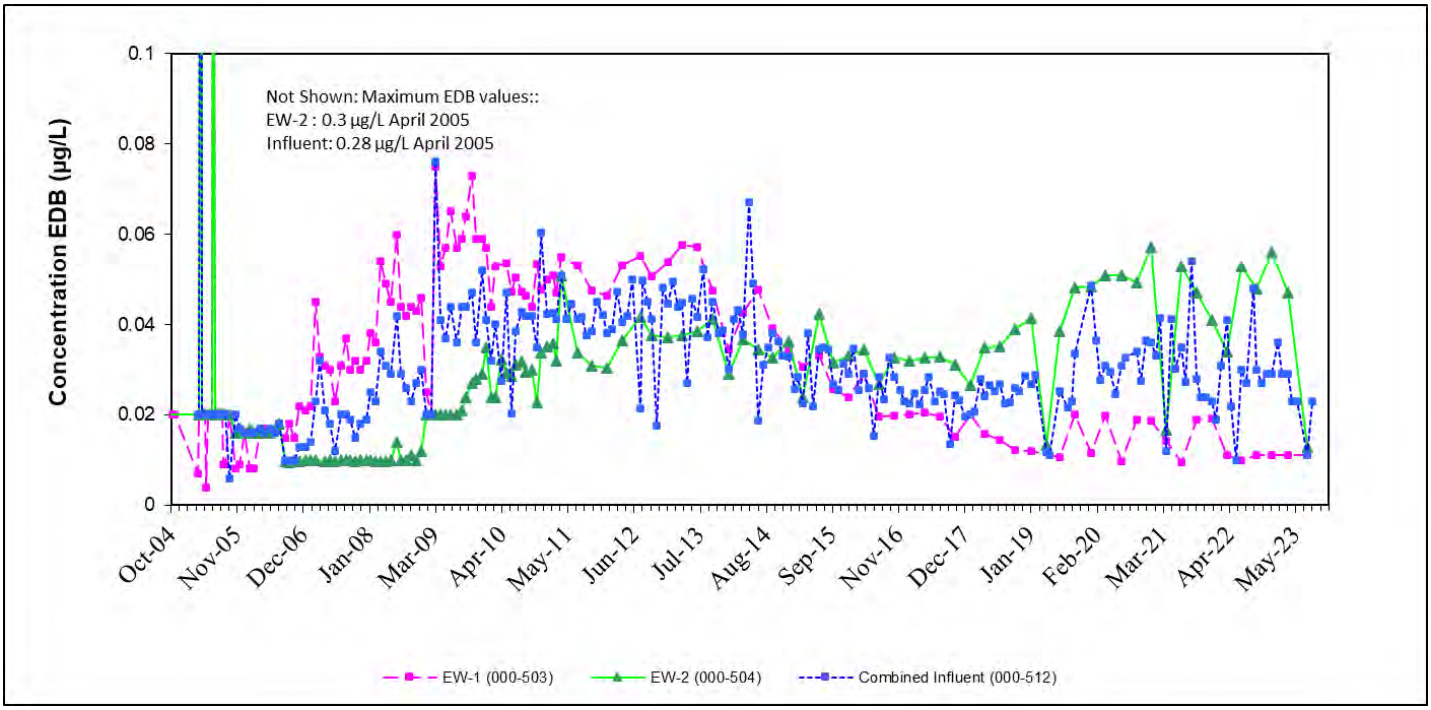
Extraction Well	EW-1E	EW-2E
Site Id #	000-503	000-504
Screened Interval (feet below grade)	115-135	115-135
Desired Flow Rate (GPM)	160	190
July	0	0
August	93	96
September	158	185
Actual (Avg. over Qtr.)	**84**	**94**

OU VI Ethylene Dibromide Pump & Treat System

Figure 9-1
OU VI Cumulative Mass Removal of EDB vs. Time

Due to the low concentrations of EDB in the extraction wells, a mass removal graph is not included.

Figure 9-2
Extraction Well and Influent EDB Concentration vs. Time



OU VI Ethylene Dibromide Pump & Treat System

Table 9-2
Effluent Water Quality
SPDES Equivalency Permit Concentrations - July 1 through September 30, 2023

Parameter	Permit Limit	Max. Measured Value	Units	Frequency
Flow	**450**	**343**	**GPM**	**Continuous**
pH	**5.0 - 8.5**	**5.1-5.8***	**SU**	**Weekly**
Ethylene Dibromide	**.03**	**<0.011**	**µg/L**	**Monthly****
Chloroform	**7.0**	**1.0**	**µg/L**	**Monthly****
1,1-Dichloroethene	**5.0**	**<0.5**	**µg/L**	**Monthly****
1,1,1-Trichloroethane	**5.0**	**<0.5**	**µg/L**	**Monthly****
Methyl Chloride	**5.0**	**<0.5**	**µg/L**	**Monthly****
Methylene Chloride	**5.0**	**<0.5**	**µg/L**	**Monthly****

*Minimum to maximum value for pH during this operational period.
** The minimum measurement frequency shall be monthly following a period of 24 consecutive weekly sampling events showing no exceedances of the stated discharge limitations.
< - The analyte was not detected above the method detection limit (MDL).
J – The analyte was detected above the MDL but below the reporting limit, the result is estimated.

Monitoring Activities

The OU VI EDB monitoring well data show the concentration of EDB ranged from 0.07 µg/L in 000-567 to 1.1 µg/L in 000-571. The OU VI EDB monitoring well network is shown on **Figure 9-3.** The 'Hits Only' third quarter 2023 monitoring well data are summarized in **Table 9-3.**

System Operations

July 2023:

The system was off for the entire month to develop the systems two diffusion wells.

August 2023:

The system was re-started on August 16 after the diffusion wells had been developed and ran normally for the remainder of the month. The system treated approximately 8.2 million gallons of water.

September 2023:

The system ran normally for the month. The system treated approximately 14.8 million gallons of water.

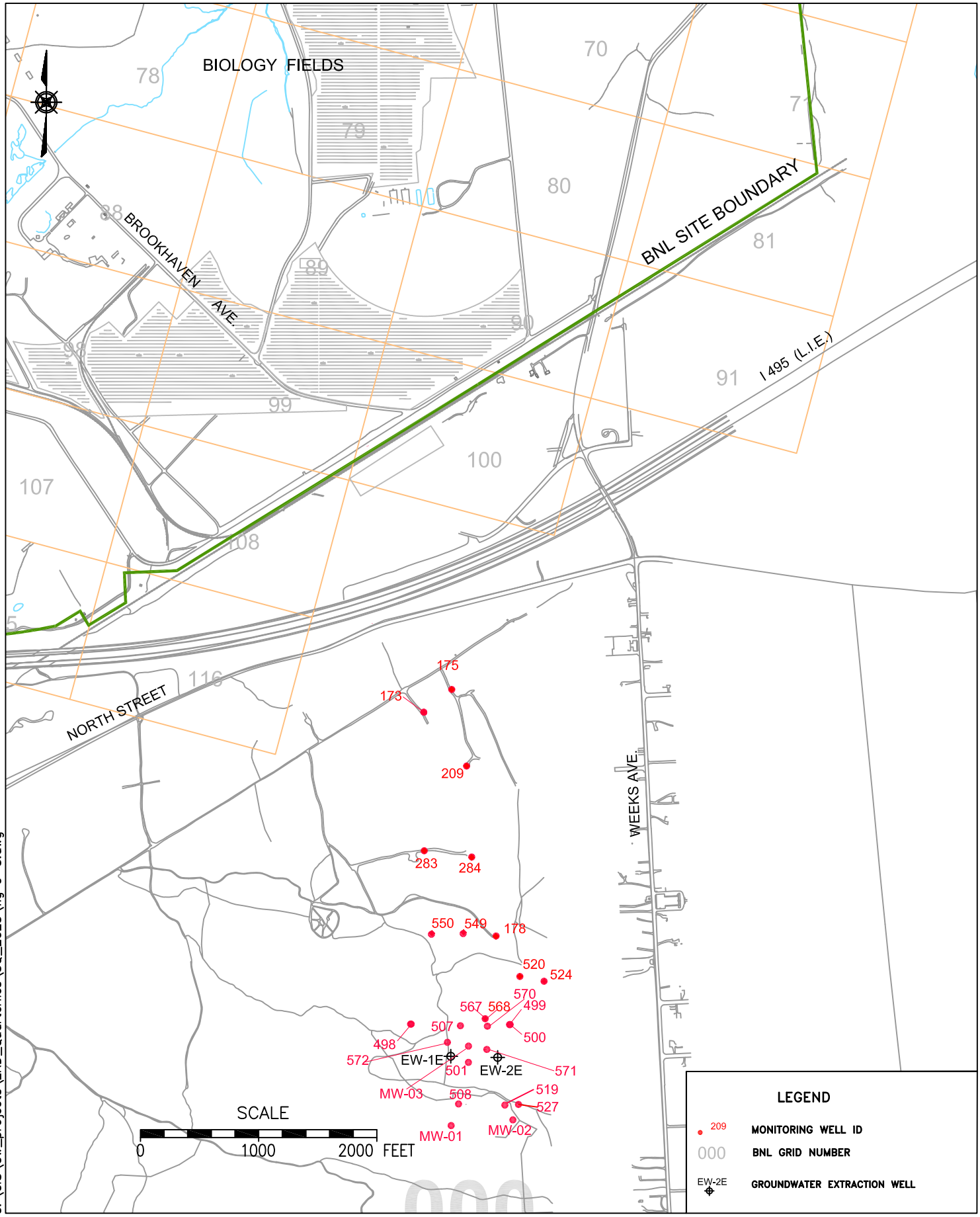
OU VI Ethylene Dibromide Pump & Treat System

The system treated approximately 23 million gallons of water during the third quarter of 2023. The treatment system 'Hits Only' data including individual extraction wells, combined influent, and effluent is summarized in **Table 9-4** through **Table 9-6**.

A Design Modification Report was submitted to the regulators in July 2023 for the addition of two deeper extraction wells immediately adjacent to the existing wells EW-1E and EW-2E. Field work was initiated mid-August and installation of both new deeper extraction wells EW-3E and EW-4E were completed in September.
.

Planned Operational Changes

- Maintain full time operation of the treatment system and continue quarterly sampling of the extraction wells.
  - Complete the system modification including extraction well development and tie-in of the two new extraction wells to the existing infrastructure. These new wells will replace the existing extraction wells, which will no longer be operated.
  - Additional deep bypass monitoring wells will be installed to monitor the effectiveness of the new extraction wells.
  - This modification will establish capture of both the deep and slightly shallower portions of the EDB plume in this area and enhance remediation of the high concentration segment of the plume.



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ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU VI EDB

SITEWIDE REMEDIATION SYSTEMS
THIRD QUARTER 2023 OPERATIONS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
JEB	–	09/26/05	–
CHKD:	APPD:	REV.:	NOTES:
LDS	––	10/31/23	–
FIGURE NO.:			
9–3			

Table 9-3
OU VI Ethylene Dibromide Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 000-500

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
EDB	09/22/2023	0.086	0.01	--	UG/L	135.00		

Site ID : 000-549

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
EDB	09/21/2023	0.19	0.01	--	UG/L	145.00		

Site ID : 000-550

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
EDB	09/21/2023	0.21	0.01	--	UG/L	130.00		

Site ID : 000-567

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
EDB	09/22/2023	0.068	0.01	--	UG/L	145.00		

Site ID : 000-568

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
EDB	09/22/2023	0.28	0.011	--	UG/L	160.00		

Site ID : 000-570

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
EDB	09/22/2023	0.93	0.1	--	UG/L	160.00	D	

Site ID : 000-571

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
EDB	09/22/2023	1.1	0.1	--	UG/L	175.00	D	

Site ID : 000-572

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
EDB	09/22/2023	0.39	0.021	--	UG/L	200.00	D	

Table 9-4
OU VI Ethylene Dibromide Extraction Well Data
'Hits Only' July through September 2023

Site ID : 000-503 (EW-1)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	08/07/2023	0.78	--	--	UG/L	0.00		
Chloroform	08/07/2023	0.78	0.5	--	UG/L	0.00		

Site ID : 000-504 (EW-2)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	08/07/2023	0.97	--	--	UG/L	0.00		
Chloroform	08/07/2023	0.97	0.5	--	UG/L	0.00		
EDB	08/07/2023	0.013	0.01	--	UG/L	0.00		

Table 9-5
OU VI Ethylene Dibromide Influent Data
'Hits Only' July through September 2023

Site ID : 000-512 (Combined Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	08/07/2023	0.85	--	--	UG/L	0.00		
Chloroform	08/07/2023	0.85	0.5	--	UG/L	0.00		
8260 TVOC	09/07/2023	1.1	--	--	UG/L	0.00		
Chloroform	09/07/2023	1.1	0.5	--	UG/L	0.00		
EDB	09/07/2023	0.023	0.01	--	UG/L	0.00		

Table 9-6
OU VI Ethylene Dibromide Effluent Data
'Hits Only' July through September 2023

Site ID : 000-510 (System Effluent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	08/07/2023	1	--	--	UG/L	0.00		
1,4-Dioxane	08/07/2023	0.2	0.2	--	UG/L	0.00	U	
Chloroform	08/07/2023	1	0.5	--	UG/L	0.00		
EDB	08/07/2023	0.011	0.011	--	UG/L	0.00	U	
EDB	08/07/2023	0.5	0.5	--	UG/L	0.00	U	
8260 TVOC	09/07/2023	0.81	--	--	UG/L	0.00		
Chloroform	09/07/2023	0.81	0.5	--	UG/L	0.00		
EDB	09/07/2023	0.01	0.01	--	UG/L	0.00	U	
EDB	09/07/2023	0.5	0.5	--	UG/L	0.00	U	

Qualifiers :
D = Compound was identified in an analysis at a secondary dilution factor.
E = Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
J = Estimated value.
N2 = Not usable based on the results that are not distinguishable from background. The value is less than or equal to the sum of the MDA and the uncertainty or RDL.
U = Compound not detected.

Organic Compounds :
B = Compound was found in both the sample And associated laboratory blank.

Inorganic Compounds :
B = Result Is between instrument detection limit And contract required reporting limit.

OU III HFBR Tritium Pump & Recharge System (System Closed)

Process: Pump and recharge (to the RAV basin) with monitored natural attenuation for tritium. Carbon filtration was also included in the pump and recharge system to remove VOCs that were also present in the groundwater.

Goal: Reach Maximum Contaminant Levels (MCLs) in core monitoring wells within 30 years for the Upper Glacial aquifer (by 2030). NYSDEC and EPA approved the Petition for Closure in August 2018 and March 2019, respectively.

Start Date: May 1997

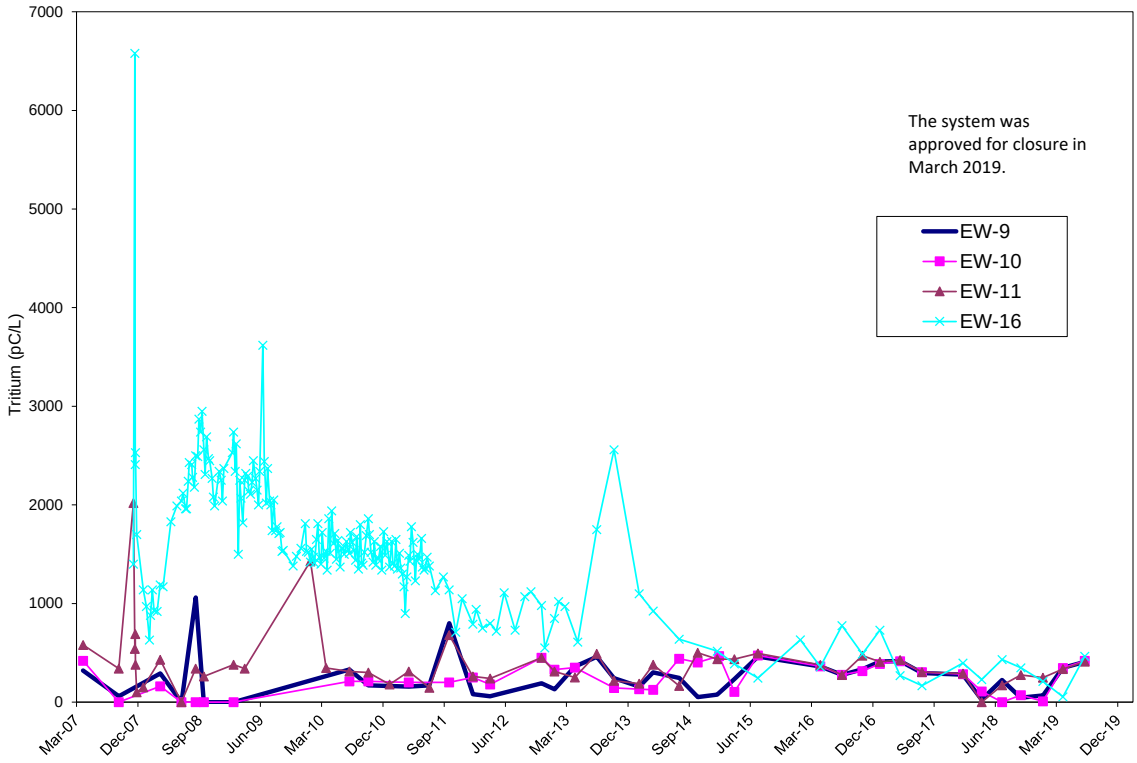
Table 10-1
Pumping Rates (gpm)

Extraction Well	EW-9	EW-10	EW-11	EW-16
Site ID #	105-40	105-39	105-41	096-119
Screen Interval (ft bls)	130-150	130-150	130-150	80-120
Desired Flow Rate (gpm)	0 *	0 *	0 *	0 *
July (Avg monthly gpm)	0	0	0	0
August " "	0	0	0	0
September " "	0	0	0	0
Actual (Avg. over Qtr.)	**0**	**0**	**0**	**0**

* The system was approved for closure in March 2019.

OU III HFBR Tritium Pump & Recharge System (System Closed)

Figure 10-1
Extraction Wells Tritium Concentrations vs. Time



OU III HFBR Tritium Pump & Recharge System
(System Closed)

Table 10-2
Effluent Water Quality
SPDES Equivalency Permit Concentrations July 1 through September 30, 2023

Parameter	Permit Limit	Max. Measured Value	Units	Frequency
Flow	**Monitor**	**NA**	**GPD**	**Continuous**
pH (range)	**5.6 - 8.5**	**NA**	**SU**	**Weekly**
Carbon Tetrachloride	**5.0**	**NA**	**µg/L**	**2/Month**
Chloroform	**7.0**	**NA**	**µg/L**	**2/Month**
1,1-Dichloroethane	**5.0**	**NA**	**µg/L**	**2/Month**
1,2-Dichloroethane	**0.6**	**NA**	**µg/L**	**2/Month**
1,1-Dichloroethene	**5.0**	**NA**	**µg/L**	**2/Month**
cis-1,2-Dichloroethylene	**5.0**	**NA**	**µg/L**	**2/Month**
trans-1,2-Dichloroethylene	**5.0**	**NA**	**µg/L**	**2/Month**
Methyl Chloride	**5.0**	**NA**	**µg/L**	**2/Month**
Methylene Chloride	**5.0**	**NA**	**µg/L**	**2/Month**
Methyl Bromide	**5.0**	**NA**	**µg/L**	**2/Month**
Tetrachloroethylene	**5.0**	**NA**	**µg/L**	**2/Month**
1,1,1-Trichloroethane	**5.0**	**NA**	**µg/L**	**2/Month**
Trichloroethylene	**5.0**	**NA**	**µg/L**	**2/Month**

NA = Not applicable. The system is closed.

OU III HFBR Tritium Pump & Recharge System (System Closed)

Monitoring Activities

During the third quarter of 2023, the highest concentration of tritium recorded was 2,299 pCi/L, immediately downgradient of the HFBR in well 075-288. The current monitoring well network is shown on **Figure 10-2**. The third quarter 'Hits Only' monitoring well analytical results are summarized in **Table 10-3**.

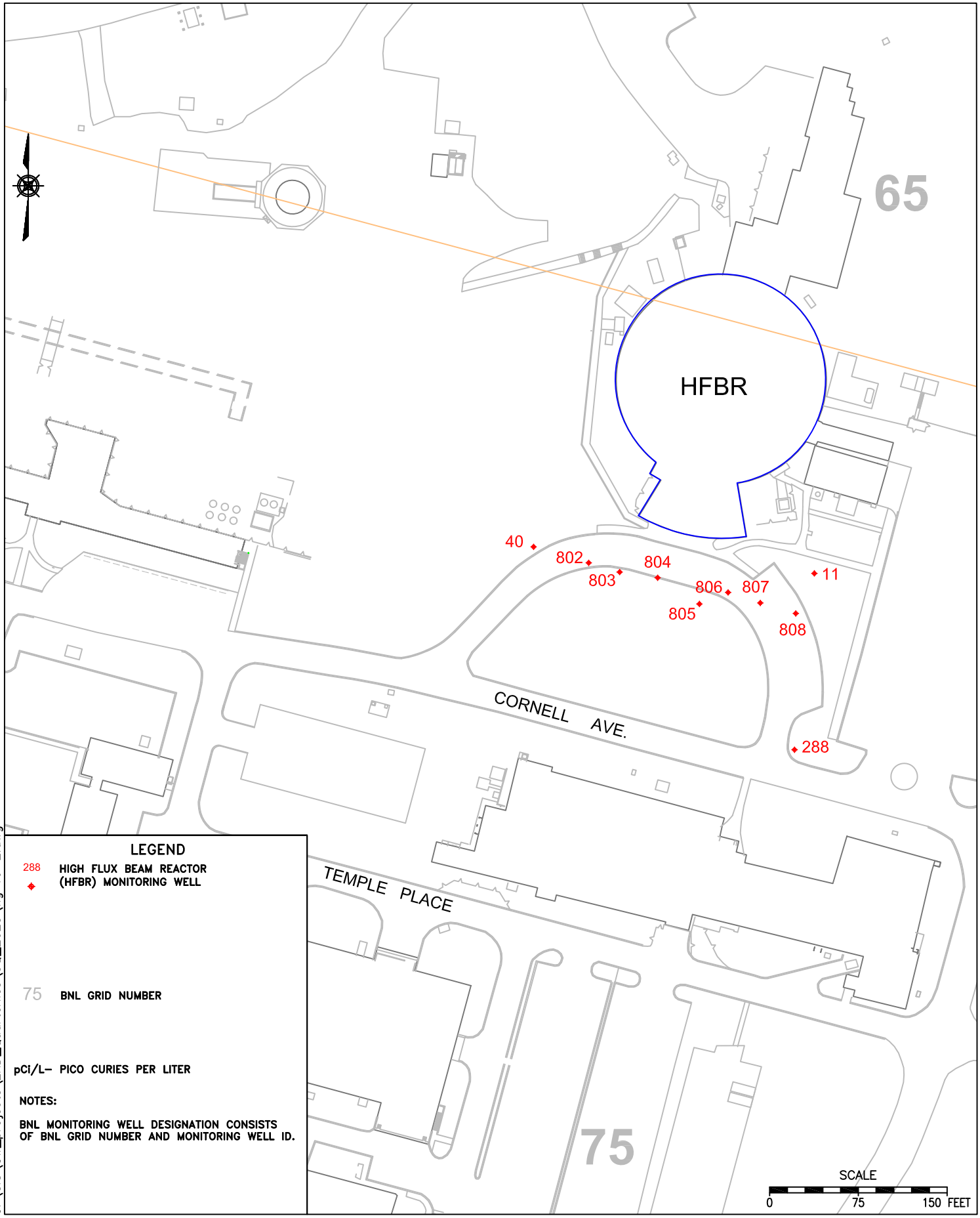
System Operations

July through September 2023:

The system remained closed.

Planned Operational Changes

- Continue to monitor the source area with the ten wells located immediately downgradient of the HFBR on a quarterly basis. Consider reducing the sampling frequency to semi-annual if tritium concentrations remain below 20,000 pCi/L throughout 2023.
- Maintain the downgradient monitoring and extraction wells until a determination is made on their potential utilization related to PFAS and 1,4-dioxane.



G:\GIS\Gw_projects\ERD_Quarterlies\3Q_2023\fig 10-2.dwg

ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III HFBR AOC 29

THIRD QUARTER 2023 OPERATIONS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	06/14/16	–
CHKD:	APPD:	REV.:	NOTES:
LDS	–	10/30/23	–

FIGURE NO.: 10–2

Table 10-3
OU III HFBR Tritium Plume Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 075-288

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Tritium	07/12/2023	2298.788	394.745	283.349	PCI/L	54.00		

Site ID : 075-804

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Tritium	07/07/2023	1765.895	396.789	273.07	PCI/L	56.32		

Site ID : 075-805

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Tritium	07/07/2023	939.21	396.749	254.189	PCI/L	56.22		

Site ID : 075-806

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Tritium	07/07/2023	960.403	397.746	255.273	PCI/L	55.62		

Site ID : 075-808

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Tritium	07/12/2023	433.625	398.208	242.782	PCI/L	53.46		N2

Qualifiers :
D = Compound was identified in an analysis at a secondary dilution factor.
E = Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
J = Estimated value.
N2 = Not usable based on the results that are not distinguishable from background. The value is less than or equal to the sum of the MDA and the uncertainty or RDL.
U = Compound not detected.

Organic Compounds :
B = Compound was found in both the sample And associated laboratory blank.

Inorganic Compounds :
B = Result Is between instrument detection limit And contract required reporting limit.

OU III Western South Boundary Pump & Treat System

Process: Groundwater extraction and air stripping treatment. As of March 2019, the water is treated at the OU III South Boundary/Middle Road air stripper towers and discharged to both the OU III and RA V recharge basins.

Goal: Reach Maximum Contaminant Levels (MCLs) in core monitoring wells in OU III within 30 years for the Upper Glacial aquifer (by 2030).

Start Date: September 2002

Table 11-1
Pumping Rates (gpm)

Extraction Well	WSB-1	WSB-2	WSB-3	WSB-4	WSB-5	WSB-6
Site ID #	126-12	127-05	111-17	119-13	130-12	130-13
Screen Interval (ft bls)	140-160	150-170	168-188	170-190	160-190	196-216
Desired Flow Rate (GPM)	100	0*	75	75	75	75
July (Avg monthly gpm)	68	0	33	67	67	81
August " "	114	0	28	86	95	117
September ** " "	94	0	41	1	62	1
Actual (Avg. over Qtr.)	**92**	**0**	**34**	**51**	**75**	**66**

*Extraction well WSB-2 is in standby mode. Extraction wells WSB-3 through WSB-6 became operational in March 2019.

** Began pulsed pumping of WSB extraction wells during September 2023 per the 2022 Groundwater Status Report recommendations.

OU III Western South Boundary Pump & Treat System

Figure 11-1
Cumulative Mass Removal of VOCs vs. Time

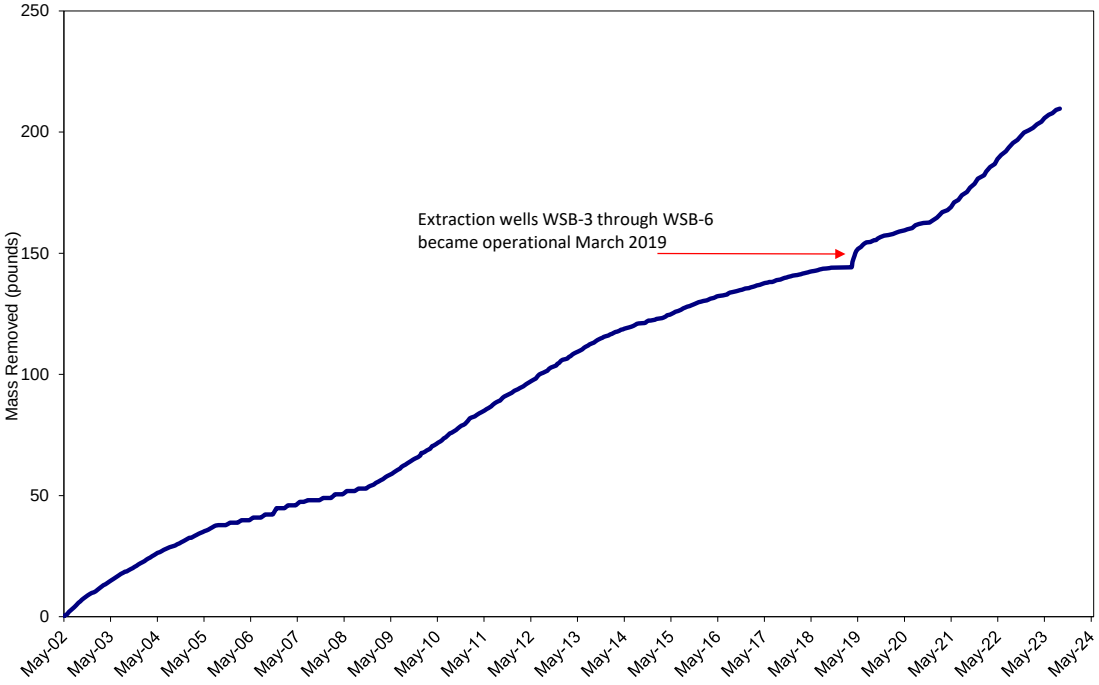
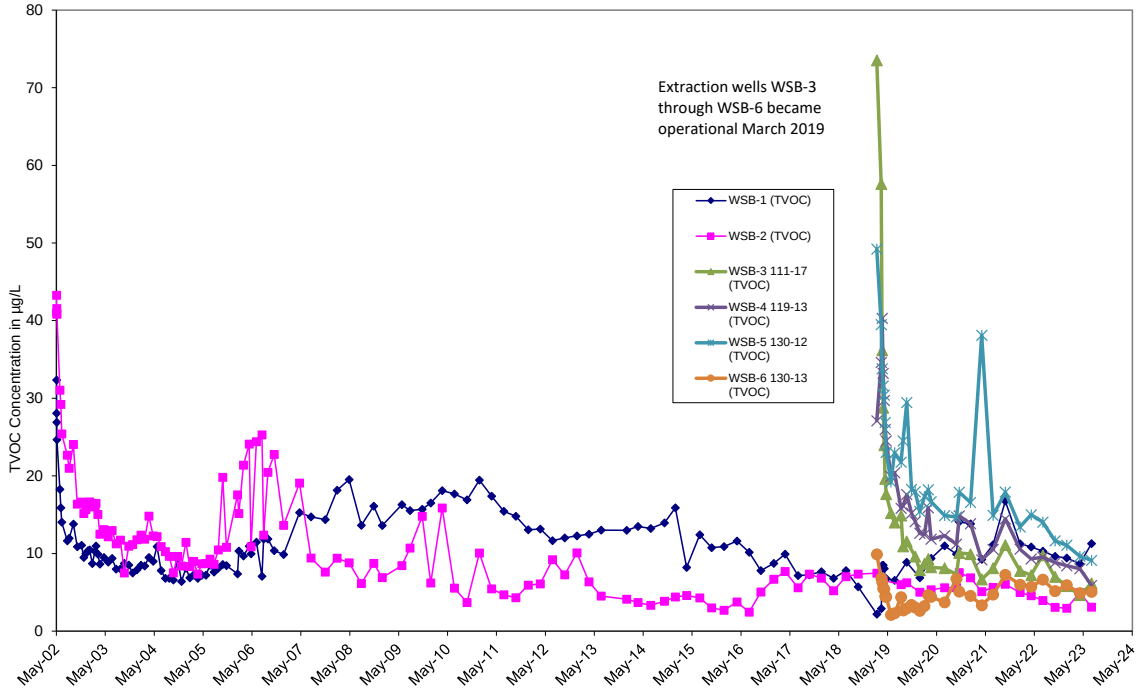


Figure 11-2
Extraction Well TVOC Concentrations vs. Time



OU III Western South Boundary Pump & Treat System

Table 11-2
Effluent Water Quality
SPDES Equivalency Permit Concentrations July 1 through September 30, 2023

Parameter	Permit Limit	Max. Measured Value	Units	Frequency
Flow	**Monitor**	**1,515,940[1]**	**GPD**	**Continuous**
pH (range)	**6.5 - 8.5**	**6.82– 7.82[2]**	**SU**	**Monthly[3]**
Carbon Tetrachloride	**5.0**	**<0.50**	**µg/L**	**Monthly[3]**
Chloroform	**7.0**	**<0.50**	**µg/L**	**Monthly[3]**
Dichlorodifluoromethane	**5.0**	**<0.50**	**µg/L**	**Monthly[3]**
1,1-Dichloroethane	**5.0**	**<0.50**	**µg/L**	**Monthly[3]**
1,1-Dichloroethylene	**5.0**	**<0.50**	**µg/L**	**Monthly[3]**
Methyl Chloride	**5.0**	**<0.50**	**µg/L**	**Monthly[3]**
Tetrachloroethylene	**5.0**	**<0.50**	**µg/L**	**Monthly[3]**
Toluene	**5.0**	**<0.50**	**µg/L**	**Monthly[3]**
1,1,1-Trichloroethane	**5.0**	**<0.50**	**µg/L**	**Monthly[3]**
1,1,2 Trichloroethane	**5.0**	**<0.50**	**µg/L**	**Monthly[3]**
Trichloroethylene	**10.0**	**<0.50**	**µg/L**	**Monthly[3]**

[1] The maximum monthly average flow for the Middle Road and South Boundary, and Western South Boundary Systems during the operational period.
[2] The minimum and maximum pH values during the operational period.
[3] Beginning in April 2003, a SPDES modification was approved revising the pH and volatile organic sampling to once a month.
[4] As of March 2019, the water from the Western South Boundary is treated at the OU III South Boundary/Middle Road air stripper towers and discharged under that equivalency permit. This change in discharge location was reflected starting with the April 2019 Discharge Monitoring Report (DMR).
< - The analyte was not detected above the method detection limit (MDL).

Monitoring Activities

The OU III Western South Boundary monitoring well data reported the concentration of TVOCs at or slightly above their 20 µg/L capture goal in two monitoring wells (103-15 and 119-11, respectively). The highest concentration of an individual VOC in 103-15 was 1,1-dichloroethylene (1,1-DCE) at 5.9 µg/L. The concentration of

dichlorodifluoromethane (Freon-12) and trichloroethylene (TCE) was reported at 5.2 µg/L and 5.3 µg/L in this well, respectively. In monitoring well 119-11, the highest concentration of an individual VOC was 1,1-DCE at 17 µg/L. The OU III Western South Boundary monitoring well network is shown in **Figure 11-3.** The 'Hits Only' third quarter 2023 data are summarized in **Table 11-3.**

System Operations

July 2023:

The system operated normally with extraction wells WSB-1, WSB-3, WSB-4, WSB-5, and WSB-6. Extraction well WSB-2 was in standby mode. The effluent sample was collected from OU III Middle Road air stripping tower (095-270) and the system treated approximately 14 million gallons of water.

August 2023:

The system operated normally with extraction wells WSB-1, WSB-3, WSB-4, WSB-5, and WSB-6. Extraction well WSB-2 was in standby mode. The effluent sample was collected from OU III Middle Road air stripping tower (095-270) and the system treated approximately 19 million gallons of water.

September 2023:

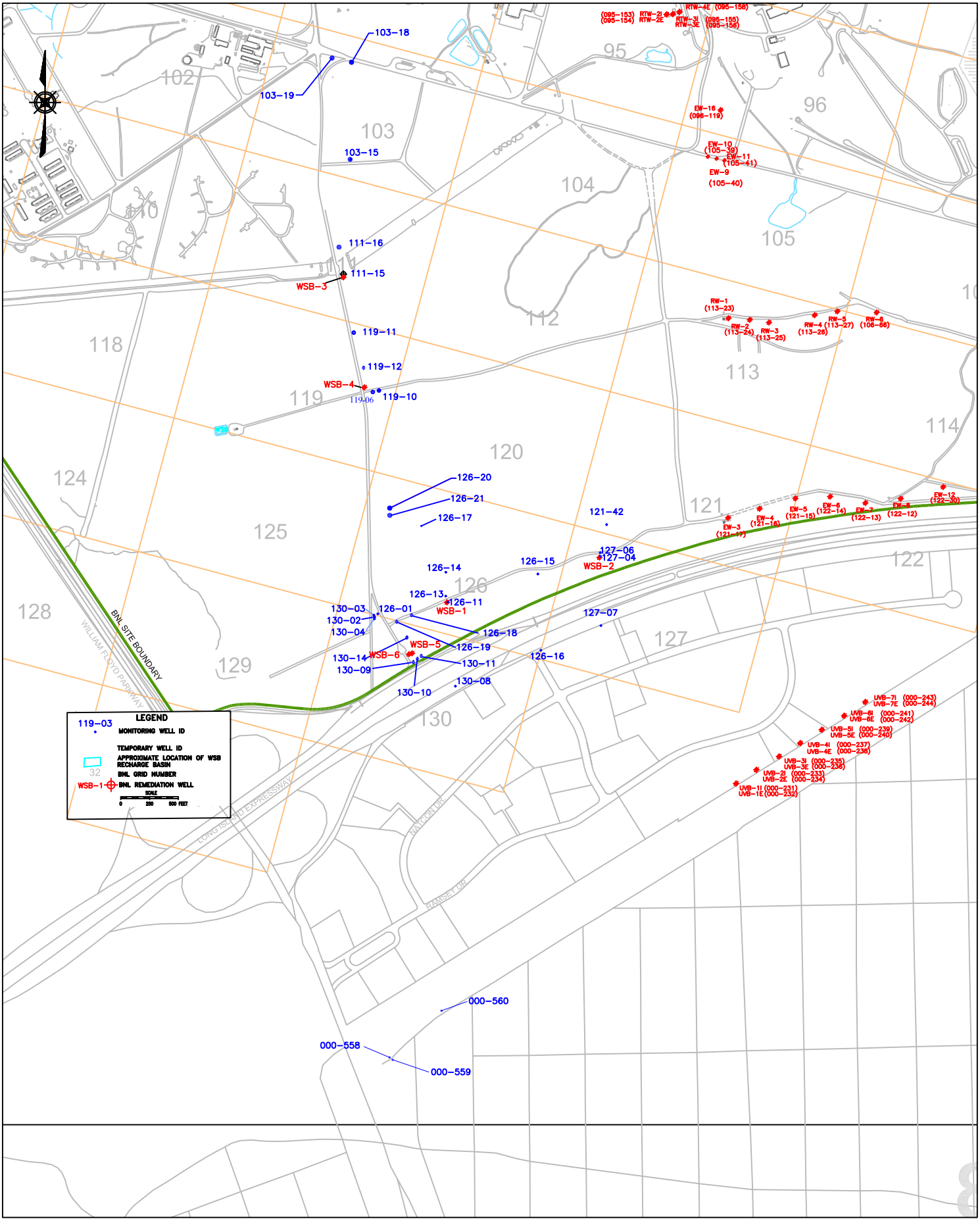
The system operated normally during the beginning of the month. The system was turned off for tree trimming of overhead powerlines during the last four days of the month. During September the system began pulsed pumping per the recommendations of the 2022 Groundwater Status Report. The system operated with extraction wells WSB-1, WSB-3 and WSB-5. Extraction well WSB-2, WSB-4, and WSB-6 were in standby mode. The effluent sample was collected from OU III Middle Road air stripping tower (095-270) and the system treated approximately 9 million gallons of water.

The system treated approximately 42 million gallons of water during the third quarter of 2023. The treatment system 'Hits Only' data, including individual extraction wells, influent, and effluent is summarized in **Table 11-4** through **Table 11-6**.

Planned Operational Changes

- Based on TVOC concentrations being below the capture goal of 20 µg/L, maintain extraction well WSB-2 in standby mode. If TVOC concentrations greater than 20 µg/L are observed in WSB-2 or the adjacent monitoring wells, extraction well WSB-2 may be placed into full time operation.
- Only two core monitoring wells are currently above the 20 µg/L TVOC concentration capture goal. To enhance the remaining cleanup, continue pulsed pumping of the five

operating extraction wells to address areas of groundwater stagnation between the extraction wells. The pulsed pumping shall be done with wells WSB-1, WSB- 3 and WSB-5 on one month, while wells WSB-4 and WSB-6 are off. The following month, wells WSB-4 and WSB-6 shall be on while wells WSB-1, WSB-3 and WSB-5 are off.



\\OERNT\GIS\GW_PROJECTS\ERD QUARTERLIES\3Q_2023\FIG 11-3.DWG

ENVIRONMENTAL PROTECTION DIVISION

OU III WESTERN SOUTH BOUNDARY PUMP AND TREAT SYSTEM MONITORING WELL LOCATIONS

SITEWIDE REMEDIATION SYSTEMS
THIRD QUARTER 2023 OPERATIONS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
JEB	–	09/26/05	–
CHKD:	APPD:	REV.:	NOTES:
LDS	--	10/30/23	–

FIGURE NO.: 11-3

Table 11-3
OU III Western South Boundary Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 000-558

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/07/2023	15.43	--	--	UG/L	165.00		
1,1,1-Trichloroethane	09/07/2023	1.8	0.5	--	UG/L	165.00		
1,1-Dichloroethane	09/07/2023	0.73	0.5	--	UG/L	165.00		
1,1-Dichloroethylene	09/07/2023	3	0.5	--	UG/L	165.00		
Chloroform	09/07/2023	2.4	0.5	--	UG/L	165.00		
Dichlorodifluoromethane	09/07/2023	4	0.5	--	UG/L	165.00		
Trichloroethylene	09/07/2023	3.5	0.5	--	UG/L	165.00		

Site ID : 000-559

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/07/2023	1.9	--	--	UG/L	215.00		
Dichlorodifluoromethane	09/07/2023	1.9	0.5	--	UG/L	215.00		

Site ID : 000-560

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/11/2023	12.27	--	--	UG/L	159.50		
1,1,1-Trichloroethane	09/11/2023	1.5	0.5	--	UG/L	159.50		
1,1-Dichloroethane	09/11/2023	0.67	0.5	--	UG/L	159.50		
1,1-Dichloroethylene	09/11/2023	2.5	0.5	--	UG/L	159.50		
Chloroform	09/11/2023	2.8	0.5	--	UG/L	159.50		
Dichlorodifluoromethane	09/11/2023	2.1	0.5	--	UG/L	159.50		
Trichloroethylene	09/11/2023	2.7	0.5	--	UG/L	159.50		

Site ID : 103-15

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/11/2023	20	--	--	UG/L	200.00		
1,1-Dichloroethane	09/11/2023	3.6	0.5	--	UG/L	200.00		
1,1-Dichloroethylene	09/11/2023	5.9	0.5	--	UG/L	200.00		
Dichlorodifluoromethane	09/11/2023	5.2	0.5	--	UG/L	200.00		
Trichloroethylene	09/11/2023	5.3	0.5	--	UG/L	200.00		

Site ID : 103-18

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/13/2023	7.7	--	--	UG/L	170.00		
1,1-Dichloroethane	09/13/2023	1.2	0.5	--	UG/L	170.00		
1,1-Dichloroethylene	09/13/2023	1.6	0.5	--	UG/L	170.00		
Dichlorodifluoromethane	09/13/2023	2.1	0.5	--	UG/L	170.00		

Table 11-3
OU III Western South Boundary Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 103-18

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Trichloroethylene	09/13/2023	2.8	0.5	--	UG/L	170.00		

Site ID : 103-19

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/11/2023	5.1	--	--	UG/L	170.00		
1,1-Dichloroethane	09/11/2023	0.93	0.5	--	UG/L	170.00		
1,1-Dichloroethylene	09/11/2023	1	0.5	--	UG/L	170.00		
Dichlorodifluoromethane	09/11/2023	0.97	0.5	--	UG/L	170.00		
Trichloroethylene	09/11/2023	2.2	0.5	--	UG/L	170.00		

Site ID : 111-15

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/11/2023	0.88	--	--	UG/L	175.00		
1,1-Dichloroethylene	09/11/2023	0.35	0.5	--	UG/L	175.00	J	
Chloroform	09/11/2023	0.53	0.5	--	UG/L	175.00		

Site ID : 111-16

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/07/2023	2.39	--	--	UG/L	173.00		
1,1,1-Trichloroethane	09/07/2023	0.2	0.5	--	UG/L	173.00	J	
1,1-Dichloroethane	09/07/2023	0.28	0.5	--	UG/L	173.00	J	
1,1-Dichloroethylene	09/07/2023	0.61	0.5	--	UG/L	173.00		
Chloroform	09/07/2023	0.96	0.5	--	UG/L	173.00		
Trichloroethylene	09/07/2023	0.34	0.5	--	UG/L	173.00	J	

Site ID : 119-10

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/07/2023	6.9	--	--	UG/L	200.00		
1,1-Dichloroethane	09/07/2023	2.1	0.5	--	UG/L	200.00		
1,1-Dichloroethylene	09/07/2023	1.6	0.5	--	UG/L	200.00		
Dichlorodifluoromethane	09/07/2023	1.9	0.5	--	UG/L	200.00		
Trichloroethylene	09/07/2023	1.3	0.5	--	UG/L	200.00		

Site ID : 119-11

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/11/2023	27.7	--	--	UG/L	180.00		
1,1,1-Trichloroethane	09/11/2023	3.1	0.5	--	UG/L	180.00		
1,1-Dichloroethane	09/11/2023	4.3	0.5	--	UG/L	180.00		

Table 11-3
OU III Western South Boundary Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 119-11

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1,1-Dichloroethylene	09/11/2023	17	0.5	--	UG/L	180.00		
Dichlorodifluoromethane	09/11/2023	0.8	0.5	--	UG/L	180.00		
Trichloroethylene	09/11/2023	2.5	0.5	--	UG/L	180.00		

Site ID : 119-12

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/11/2023	4.19	--	--	UG/L	179.00		
1,1,1-Trichloroethane	09/11/2023	1.8	0.5	--	UG/L	179.00		
1,1-Dichloroethylene	09/11/2023	0.56	0.5	--	UG/L	179.00		
Chloroform	09/11/2023	0.23	0.5	--	UG/L	179.00	J	
Trichloroethylene	09/11/2023	1.6	0.5	--	UG/L	179.00		

Site ID : 126-16

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/11/2023	14.24	--	--	UG/L	135.00		
1,1,1-Trichloroethane	09/11/2023	1.7	0.5	--	UG/L	135.00		
1,1-Dichloroethane	09/11/2023	0.91	0.5	--	UG/L	135.00		
1,1-Dichloroethylene	09/11/2023	3.1	0.5	--	UG/L	135.00		
Chloroform	09/11/2023	3	0.5	--	UG/L	135.00		
Dichlorodifluoromethane	09/11/2023	2.2	0.5	--	UG/L	135.00		
Tetrachloroethylene	09/11/2023	0.23	0.5	--	UG/L	135.00	J	
Trichloroethylene	09/11/2023	3.1	0.5	--	UG/L	135.00		

Site ID : 126-17

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/12/2023	6	--	--	UG/L	140.00		
1,1,1-Trichloroethane	09/12/2023	3.2	0.5	--	UG/L	140.00		
1,1-Dichloroethylene	09/12/2023	1.4	0.5	--	UG/L	140.00		
Trichloroethylene	09/12/2023	1.4	0.5	--	UG/L	140.00		

Site ID : 126-18

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/08/2023	1.31	--	--	UG/L	165.00		
1,1,1-Trichloroethane	09/08/2023	0.46	0.5	--	UG/L	165.00	J	
1,1-Dichloroethylene	09/08/2023	0.65	0.5	--	UG/L	165.00		
Tetrachloroethylene	09/08/2023	0.2	0.5	--	UG/L	165.00	J	

Site ID : 126-19

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/12/2023	13.1	--	--	UG/L	195.00		

Table 11-3
OU III Western South Boundary Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 126-19

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1,1,1-Trichloroethane	09/12/2023	1.7	0.5	--	UG/L	195.00		
1,1-Dichloroethane	09/12/2023	2.5	0.5	--	UG/L	195.00		
1,1-Dichloroethylene	09/12/2023	3.7	0.5	--	UG/L	195.00		
Chloroform	09/12/2023	1	0.5	--	UG/L	195.00		
Dichlorodifluoromethane	09/12/2023	4.2	0.5	--	UG/L	195.00		

Site ID : 126-20

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/12/2023	3.78	--	--	UG/L	140.00		
1,1,1-Trichloroethane	09/12/2023	1.5	0.5	--	UG/L	140.00		
1,1-Dichloroethylene	09/12/2023	1.2	0.5	--	UG/L	140.00		
1,2-Dichloroethane	09/12/2023	0.17	0.5	--	UG/L	140.00	J	
Chloroform	09/12/2023	0.2	0.5	--	UG/L	140.00	J	
Tetrachloroethylene	09/12/2023	0.34	0.5	--	UG/L	140.00	J	
Trichloroethylene	09/12/2023	0.37	0.5	--	UG/L	140.00	J	

Site ID : 126-21

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/12/2023	1.94	--	--	UG/L	204.00		
1,1,1-Trichloroethane	09/12/2023	0.18	0.5	--	UG/L	204.00	J	
1,1-Dichloroethylene	09/12/2023	0.38	0.5	--	UG/L	204.00	J	
Chloroform	09/12/2023	0.76	0.5	--	UG/L	204.00		
Dichlorodifluoromethane	09/12/2023	0.28	0.5	--	UG/L	204.00	J	
Trichloroethylene	09/12/2023	0.34	0.5	--	UG/L	204.00	J	

Site ID : 127-07

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/11/2023	6.72	--	--	UG/L	151.00		
1,1,1-Trichloroethane	09/11/2023	1.2	0.5	--	UG/L	151.00		
1,1-Dichloroethane	09/11/2023	0.37	0.5	--	UG/L	151.00	J	
1,1-Dichloroethylene	09/11/2023	1.4	0.5	--	UG/L	151.00		
Chloroform	09/11/2023	1.2	0.5	--	UG/L	151.00		
Dichlorodifluoromethane	09/11/2023	0.61	0.5	--	UG/L	151.00		
Tetrachloroethylene	09/11/2023	0.24	0.5	--	UG/L	151.00	J	
Trichloroethylene	09/11/2023	1.7	0.5	--	UG/L	151.00		

Site ID : 130-08

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/11/2023	0.94	--	--	UG/L	150.00		

Table 11-3
OU III Western South Boundary Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 130-08

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Chloroform	09/11/2023	0.73	0.5	--	UG/L	150.00		
Tetrachloroethylene	09/11/2023	0.21	0.5	--	UG/L	150.00	J	

Site ID : 130-09

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/08/2023	1.5	--	--	UG/L	140.00		
Chloroform	09/08/2023	1.5	0.5	--	UG/L	140.00		

Site ID : 130-10

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/08/2023	1.7	--	--	UG/L	155.00		
Chloroform	09/08/2023	1.7	0.5	--	UG/L	155.00		

Site ID : 130-11

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/08/2023	2.95	--	--	UG/L	200.00		
1,1,1-Trichloroethane	09/08/2023	0.61	0.5	--	UG/L	200.00		
1,1-Dichloroethylene	09/08/2023	0.82	0.5	--	UG/L	200.00		
Chloroform	09/08/2023	1.3	0.5	--	UG/L	200.00		
Trichloroethylene	09/08/2023	0.22	0.5	--	UG/L	200.00	J	

Site ID : 130-14

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/13/2023	13.85	--	--	UG/L	208.00		
1,1-Dichloroethane	09/13/2023	1.1	0.5	--	UG/L	208.00		
1,1-Dichloroethylene	09/13/2023	0.75	0.5	--	UG/L	208.00		
Dichlorodifluoromethane	09/13/2023	12	0.5	--	UG/L	208.00		

Table 11-4
OU III Western South Boundary Extraction Well Data
'Hits Only' July through September 2023

Site ID : 111-17 (WSB-3)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	6.16	--	--	UG/L	0.00		
1,1,1-Trichloroethane	07/13/2023	0.45	0.5	--	UG/L	0.00	J	
1,1-Dichloroethane	07/13/2023	0.7	0.5	--	UG/L	0.00		
1,1-Dichloroethylene	07/13/2023	3.1	0.5	--	UG/L	0.00		
Chloroform	07/13/2023	1.1	0.5	--	UG/L	0.00		
Dichlorodifluoromethane	07/13/2023	0.35	0.5	--	UG/L	0.00	J	
Trichloroethylene	07/13/2023	0.46	0.5	--	UG/L	0.00	J	

Site ID : 119-13 (WSB-4)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	5.88	--	--	UG/L	0.00		
1,1,1-Trichloroethane	07/13/2023	0.47	0.5	--	UG/L	0.00	J	
1,1-Dichloroethane	07/13/2023	0.73	0.5	--	UG/L	0.00		
1,1-Dichloroethylene	07/13/2023	3	0.5	--	UG/L	0.00		
Chloroform	07/13/2023	1.2	0.5	--	UG/L	0.00		
Trichloroethylene	07/13/2023	0.48	0.5	--	UG/L	0.00	J	

Site ID : 126-12 (WSB-1)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	11.27	--	--	UG/L	0.00		
1,1,1-Trichloroethane	07/13/2023	3.8	0.5	--	UG/L	0.00		
1,1-Dichloroethylene	07/13/2023	6	0.5	--	UG/L	0.00		
Chloroform	07/13/2023	0.74	0.5	--	UG/L	0.00		
Trichloroethylene	07/13/2023	0.73	0.5	--	UG/L	0.00		

Site ID : 127-05 (WSB-2)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	3.09	--	--	UG/L	0.00		
1,1,1-Trichloroethane	07/13/2023	0.53	0.5	--	UG/L	0.00		
1,1-Dichloroethylene	07/13/2023	0.42	0.5	--	UG/L	0.00	J	
Chloroform	07/13/2023	0.35	0.5	--	UG/L	0.00	J	
Dichlorodifluoromethane	07/13/2023	0.29	0.5	--	UG/L	0.00	J	
Trichloroethylene	07/13/2023	1.5	0.5	--	UG/L	0.00		

Site ID : 130-12 (WSB-5)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	9.12	--	--	UG/L	0.00		

Table 11-4
OU III Western South Boundary Extraction Well Data
'Hits Only' July through September 2023

Site ID : 130-12 (WSB-5)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1,1,1-Trichloroethane	07/13/2023	3	0.5	--	UG/L	0.00		
1,1-Dichloroethylene	07/13/2023	3.6	0.5	--	UG/L	0.00		
Chloroform	07/13/2023	1.1	0.5	--	UG/L	0.00		
Dichlorodifluoromethane	07/13/2023	0.59	0.5	--	UG/L	0.00		
Trichloroethylene	07/13/2023	0.83	0.5	--	UG/L	0.00		

Site ID : 130-13 (WSB-6)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	5.06	--	--	UG/L	0.00		
1,1,1-Trichloroethane	07/13/2023	0.43	0.5	--	UG/L	0.00	J	
1,1-Dichloroethane	07/13/2023	0.61	0.5	--	UG/L	0.00		
1,1-Dichloroethylene	07/13/2023	0.99	0.5	--	UG/L	0.00		
Dichlorodifluoromethane	07/13/2023	2.8	0.5	--	UG/L	0.00		
Trichloroethylene	07/13/2023	0.23	0.5	--	UG/L	0.00	J	

Table 11-5
OU III Western South Boundary Influent Data
'Hits Only' July through September 2023

Site ID : 121-55 (System Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	5.73	--	--	UG/L	0.00		
1,1,1-Trichloroethane	07/13/2023	1.1	0.5	--	UG/L	0.00		
1,1-Dichloroethane	07/13/2023	0.35	0.5	--	UG/L	0.00	J	
1,1-Dichloroethylene	07/13/2023	2.1	0.5	--	UG/L	0.00		
Chloroform	07/13/2023	0.57	0.5	--	UG/L	0.00		
Dichlorodifluoromethane	07/13/2023	0.69	0.5	--	UG/L	0.00		
Trichloroethylene	07/13/2023	0.92	0.5	--	UG/L	0.00		
8260 TVOC	08/11/2023	8.34	--	--	UG/L	0.00		
1,1,1-Trichloroethane	08/11/2023	1.9	0.5	--	UG/L	0.00		
1,1-Dichloroethane	08/11/2023	0.46	0.5	--	UG/L	0.00	J	
1,1-Dichloroethylene	08/11/2023	3.9	0.5	--	UG/L	0.00		
Chloroform	08/11/2023	0.79	0.5	--	UG/L	0.00		
Dichlorodifluoromethane	08/11/2023	0.75	0.5	--	UG/L	0.00		
Trichloroethylene	08/11/2023	0.54	0.5	--	UG/L	0.00		
8260 TVOC	09/08/2023	7.73	--	--	UG/L	0.00		
1,1,1-Trichloroethane	09/08/2023	2.6	0.5	--	UG/L	0.00		
1,1-Dichloroethylene	09/08/2023	3.7	0.5	--	UG/L	0.00		
Chloroform	09/08/2023	0.75	0.5	--	UG/L	0.00		
Trichloroethylene	09/08/2023	0.68	0.5	--	UG/L	0.00		

Table 11-6
OU III Western South Boundary Effluent Data
'Hits Only' July through September 2023

Site ID : 095-270 (System Effluent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/13/2023	0	--	--	UG/L	0.00		
8260 TVOC	08/11/2023	0	--	--	UG/L	0.00		
8260 TVOC	09/08/2023	0	--	--	UG/L	0.00		

Qualifiers :
D = Compound was identified in an analysis at a secondary dilution factor.
E = Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
J = Estimated value.
N2 = Not usable based on the results that are not distinguishable from background. The value is less than or equal to the sum of the MDA and the uncertainty or RDL.
U = Compound not detected.

Organic Compounds :
B = Compound was found in both the sample And associated laboratory blank.

Inorganic Compounds :
B = Result Is between instrument detection limit And contract required reporting limit.

Section 12
Operations Summary – 3rd Quarter 2023

OU III Strontium-90 Chemical Holes Pump & Treat System

Process: Groundwater extraction and treatment via zeolite resin (Clinoptilolite) for the removal of strontium-90 (Sr-90), with discharge to dry wells.

Goal: Reach Maximum Contaminant Levels (MCLs) in core monitoring wells within 40 years for the Upper Glacial aquifer (by 2040).

Start Date: February 2003

Table 12-1
Pumping Rates (gpm)

Extraction Well	EW-1 *	EW-2*	EW-3*
Site Id #	106-92	106-123	106-124
Screen Interval (ft bls)	23.5-38.5	35-45	35-45
Desired Flow Rate (gpm)	0.0	0.0	0.0
July (Avg monthly gpm)	0.0	0.0	0.0
August	0.0	0.0	0.0
September	0.0	0.0	0.0
Actual (Avg. over Qtr. when on)	0.0	0.0	0.0

All three extraction wells began pulse pumping (one month on and two months off) in October 2014. In October 2015, EW-1 resumed full-time operation. In April 2016, EW-1 was placed into pulsed pumping mode (one month on and one month off). In October 2016, EW-2 and EW-3 were placed in stand-by mode while EW-1 continued in pulsed pumping mode. EW-1 was placed in stand-by mode in July 2018 and the entire system remains in standby mode.

OU III Strontium-90 Chemical Holes Pump & Treat System

Figure 12-1
Chemical Holes Sr-90 Cumulative Millicuries Removed

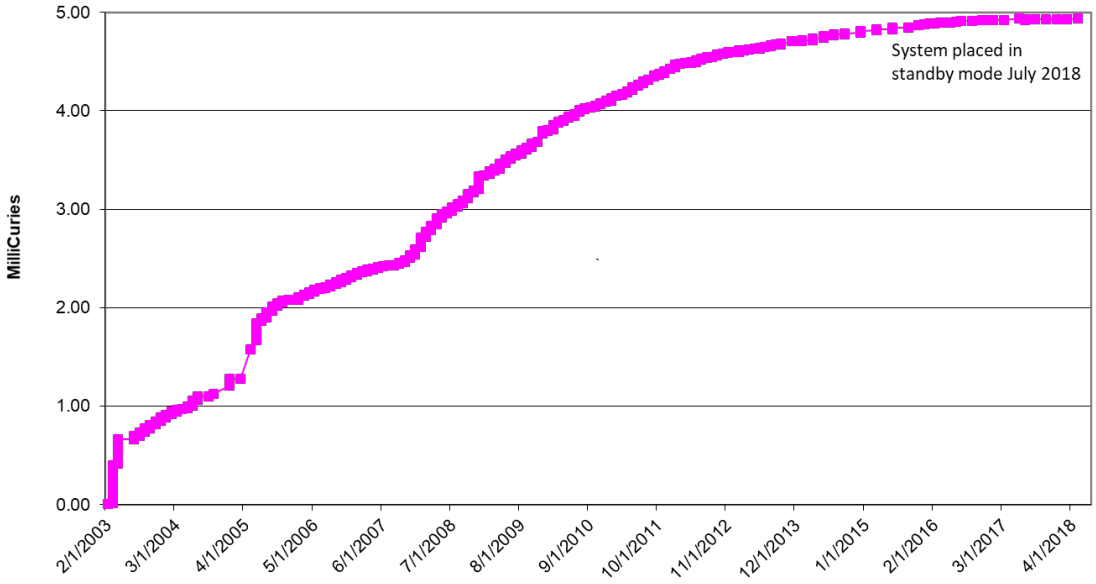
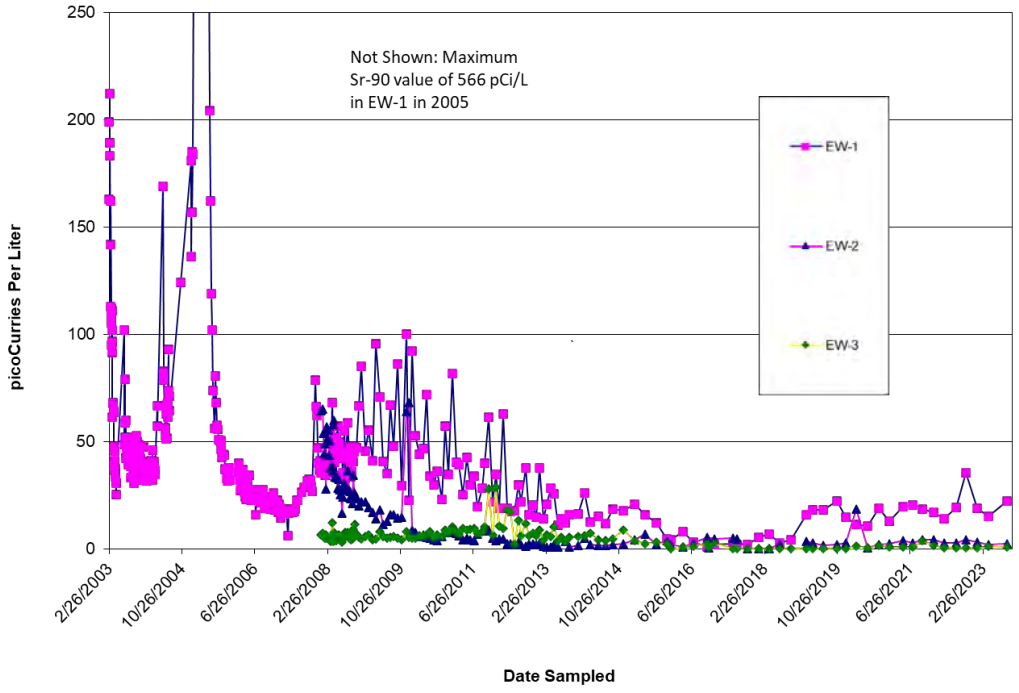


Figure 12-2
Extraction Well Sr-90 Concentrations



OU III Strontium-90 Chemical Holes Pump & Treat System

Table 12-2
Effluent Water Quality
SPDES Equivalency Permit Concentrations July 1 through September 30, 2023

Parameter	Permit Limit	Max. Measured Value	Units	Frequency
Flow	**Monitor**	**NA**	**GPM**	**Continuous**
pH (range)	**5.0 - 8.5**	**NA**	**SU**	**Monthly**
Strontium-90	**8.0**	**NA**	**pCi/L**	**Monthly**
Perfluorooctanoic acid (PFOA)	**6.7**	**NA**	**ng/L**	**Monthly**
Perfluorooctanesulfonate (PFOS)	**2.7**	**NA**	**ng/L**	**Monthly**

NA = Not Applicable. The system was shut down in July 2018.

In February 2023, a SPDES equivalency permit renewal was issued by the NYSDEC. If the system is restarted, sampling for PFOA and PFOS is required monthly using EPA Method 1633 for the analysis.

Monitoring Activities

In the third quarter monitoring well 106-103 had the highest concentration of Sr-90 at 52.6 pCi/L. During the third quarter, Sr-90 concentrations in extraction well EW-1 and EW-2 were 22.3 pCi/L and 2.36 pCi/L, respectively. Extraction well EW-3 results were not usable based on the results were not distinguishable from the background. The Chemical Holes Sr-90 monitoring well network is shown in **Figure 12-3** and the 'Hits Only' third quarter 2023 extraction well data are summarized on **Table 12-4.**

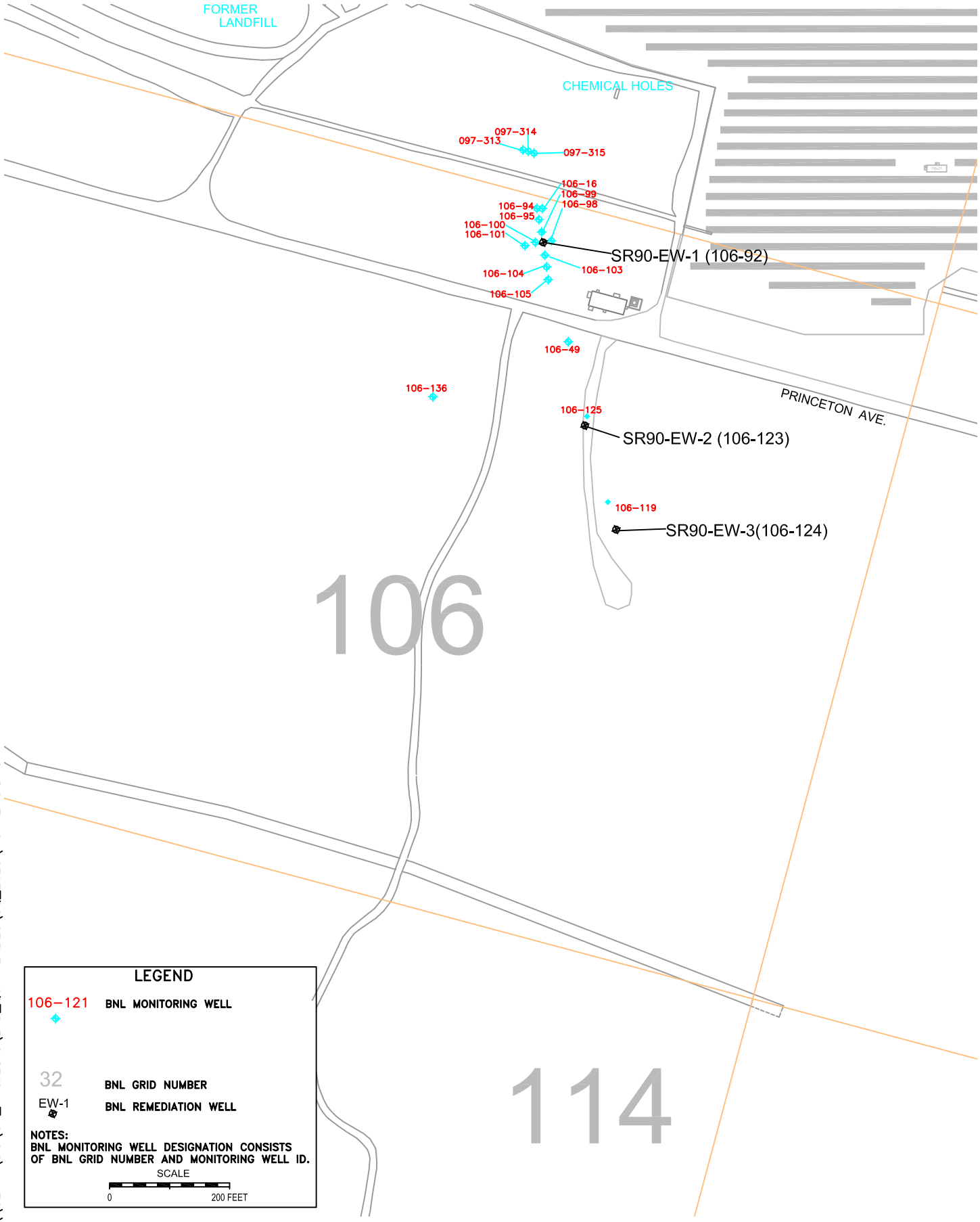
Systems Operations

July through September 2023:

The system was in stand-by mode.

Planned Operational Changes

- Maintain the system in stand-by mode. If significant rebound is identified, the extraction wells may be restarted.



\\OERNT\GIS\GW_PROJECTS\ERD_QUARTERLIES\3Q_2023\FIG 12-3.DWG

ENVIRONMENTAL PROTECTION DIVISION

TITLE:

CHEMICAL HOLES Sr-90 MONITORING WELL NETWORK

SITEWIDE REMEDIATION SYSTEMS
THIRD QUARTER 2023 OPERATIONS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
JEB	–	07/15/08	–
CHKD:	APPD:	REV.:	NOTES:
LDS	--	10/30/23	–

FIGURE NO.: 12-3

Table 12-3
OU III Strontium-90 Chemical Holes Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 097-313

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	08/02/2023	7.55	0.669	0.812	PCI/L	36.96		

Site ID : 097-314

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	08/02/2023	31.9	0.458	1.54	PCI/L	36.86		

Site ID : 097-315

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	08/02/2023	3.2	0.447	0.532	PCI/L	36.76		

Site ID : 106-100

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	07/31/2023	2.29	0.325	0.274	PCI/L	34.04		

Site ID : 106-101

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	08/02/2023	4.96	0.526	0.686	PCI/L	34.81		

Site ID : 106-103

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	07/31/2023	52.6	0.835	1.47	PCI/L	33.43		

Site ID : 106-104

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	07/31/2023	9.72	0.597	0.613	PCI/L	33.52		

Site ID : 106-105

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	07/31/2023	1.8	0.611	0.415	PCI/L	33.64		

Site ID : 106-98

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	08/02/2023	4.3	0.582	0.628	PCI/L	32.84		

Site ID : 106-99

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	08/02/2023	17.4	0.631	1.36	PCI/L	33.31		

Table 12-4
OU III Strontium-90 Chemical Holes Extraction Well Data
'Hits Only' July through September 2023

Site ID : 106-123 (EW-2)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	09/13/2023	2.36	0.781	0.717	PCI/L	0.00		

Site ID : 106-124 (EW-3)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	09/13/2023	0.87	0.778	0.511	PCI/L	0.00		N2

Site ID : 106-92 (EW-1)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	09/13/2023	22.3	0.388	1.29	PCI/L	0.00		

Qualifiers :
D = Compound was identified in an analysis at a secondary dilution factor.
E = Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
J = Estimated value.
N2 = Not usable based on the results that are not distinguishable from background. The value is less than or equal to the sum of the MDA and the uncertainty or RDL.
U = Compound not detected.

Organic Compounds :
B = Compound was found in both the sample And associated laboratory blank.

Inorganic Compounds :
B = Result Is between instrument detection limit And contract required reporting limit.

OU III Former Industrial Park East Pump & Treat System (System Closed)

The Petition for Closure for the OU III Industrial Park East Groundwater Treatment System was submitted to the regulators for review in May 2013. Approval was received in June and July 2013 that the system met its treatment goals was subsequently dismantled. Based on modeling, the remaining contaminants in the downgradient portion of the plume beyond the capture zone of the extraction wells will attenuate to below MCLs in the Upper Glacial and Magothy aquifers before the required 2030 and 2065 cleanup timeframes, respectively.

Decommissioning activities included the abandonment of four groundwater monitoring wells (000-489, 000-493, 000-513, 000-514) and the two groundwater extraction wells (EWI-1 and EWI-2) in September 2013. Final decommissioning of the treatment system will be performed following the completion of remediation of the deep VOC contamination in the Industrial Park.

The building, carbon units, and the two recharge wells are currently being used with the two new extraction wells for remediation of the deep VOC contamination in the Industrial Park.

The post closure monitoring network consists of four wells. In accordance with the recommendation in the *2015 Groundwater Status Report*, VOC monitoring for seven wells was discontinued in the fourth quarter of 2016 since these wells have been below the MCLs for a minimum of four consecutive sampling events. The data from the four active monitoring wells are also evaluated as part of the North Street and Magothy monitoring programs. Monitoring in these wells will continue until MCLs are achieved for a minimum of four consecutive sampling events. The monitoring schedule is described in the BNL Environmental Monitoring Plan (EMP).

OU III North Street Pump & Treat System
(System Closed)

Process: Groundwater extraction and liquid phase granular activated carbon (GAC) treatment, with discharge to injection wells.

Goal: Reach Maximum Contaminant Levels (MCLs) or asymptotic conditions in core monitoring wells within 30 years for the Upper Glacial aquifer and within 65 years for the Magothy aquifer (by 2030 and 2065, respectively).

Start Date: May 2004

Table 14-1
Pumping Rates (gpm)

Extraction Well	NS-1	NS-2
Site ID #	000-471	000-473
Screen Interval (ft bls)	165-205	190-220
Design Flow Rate (GPM)	0	0
July	0	0
August	0	0
September	0	0
Actual (Avg. over Qtr.)	0	0

The system is shut down and approved for closure in March 2020.

OU III North Street Pump & Treat System
(System Closed)

Figure 14-1
Cumulative Mass Removal of VOCs vs. Time

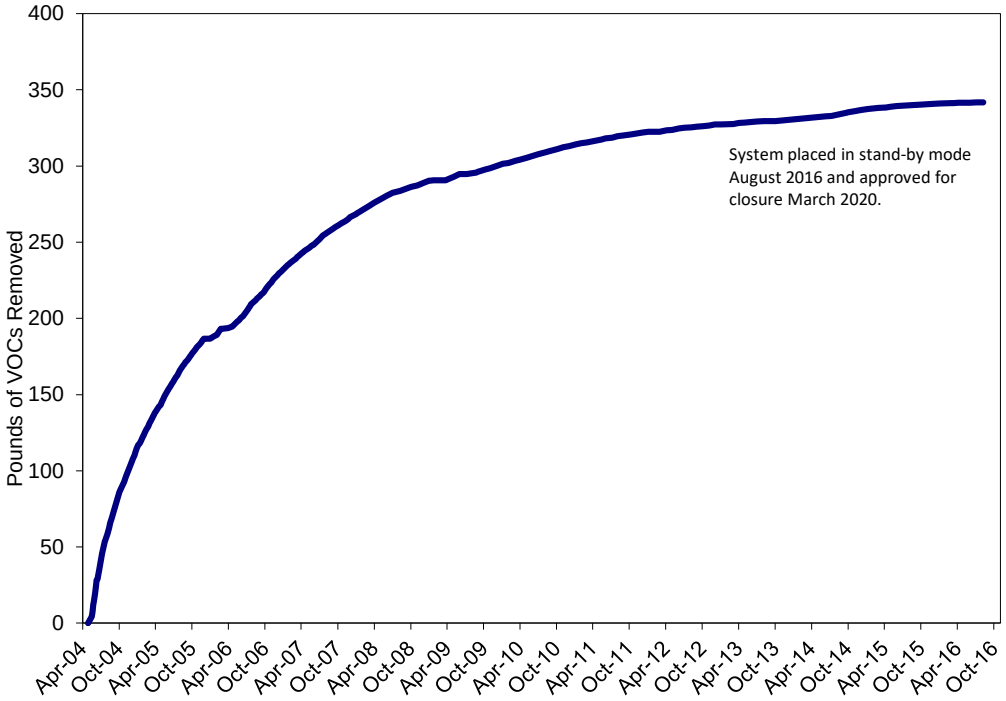
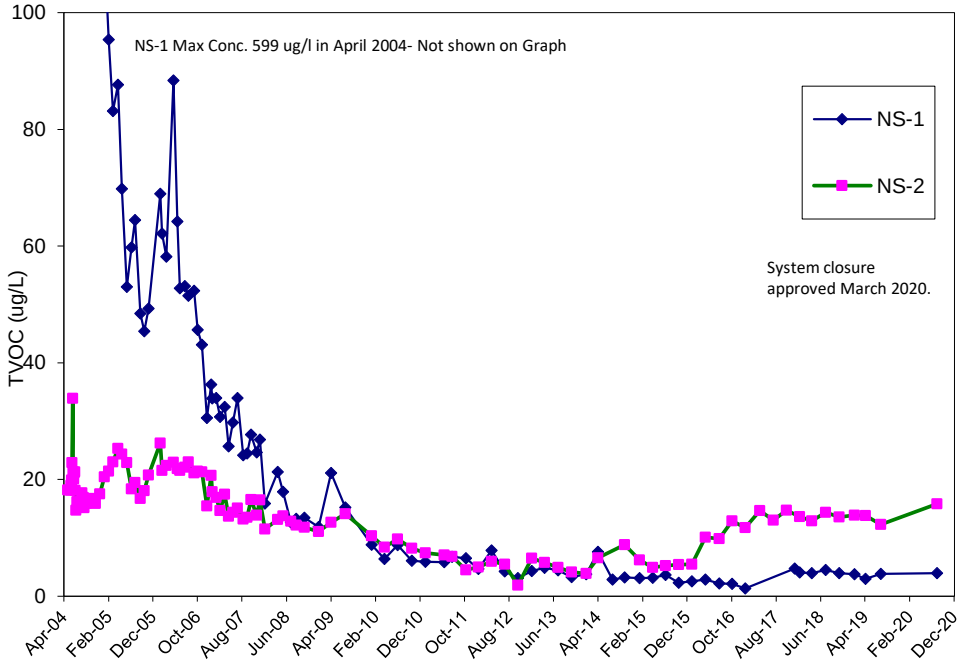


Figure 14-2
Extraction Well TVOC Concentrations vs. Time



OU III North Street Pump & Treat System
(System Closed)

Table 14-2
Effluent Water Quality
SPDES Equivalency Permit Concentrations July 1 through September 30, 2023

Parameter	Permit Limit	Max. Measured Value	Units	Frequency
Flow	**Monitor**	NA	**GPD**	**Continuous**
pH (range)	**5.5 - 8.5**	NA	**SU**	**Monthly**
Carbon Tetrachloride	**5.0**	NA	**µg/L**	**Monthly**
Chloroform	**5.0**	NA	**µg/L**	**Monthly**
1,1-Dichloroethane	**5.0**	NA	**µg/L**	**Monthly**
1,2-Dichloroethane	**0.6**	NA	**µg/L**	**Monthly**
1,1-Dichloroethylene	**5.0**	NA	**µg/L**	**Monthly**
Tetrachloroethylene	**5.0**	NA	**µg/L**	**Monthly**
Toluene	**5.0**	NA	**µg/L**	**Monthly**
1,1,1-Trichloroethane	**5.0**	NA	**µg/L**	**Monthly**
Trichloroethylene	**5.0**	NA	**µg/L**	**Monthly**
Ethylene Dibromide (EDB)	**0.03**	NA	**µg/L**	**Monthly**

NA = Not Applicable, the system is closed.

Monitoring Activities

As noted in the Petition for Closure, monitoring was reduced to seven monitoring wells following the approval of system closure. These wells are sampled annually in the fourth quarter. The remaining North Street monitoring wells are shown on **Figure 14-3**.

System Operations

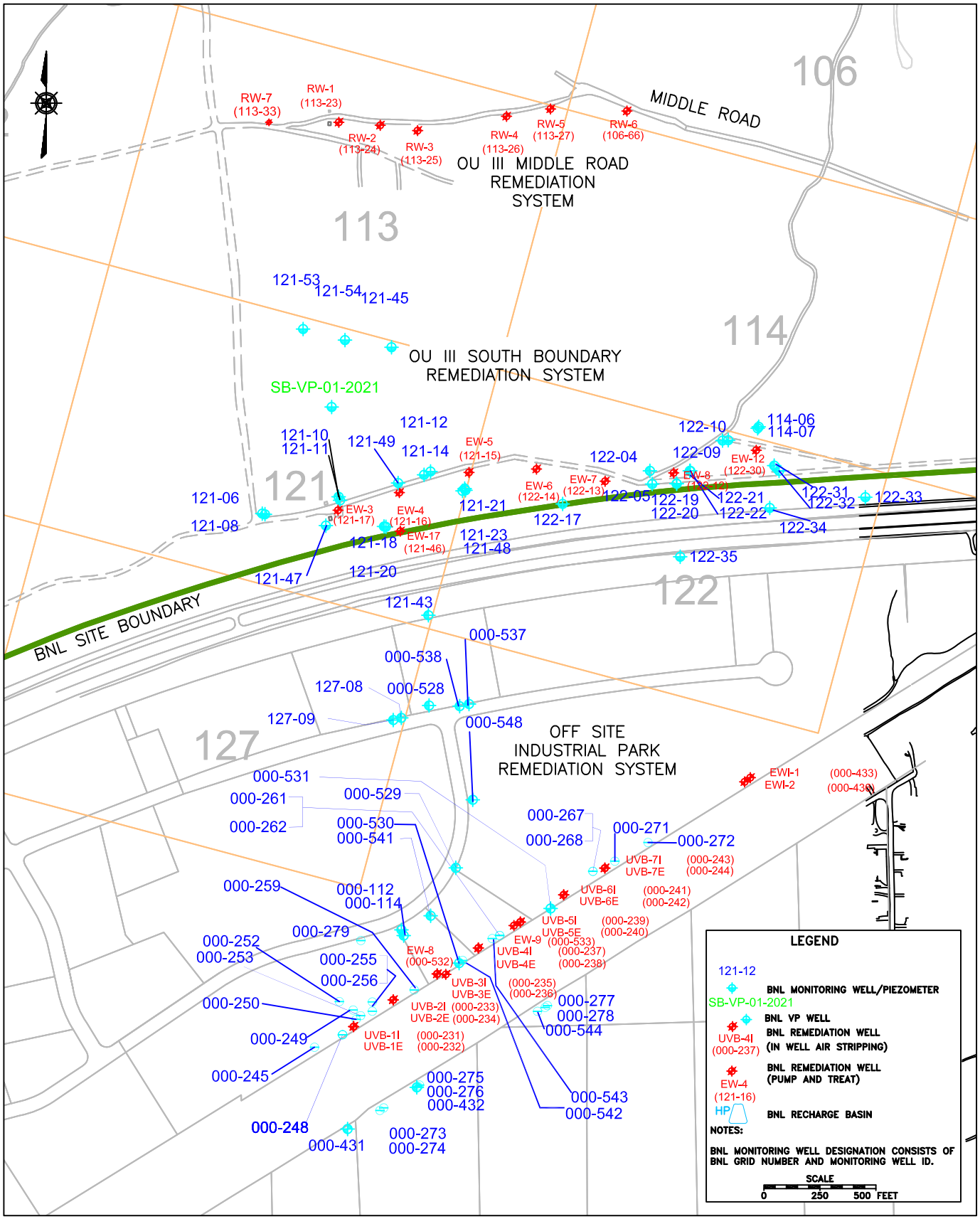
July through September 2023:

The system remained closed.

OU III North Street Pump & Treat System
(System Closed)

Planned Operational Changes

- NS-1 and NS-2 will remain shut down until the PFAS and 1,4 dioxane characterization is completed. After the completion of this characterization, a determination of the potential future use of these wells and treatment system infrastructure will be determined.



\\OERNT\GIS\GW_PROJECTS\ERD_QUARTERLIES\3Q_2023\FIG 14-3.DWG

ENVIRONMENTAL PROTECTION DIVISION

TITLE: OU III SOUTH BOUNDARY/INDUSTRIAL PARK/INDUSTRIAL PARK AREA MONITORING WELL NETWORKS
SITEWIDE REMEDIATION SYSTEMS
THIRD QUARTER 2023 OPERATIONS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
JEB	–	09/12/14	–
CHKD:	APPD:	REV.:	NOTES:
LDS	–	10/30/23	–

FIGURE NO.: 14–3

OU III North Street East EDB Pump & Treat System

Process: Groundwater extraction and liquid phase granular activated carbon (GAC) treatment, with discharge to injection wells.

Goal: Reach Maximum Contaminant Levels (MCLs) in core monitoring wells within 30 years for the Upper Glacial aquifer (by 2030).

Start Date: June 2004

Table 15-1
Pumping Rates (gpm)

Extraction Well	NSE-1	NSE-2	NSE-EDB-EW-3	NSE-EDB-EW-4
Site ID #	000-487	000-488	000-561	000-562
Screen Interval (ft bls)	161-191	152-182	195-215	182-202
Desired Flow Rate (GPM)	0	0	100	100
July	0*	0*	89	94
August	0*	0*	129	136
September	0*	0*	84	86
Actual (Avg. over Qtr.)	0*	0*	101	105

*As documented in the 2019 Groundwater Status Report, the original VOC system (NSE-1 and NSE-2) is administratively closed for its originally designed purpose. NSE-EDB-EW-3 and NSE-EDB-EW-4 began operation in July 2020.

OU III North Street East EDB Pump & Treat System

Figure 15-1
Cumulative Mass Removal of VOCs vs. Time

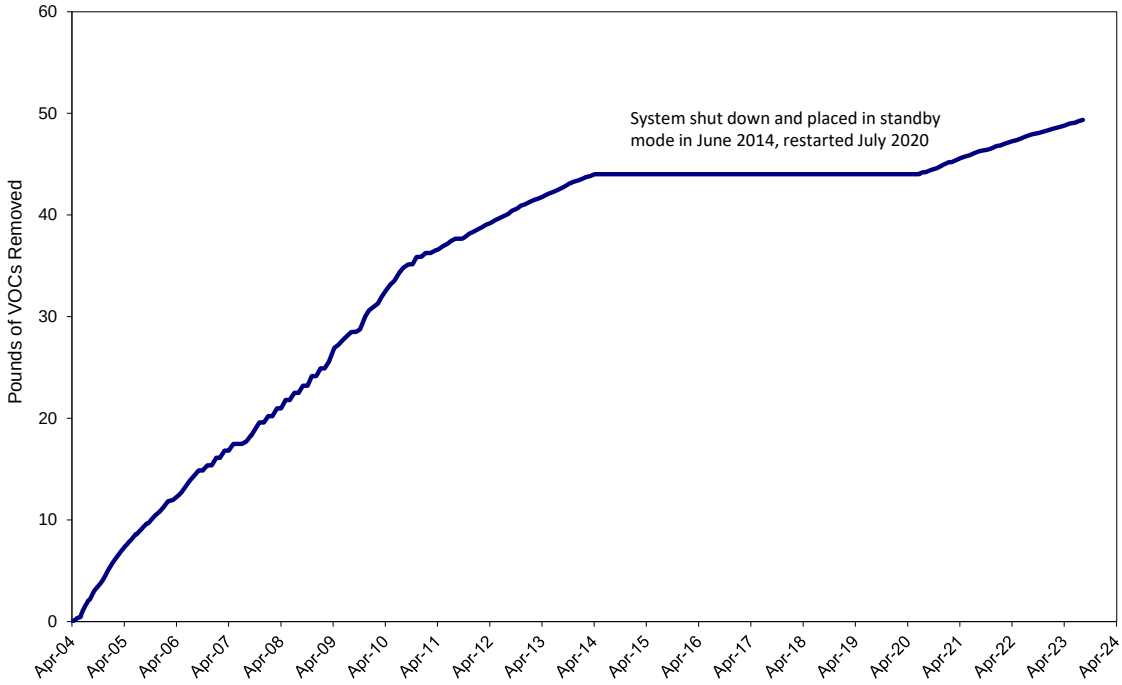
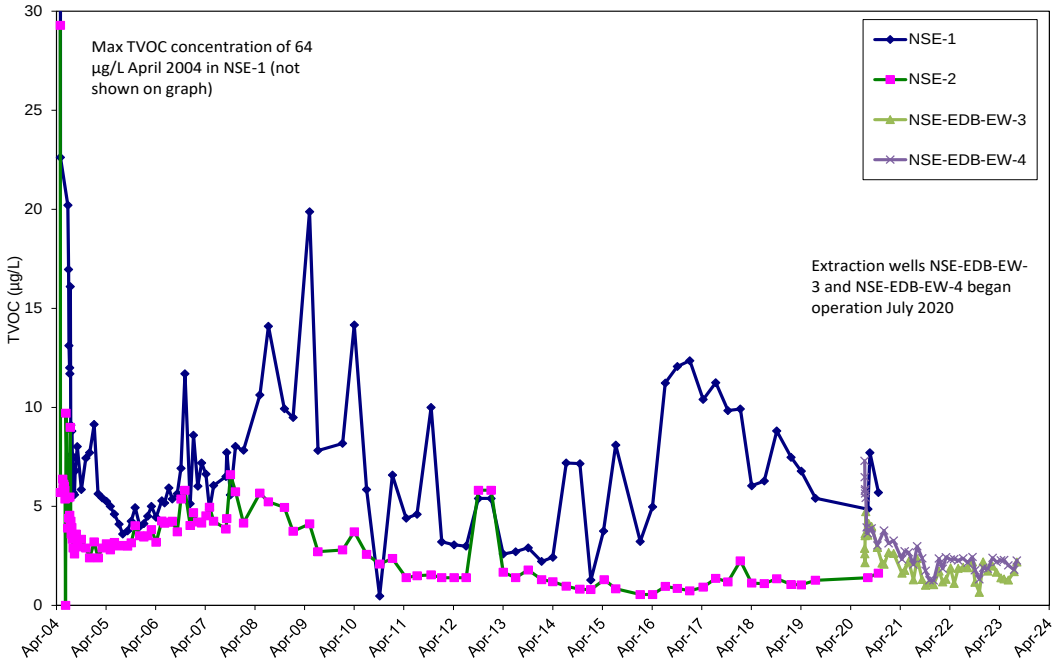


Figure 15-2
Extraction Well TVOC Concentrations vs. Time



OU III North Street East EDB Pump & Treat System

Figure 15-3
Extraction Well EDB Concentrations vs. Time

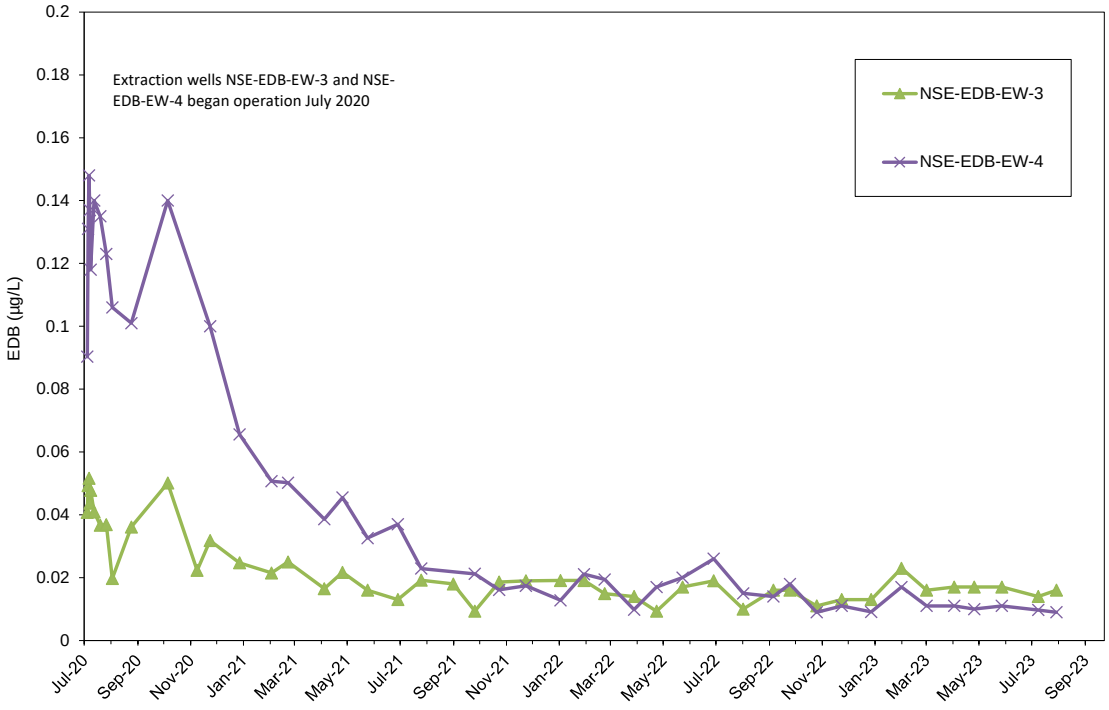


Table 15-2
Effluent Water Quality
SPDES Equivalency Permit Concentrations July 1 through September 30, 2023

Parameter	Permit Limit	Max. Measured Value	Units	Frequency
Flow	**Monitor**	**369,806**	**GPD**	**Continuous**
pH (range)	**5.5 - 8.5**	**5.57-5.65***	**SU**	**Monthly**
Carbon Tetrachloride	**5.0**	**<0.5**	**µg/L**	**Monthly**
Chloroform	**5.0**	**0.45**	**µg/L**	**Monthly**
1,1-Dichloroethane	**5.0**	**<0.5**	**µg/L**	**Monthly**
1,2-Dichloroethane	**0.6**	**<0.5**	**µg/L**	**Monthly**
1,1-Dichloroethylene	**5.0**	**<0.5**	**µg/L**	**Monthly**
Tetrachloroethylene	**5.0**	**<0.5**	**µg/L**	**Monthly**

OU III North Street East EDB Pump & Treat System

Toluene	**5.0**	**<0.5**	**µg/L**	**Monthly**
1,1,1-Trichloroethane	**5.0**	**<0.5**	**µg/L**	**Monthly**
Trichloroethylene	**5.0**	**<0.5**	**µg/L**	**Monthly**
Ethylene Dibromide (EDB)	**0.03**	**<0.011**	**µg/L**	**Monthly**

* Minimum to maximum value for pH during this operational period.
< = Analyte not detected above the Method Detection Limit.

Monitoring Activities

The third quarter 2023 monitoring well analytical results reported concentrations of EDB all below the MCL of 0.05 µg/L. The highest third quarter concentration was observed in monitoring well (000-566), at a concentration of 0.046 µg/L. The 'Hits Only' analytical results are summarized in **Table 15-3**. The OU III North Street EDB monitoring well network is shown in **Figure 15-4**.

System Operations

July 2023:

Extraction wells NSE-EDB-EW-3 and NSE-EDB-EW-4 operated normally for the month. The system treated approximately 8 million gallons of water.

August 2023:

Extraction wells NSE-EDB-EW-3 and NSE-EDB-EW-4 were operational. The system treated approximately 11 million gallons of water.

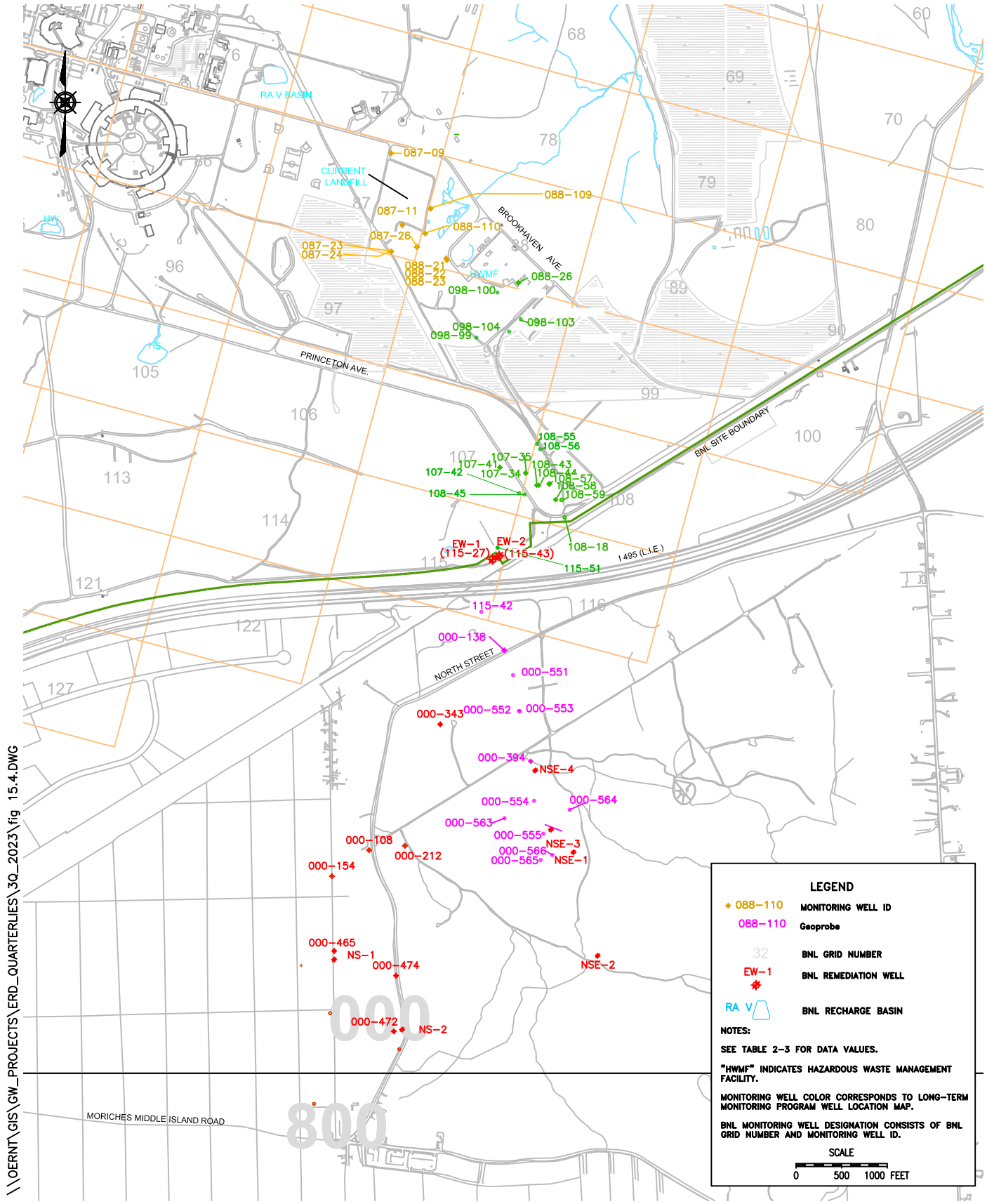
September 2023:

Extraction wells NSE-EDB-EW-3 and NSE-EDB-EW-4 were operational. The system treated approximately 7 million gallons of water.

The system treated approximately 26 million gallons of water during the third quarter of 2023. The concentration of EDB was non-detect in the treatment system effluent. The treatment system 'Hits Only' data, including extraction wells, combined influent, and effluent is summarized in **Table 15-4** through **Table 15-6**.

Planned Operational Changes

- Continue full time operation of the NSE EDB Treatment System and continue sampling extraction wells NSE-EDB-EW-3 and NSE-EDB-EW-4 quarterly.



\\OERNT\GIS\GW_PROJECTS\ERD_QUARTERLIES\3Q_2023\fig 15.4.DWG

ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU I/RA V SOUTH BOUNDARY
OUIII NORTH STREET/NORTH STREET EAST MONITORING WELL NETWORK

SITEWIDE REMEDIATION SYSTEMS
THIRD QUARTER 2023 OPERATIONS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
JEB	–	08/08/11	NA
CHKD:	APPD:	REV.:	NOTES:
LDS	––	10/30/23	–

FIGURE NO.: 15-4

Table 15-3
OU III North Street East Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 000-394

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
EDB	09/14/2023	0.022	0.011	--	UG/L	178.00		

Site ID : 000-552

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
EDB	09/14/2023	0.012	0.01	--	UG/L	155.00		

Site ID : 000-554

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
EDB	09/21/2023	0.038	0.011	--	UG/L	195.00		

Site ID : 000-565

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
EDB	09/15/2023	0.0077	0.011	--	UG/L	210.00	J	

Site ID : 000-566

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
EDB	09/15/2023	0.046	0.011	--	UG/L	210.00		

Table 15-4
OU III North Street East Extraction Well Data
'Hits Only' July through September 2023

Site ID : 000-561 (NSE-EDB-3)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/17/2023	1.7	--	--	UG/L	0.00		
1,1,1-Trichloroethane	07/17/2023	0.25	0.5	--	UG/L	0.00	J	
Chloroform	07/17/2023	1	0.5	--	UG/L	0.00		
EDB	07/17/2023	0.014	0.01	--	UG/L	0.00		
Trichloroethylene	07/17/2023	0.45	0.5	--	UG/L	0.00	J	
8260 TVOC	08/07/2023	2.19	--	--	UG/L	0.00		
1,1,1-Trichloroethane	08/07/2023	0.32	0.5	--	UG/L	0.00	J	
Chloroform	08/07/2023	1.2	0.5	--	UG/L	0.00		
EDB	08/07/2023	0.016	0.01	--	UG/L	0.00		
Tetrachloroethylene	08/07/2023	0.22	0.5	--	UG/L	0.00	J	
Trichloroethylene	08/07/2023	0.45	0.5	--	UG/L	0.00	J	

Site ID : 000-562 (NSE-EDB-4)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/17/2023	1.8	--	--	UG/L	0.00		
Chloroform	07/17/2023	0.8	0.5	--	UG/L	0.00		
EDB	07/17/2023	0.0097	0.011	--	UG/L	0.00	J	
Tetrachloroethylene	07/17/2023	0.77	0.5	--	UG/L	0.00		
Trichloroethylene	07/17/2023	0.23	0.5	--	UG/L	0.00	J	
8260 TVOC	08/07/2023	2.27	--	--	UG/L	0.00		
Chloroform	08/07/2023	0.91	0.5	--	UG/L	0.00		
EDB	08/07/2023	0.009	0.01	--	UG/L	0.00	J	
Methyl tert-butyl ether	08/07/2023	0.18	0.5	--	UG/L	0.00	J	
Tetrachloroethylene	08/07/2023	0.9	0.5	--	UG/L	0.00		
Trichloroethylene	08/07/2023	0.28	0.5	--	UG/L	0.00	J	

Table 15-5
OU III North Street East Influent Data
'Hits Only' July through September 2023

Site ID : 000-441 (Combined Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/17/2023	1.07	--	--	UG/L	0.00		
1,1,1-Trichloroethane	07/17/2023	0.18	0.5	--	UG/L	0.00	J	
Chloroform	07/17/2023	0.89	0.5	--	UG/L	0.00		
EDB	07/17/2023	0.011	0.011	--	UG/L	0.00		
8260 TVOC	08/07/2023	2.1	--	--	UG/L	0.00		
1,1,1-Trichloroethane	08/07/2023	0.19	0.5	--	UG/L	0.00	J	
Chloroform	08/07/2023	1	0.5	--	UG/L	0.00		
EDB	08/07/2023	0.012	0.01	--	UG/L	0.00		
Tetrachloroethylene	08/07/2023	0.55	0.5	--	UG/L	0.00		
Trichloroethylene	08/07/2023	0.36	0.5	--	UG/L	0.00	J	
8260 TVOC	09/07/2023	1.85	--	--	UG/L	0.00		
1,1,1-Trichloroethane	09/07/2023	0.16	0.5	--	UG/L	0.00	J	
Chloroform	09/07/2023	0.89	0.5	--	UG/L	0.00		
EDB	09/07/2023	0.0084	0.01	--	UG/L	0.00	J	
Tetrachloroethylene	09/07/2023	0.47	0.5	--	UG/L	0.00	J	
Trichloroethylene	09/07/2023	0.33	0.5	--	UG/L	0.00	J	

Table 15-6
OU III North Street East Effluent Data
'Hits Only' July through September 2023

Site ID : 000-444 (System Effluent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/17/2023	0	--	--	UG/L	0.00		
EDB	07/17/2023	0.011	0.011	--	UG/L	0.00	U	
EDB	07/17/2023	0.5	0.5	--	UG/L	0.00	U	
8260 TVOC	08/07/2023	0.37	--	--	UG/L	0.00		
Chloroform	08/07/2023	0.2	0.5	--	UG/L	0.00	J	
EDB	08/07/2023	0.01	0.01	--	UG/L	0.00	U	
EDB	08/07/2023	0.5	0.5	--	UG/L	0.00	U	
Methyl tert-butyl ether	08/07/2023	0.17	0.5	--	UG/L	0.00	J	
8260 TVOC	09/07/2023	0.62	--	--	UG/L	0.00		
Chloroform	09/07/2023	0.45	0.5	--	UG/L	0.00	J	
EDB	09/07/2023	0.01	0.01	--	UG/L	0.00	U	
EDB	09/07/2023	0.5	0.5	--	UG/L	0.00	U	
Methyl tert-butyl ether	09/07/2023	0.17	0.5	--	UG/L	0.00	J	

Qualifiers :
D = Compound was identified in an analysis at a secondary dilution factor.
E = Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
J = Estimated value.
N2 = Not usable based on the results that are not distinguishable from background. The value is less than or equal to the sum of the MDA and the uncertainty or RDL.
U = Compound not detected.

Organic Compounds :
B = Compound was found in both the sample And associated laboratory blank.

Inorganic Compounds :
B = Result Is between instrument detection limit And contract required reporting limit.

OU III LIPA/Airport Pump & Treat System

Process: Groundwater extraction and liquid phase granular activated carbon (GAC) treatment, with discharge to injection wells.

Goal: Reach Maximum Contaminant Levels (MCLs) in core monitoring wells within 30 years for the Upper Glacial aquifer (by 2030), and within 65 years for the Magothy aquifer (by 2065).

Start Date: August 2004

Table 16-1
OU III LIPA/Airport Treatment System
Pumping Rates (gpm)

Extraction Well	EW-1L	EW-2L	EW-3L	EW-4L*	RTW-1A	RTW-2A	RTW-3A	RTW-4A*	RTW-5A	RW-6A
Site ID	000-453	000-455	000-457	000-461	800-109	800-110	800-111	800-112	800-113	800-132
Screen Interval (ft bls)	217-237	224-244	216-236	304-324	188-208	188-208	210-230	268-288	220-240	165-185
Desired Flow Rate (GPM)	0**	0**	0**	0**	100	0**	0**	100	0***	200
July	0	0	0	0	87	0	0	123	0	129
August	0	0	0	0	126	0	0	183	0	190
September	0	0	0	0	79	0	0	114	0	119
Actual (Avg. over QTR.)	**0**	**0**	**0**	**0**	**97**	**0**	**0**	**140**	**0**	**146**

***** EW-4L and RTW-4A are Magothy aquifer extraction wells.
****** EW-1L and EW-3L were placed in standby mode in 2007, EW-2L in 2010 and EW-4L in 2017. RTW-2A and RTW-3A were placed in standby in March 2020.
*** RTW-5A was placed in standby mode in September 2016.

OU III LIPA/Airport Pump & Treat System

Figure 16-1
Cumulative Mass Removal of VOCs vs. Time

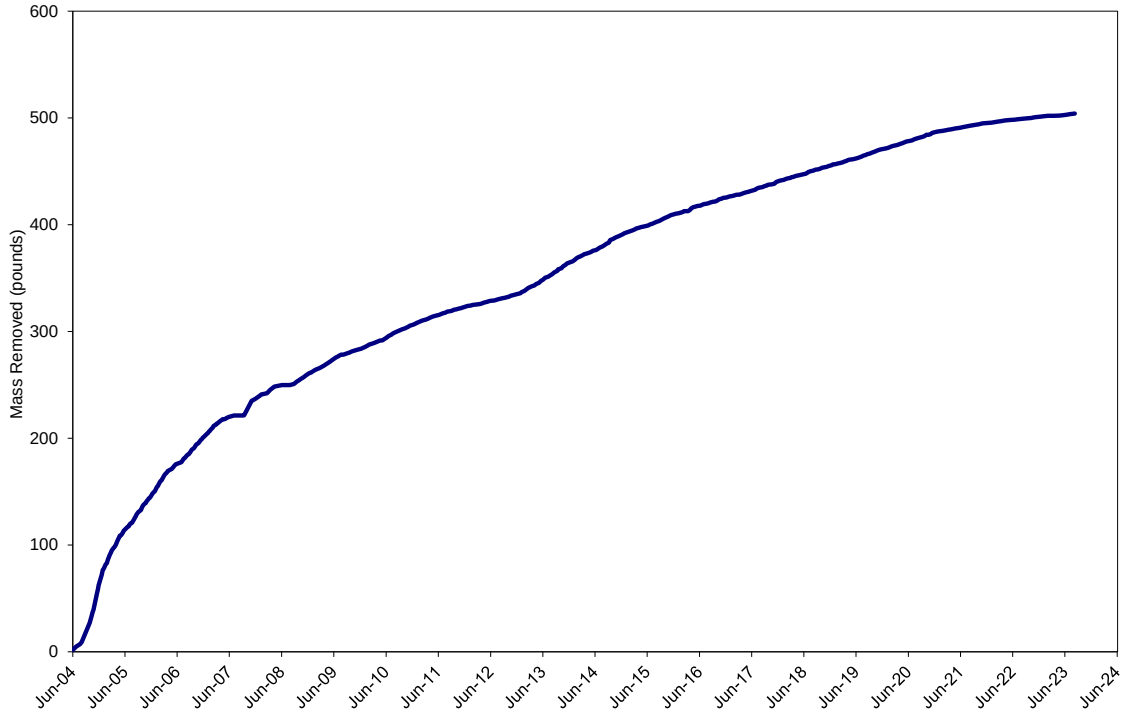
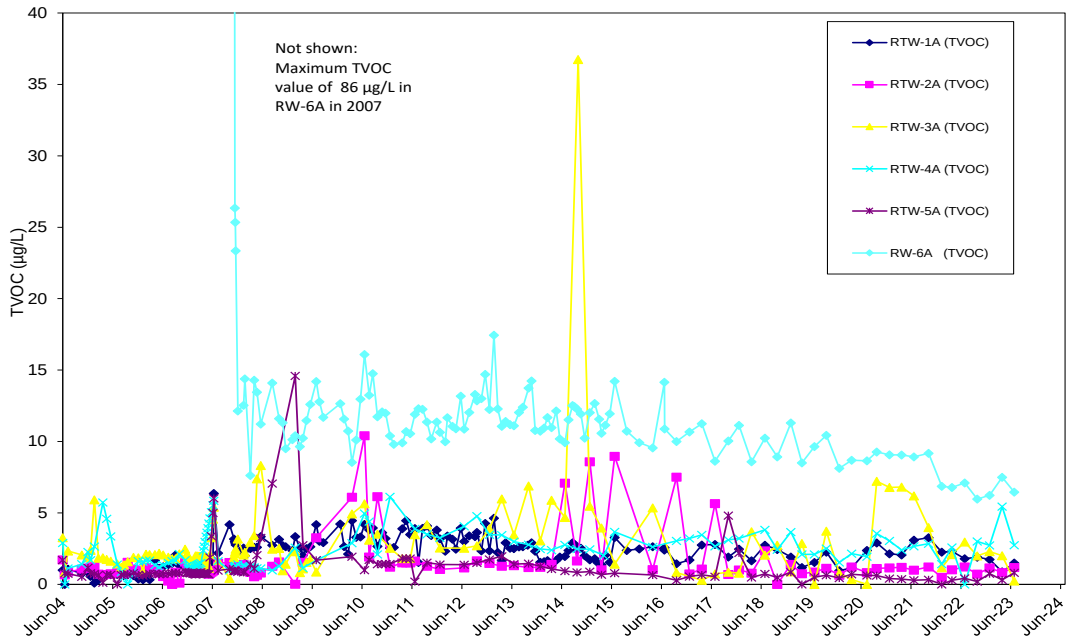


Figure 16-2
Airport Extraction Well TVOC Concentrations vs. Time



OU III LIPA/Airport Pump & Treat System

Figure 16-3
LIPA Extraction Well TVOC Concentrations vs. Time

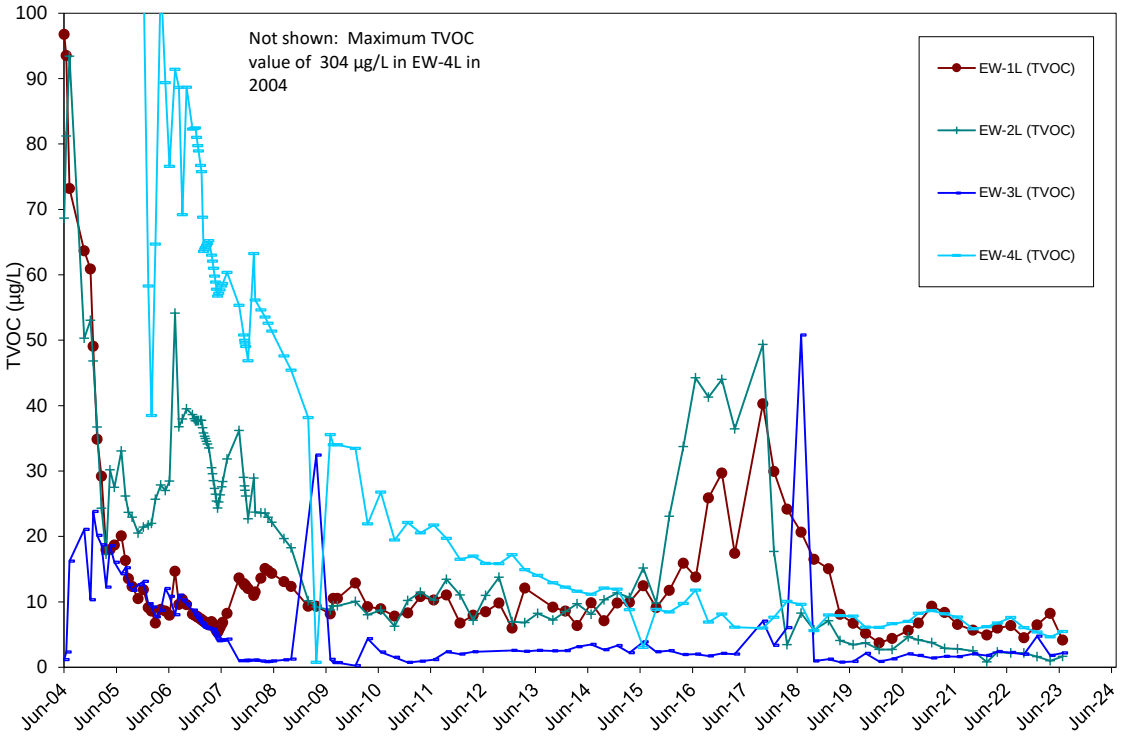


Table 16-2
Effluent Water Quality
SPDES Equivalency Permit Concentrations - July 1 through September 30, 2023

Parameter	Permit Limit	Max. Measured Value	Units	Frequency
Flow	**Monitor**	**695,724** [1]	**GPD**	**Continuous**
pH (range)	**5.5 – 7.5**	**5.71-5.81***	**SU**	**Monthly**
Carbon Tetrachloride	**5.0**	**<0.50**	**µg/L**	**Monthly**
Chloroform	**7.0**	**0.86**	**µg/L**	**Monthly**
1,1-Dichloroethane	**5.0**	**<0.50**	**µg/L**	**Monthly**
1,1-Dichloroethylene	**5.0**	**<0.50**	**µg/L**	**Monthly**
Methylene Chloride	**5.0**	**<0.50**	**µg/L**	**Monthly**
1,1,1-Trichloroethane	**5.0**	**<0.50**	**µg/L**	**Monthly**
Trichloroethylene	**10.0**	**<0.50**	**µg/L**	**Monthly**

[1] The average flow for the operational period at the influent flow meter.

OU III LIPA/Airport Pump & Treat System

***** Minimum to maximum value for pH during this operational period.
< - The analyte was not detected above the Method Detection Limit.

Monitoring Activities

The third quarter 2023 monitoring well analytical results reported the highest concentration of TVOCs in 800-133, at 6.8 µg/L. The highest concentration of individual VOCs in this well were carbon tetrachloride and chloroform, reported at 5 µg/L and 1.5 µg/L respectively. The OU III LIPA/Airport monitoring well network is shown on **Figure 16-4.** The 'Hits Only' third quarter 2023 data are summarized in **Table 16-3.**

System Operations

July 2023:

Extraction wells RTW-1A, RTW-4A and RW-6A ran normally for the month. The four LIPA extraction wells and Airport extraction wells RTW-2A, RTW-3A, and RTW-5A remained in standby mode. The system treated approximately 15 million gallons of water.

August 2023:

Extraction wells RTW-1A, RTW-4A and RW-6A ran normally for the month. The four LIPA extraction wells and Airport extraction wells RTW-2A, RTW-3A, and RTW-5A remained in standby mode. The system treated approximately 22 million gallons of water.

September 2023:

Extraction wells RTW-1A, RTW-4A and RW-6A ran normally for the month. The four LIPA extraction wells and Airport extraction wells RTW-2A, RTW-3A, and RTW-5A remained in standby mode. The system treated approximately 13 million gallons of water.

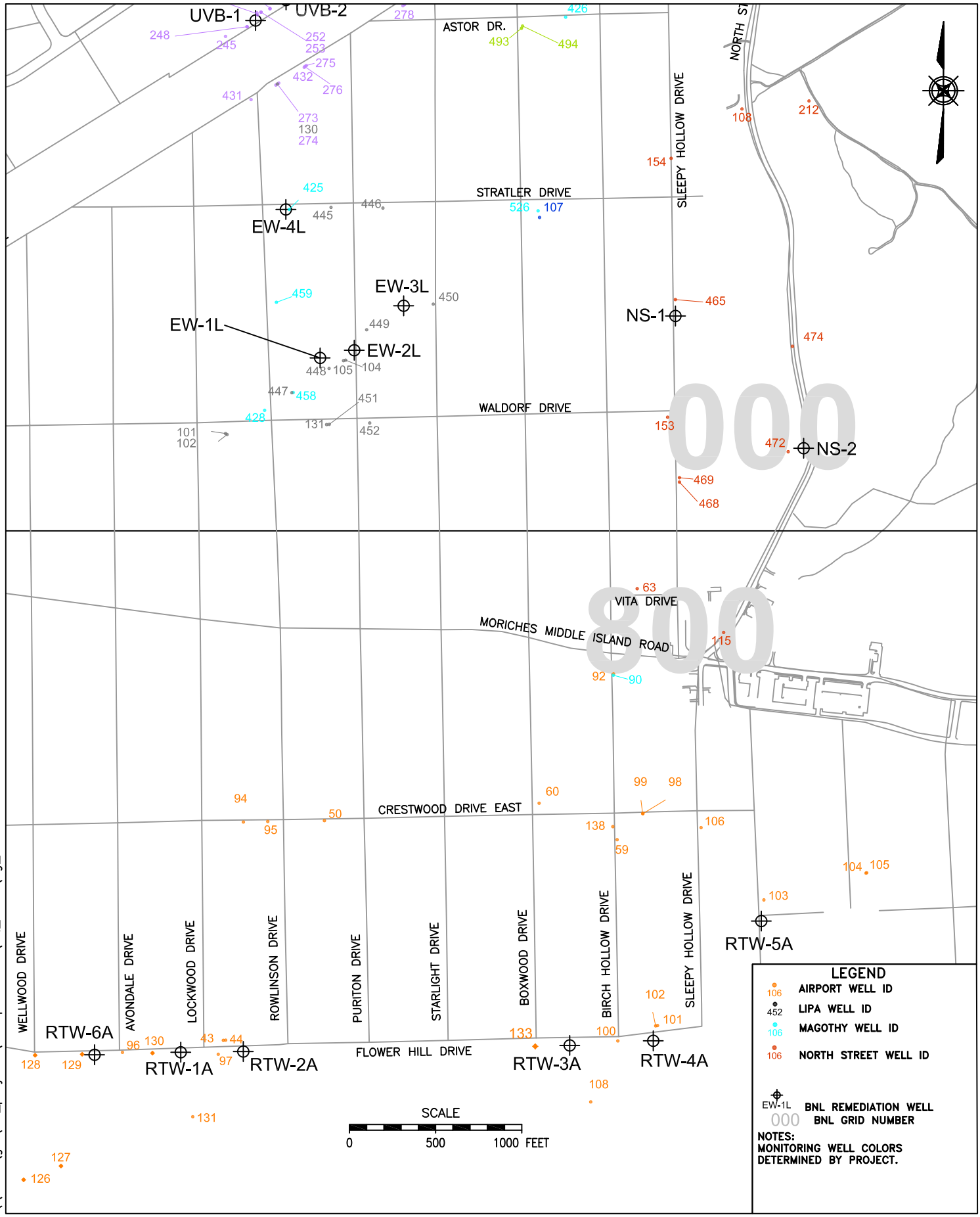
The system treated approximately 50 million gallons of water during the third quarter of 2023. The treatment system 'Hits Only' data, including individual extraction wells, combined influent, and effluent is summarized in **Table 16-4** through **Table 16-6**.

Planned Operational Changes

- Continue full time operation of Airport extraction wells RTW-1A, RTW-4A and RW-6A. Maintain wells RTW-2A, RTW-3A and RTW-5A in standby mode. If TVOC concentrations above the capture goal of 10 µg/L are observed in any of the extraction wells, or the monitoring wells adjacent to extraction wells that are not operating, the well(s) will be put back into full-time operation. During the third

quarter of 2023, extraction wells RTW-2A, RTW-3A, RTW-5A, and adjacent monitoring wells did not exceed TVOC concentrations of 10 µg/L.

- Maintain LIPA wells EW-1L, EW-2L, EW-3L and EW-4L in standby mode. All of the monitoring wells for the LIPA system were below MCL's during 2022 for individual VOCs. During the third quarter of 2023, none of the LIPA extraction wells or adjacent monitoring wells detected TVOCs above the capture goal of 50 µg/L. Based on the low VOC concentrations for the past several years in the LIPA monitoring and extraction wells, submit a petition for closure of the LIPA system to the regulators.
- Decrease the sampling frequency for the 17 LIPA monitoring wells from quarterly to semiannual.



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ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III AIRPORT/LIPA

SITEWIDE REMEDIATION SYSTEMS
THIRD QUARTER 2023 OPERATIONS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
JEB	–	09/26/05	–
CHKD:	APPD:	REV.:	NOTES:
LDS	––	10/30/23	–

FIGURE NO.: 16–4

Table 16-3
OU III LIPA/Airport Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 000-101

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	08/31/2023	1.71	--	--	UG/L	195.00		
Chloroform	08/31/2023	1.2	0.5	--	UG/L	195.00		
Tetrachloroethylene	08/31/2023	0.51	0.5	--	UG/L	195.00		

Site ID : 000-104

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/05/2023	1.23	--	--	UG/L	205.00		
1,1,1-Trichloroethane	09/05/2023	0.26	0.5	--	UG/L	205.00	J	
1,1-Dichloroethylene	09/05/2023	0.19	0.5	--	UG/L	205.00	J	
1,2-Dichloroethane	09/05/2023	0.16	0.5	--	UG/L	205.00	J	
Chloroform	09/05/2023	0.38	0.5	--	UG/L	205.00	J	
Trichloroethylene	09/05/2023	0.24	0.5	--	UG/L	205.00	J	

Site ID : 000-130

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/07/2023	1.01	--	--	UG/L	280.00		
Chloroform	09/07/2023	0.63	0.5	--	UG/L	280.00		
Tetrachloroethylene	09/07/2023	0.38	0.5	--	UG/L	280.00	J	

Site ID : 000-131

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	08/30/2023	2.68	--	--	UG/L	225.00		
1,1,1-Trichloroethane	08/30/2023	0.48	0.5	--	UG/L	225.00	J	
1,1-Dichloroethylene	08/30/2023	0.56	0.5	--	UG/L	225.00		
Chloroform	08/30/2023	1.1	0.5	--	UG/L	225.00		
Trichloroethylene	08/30/2023	0.54	0.5	--	UG/L	225.00		

Site ID : 000-425

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/01/2023	3.09	--	--	UG/L	315.00		
1,1,1-Trichloroethane	09/01/2023	0.37	0.5	--	UG/L	315.00	J	
Carbon tetrachloride	09/01/2023	0.26	0.5	--	UG/L	315.00	J	
Chloroform	09/01/2023	0.43	0.5	--	UG/L	315.00	J	
Tetrachloroethylene	09/01/2023	1.5	0.5	--	UG/L	315.00		
Trichloroethylene	09/01/2023	0.53	0.5	--	UG/L	315.00		

Site ID : 000-445

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/05/2023	0.49	--	--	UG/L	219.00		

Table 16-3
OU III LIPA/Airport Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 000-445

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Chloroform	09/05/2023	0.49	0.5	--	UG/L	219.00	J	

Site ID : 000-446

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/05/2023	0.36	--	--	UG/L	212.00		
Chloroform	09/05/2023	0.36	0.5	--	UG/L	212.00	J	

Site ID : 000-447

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/06/2023	1.11	--	--	UG/L	219.00		
Chloroform	09/06/2023	0.91	0.5	--	UG/L	219.00		
Trichloroethylene	09/06/2023	0.2	0.5	--	UG/L	219.00	J	

Site ID : 000-448

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	08/31/2023	6.45	--	--	UG/L	212.00		
1,1,1-Trichloroethane	08/31/2023	1.8	0.5	--	UG/L	212.00		
1,1-Dichloroethylene	08/31/2023	2.6	0.5	--	UG/L	212.00		
1,2-Dichloroethane	08/31/2023	0.4	0.5	--	UG/L	212.00	J	
Carbon tetrachloride	08/31/2023	0.22	0.5	--	UG/L	212.00	J	
Chloroform	08/31/2023	0.72	0.5	--	UG/L	212.00		
Trichloroethylene	08/31/2023	0.71	0.5	--	UG/L	212.00		

Site ID : 000-449

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/06/2023	1.65	--	--	UG/L	193.00		
1,1,1-Trichloroethane	09/06/2023	0.4	0.5	--	UG/L	193.00	J	
1,1-Dichloroethylene	09/06/2023	0.25	0.5	--	UG/L	193.00	J	
1,2-Dichloroethane	09/06/2023	0.15	0.5	--	UG/L	193.00	J	
Chloroform	09/06/2023	0.42	0.5	--	UG/L	193.00	J	
Trichloroethylene	09/06/2023	0.43	0.5	--	UG/L	193.00	J	

Site ID : 000-450

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/06/2023	1.2	--	--	UG/L	208.00		
Chloroform	09/06/2023	1.2	0.5	--	UG/L	208.00		

Site ID : 000-451

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	08/30/2023	2.35	--	--	UG/L	193.00		

Table 16-3
OU III LIPA/Airport Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 000-451

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1,1,1-Trichloroethane	08/30/2023	0.3	0.5	--	UG/L	193.00	J	
Chloroform	08/30/2023	1.4	0.5	--	UG/L	193.00		
Trichloroethylene	08/30/2023	0.65	0.5	--	UG/L	193.00		

Site ID : 000-452

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/05/2023	1.89	--	--	UG/L	217.00		
1,1,1-Trichloroethane	09/05/2023	0.29	0.5	--	UG/L	217.00	J	
Chloroform	09/05/2023	1	0.5	--	UG/L	217.00		
Trichloroethylene	09/05/2023	0.6	0.5	--	UG/L	217.00		

Site ID : 800-108

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/12/2023	0.43	--	--	UG/L	216.00		
Chloroform	09/12/2023	0.43	0.5	--	UG/L	216.00	J	

Site ID : 800-131

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/12/2023	3.22	--	--	UG/L	194.00		
Carbon tetrachloride	09/12/2023	3	0.5	--	UG/L	194.00		
Chloroform	09/12/2023	0.22	0.5	--	UG/L	194.00	J	

Site ID : 800-133

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/13/2023	6.8	--	--	UG/L	225.00		
1,1,1-Trichloroethane	09/13/2023	0.3	0.5	--	UG/L	225.00	J	
Carbon tetrachloride	09/13/2023	5	0.5	--	UG/L	225.00		
Chloroform	09/13/2023	1.5	0.5	--	UG/L	225.00		

Site ID : 800-60

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	09/13/2023	0.54	--	--	UG/L	210.00		
Chloroform	09/13/2023	0.54	0.5	--	UG/L	210.00		

Table 16-4
OU III LIPA/Airport Extraction Well Data
'Hits Only' July through September 2023

Site ID : 000-453 (EW-1L)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/10/2023	4.16	--	--	UG/L	227.00		
1,1,1-Trichloroethane	07/10/2023	0.51	0.5	--	UG/L	227.00		
1,1-Dichloroethylene	07/10/2023	0.49	0.5	--	UG/L	227.00	J	
Chloroform	07/10/2023	0.63	0.5	--	UG/L	227.00		
Toluene	07/10/2023	1.9	0.5	--	UG/L	227.00		
Trichloroethylene	07/10/2023	0.63	0.5	--	UG/L	227.00		

Site ID : 000-455 (EW-2L)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/10/2023	1.65	--	--	UG/L	234.00		
Chloroform	07/10/2023	1.2	0.5	--	UG/L	234.00		
Trichloroethylene	07/10/2023	0.45	0.5	--	UG/L	234.00	J	

Site ID : 000-457 (EW-3L)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/10/2023	2.16	--	--	UG/L	226.00		
Chloroform	07/10/2023	1.7	0.5	--	UG/L	226.00		
Toluene	07/10/2023	0.26	0.5	--	UG/L	226.00	J	
Trichloroethylene	07/10/2023	0.2	0.5	--	UG/L	226.00	J	

Site ID : 000-461 (EW-4L)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/10/2023	5.44	--	--	UG/L	314.00		
1,1,1-Trichloroethane	07/10/2023	0.21	0.5	--	UG/L	314.00	J	
Carbon tetrachloride	07/10/2023	0.81	0.5	--	UG/L	314.00		
Chloroform	07/10/2023	0.69	0.5	--	UG/L	314.00		
Tetrachloroethylene	07/10/2023	2.8	0.5	--	UG/L	314.00		
Trichloroethylene	07/10/2023	0.93	0.5	--	UG/L	314.00		

Site ID : 800-109 (RTW-1A)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/10/2023	15.95	--	--	NG/L	198.00		
8260 TVOC	07/10/2023	1.49	--	--	UG/L	198.00		
1,4-Dioxane	07/10/2023	0.36	0.2	--	UG/L	198.00		
Carbon tetrachloride	07/10/2023	0.59	0.5	--	UG/L	198.00		
Chloroform	07/10/2023	0.62	0.5	--	UG/L	198.00		
Perfluorobutanesulfonate (PFBS)	07/10/2023	2.15	1.55	--	NG/L	198.00		

Table 16-4
OU III LIPA/Airport Extraction Well Data
'Hits Only' July through September 2023

Site ID : 800-109 (RTW-1A)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluoroheptanoic acid (PFHpA)	07/10/2023	1.17	1.74	--	NG/L	198.00	J	
Perfluorohexanesulfonate (PFHxS)	07/10/2023	1.57	1.59	--	NG/L	198.00	J	
Perfluorohexanoic acid (PFHxA)	07/10/2023	3.82	1.74	--	NG/L	198.00		
Perfluorooctanesulfonate (PFOS)	07/10/2023	1.3	1.62	--	NG/L	198.00	J	
Perfluorooctanoic acid (PFOA)	07/10/2023	2.8	1.74	--	NG/L	198.00		
Perfluoropentanoic acid (PFPeA)	07/10/2023	3.14	1.74	--	NG/L	198.00		
Trichloroethylene	07/10/2023	0.28	0.5	--	UG/L	198.00	J	

Site ID : 800-110 (RTW-2A)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/10/2023	1.18	--	--	UG/L	198.00		
1,4-Dioxane	07/10/2023	0.89	0.2	--	UG/L	198.00		
Carbon tetrachloride	07/10/2023	0.62	0.5	--	UG/L	198.00		
Chloroform	07/10/2023	0.56	0.5	--	UG/L	198.00		

Site ID : 800-111 (RTW-3A)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/10/2023	16.652	--	--	NG/L	220.00		
8260 TVOC	07/10/2023	0.23	--	--	UG/L	220.00		
1,4-Dioxane	07/10/2023	0.45	0.2	--	UG/L	220.00		
Chloroform	07/10/2023	0.23	0.5	--	UG/L	220.00	J	
Perfluorobutanesulfonate (PFBS)	07/10/2023	5.19	1.64	--	NG/L	220.00		
Perfluoroheptanoic acid (PFHpA)	07/10/2023	1.18	1.85	--	NG/L	220.00	J	
Perfluorohexanesulfonate (PFHxS)	07/10/2023	1.09	1.69	--	NG/L	220.00	J	
Perfluorohexanoic acid (PFHxA)	07/10/2023	2.86	1.85	--	NG/L	220.00		
Perfluorooctanesulfonate (PFOS)	07/10/2023	0.872	1.71	--	NG/L	220.00	J	
Perfluorooctanoic acid (PFOA)	07/10/2023	2.43	1.85	--	NG/L	220.00		
Perfluoropentanoic acid (PFPeA)	07/10/2023	3.03	1.85	--	NG/L	220.00		

Site ID : 800-112 (RTW-4A)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/12/2023	10.987	--	--	NG/L	278.00		
8260 TVOC	07/12/2023	2.74	--	--	UG/L	278.00		
1,1,2,2-Tetrachloroethane	07/12/2023	0.4	0.5	--	UG/L	278.00	J	
1,4-Dioxane	07/12/2023	2.4	0.2	--	UG/L	278.00		
Carbon tetrachloride	07/12/2023	0.26	0.5	--	UG/L	278.00	J	

Table 16-4
OU III LIPA/Airport Extraction Well Data
'Hits Only' July through September 2023

Site ID : 800-112 (RTW-4A)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Chloroform	07/12/2023	0.88	0.5	--	UG/L	278.00		
Perfluorobutanesulfonate (PFBS)	07/12/2023	0.887	1.64	--	NG/L	278.00	J	
Perfluorobutyric acid (PFBA)	07/12/2023	7.75	7.4	--	NG/L	278.00		
Perfluorohexanoic acid (PFHxA)	07/12/2023	0.866	1.85	--	NG/L	278.00	J	
Perfluorooctanoic acid (PFOA)	07/12/2023	0.641	1.85	--	NG/L	278.00	J	
Perfluoropentanoic acid (PFPeA)	07/12/2023	0.843	1.85	--	NG/L	278.00	J	
Trichloroethylene	07/12/2023	1.2	0.5	--	UG/L	278.00		

Site ID : 800-113 (RTW-5A)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/10/2023	14.8	--	--	NG/L	230.00		
8260 TVOC	07/10/2023	0.81	--	--	UG/L	230.00		
1,4-Dioxane	07/10/2023	3	0.2	--	UG/L	230.00		
Chloroform	07/10/2023	0.81	0.5	--	UG/L	230.00		
Perfluorobutyric acid (PFBA)	07/10/2023	14.8	8.03	--	NG/L	230.00		

Site ID : 800-132 (RTW-6A)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/10/2023	40.42	--	--	NG/L	175.00		
8260 TVOC	07/10/2023	6.46	--	--	UG/L	175.00		
1,1-Dichloroethylene	07/10/2023	0.2	0.5	--	UG/L	175.00	J	
1,4-Dioxane	07/10/2023	0.85	0.2	--	UG/L	175.00		
Carbon tetrachloride	07/10/2023	1.6	0.5	--	UG/L	175.00		
Chloroform	07/10/2023	0.66	0.5	--	UG/L	175.00		
Fluorotelomer sulfonate 6:2 (6:2 FTS)	07/10/2023	3	6.67	--	NG/L	175.00	J	
Perfluorobutanesulfonate (PFBS)	07/10/2023	2.79	1.56	--	NG/L	175.00		
Perfluorobutyric acid (PFBA)	07/10/2023	3.85	7.02	--	NG/L	175.00	J	
Perfluoroheptanoic acid (PFHpA)	07/10/2023	2.72	1.75	--	NG/L	175.00		
Perfluorohexanesulfonate (PFHxS)	07/10/2023	2.66	1.6	--	NG/L	175.00		
Perfluorohexanoic acid (PFHxA)	07/10/2023	8.2	1.75	--	NG/L	175.00		
Perfluorooctanesulfonate (PFOS)	07/10/2023	1.84	1.63	--	NG/L	175.00		
Perfluorooctanoic acid (PFOA)	07/10/2023	3.36	1.75	--	NG/L	175.00		
Perfluoropentanoic acid (PFPeA)	07/10/2023	12	1.75	--	NG/L	175.00		
Trichloroethylene	07/10/2023	4	0.5	--	UG/L	175.00		

Table 16-5
OU III LIPA/Airport Influent Data
'Hits Only' July through September 2023

Site ID : 800-122 (Combined Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/10/2023	33.09	--	--	NG/L	0.00		
8260 TVOC	07/10/2023	4.15	--	--	UG/L	0.00		
1,4-Dioxane	07/10/2023	0.62	0.2	--	UG/L	0.00		
Carbon tetrachloride	07/10/2023	0.81	0.5	--	UG/L	0.00		
Chloroform	07/10/2023	0.64	0.5	--	UG/L	0.00		
Fluorotelomer sulfonate 6:2 (6:2 FTS)	07/10/2023	2.5	7.18	--	NG/L	0.00	J	
Perfluorobutanesulfonate (PFBS)	07/10/2023	2.39	1.68	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	07/10/2023	3.11	7.55	--	NG/L	0.00	J	
Perfluoroheptanoic acid (PFHpA)	07/10/2023	2.27	1.89	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	07/10/2023	2.27	1.73	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	07/10/2023	6.49	1.89	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	07/10/2023	1.61	1.75	--	NG/L	0.00	J	
Perfluorooctanoic acid (PFOA)	07/10/2023	3.3	1.89	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	07/10/2023	9.15	1.89	--	NG/L	0.00		
Trichloroethylene	07/10/2023	2.7	0.5	--	UG/L	0.00		
8260 TVOC	08/03/2023	3.98	--	--	UG/L	0.00		
Carbon tetrachloride	08/03/2023	0.91	0.5	--	UG/L	0.00		
Chloroform	08/03/2023	0.77	0.5	--	UG/L	0.00		
Trichloroethylene	08/03/2023	2.3	0.5	--	UG/L	0.00		
8260 TVOC	09/06/2023	3.45	--	--	UG/L	0.00		
Carbon tetrachloride	09/06/2023	0.73	0.5	--	UG/L	0.00		
Chloroform	09/06/2023	0.72	0.5	--	UG/L	0.00		
Trichloroethylene	09/06/2023	2	0.5	--	UG/L	0.00		

Table 16-6
OU III LIPA/Airport Effluent Data
'Hits Only' July through September 2023

Site ID : 800-124 (System Effluent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/10/2023	4.67	--	--	NG/L	0.00		
8260 TVOC	07/10/2023	0.51	--	--	UG/L	0.00		
1,4-Dioxane	07/10/2023	1.3	1	--	UG/L	0.00	D	
Chloroform	07/10/2023	0.51	0.5	--	UG/L	0.00		
Perfluorobutyric acid (PFBA)	07/10/2023	4.67	7.24	--	NG/L	0.00	J	
8260 TVOC	08/03/2023	0.74	--	--	UG/L	0.00		
Chloroform	08/03/2023	0.74	0.5	--	UG/L	0.00		
8260 TVOC	09/06/2023	0.86	--	--	UG/L	0.00		
Chloroform	09/06/2023	0.86	0.5	--	UG/L	0.00		

Qualifiers :
D = Compound was identified in an analysis at a secondary dilution factor.
E = Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
J = Estimated value.
N2 = Not usable based on the results that are not distinguishable from background. The value is less than or equal to the sum of the MDA and the uncertainty or RDL.
U = Compound not detected.

Organic Compounds :
B = Compound was found in both the sample And associated laboratory blank.

Inorganic Compounds :
B = Result Is between instrument detection limit And contract required reporting limit.

OU III Strontium-90 BGRR/WCF Pump & Treat System

Process: Groundwater extraction with liquid phase granular activated carbon (GAC) treatment for volatile organic compounds (VOCs), followed by clinoptilolite zeolite resin treatment for the removal of strontium-90 (Sr-90), with discharge to dry wells.

Goal: Reach Maximum Contaminant Levels (MCLs) in core monitoring wells within 70 years for the Upper Glacial aquifer (by 2070).

Start Date: June 2005

Table 17-1
Pumping Rates (gpm)

Extraction Well	SR-1	SR-2	SR-3*	SR-4*	SR-5*	SR-6*	SR-7*	SR-8*	SR-9*
Site Id #	065-368	065-369	075-676	075-677	075-678	065-403	075-702	075-703	075-704
Screen Interval (ft bls)	33-53	33.5-53.5	51-71	35-75	35-75	85-105	82-102	77-97	67-87
Desired Flow Rate (gpm)	**5**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
July (Avg gpm)	7.8	5.4	0	0	0	0	0	0	0
August "	2.3	2.3	0	0	0	0	0	0	0
September "	1	1	0	0	0	0	0	0	0
Actual (Avg. over Qtr.)	**5.4**	**5.4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

*Wells SR-4 and SR-5 were placed in standby mode in September 2016. Well SR-6 was placed in standby mode in October 2017. Wells SR-3 and SR-7 were placed in standby mode in October 2018. Well SR-8 was placed in pulsed pumping mode in October 2018. Well SR-3 was put back in operation in February 2019. Well SR-3 and SR-8 were put in standby mode in May 2022. Well SR-9 was placed in pulsed pumping mode in May 2022. Well SR-9 was put in standby mode in May 2023.

OU III Strontium-90 BGRR/WCF Pump & Treat System

Figure 17-1
Cumulative Millicuries Removed

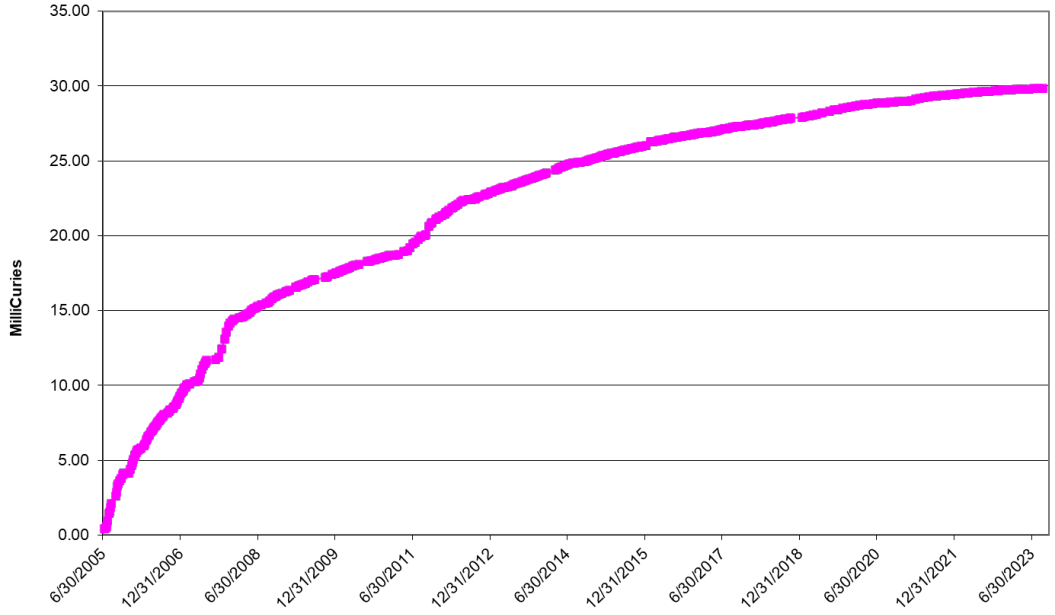
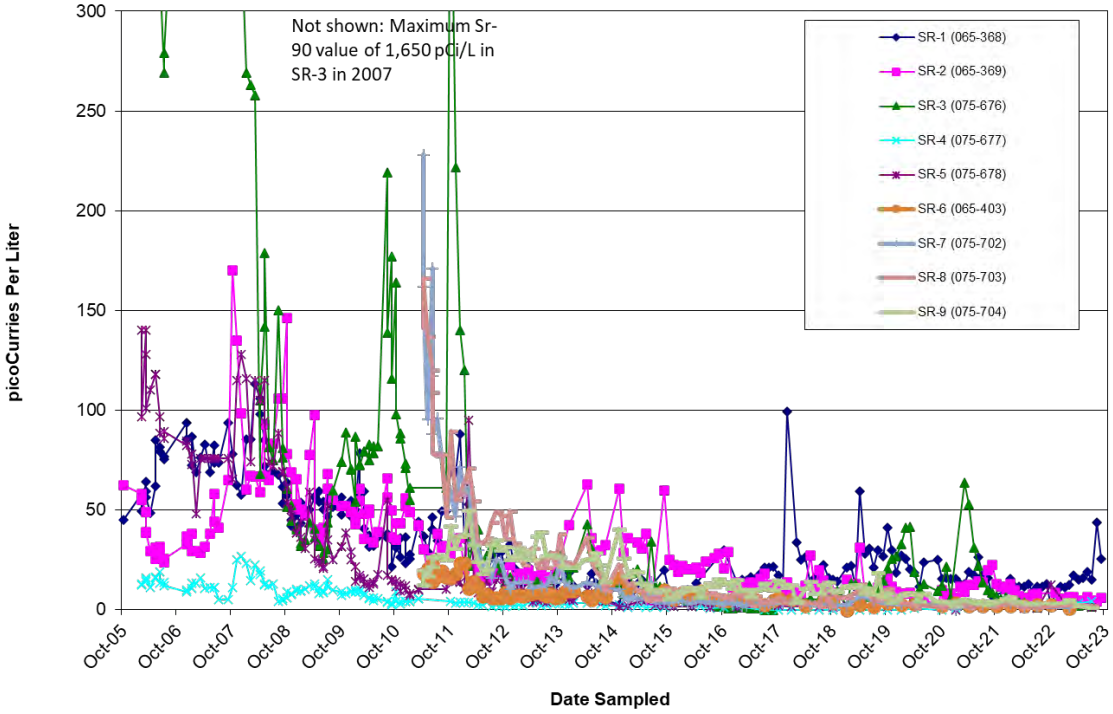


Figure 17-2
Extraction Well Sr-90 Concentrations vs. Time



OU III Strontium-90 BGRR/WCF Pump & Treat System

Table 17-2
SPDES Equivalency Permit Concentrations July 1 through September 30, 2023

Parameter	Permit Limit	Max. Measured Value	Units	Frequency
Flow	**75**	**13**	**GPM**	**Continuous**
pH (range)	**5.5 – 8.5**	**5.9– 6.9***	**SU**	**Weekly**
Strontium-90	**8.0**	**<0.66**	**PCi/L**	**Monthly[1]**
Chloroform	**7.0**	**0.66J**	**µg/L**	**Monthly[1]**
1,1-Dichloroethane	**5.0**	**<0.5**	**µg/L**	**Monthly[1]**
Ethylbenzene	**5.0**	**<0.5**	**µg/L**	**Monthly[1]**
Methyl Chloride	**5.0**	**<0.5**	**µg/L**	**Monthly[1]**
Methylene Chloride	**5.0**	**<0.5**	**µg/L**	**Monthly[1]**
Toluene	**5.0**	**<0.5**	**µg/L**	**Monthly[1]**
1,2,3-Trichlorobenzene	**5.0**	**<0.5**	**µg/L**	**Monthly[1]**
1,1,1-Trichloroethane	**5.0**	**0.66J**	**µg/L**	**Monthly[1]**
1,2,4-Trimethylbenzene	**5.0**	**<0.5**	**µg/L**	**Monthly[1]**
Xylene, total	**10.0**	**<0.5**	**µg/L**	**Monthly[1]**
Dibromochloromethane	**5.0**	**<0.5**	**µg/L**	**Monthly[1]**
Cis-1,2 Dichloroethene	**5.0**	**<0.5**	**µg/L**	**Monthly[1]**
Trans-1,2- dichloroethene	**10.0**	**<0.5**	**µg/L**	**Monthly[1]**

[1] The minimum measurement frequency shall be monthly following a period of 24 consecutive weekly sampling events showing no exceedances of the stated discharge limitations.
* Minimum to maximum value for pH during this operational period.
J = Estimated value.
< = The analyte was not detected above the Method Detection Limit.

OU III Strontium-90 BGRR/WCF Pump & Treat System

Monitoring Activities

The third quarter 2023 monitoring results reported the highest concentration of Sr-90 in monitoring well 075-701, at 3.1 pCi/L. The OU III BGRR/WCF monitoring well network is shown on **Figure 17-3**. The 'Hits Only' third quarter 2023 data are summarized in **Table 17-3**.

Two temporary vertical profiles (BGRR-GP-173 and BGRR-GP-174) were installed in September 2023 proximate to monitoring well 085-402, south of Building 725, to monitor the high Sr-90 concentration segment of pile fan sump plume migrating beneath this building. GP-173 was installed immediately south of 085-402 to a final depth of 138 feet below land surface (bls), and GP-174 was installed approximately 75-feet to the east, to a final depth of 126 feet bls. The temporary well locations are shown on **Figure 17-3.**

The analytical results reported the highest concentrations of Sr-90 in GP-173, at depths of 122 feet (8.9 pCi/L) and 126 feet (9.5 pCi/L) bls. Above this zone, from 78 feet bls to 118 feet bls, the concentration ranged from 0.5 pCi/L to 3.5 pCi/L. Below this, the concentration of Sr-90 ranged from non-detect at 126 feet to 1.4 pCi/L at 138 feet bls. In GP-174, Sr-90 was generally not detect, except for two intervals. At 78 feet and 82 feet bls, Sr-90 was reported at a concentration of 2.2 pCi/L and 2.5 pCi/L, respectively. The analytical results are summarized in **Table 17-7**.

Based on the analytical results from the temporary vertical profile wells, a permanent monitoring well will be installed at the location of BGRR-GP-173 and screened at a depth of 120 feet to 130 feet bls.

System Operations

July 2023:

The system ran normally for the month with extraction wells SR-1 and SR-2 operating. The system treated approximately 0.6 million gallons of water.

August 2022:

The system was shut off August 7 due to high system pressure caused by an excessive overgrowth of vegetation in the dry wells. The system treated approximately 0.2 million gallons of water.

September 2023:

The dry wells were cleared of excessive vegetation and the system was re-started September 25. The system treated approximately 0.1 million gallons of water.

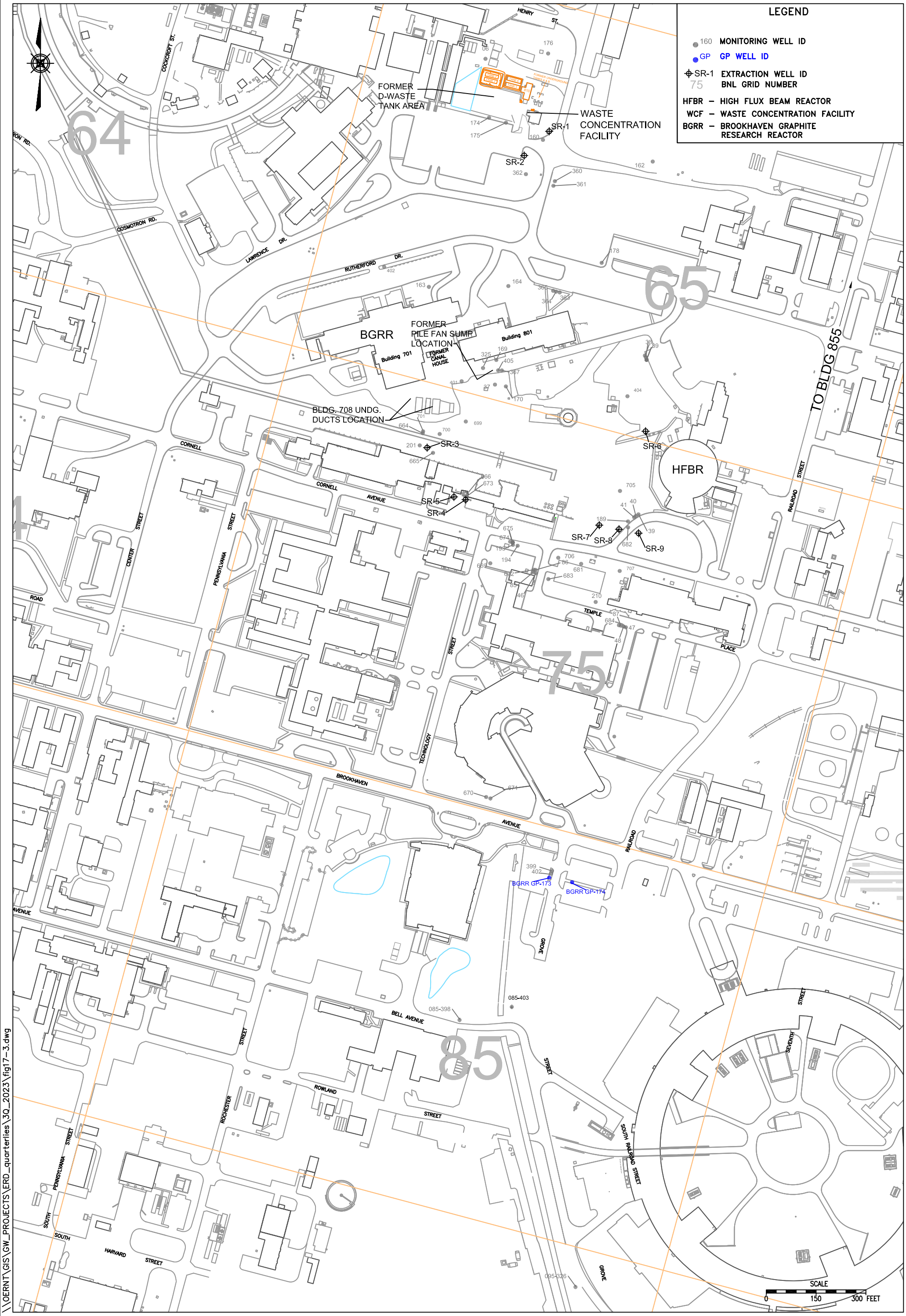
OU III Strontium-90 BGRR/WCF Pump & Treat System

Extraction wells SR-3 through SR-9 were off in stand-by mode for this quarter. The system treated approximately 0.9 million gallons of water during the third quarter of 2023.

The treatment system 'Hits Only' data, including individual extraction wells, influent, and effluent is summarized in **Table 17-4** through **Table 17-6**.

Planned Operational Changes

- Continue operating wells SR-1 and SR-2 in full time mode, and maintain wells SR-3, SR-4, SR-5, SR-6, SR-7, SR-8, and SR-9 in standby mode. If significant rebound occurs, place these extraction wells back in full time operation. Sr-90 concentrations in SR-4, SR-5, SR-6, and SR-7 have remained below the MCL since May 2016. Sr-90 concentrations in SR-8 have remained below the MCL since November 2019. The last Sr-90 detection above the MCL for SR-3 or 075-701 was in SR-3 in September 2021.
- Starting in 2024, begin sampling the new monitoring well south of Building 725 on a semi-annual basis during the second and fourth quarters for Sr-90.



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ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III BGRR/WCF

SITEWIDE REMEDIATION SYSTEMS THIRD QUARTER 2023 OPERATIONS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
JEB	–	03/15/13	
CHKD:	APPD:	REV.:	NOTES:
LDS	--	11/21/23	
FIGURE NO.:		17–3	

Table 17-3
OU III Strontium-90 BGRR/WCF Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 075-701

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	07/26/2023	3.05	0.986	0.667	PCI/L	63.17		

Site ID : 075-87

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/21/2023	36.02	--	--	NG/L	107.50		
Perfluorobutanesulfonate (PFBS)	07/21/2023	1.2	1.4	--	NG/L	107.50	J	
Perfluorobutyric acid (PFBA)	07/21/2023	4	5.7	--	NG/L	107.50	J	
Perfluorodecanoic acid (PFDA)	07/21/2023	0.42	1.4	--	NG/L	107.50	J	
Perfluoroheptanoic acid (PFHpA)	07/21/2023	1.2	1.4	--	NG/L	107.50	J	
Perfluorohexanesulfonate (PFHxS)	07/21/2023	4.9	1.4	--	NG/L	107.50		
Perfluorohexanoic acid (PFHxA)	07/21/2023	3.5	1.4	--	NG/L	107.50		
Perfluorononanoic acid (PFNA)	07/21/2023	1.6	1.4	--	NG/L	107.50		
Perfluorooctanesulfonate (PFOS)	07/21/2023	9	1.4	--	NG/L	107.50		
Perfluorooctanoic acid (PFOA)	07/21/2023	6.5	1.4	--	NG/L	107.50		
Perfluoropentanoic acid (PFPeA)	07/21/2023	2.1	2.9	--	NG/L	107.50	J	
Perfluoroundecanoic acid (PFUdA)	07/21/2023	1.6	1.4	--	NG/L	107.50		

Table 17-4
OU III Strontium-90 BGRR/WCF Extraction Well Data
'Hits Only' July through September 2023

Site ID : 065-368 (SR-1)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	07/14/2023	14.9	0.329	0.592	PCI/L	0.00		
Strontium-90	08/15/2023	43.5	0.261	0.874	PCI/L	0.00		
Strontium-90	09/20/2023	25.6	0.458	0.75	PCI/L	0.00		

Site ID : 065-369 (SR-2)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	07/14/2023	4.77	0.747	0.875	PCI/L	0.00		
Strontium-90	08/15/2023	3.96	0.342	0.349	PCI/L	0.00		
Strontium-90	09/20/2023	5.75	0.538	0.484	PCI/L	0.00		

Site ID : 065-403 (SR-6)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	09/20/2023	23.042	--	--	NG/L	95.00		
Perfluorobutanesulfonate (PFBS)	09/20/2023	0.934	1.7	--	NG/L	95.00	J	
Perfluorobutyric acid (PFBA)	09/20/2023	4.8	7.65	--	NG/L	95.00	J	
Perfluoroheptanoic acid (PFHpA)	09/20/2023	1.31	1.91	--	NG/L	95.00	J	
Perfluorohexanesulfonate (PFHxS)	09/20/2023	1.88	1.75	--	NG/L	95.00		
Perfluorohexanoic acid (PFHxA)	09/20/2023	1.42	1.91	--	NG/L	95.00	J	
Perfluorononanoic acid (PFNA)	09/20/2023	0.858	1.91	--	NG/L	95.00	J	
Perfluorooctanesulfonate (PFOS)	09/20/2023	6.28	1.78	--	NG/L	95.00		
Perfluorooctanoic acid (PFOA)	09/20/2023	3.84	1.91	--	NG/L	95.00		
Perfluoropentanoic acid (PFPeA)	09/20/2023	1.72	1.91	--	NG/L	95.00	J	

Site ID : 075-676 (SR-3)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	07/14/2023	1.35	0.78	0.597	PCI/L	0.00		N2

Site ID : 075-677 (SR-4)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	07/14/2023	3.98	0.783	0.752	PCI/L	0.00		

Site ID : 075-678 (SR-5)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	07/14/2023	1.11	0.766	0.529	PCI/L	0.00		N2

Site ID : 075-702 (SR-7)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	09/20/2023	29.937	--	--	NG/L	92.00		
Perfluorobutanesulfonate (PFBS)	09/20/2023	0.983	1.64	--	NG/L	92.00	J	

Table 17-4
OU III Strontium-90 BGRR/WCF Extraction Well Data
'Hits Only' July through September 2023

Site ID : 075-702 (SR-7)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorobutyric acid (PFBA)	09/20/2023	6.42	7.41	--	NG/L	92.00	J	
Perfluoroheptanoic acid (PFHpA)	09/20/2023	1.35	1.85	--	NG/L	92.00	J	
Perfluorohexanesulfonate (PFHxS)	09/20/2023	3.17	1.69	--	NG/L	92.00		
Perfluorohexanoic acid (PFHxA)	09/20/2023	3.1	1.85	--	NG/L	92.00		
Perfluorononanoic acid (PFNA)	09/20/2023	0.915	1.85	--	NG/L	92.00	J	
Perfluorooctanesulfonate (PFOS)	09/20/2023	7.33	1.72	--	NG/L	92.00		
Perfluorooctanoic acid (PFOA)	09/20/2023	4.17	1.85	--	NG/L	92.00		
Perfluoropentanesulfonate (PFPeS)	09/20/2023	0.599	1.74	--	NG/L	92.00	J	
Perfluoropentanoic acid (PFPeA)	09/20/2023	1.9	1.85	--	NG/L	92.00		

Site ID : 075-703 (SR-8)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	07/14/2023	1.92	0.748	0.645	PCI/L	0.00		

Site ID : 075-704 (SR-9)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	07/14/2023	1.05	0.765	0.541	PCI/L	0.00		N2

Table 17-5
OU III Strontium-90 BGRR/WCF Influent Data
'Hits Only' July through September 2023

Site ID : 066-216 (Combined Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/14/2023	1.06	--	--	UG/L	0.00		
1,1,1-Trichloroethane	07/14/2023	0.44	0.5	--	UG/L	0.00	J	
Chloroform	07/14/2023	0.62	0.5	--	UG/L	0.00	J	
Strontium-90	07/14/2023	8.88	1.02	0.783	PCI/L	0.00		
8260 TVOC	08/15/2023	0	--	--	UG/L	0.00		
Strontium-90	08/15/2023	9.82	1.03	0.826	PCI/L	0.00		
8260 TVOC	09/20/2023	0	--	--	UG/L	0.00		
Strontium-90	09/20/2023	5.59	0.583	0.536	PCI/L	0.00		

Table 17-6
OU III Strontium-90 BGRR/WCF Effluent Data
'Hits Only' July through September 2023

Site ID : 066-219 (System Effluent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/14/2023	1.49	--	--	UG/L	0.00		
1,1,1-Trichloroethane	07/14/2023	0.52	0.5	--	UG/L	0.00	J	
Chloroform	07/14/2023	0.52	0.5	--	UG/L	0.00	J	
Ethene, 1,2-dichloro-, (E)-	07/14/2023	0.45	0.5	--	UG/L	0.00	J	
Strontium-90	07/14/2023	0.403	0.527	0.318	PCI/L	0.00	U	
8260 TVOC	08/15/2023	1.99	--	--	UG/L	0.00		
1,1,1-Trichloroethane	08/15/2023	0.63	0.5	--	UG/L	0.00	J	
Chloroform	08/15/2023	0.66	0.5	--	UG/L	0.00	J	
Ethene, 1,2-dichloro-, (E)-	08/15/2023	0.7	0.5	--	UG/L	0.00	J	
Strontium-90	08/15/2023	0.102	0.344	0.201	PCI/L	0.00	U	
8260 TVOC	09/20/2023	1.76	--	--	UG/L	0.00		
1,1,1-Trichloroethane	09/20/2023	0.66	0.5	--	UG/L	0.00	J	
Chloroform	09/20/2023	0.6	0.5	--	UG/L	0.00	J	
Ethene, 1,2-dichloro-, (E)-	09/20/2023	0.5	0.5	--	UG/L	0.00	J	
Strontium-90	09/20/2023	-0.411	0.658	0.363	PCI/L	0.00	U	

Qualifiers :
D = Compound was identified in an analysis at a secondary dilution factor.
E = Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
J = Estimated value.
N2 = Not usable based on the results that are not distinguishable from background. The value is less than or equal to the sum of the MDA and the uncertainty or RDL.
U = Compound not detected.

Organic Compounds :
B = Compound was found in both the sample And associated laboratory blank.

Inorganic Compounds :
B = Result Is between instrument detection limit And contract required reporting limit.

Table 17-7
OU III Strontium-90 BGRR/WCF Temporary Vertical Profile Well Data
September 2023

Site ID : BGRR-GP-173

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
Strontium-90	8/26/2023	0.69	0.697	0.459	PCI/L	78	U	W
Strontium-90	8/26/2023	1.63	0.772	0.554	PCI/L	82		W
Strontium-90	8/26/2023	0.505	0.765	0.47	PCI/L	86	U	W
Strontium-90	8/26/2023	1.73	0.697	0.554	PCI/L	90		W
Strontium-90	8/26/2023	2.38	0.751	0.645	PCI/L	94		W
Strontium-90	8/26/2023	1.87	0.777	0.676	PCI/L	98		W
Strontium-90	8/26/2023	1.57	0.768	0.575	PCI/L	102		W
Strontium-90	8/26/2023	2.96	0.709	0.701	PCI/L	106		W
Strontium-90	8/26/2023	3.46	0.684	0.691	PCI/L	110		W
Strontium-90	8/26/2023	3.39	0.683	0.716	PCI/L	114		W
Strontium-90	8/26/2023	2.22	0.754	0.676	PCI/L	118		W
Strontium-90	8/25/2023	8.91	0.774	1.06	PCI/L	122		W
Strontium-90	8/25/2023	9.45	0.772	1.1	PCI/L	126		W
Strontium-90	8/25/2023	0.257	0.682	0.393	PCI/L	130	U	W
Strontium-90	8/25/2023	1.03	0.533	0.42	PCI/L	134		W
Strontium-90	8/25/2023	1.35	0.676	0.549	PCI/L	138		W

Site ID : BGRR-GP-174

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
Strontium-90	8/31/2023	2.21	0.775	0.678	PCI/L	78		W
Strontium-90	8/31/2023	2.5	0.704	0.653	PCI/L	82		W
Strontium-90	8/31/2023	0.0318	0.517	0.299	PCI/L	86	U	W
Strontium-90	8/31/2023	0.378	0.428	0.26	PCI/L	90	U	W
Strontium-90	8/30/2023	-0.199	0.655	0.373	PCI/L	94	U	W
Strontium-90	8/30/2023	-1.53	1.25	0.687	PCI/L	98	U-DL	W
Strontium-90	8/30/2023	-0.0905	0.659	0.373	PCI/L	102	U	W
Strontium-90	8/30/2023	0.0927	0.631	0.334	PCI/L	106	U	W
Strontium-90	8/30/2023	0.283	0.62	0.367	PCI/L	110	U	W
Strontium-90	8/30/2023	0.0508	0.554	0.323	PCI/L	114	U	W
Strontium-90	8/30/2023	-0.0467	0.408	0.231	PCI/L	118	U	W
Strontium-90	8/30/2023	0.253	0.444	0.265	PCI/L	122	U	W
Strontium-90	8/30/2023	-0.588	0.729	0.406	PCI/L	126	U	W

Qualifiers:
U - Compound not detected.
DL - Detection limit requirements not met. Data quality objectives may not be met.

g-2 Source Area & Tritium Plume Monitoring Summary

Background

In November 1999, tritium was detected in the groundwater near the g-2 experiment at concentrations above the 20,000 pCi/L maximum contaminant level (MCL). Sodium-22 was also detected in the groundwater, but at concentrations well below the 400 pCi/L MCL. An investigation into the source of the contamination revealed that the tritium and sodium-22 originated from activated soil shielding located adjacent to the g-2 target building. Rainwater was able to infiltrate the activated soils and carry tritium and sodium-22 into the groundwater. To prevent additional rainwater infiltration into the activated soil shielding, a concrete cap was constructed over the soil shielding in December 1999.

Following the concurrence of the NYSDEC, a Record of Decision (ROD) was signed by the U.S. DOE and U.S. EPA in early 2007. This ROD requires continued routine inspection and maintenance of the impermeable cap, groundwater monitoring of the source area to verify the continued effectiveness of the storm water controls and monitoring the tritium plume until it attenuates to less than the 20,000 pCi/L MCL.

Monitoring Activities

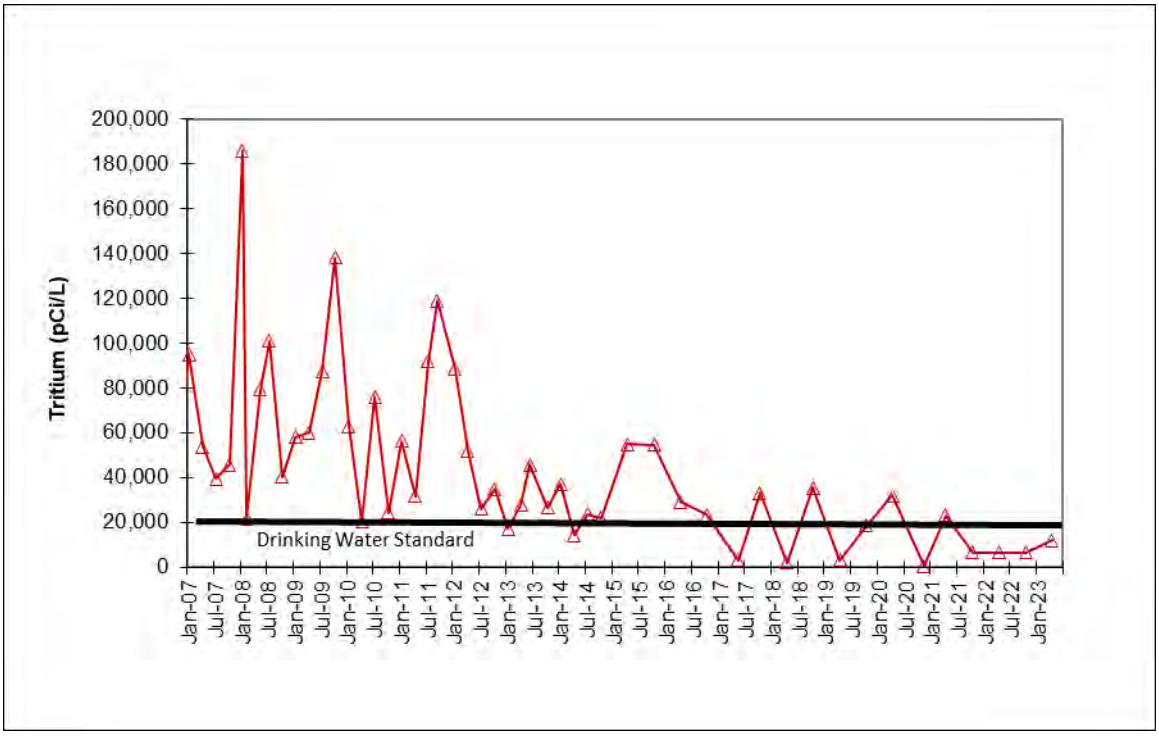
Surveillance of groundwater quality is accomplished using six wells located immediately downgradient of the source area, and 10 wells located further downgradient, southeast of AGS facility Building 912. The monitoring frequency for the six wells located immediately downgradient of the source area wells is semi-annual, with samples collected during the 2nd and 4th quarters of the year. The 10 wells located downgradient of Building 912 are sampled during the 4th quarter.

Source Area Monitoring Results

The g-2 source area monitoring wells were not scheduled to be sampled during the 3rd Quarter of 2023. During the 2nd Quarter 2023 sampling period, the maximum tritium concentration in source area monitoring wells was 11,900 pCi/L in well 054-07 (Figure 18-1). The overall reductions in tritium concentrations observed in source area monitoring wells indicate that the cap is effectively preventing rainwater infiltration into the activated soil shielding and the amount of residual tritium that is available to be flushed out of the deep vadose zone is decreasing.

g-2 Source Area & Tritium Plume Monitoring Summary

Figure 18-1
Maximum Tritium Concentrations – January 2007 through April 2023



Maximum tritium concentrations observed from January 2007 through April 2023 in groundwater downgradient of the g-2 source area.

Recommendations

- Continue to sample the six monitoring wells directly downgradient of the source area (near Building 912A) semiannually (2nd and 4th Quarters), and the 10 wells located near Building 912 annually (4th Quarter).
- Continue scheduled inspections and perform required maintenance of the g-2 cap.
- Monitoring results will be communicated to the regulatory agencies via quarterly and annual reports.

BLIP Source Area Monitoring Summary

Background

The Brookhaven Linac Isotope Producer (BLIP) is an active accelerator facility located in the central portion of the site. The BLIP facility has been in operation since 1972 and is a national resource for producing the radioisotopes that are crucial in nuclear medicine for both research and clinical use. BLIP also supports BNL's research on diagnostic and therapeutic radiopharmaceuticals.

Beam line operations have resulted in the activation of soils that surround the BLIP target vessel. These activated soils are approximately 30 feet below the BLIP building, in a small zone surrounding the target vessel. In 1998, low levels of tritium were detected in the groundwater near the BLIP facility experiment at concentrations of approximately three times the 20,000 pCi/L MCL. Sodium-22 was also detected in the groundwater, but the levels were less than the 400 pCi/L MCL. Corrective actions were implemented in 1998 to prevent additional rainwater from entering the activated soil. These included repairing and reconfiguring the building's roof gutters and downspouts, resealing the paved areas south of the building, and installing a concrete cap in the remaining areas around the building. In 2000, a colloidal silica grout was injected into the activated soil to further immobilize the tritium and sodium-22, and in 2004 an additional impermeable cap was constructed over the beam line that runs from the Linac to the BLIP facility. During 2015, this cap section was extended in several areas to provide protection of soil shielding that was expected to become activated following a change in beamline operations.

Following the concurrence of the NYSDEC, a Record of Decision (ROD) was signed by the U.S. DOE and U.S. EPA in early 2007. This ROD requires continued routine inspection and maintenance of the impermeable cap and groundwater monitoring to verify the continued effectiveness of the storm water controls.

Monitoring Activities

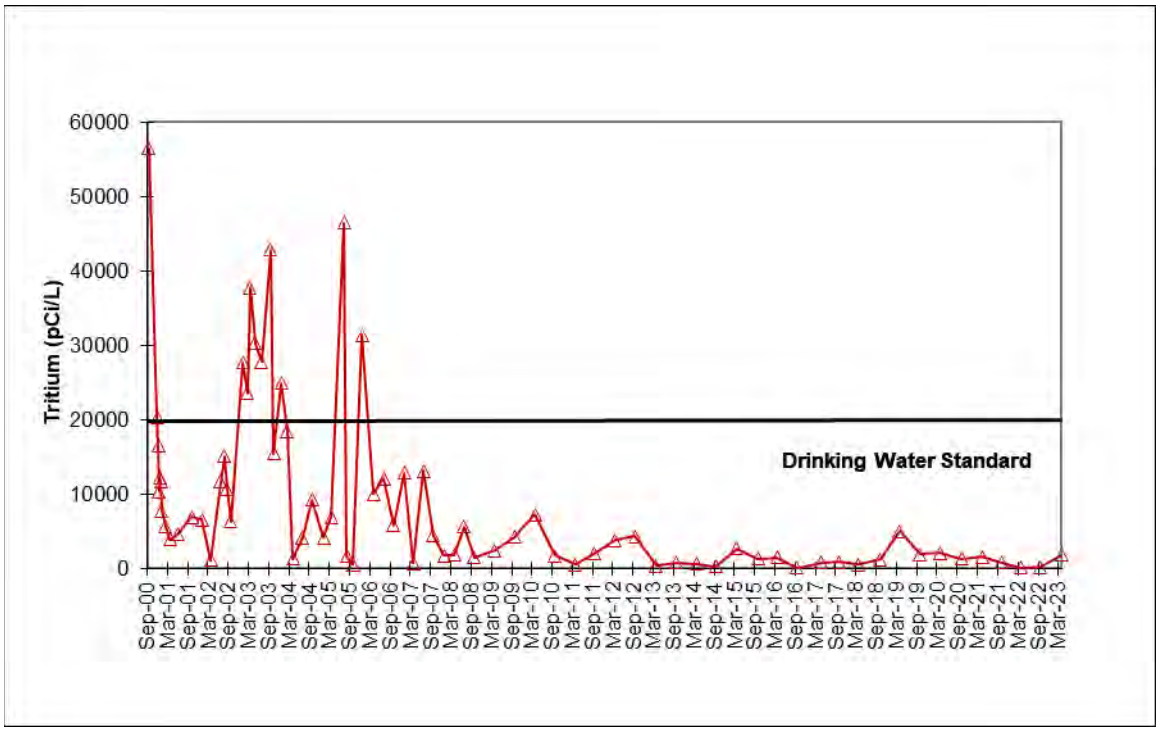
Three groundwater monitoring wells are positioned immediately downgradient of the BLIP facility. The wells are currently monitored on a semi-annual basis (during the 2nd and 4th Quarters).

Monitoring Results

The BLIP monitoring wells were not scheduled to be sampled during the 3rd Quarter of 2023. During the 2nd Quarter 2023 sample period, tritium was detected in downgradient well 064-67 at a concentration of 1,890 pCi/L. Since early 2006, tritium concentrations in the groundwater downgradient of BLIP have been continually less than the 20,000 pCi/L MCL (Figure 19-1). The overall reductions in tritium concentrations observed in the source area wells since 2006 indicate that the cap is effectively preventing rainwater

infiltration into the activated soil shielding and the amount of residual tritium that is available to be flushed out of the deep vadose zone is decreasing.

Figure 19-1
Maximum Tritium Concentrations – September 2000 through April 2023



Maximum tritium concentrations observed from September 2000 through April 2023 in groundwater immediately downgradient of the BLIP Facility.

Recommendations

- Continue monitoring the three wells immediately downgradient of BLIP for tritium on a semiannual basis (2nd and 4th Quarters).
- Continue scheduled inspections and perform required maintenance of the BLIP cap.
- Monitoring results will continue to be communicated to the regulatory agencies via quarterly and annual reports.

OU III Building 452 Freon-11 Pump & Treat System (System Closed)

Process: Groundwater extraction and air stripping treatment, with discharge to a drainage channel leading to Recharge Basin HS.

Goal: Remediation of Freon-11 in the groundwater and reach Maximum Contaminant Levels (MCLs) in core monitoring wells within 30 years for the Upper Glacial aquifer (by 2030). NYSDEC and EPA approved the Petition for Closure in August and September 2019, respectively.

Start Date: March 2012

Table 20-1
Pumping Rate (gpm)

Extraction Well	EW-18
Site Id #	095-316
Screened Interval (feet below grade)	55-65
Desired Flow Rate (GPM)	0*
Actual Flow Rate	0*

* The system was approved for closure in September 2019.

OU III Building 452 Freon-11 Pump & Treat System (System Closed)

Figure 20-1
Cumulative Mass Removal of Trichlorofluoromethane vs. Time

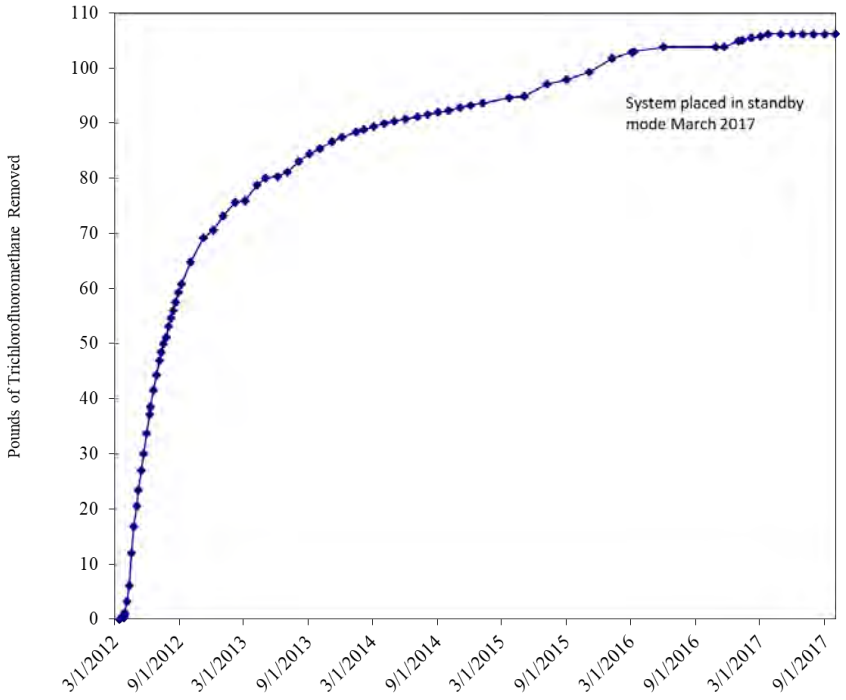
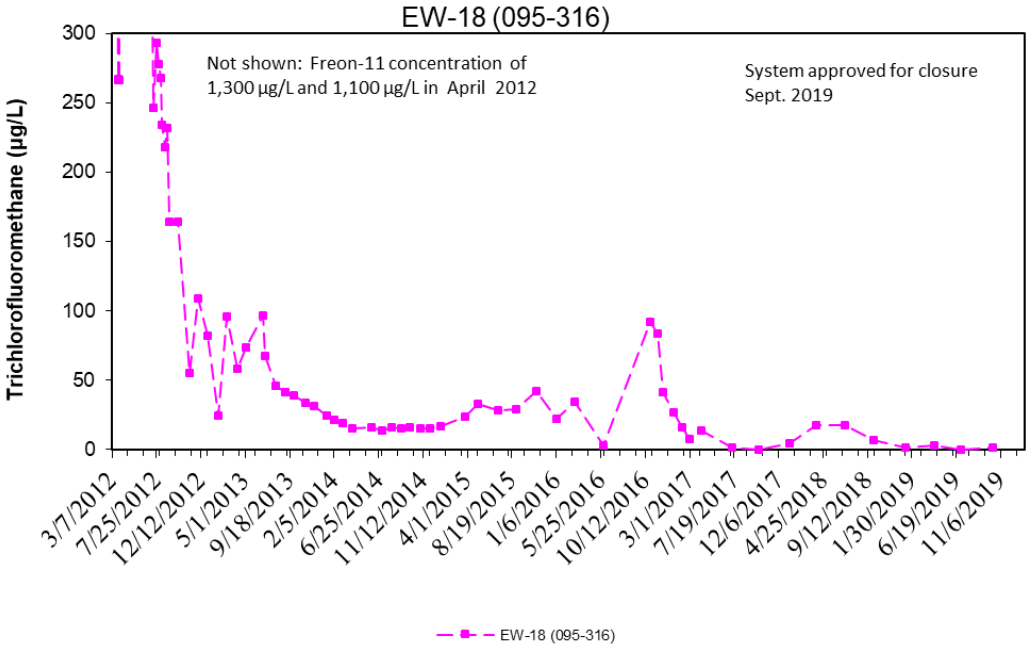


Figure 20-2
Influent Trichlorofluoromethane Concentration vs. Time



OU III Building 452 Freon-11 Pump & Treat System (System Closed)

Table 20-2
Effluent Water Quality
SPDES Equivalency Permit Concentrations (System Closed)

Parameter	Permit Limit	Max. Measured Value	Units	Frequency*
Flow	**120**	**NA**	**GPM**	**Continuous**
pH (range)	**5.0 - 8.5**	**NA**	**SU**	**Weekly**
Benzene	**1.0**	**NA**	**µg/L**	**Monthly**
Bromodichloromethane	**50**	**NA**	**µg/L**	**Monthly**
Carbon Tetrachloride	**5.0**	**NA**	**µg/L**	**Monthly**
Chloroform	**7.0**	**NA**	**µg/L**	**Monthly**
Dichlorodifluoromethane	**5.0**	**NA**	**µg/L**	**Monthly**
1,1-Dichloroethylene	**5.0**	**NA**	**µg/L**	**Monthly**
4-Isopropyltoluene	**5.0**	**NA**	**µg/L**	**Monthly**
Methyl Chloride	**5.0**	**NA**	**µg/L**	**Monthly**
Methylene Chloride	**5.0**	**NA**	**µg/L**	**Monthly**
Tetrachloroethylene	**5.0**	**NA**	**µg/L**	**Monthly**
Toluene	**5.0**	**NA**	**µg/L**	**Monthly**
1,2,3-Trichlorobenzene	**5.0**	**NA**	**µg/L**	**Monthly**
1,1,1-Trichloroethane	**5.0**	**NA**	**µg/L**	**Monthly**
Trichlorofluoromethane	**5.0**	**NA**	**µg/L**	**Monthly**
1,2,4-Trimethylbenzene	**5.0**	**NA**	**µg/L**	**Monthly**
Xylene (meta + para)	**10.0**	**NA**	**µg/L**	**Monthly**

NA = Not applicable. The system is closed.

OU III Building 452 Freon-11 Pump & Treat System (System Closed)

Monitoring Activities

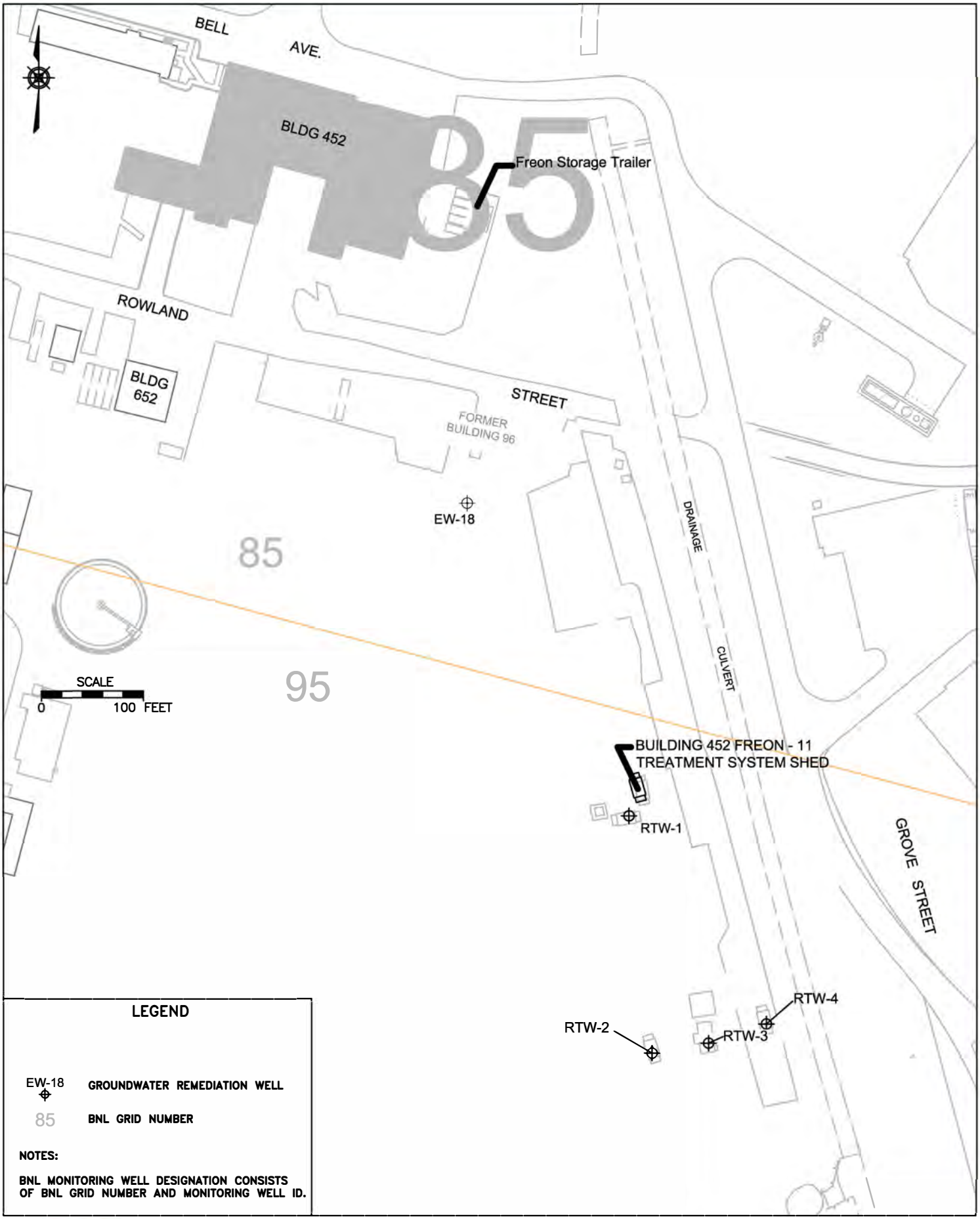
Monitoring was discontinued following the approval from regulators to close the treatment system. The former extraction well EW-18 and treatment building are shown on **Figure 20-3.**

System Operations

Treatment of the former Freon-11 plume is complete. The air stripping treatment system is being used to treat groundwater from the Building 96 extraction well RTW-1.

Planned Operational Changes

- Postpone decisions to abandon extraction well EW-18 and the remaining monitoring wells until PFAS has been fully characterized and a determination is made on their utilization related to emerging contaminants.



LEGEND

EW-18 — GROUNDWATER REMEDIATION WELL

85 — BNL GRID NUMBER

NOTES:

BNL MONITORING WELL DESIGNATION CONSISTS OF BNL GRID NUMBER AND MONITORING WELL ID.

R:\Gw_projects\ERD_Quarterlies\1Q_2023\Fig_20-3.dwg

ENVIRONMENTAL PROTECTION DIVISION

TITLE:

BUILDING 452 AREA FREON-11 MONITORING WELL NETWORK

SITEWIDE REMEDIATION SYSTEMS
SECOND QUARTER 2023 OPERATIONS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	08/24/12	
CHKD:	APPD:	REV.:	NOTES:
LDS	--	01/06/23	--

FIGURE NO.: 20-3

OU X Current Firehouse/Building 170 PFAS Pump & Treat System

Process: Groundwater extraction with liquid phase granular activated carbon (GAC) treatment for per- and polyfluoroalkyl substances (PFAS), with discharge to recharge basins.

Goal: Final cleanup goals will be determined following the completion of the forthcoming Remedial Investigation/Feasibility Study and documented in the future OU X Record of Decision (ROD).

Start Date: October 2022

Table 21-1
Pumping Rates (gpm)

Extraction Well	RW-A	RW-B	RW-C	RW-D	RW-E	RW-F	RW-G	RW-H	RW-I
Site Id #	073-34	073-35	083-45	083-46	084-102	102-32	102-33	102-34	102-35
Screen Interval (ft bls)	48-68	54-74	117-137	70-90	132-152	121-141	88-108	98-118	70-90
`Desired Flow Rate (gpm)	**50**	**50**	**60**	**30**	**60**	**50**	**50**	**40**	**90**
July (Avg gpm)	40	41	0	31	68	0	56	64	69
August " "	42	43	2	33	76	11	61	54	52
September " "	37	38	0	27	66	0	53	54	81
Actual (Avg. over Qtr.)	**41**	**41**	**1**	**30**	**70**	**0**	**57**	**57**	**68**

OU X Current Firehouse/Building 170 PFAS Pump & Treat System

Figure 21-1
Cumulative Pounds of PFAS Removed

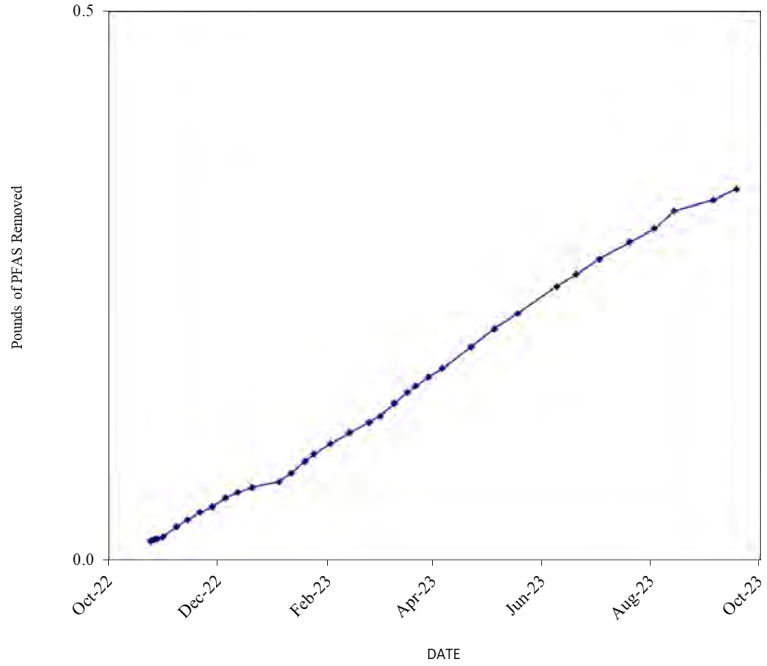
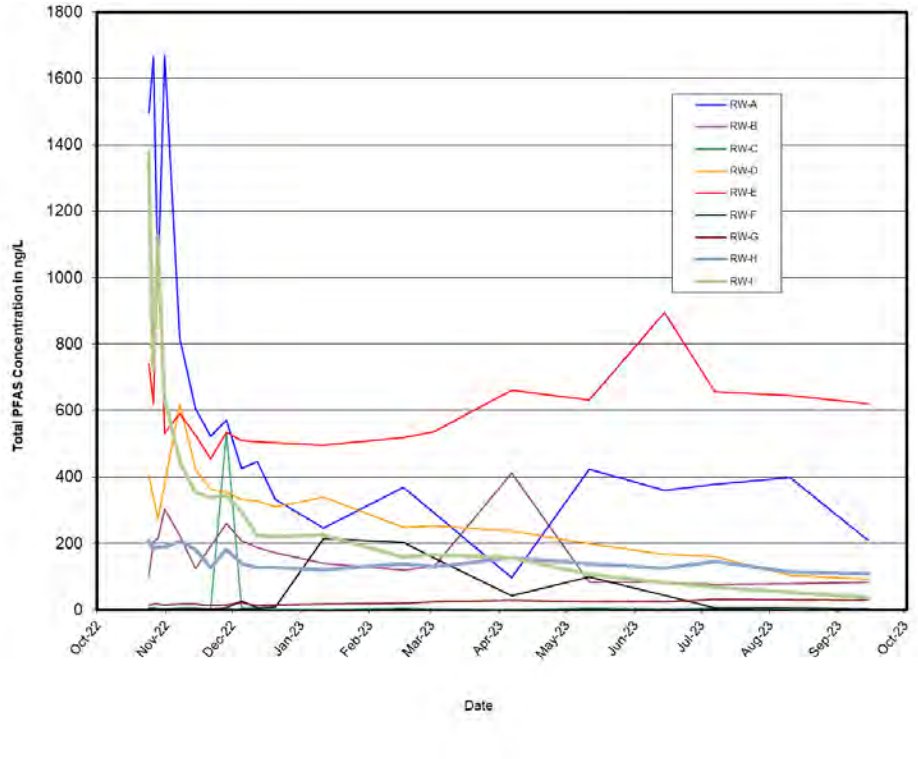


Figure 21-2
Extraction Well Total PFAS Concentration vs. Time



OU X Current Firehouse/Building 170 PFAS Pump & Treat System

Table 21-2
Effluent Water Quality
SPDES Equivalency Permit Concentrations July 1 through September 30, 2023

Parameter	Permit Limit	Max. Measured Value	Units	Frequency
Flow	**1000**	**373**	**GPM**	**Continuous**
pH (range)	**5.0 – 8.5**	**6.0– 6.3***	**SU**	**Monthly**
Carbon Tetrachloride	**5.0**	**<0.5**	**µg/L**	**Monthly[1]**
Perfluoroocanesulfonic acid (PFOS)	**2.7**	**<1.76**	**ng/L**	**Monthly[1]**
Perfluorooctanoic acid (PFOA)	**6.7**	**<1.76**	**ng/L**	**Monthly[1]**
1,4-Dioxane	**0.35**	**<0.21**	**µg/L**	**Monthly[1]**
Chloroform	**7.0**	**<0.5**	**µg/L**	**Monthly[1]**
Methyl Chloride	**5.0**	**<0.5**	**µg/L**	**Monthly[1]**
Methylene Chloride	**5.0**	**<0.5**	**µg/L**	**Monthly[1]**

[1] The minimum measurement frequency shall be monthly following a period of 8 consecutive weekly sampling events showing no exceedances of the stated discharge limitations. This was achieved in March 2023 and monthly sampling started in April 2023.
* Minimum to maximum value for pH during this operational period.
< = The analyte was not detected above the Method Detection Limit.

Monitoring Activities

The Current Firehouse/Building 170 monitoring well data show the highest total PFAS concentration (4,673.6 ng/L) in monitoring well 093-94, immediately downgradient of the Building 170 former training area. The highest total PFAS concentration recorded at the Current Firehouse was 3,241.9 ng/L in monitoring well 073-31. The Current Firehouse/Building 170 monitoring well network is shown on **Figure 21-3**. The 'Hits Only' second quarter 2023 data are summarized in **Table 21-3**.

OU X Current Firehouse/Building 170 PFAS Pump & Treat System

System Operations

July 2023:

Extraction well CF-RW-I was off from July 24 through August 14 with electrical issues. Extraction wells CF-RW-C and CF-RW-F were kept off due to fouling issues with the GAC vessels and low PFAS concentrations. The remaining extraction wells ran normally for the remainder of the month. The system treated approximately 16 million gallons of water.

August 2023:

Extraction well CF-RW-I was repaired and restarted on August 14. Extraction well CF-RW-C and CF-RW-F were kept off due to fouling issues with the GAC vessels and low PFAS concentrations. The system was backwashed on August 9 and re-started the same day. The system treated approximately 16 million gallons of water.

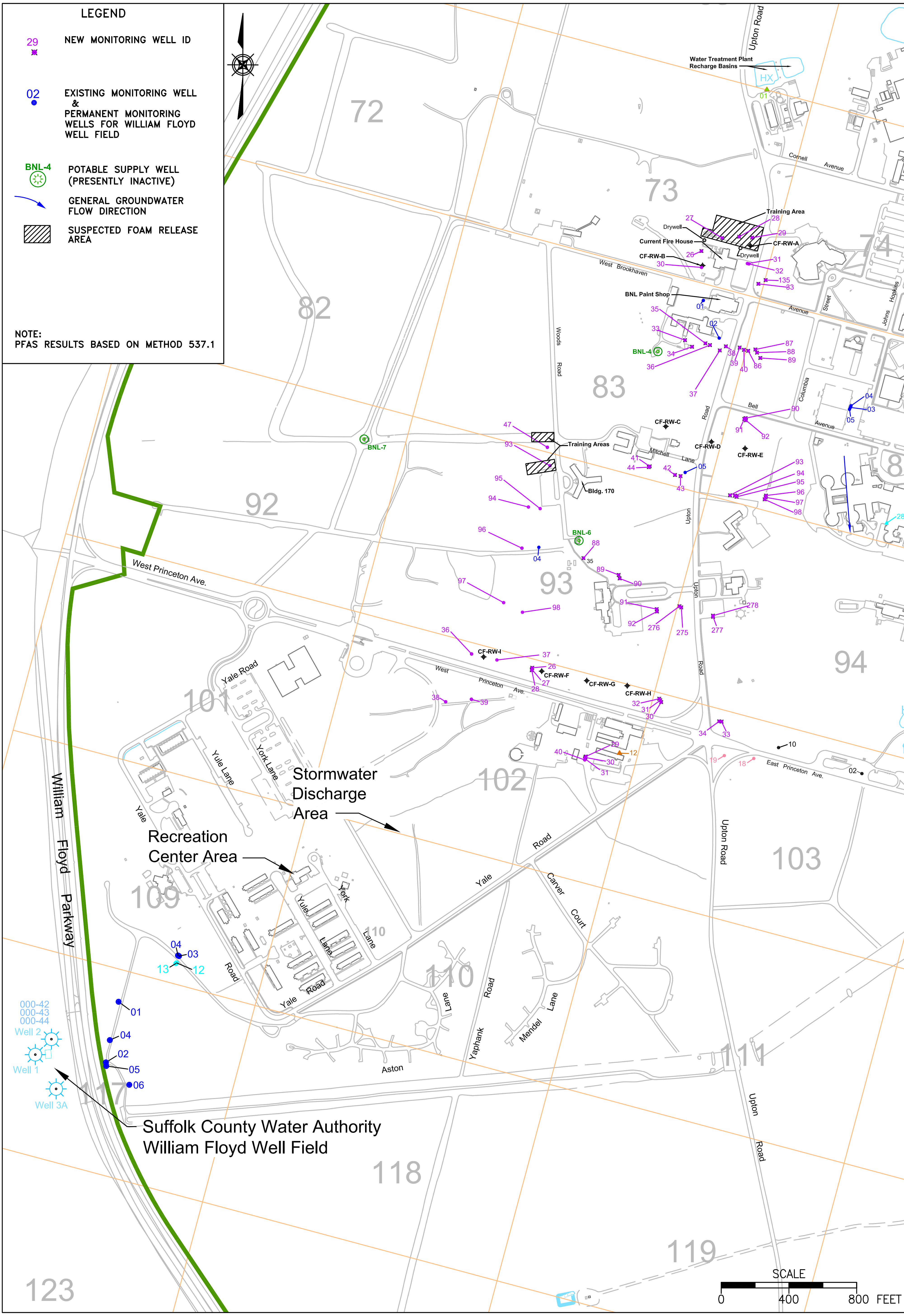
September 2023:

Extraction well's CF-RW-C and CF-RW-F was left off for the month due to fouling issues with the GAC vessels and low PFAS concentrations. The remainder of the wells ran normally for the month. The system treated approximately 15 million gallons of water.

The system treated approximately 47 million gallons of water during the third quarter of 2023. The treatment system 'Hits Only' data, including individual extraction wells, influent, and effluent is summarized in **Table 21-4** through **Table 21-6**.

Planned Operational Changes

- Maintain full time operation of the treatment system.
- As of June 16, 2023, discontinue monthly sampling for VOCs using EPA Method 8260LL on extraction wells CF-RW-A through CF-RW-I based on non-detect/low concentrations of VOCs in these wells. If elevated VOCs are observed in the monthly system influent sampling, the individual extraction wells may be sampled for VOCs in the future as appropriate.
- Starting in August 2023, the analytical method for treatment system PFAS was transitioned from EPA Method 537.1 to EPA Method 1633.


LEGEND
29
NEW MONITORING WELL ID
02
EXISTING MONITORING WELL & PERMANENT MONITORING WELLS FOR WILLIAM FLOYD WELL FIELD
BNL-4
POTABLE SUPPLY WELL (PRESENTLY INACTIVE)
GENERAL GROUNDWATER FLOW DIRECTION
SUSPECTED FOAM RELEASE AREA
NOTE:
PFAS RESULTS BASED ON METHOD 537.1
Water Treatment Plant Recharge Basins
Training Area
Drywell
Current Fire House
CF-RW-A
CF-RW-B
Drywell
BNL Paint Shop
BNL-4
BNL-6
BNL-7
Training Areas
Bldg. 170
CF-RW-C
CF-RW-D
CF-RW-E
CF-RW-F
CF-RW-G
CF-RW-H
CF-RW-I
West Brookhaven Avenue
Cornell Avenue
Bell Avenue
Mitchell Lane
Upton Road
Woods Road
Columbia
Johns Hopkins Street
West Princeton Ave.
East Princeton Ave.
Yale Road
Yule Lane
York Lane
Carver Court
Yaphank Road
Mendel Lane
Aston
William Floyd Parkway
Stormwater Discharge Area
Recreation Center Area
Suffolk County Water Authority William Floyd Well Field
Well 1
Well 2
Well 3A
000-42
000-43
000-44
SCALE
0
400
800 FEET

G: \GIS\Gw_projects\ERD_Quarterlies\3Q_2023\Fig 21-3.dwg

Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:
CURRENT FIREHOUSE AND BUILDING 170 MONITORING WELL NETWORK
SITEWIDE REMEDIATION SYSTEMS
THIRD QUARTER 2023 OPERATIONS REPORT

DWN: AJZ	VT: HZ.: –	DATE: 05/19/23	PROJECT NO.: –
CHKD: LDS	APPD:	REV.: 10/30/23	NOTES: –
FIGURE NO.: 21–3			

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 073-01

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/02/2023	13.613	--	--	NG/L	42.00		
Perfluorobutyric acid (PFBA)	08/02/2023	8.37	8.08	--	NG/L	42.00		
Perfluorohexanoic acid (PFHxA)	08/02/2023	0.693	2.02	--	NG/L	42.00	J	
Perfluorooctanesulfonate (PFOS)	08/02/2023	3.83	1.87	--	NG/L	42.00		
Perfluoropentanoic acid (PFPeA)	08/02/2023	0.72	2.02	--	NG/L	42.00	J	

Site ID : 073-26

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/17/2023	1266.26	--	--	NG/L	42.50		
Perfluorobutanesulfonate (PFBS)	08/17/2023	3	1.65	--	NG/L	42.50		
Perfluorobutyric acid (PFBA)	08/17/2023	5.94	7.46	--	NG/L	42.50	J	
Perfluoroheptanesulfonate (PFHpS)	08/17/2023	7.49	1.78	--	NG/L	42.50		
Perfluoroheptanoic acid (PFHpA)	08/17/2023	7.86	1.86	--	NG/L	42.50		
Perfluorohexanesulfonate (PFHxS)	08/17/2023	167	1.7	--	NG/L	42.50		
Perfluorohexanoic acid (PFHxA)	08/17/2023	16	1.86	--	NG/L	42.50		
Perfluorononanesulfonate (PFNS)	08/17/2023	0.61	1.79	--	NG/L	42.50	J	
Perfluorononanoic acid (PFNA)	08/17/2023	4.11	1.86	--	NG/L	42.50		
Perfluorooctanesulfonate (PFOS)	08/17/2023	1010	1.73	--	NG/L	42.50		
Perfluorooctanoic acid (PFOA)	08/17/2023	15.6	1.86	--	NG/L	42.50		
Perfluoropentanesulfonate (PFPeS)	08/17/2023	9.2	1.75	--	NG/L	42.50		
Perfluoropentanoic acid (PFPeA)	08/17/2023	8.35	1.86	--	NG/L	42.50		
Perfluoroundecanoic acid (PFUdA)	08/17/2023	11.1	1.86	--	NG/L	42.50		

Site ID : 073-27

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/17/2023	314.73	--	--	NG/L	42.50		
Perfluorobutanesulfonate (PFBS)	08/17/2023	4.34	1.67	--	NG/L	42.50		
Perfluorobutyric acid (PFBA)	08/17/2023	4.44	7.52	--	NG/L	42.50	J	
Perfluoroheptanesulfonate (PFHpS)	08/17/2023	2.84	1.79	--	NG/L	42.50		
Perfluoroheptanoic acid (PFHpA)	08/17/2023	1.39	1.88	--	NG/L	42.50	J	
Perfluorohexanesulfonate (PFHxS)	08/17/2023	48.1	1.72	--	NG/L	42.50		
Perfluorohexanoic acid (PFHxA)	08/17/2023	11.4	1.88	--	NG/L	42.50		
Perfluorooctanesulfonate (PFOS)	08/17/2023	228	1.74	--	NG/L	42.50		
Perfluorooctanoic acid (PFOA)	08/17/2023	3.65	1.88	--	NG/L	42.50		
Perfluoropentanesulfonate (PFPeS)	08/17/2023	8.41	1.77	--	NG/L	42.50		

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 073-27

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluoropentanoic acid (PFPeA)	08/17/2023	2.16	1.88	--	NG/L	42.50		

Site ID : 073-28

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/17/2023	490.65	--	--	NG/L	42.50		
Fluorotelomer sulfonate 6:2 (6:2 FTS)	08/17/2023	5.2	7.28	--	NG/L	42.50	J	
Perfluorobutanesulfonate (PFBS)	08/17/2023	8.39	1.7	--	NG/L	42.50		
Perfluorobutyric acid (PFBA)	08/17/2023	5.25	7.67	--	NG/L	42.50	J	
Perfluoroheptanesulfonate (PFHpS)	08/17/2023	6.09	1.83	--	NG/L	42.50		
Perfluoroheptanoic acid (PFHpA)	08/17/2023	10	1.92	--	NG/L	42.50		
Perfluorohexanesulfonate (PFHxS)	08/17/2023	119	1.75	--	NG/L	42.50		
Perfluorohexanoic acid (PFHxA)	08/17/2023	45	1.92	--	NG/L	42.50		
Perfluorooctanesulfonate (PFOS)	08/17/2023	233	1.78	--	NG/L	42.50		
Perfluorooctanoic acid (PFOA)	08/17/2023	9.42	1.92	--	NG/L	42.50		
Perfluoropentanesulfonate (PFPeS)	08/17/2023	30.6	1.8	--	NG/L	42.50		
Perfluoropentanoic acid (PFPeA)	08/17/2023	18.7	1.92	--	NG/L	42.50		

Site ID : 073-29

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/02/2023	5.906	--	--	NG/L	42.50		
Perfluorobutanesulfonate (PFBS)	08/02/2023	1.3	1.62	--	NG/L	42.50	J	
Perfluorohexanesulfonate (PFHxS)	08/02/2023	1.02	1.67	--	NG/L	42.50	J	
Perfluorohexanoic acid (PFHxA)	08/02/2023	1.21	1.82	--	NG/L	42.50	J	
Perfluorooctanesulfonate (PFOS)	08/02/2023	0.666	1.69	--	NG/L	42.50	J	
Perfluoropentanoic acid (PFPeA)	08/02/2023	1.71	1.82	--	NG/L	42.50	J	

Site ID : 073-30

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/04/2023	165.789	--	--	NG/L	42.50		
Perfluorobutanesulfonate (PFBS)	08/04/2023	3.43	1.72	--	NG/L	42.50		
Perfluoroheptanesulfonate (PFHpS)	08/04/2023	1.54	1.84	--	NG/L	42.50	J	
Perfluoroheptanoic acid (PFHpA)	08/04/2023	0.995	1.93	--	NG/L	42.50	J	
Perfluorohexanesulfonate (PFHxS)	08/04/2023	6.44	1.77	--	NG/L	42.50		
Perfluorohexanoic acid (PFHxA)	08/04/2023	1.64	1.93	--	NG/L	42.50	J	
Perfluorooctanesulfonate (PFOS)	08/04/2023	148	1.8	--	NG/L	42.50		
Perfluorooctanoic acid (PFOA)	08/04/2023	2.76	1.93	--	NG/L	42.50		

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 073-30

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluoropentanoic acid (PFPeA)	08/04/2023	0.984	1.93	--	NG/L	42.50	J	

Site ID : 073-31

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/02/2023	3241.85	--	--	NG/L	42.50		
Fluorotelomer sulfonate 6:2 (6:2 FTS)	08/02/2023	6.12	15.2	--	NG/L	42.50	J	
Perfluorobutanesulfonate (PFBS)	08/02/2023	40.5	3.55	--	NG/L	42.50		
Perfluorobutyric acid (PFBA)	08/02/2023	20.8	16	--	NG/L	42.50		
Perfluorodecanoic acid (PFDA)	08/02/2023	2.17	4	--	NG/L	42.50	J	
Perfluoroheptanesulfonate (PFHpS)	08/02/2023	17.6	3.81	--	NG/L	42.50		
Perfluoroheptanoic acid (PFHpA)	08/02/2023	42.1	4	--	NG/L	42.50		
Perfluorohexanesulfonate (PFHxS)	08/02/2023	1000	36.6	--	NG/L	42.50	D	
Perfluorohexanoic acid (PFHxA)	08/02/2023	90	4	--	NG/L	42.50		
Perfluorononanesulfonate (PFNS)	08/02/2023	1.48	3.85	--	NG/L	42.50	J	
Perfluorononanoic acid (PFNA)	08/02/2023	2.2	4	--	NG/L	42.50	J	
Perfluorooctane sulfonamide (PFOSAm)	08/02/2023	8.38	4	--	NG/L	42.50		
Perfluorooctanesulfonate (PFOS)	08/02/2023	1840	37.1	--	NG/L	42.50	D	
Perfluorooctanoic acid (PFOA)	08/02/2023	27.9	4	--	NG/L	42.50		
Perfluoropentanesulfonate (PFPeS)	08/02/2023	77	3.76	--	NG/L	42.50		
Perfluoropentanoic acid (PFPeA)	08/02/2023	65.6	4	--	NG/L	42.50		

Site ID : 073-32

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/02/2023	35.385	--	--	NG/L	60.00		
Perfluorobutanesulfonate (PFBS)	08/02/2023	0.68	1.68	--	NG/L	60.00	J	
Perfluorohexanesulfonate (PFHxS)	08/02/2023	9.29	1.73	--	NG/L	60.00		
Perfluorohexanoic acid (PFHxA)	08/02/2023	1.24	1.9	--	NG/L	60.00	J	
Perfluorooctane sulfonamide (PFOSAm)	08/02/2023	1.01	1.9	--	NG/L	60.00	J	
Perfluorooctanesulfonate (PFOS)	08/02/2023	21.8	1.76	--	NG/L	60.00		
Perfluoropentanesulfonate (PFPeS)	08/02/2023	0.648	1.79	--	NG/L	60.00	J	
Perfluoropentanoic acid (PFPeA)	08/02/2023	0.717	1.9	--	NG/L	60.00	J	

Site ID : 073-33

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/04/2023	1712.77	--	--	NG/L	49.31		
Fluorotelomer sulfonate 6:2 (6:2 FTS)	08/04/2023	2.92	7.03	--	NG/L	49.31	J	

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 073-33

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorobutanesulfonate (PFBS)	08/04/2023	29	1.64	--	NG/L	49.31		
Perfluorobutyric acid (PFBA)	08/04/2023	15.8	7.4	--	NG/L	49.31		
Perfluoroheptanesulfonate (PFHpS)	08/04/2023	13	1.76	--	NG/L	49.31		
Perfluoroheptanoic acid (PFHpA)	08/04/2023	15.4	1.85	--	NG/L	49.31		
Perfluorohexanesulfonate (PFHxS)	08/04/2023	214	16.9	--	NG/L	49.31	D	
Perfluorohexanoic acid (PFHxA)	08/04/2023	39.5	1.85	--	NG/L	49.31		
Perfluorononanoic acid (PFNA)	08/04/2023	2.21	1.85	--	NG/L	49.31		
Perfluorooctane sulfonamide (PFOSAm)	08/04/2023	0.74	1.85	--	NG/L	49.31	J	
Perfluorooctanesulfonate (PFOS)	08/04/2023	1290	17.2	--	NG/L	49.31	D	
Perfluorooctanoic acid (PFOA)	08/04/2023	10	1.85	--	NG/L	49.31		
Perfluoropentanesulfonate (PFPeS)	08/04/2023	33.6	1.74	--	NG/L	49.31		
Perfluoropentanoic acid (PFPeA)	08/04/2023	46.6	1.85	--	NG/L	49.31		

Site ID : 074-135

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/04/2023	39.62	--	--	NG/L	60.00		
Perfluorobutanesulfonate (PFBS)	08/04/2023	2.05	1.5	--	NG/L	60.00		
Perfluoroheptanoic acid (PFHpA)	08/04/2023	1.93	1.69	--	NG/L	60.00		
Perfluorohexanesulfonate (PFHxS)	08/04/2023	8.01	1.55	--	NG/L	60.00		
Perfluorohexanoic acid (PFHxA)	08/04/2023	5.45	1.69	--	NG/L	60.00		
Perfluorooctanesulfonate (PFOS)	08/04/2023	13.1	1.57	--	NG/L	60.00		
Perfluorooctanoic acid (PFOA)	08/04/2023	2.76	1.69	--	NG/L	60.00		
Perfluoropentanesulfonate (PFPeS)	08/04/2023	1	1.59	--	NG/L	60.00	J	
Perfluoropentanoic acid (PFPeA)	08/04/2023	5.32	1.69	--	NG/L	60.00		

Site ID : 083-01

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/17/2023	2.21	--	--	NG/L	85.00		
Perfluorooctanesulfonate (PFOS)	08/17/2023	2.21	2.32	--	NG/L	85.00	J	

Site ID : 083-02

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/02/2023	8.696	--	--	NG/L	135.00		
Perfluorohexanesulfonate (PFHxS)	08/02/2023	0.869	1.63	--	NG/L	135.00	J	
Perfluorohexanoic acid (PFHxA)	08/02/2023	0.635	1.78	--	NG/L	135.00	J	
Perfluorooctanesulfonate (PFOS)	08/02/2023	5.88	1.65	--	NG/L	135.00		

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 083-02

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorooctanoic acid (PFOA)	08/02/2023	0.704	1.78	--	NG/L	135.00	J	
Perfluoropentanoic acid (PFPeA)	08/02/2023	0.608	1.78	--	NG/L	135.00	J	

Site ID : 083-05

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/17/2023	15.841	--	--	NG/L	70.00		
Perfluorobutyric acid (PFBA)	08/17/2023	8.82	7.11	--	NG/L	70.00		
Perfluorohexanoic acid (PFHxA)	08/17/2023	1.33	1.78	--	NG/L	70.00	J	
Perfluorooctanesulfonate (PFOS)	08/17/2023	4.78	1.65	--	NG/L	70.00		
Perfluorooctanoic acid (PFOA)	08/17/2023	0.911	1.78	--	NG/L	70.00	J	

Site ID : 083-33

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/31/2023	7.51	--	--	NG/L	55.00		
Perfluorohexanesulfonate (PFHxS)	07/31/2023	0.93	1.78	--	NG/L	55.00	J	
Perfluorooctanesulfonate (PFOS)	07/31/2023	4.43	1.81	--	NG/L	55.00		
Perfluorooctanoic acid (PFOA)	07/31/2023	1.14	1.95	--	NG/L	55.00	J	
Perfluorotridecanoic acid (PFTrDA)	07/31/2023	1.01	1.95	--	NG/L	55.00	J	

Site ID : 083-34

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/31/2023	20.77	--	--	NG/L	75.00		
Perfluorobutanesulfonate (PFBS)	07/31/2023	0.608	1.57	--	NG/L	75.00	J	
Perfluorohexanesulfonate (PFHxS)	07/31/2023	1.65	1.62	--	NG/L	75.00		
Perfluorohexanoic acid (PFHxA)	07/31/2023	1.32	1.77	--	NG/L	75.00	J	
Perfluorooctanesulfonate (PFOS)	07/31/2023	15.2	1.65	--	NG/L	75.00		
Perfluorooctanoic acid (PFOA)	07/31/2023	1.39	1.77	--	NG/L	75.00	J	
Perfluoropentanoic acid (PFPeA)	07/31/2023	0.602	1.77	--	NG/L	75.00	J	

Site ID : 083-35

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/31/2023	108.213	--	--	NG/L	55.00		
Perfluorobutanesulfonate (PFBS)	07/31/2023	2.07	1.55	--	NG/L	55.00		
Perfluoroheptanoic acid (PFHpA)	07/31/2023	0.763	1.74	--	NG/L	55.00	J	
Perfluorohexanesulfonate (PFHxS)	07/31/2023	5.12	1.59	--	NG/L	55.00		
Perfluorohexanoic acid (PFHxA)	07/31/2023	1.84	1.74	--	NG/L	55.00		
Perfluorononanoic acid (PFNA)	07/31/2023	1.04	1.74	--	NG/L	55.00	J	

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 083-35

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorooctanesulfonate (PFOS)	07/31/2023	95.2	1.62	--	NG/L	55.00		
Perfluorooctanoic acid (PFOA)	07/31/2023	1.16	1.74	--	NG/L	55.00	J	
Perfluoropentanoic acid (PFPeA)	07/31/2023	1.02	1.74	--	NG/L	55.00	J	

Site ID : 083-36

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/31/2023	30.714	--	--	NG/L	75.00		
Perfluorohexanesulfonate (PFHxS)	07/31/2023	4.54	1.67	--	NG/L	75.00		
Perfluorohexanoic acid (PFHxA)	07/31/2023	1.65	1.82	--	NG/L	75.00	J	
Perfluorononanoic acid (PFNA)	07/31/2023	1.1	1.82	--	NG/L	75.00	J	
Perfluorooctanesulfonate (PFOS)	07/31/2023	20.4	1.69	--	NG/L	75.00		
Perfluorooctanoic acid (PFOA)	07/31/2023	1.12	1.82	--	NG/L	75.00	J	
Perfluoropentanoic acid (PFPeA)	07/31/2023	0.884	1.82	--	NG/L	75.00	J	
Perfluoroundecanoic acid (PFUdA)	07/31/2023	1.02	1.82	--	NG/L	75.00	J	

Site ID : 083-37

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/31/2023	102.562	--	--	NG/L	55.00		
Perfluorobutanesulfonate (PFBS)	07/31/2023	0.586	1.58	--	NG/L	55.00	J	
Perfluorohexanesulfonate (PFHxS)	07/31/2023	4.8	1.63	--	NG/L	55.00		
Perfluorohexanoic acid (PFHxA)	07/31/2023	1.39	1.78	--	NG/L	55.00	J	
Perfluorononanoic acid (PFNA)	07/31/2023	8.03	1.78	--	NG/L	55.00		
Perfluorooctanesulfonate (PFOS)	07/31/2023	85.4	1.66	--	NG/L	55.00		
Perfluorooctanoic acid (PFOA)	07/31/2023	0.737	1.78	--	NG/L	55.00	J	
Perfluoropentanoic acid (PFPeA)	07/31/2023	0.691	1.78	--	NG/L	55.00	J	
Perfluoroundecanoic acid (PFUdA)	07/31/2023	0.928	1.78	--	NG/L	55.00	J	

Site ID : 083-38

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/31/2023	771.14	--	--	NG/L	75.00		
Perfluorobutanesulfonate (PFBS)	07/31/2023	1.36	1.6	--	NG/L	75.00	J	
Perfluoroheptanesulfonate (PFHpS)	07/31/2023	4.2	1.72	--	NG/L	75.00		
Perfluoroheptanoic acid (PFHpA)	07/31/2023	1.97	1.81	--	NG/L	75.00		
Perfluorohexanesulfonate (PFHxS)	07/31/2023	65.8	1.65	--	NG/L	75.00		
Perfluorohexanoic acid (PFHxA)	07/31/2023	8.65	1.81	--	NG/L	75.00		
Perfluorononanoic acid (PFNA)	07/31/2023	23.6	1.81	--	NG/L	75.00		

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 083-38

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorooctanesulfonate (PFOS)	07/31/2023	654	8.39	--	NG/L	75.00	D	
Perfluorooctanoic acid (PFOA)	07/31/2023	4.78	1.81	--	NG/L	75.00		
Perfluoropentanesulfonate (PFPeS)	07/31/2023	2.43	1.7	--	NG/L	75.00		
Perfluoropentanoic acid (PFPeA)	07/31/2023	3.14	1.81	--	NG/L	75.00		
Perfluoroundecanoic acid (PFUdA)	07/31/2023	1.21	1.81	--	NG/L	75.00	J	

Site ID : 083-39

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/31/2023	569.25	--	--	NG/L	65.00		
Perfluorobutanesulfonate (PFBS)	07/31/2023	2.66	1.58	--	NG/L	65.00		
Perfluorobutyric acid (PFBA)	07/31/2023	2.95	7.11	--	NG/L	65.00	J	
Perfluoroheptanesulfonate (PFHpS)	07/31/2023	3.91	1.69	--	NG/L	65.00		
Perfluoroheptanoic acid (PFHpA)	07/31/2023	1.99	1.78	--	NG/L	65.00		
Perfluorohexanesulfonate (PFHxS)	07/31/2023	50	1.62	--	NG/L	65.00		
Perfluorohexanoic acid (PFHxA)	07/31/2023	8.2	1.78	--	NG/L	65.00		
Perfluorononanoic acid (PFNA)	07/31/2023	85.2	1.78	--	NG/L	65.00		
Perfluorooctanesulfonate (PFOS)	07/31/2023	403	8.24	--	NG/L	65.00	D	
Perfluorooctanoic acid (PFOA)	07/31/2023	5.16	1.78	--	NG/L	65.00		
Perfluoropentanesulfonate (PFPeS)	07/31/2023	3.04	1.67	--	NG/L	65.00		
Perfluoropentanoic acid (PFPeA)	07/31/2023	3.14	1.78	--	NG/L	65.00		

Site ID : 083-40

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/26/2023	24.82	--	--	NG/L	105.00		
Perfluorohexanesulfonate (PFHxS)	07/26/2023	2.56	1.66	--	NG/L	105.00		
Perfluorohexanoic acid (PFHxA)	07/26/2023	3.33	1.82	--	NG/L	105.00		
Perfluorononanoic acid (PFNA)	07/26/2023	2.28	1.82	--	NG/L	105.00		
Perfluorooctanesulfonate (PFOS)	07/26/2023	14.1	1.69	--	NG/L	105.00		
Perfluorooctanoic acid (PFOA)	07/26/2023	1.41	1.82	--	NG/L	105.00	J	
Perfluoropentanoic acid (PFPeA)	07/26/2023	1.14	1.82	--	NG/L	105.00	J	

Site ID : 083-41

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/11/2023	8.97	--	--	NG/L	125.00		
1,4-Dioxane	08/11/2023	0.51	0.22	--	UG/L	125.00		
Perfluorohexanesulfonate (PFHxS)	08/11/2023	2.06	4.57	--	NG/L	125.00	J	

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 083-41

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorooctanesulfonate (PFOS)	08/11/2023	6.91	4.64	--	NG/L	125.00		

Site ID : 083-42

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/10/2023	5.3	--	--	NG/L	95.00		
Perfluorohexanesulfonate (PFHxS)	08/10/2023	1.37	1.79	--	NG/L	95.00	J	
Perfluorohexanoic acid (PFHxA)	08/10/2023	0.76	1.96	--	NG/L	95.00	J	
Perfluorooctanesulfonate (PFOS)	08/10/2023	3.17	1.82	--	NG/L	95.00		

Site ID : 083-43

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/10/2023	105.106	--	--	NG/L	125.00		
Perfluorohexanesulfonate (PFHxS)	08/10/2023	4.62	1.73	--	NG/L	125.00		
Perfluorohexanoic acid (PFHxA)	08/10/2023	2.56	1.89	--	NG/L	125.00		
Perfluorononanoic acid (PFNA)	08/10/2023	1.02	1.89	--	NG/L	125.00	J	
Perfluorooctanesulfonate (PFOS)	08/10/2023	92.3	1.75	--	NG/L	125.00		
Perfluorooctanoic acid (PFOA)	08/10/2023	0.746	1.89	--	NG/L	125.00	J	
Perfluoropentanoic acid (PFPeA)	08/10/2023	3.86	1.89	--	NG/L	125.00		

Site ID : 083-44

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/11/2023	2.94	--	--	NG/L	75.00		
Perfluorooctanesulfonate (PFOS)	08/11/2023	1.83	1.66	--	NG/L	75.00		
Perfluorooctanoic acid (PFOA)	08/11/2023	1.11	1.79	--	NG/L	75.00	J	

Site ID : 083-47

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/16/2023	10.24	--	--	NG/L	60.00		
Perfluorohexanesulfonate (PFHxS)	08/16/2023	5.35	1.62	--	NG/L	60.00		
Perfluorooctanesulfonate (PFOS)	08/16/2023	3.43	1.65	--	NG/L	60.00		
Perfluoropentanesulfonate (PFPeS)	08/16/2023	1.46	1.67	--	NG/L	60.00	J	

Site ID : 084-03

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/26/2023	96.189	--	--	NG/L	105.00		
Perfluorobutanesulfonate (PFBS)	07/26/2023	1.92	1.82	--	NG/L	105.00		
Perfluoroheptanesulfonate (PFHpS)	07/26/2023	0.979	1.95	--	NG/L	105.00	J	
Perfluorohexanesulfonate (PFHxS)	07/26/2023	25	1.87	--	NG/L	105.00		

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 084-03

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorohexanoic acid (PFHxA)	07/26/2023	3.04	2.05	--	NG/L	105.00		
Perfluorononanoic acid (PFNA)	07/26/2023	1.34	2.05	--	NG/L	105.00	J	
Perfluorooctanesulfonate (PFOS)	07/26/2023	58.2	1.9	--	NG/L	105.00		
Perfluorooctanoic acid (PFOA)	07/26/2023	1.38	2.05	--	NG/L	105.00	J	
Perfluoropentanesulfonate (PFPeS)	07/26/2023	3.11	1.93	--	NG/L	105.00		
Perfluoropentanoic acid (PFPeA)	07/26/2023	1.22	2.05	--	NG/L	105.00	J	

Site ID : 084-04

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/26/2023	21.481	--	--	NG/L	150.00		
Perfluorobutyric acid (PFBA)	07/26/2023	7.44	7.53	--	NG/L	150.00	J	
Perfluoroheptanoic acid (PFHpA)	07/26/2023	0.861	1.88	--	NG/L	150.00	J	
Perfluorohexanesulfonate (PFHxS)	07/26/2023	2.15	1.72	--	NG/L	150.00		
Perfluorohexanoic acid (PFHxA)	07/26/2023	1.26	1.88	--	NG/L	150.00	J	
Perfluorooctanesulfonate (PFOS)	07/26/2023	3.57	1.75	--	NG/L	150.00		
Perfluoropentanoic acid (PFPeA)	07/26/2023	6.2	1.88	--	NG/L	150.00		

Site ID : 084-28

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/15/2023	57.696	--	--	NG/L	55.50		
Perfluorobutanesulfonate (PFBS)	08/15/2023	8.58	1.55	--	NG/L	55.50		
Perfluorobutyric acid (PFBA)	08/15/2023	5.59	7.01	--	NG/L	55.50	J	
Perfluoroheptanoic acid (PFHpA)	08/15/2023	3.96	1.75	--	NG/L	55.50		
Perfluorohexanesulfonate (PFHxS)	08/15/2023	4.9	1.6	--	NG/L	55.50		
Perfluorohexanoic acid (PFHxA)	08/15/2023	5.63	1.75	--	NG/L	55.50		
Perfluorononanoic acid (PFNA)	08/15/2023	0.823	1.75	--	NG/L	55.50	J	
Perfluorooctanesulfonate (PFOS)	08/15/2023	13.2	1.63	--	NG/L	55.50		
Perfluorooctanoic acid (PFOA)	08/15/2023	8.45	1.75	--	NG/L	55.50		
Perfluoropentanesulfonate (PFPeS)	08/15/2023	0.873	1.65	--	NG/L	55.50	J	
Perfluoropentanoic acid (PFPeA)	08/15/2023	5.69	1.75	--	NG/L	55.50		

Site ID : 084-86

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/26/2023	31.58	--	--	NG/L	125.00		
Perfluorobutanesulfonate (PFBS)	07/26/2023	0.672	1.72	--	NG/L	125.00	J	
Perfluorohexanesulfonate (PFHxS)	07/26/2023	5.1	1.77	--	NG/L	125.00		

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 084-86

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorohexanoic acid (PFHxA)	07/26/2023	3.5	1.93	--	NG/L	125.00		
Perfluorononanoic acid (PFNA)	07/26/2023	0.918	1.93	--	NG/L	125.00	J	
Perfluorooctanesulfonate (PFOS)	07/26/2023	18.1	1.79	--	NG/L	125.00		
Perfluorooctanoic acid (PFOA)	07/26/2023	1.68	1.93	--	NG/L	125.00	J	
Perfluoropentanesulfonate (PFPeS)	07/26/2023	0.764	1.82	--	NG/L	125.00	J	
Perfluoropentanoic acid (PFPeA)	07/26/2023	0.846	1.93	--	NG/L	125.00	J	

Site ID : 084-87

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/26/2023	336.02	--	--	NG/L	65.00		
Perfluorobutanesulfonate (PFBS)	07/26/2023	3.31	1.61	--	NG/L	65.00		
Perfluoroheptanesulfonate (PFHpS)	07/26/2023	2.37	1.73	--	NG/L	65.00		
Perfluoroheptanoic acid (PFHpA)	07/26/2023	1.9	1.81	--	NG/L	65.00		
Perfluorohexanesulfonate (PFHxS)	07/26/2023	36.7	1.66	--	NG/L	65.00		
Perfluorohexanoic acid (PFHxA)	07/26/2023	6.79	1.81	--	NG/L	65.00		
Perfluorononanoic acid (PFNA)	07/26/2023	2.72	1.81	--	NG/L	65.00		
Perfluorooctane sulfonamide (PFOSAm)	07/26/2023	4.25	1.81	--	NG/L	65.00		
Perfluorooctanesulfonate (PFOS)	07/26/2023	268	8.41	--	NG/L	65.00	D	
Perfluorooctanoic acid (PFOA)	07/26/2023	3.84	1.81	--	NG/L	65.00		
Perfluoropentanesulfonate (PFPeS)	07/26/2023	2.86	1.71	--	NG/L	65.00		
Perfluoropentanoic acid (PFPeA)	07/26/2023	3.28	1.81	--	NG/L	65.00		

Site ID : 084-88

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/26/2023	993.049	--	--	NG/L	95.00		
Perfluorobutanesulfonate (PFBS)	07/26/2023	6.68	1.53	--	NG/L	95.00		
Perfluorobutyric acid (PFBA)	07/26/2023	3.65	6.89	--	NG/L	95.00	J	
Perfluoroheptanesulfonate (PFHpS)	07/26/2023	7.97	1.64	--	NG/L	95.00		
Perfluoroheptanoic acid (PFHpA)	07/26/2023	5.1	1.72	--	NG/L	95.00		
Perfluorohexanesulfonate (PFHxS)	07/26/2023	159	1.57	--	NG/L	95.00		
Perfluorohexanoic acid (PFHxA)	07/26/2023	17.8	1.72	--	NG/L	95.00		
Perfluorononanoic acid (PFNA)	07/26/2023	0.949	1.72	--	NG/L	95.00	J	
Perfluorooctane sulfonamide (PFOSAm)	07/26/2023	4.5	1.72	--	NG/L	95.00		
Perfluorooctanesulfonate (PFOS)	07/26/2023	744	7.99	--	NG/L	95.00	D	
Perfluorooctanoic acid (PFOA)	07/26/2023	26.7	1.72	--	NG/L	95.00		

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 084-88

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluoropentanesulfonate (PFPeS)	07/26/2023	9.77	1.62	--	NG/L	95.00		
Perfluoropentanoic acid (PFPeA)	07/26/2023	6.93	1.72	--	NG/L	95.00		

Site ID : 084-89

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/26/2023	315.38	--	--	NG/L	125.00		
Perfluorobutanesulfonate (PFBS)	07/26/2023	3.05	1.59	--	NG/L	125.00		
Perfluoroheptanesulfonate (PFHpS)	07/26/2023	3.29	1.71	--	NG/L	125.00		
Perfluoroheptanoic acid (PFHpA)	07/26/2023	2.54	1.79	--	NG/L	125.00		
Perfluorohexanesulfonate (PFHxS)	07/26/2023	54.6	1.64	--	NG/L	125.00		
Perfluorohexanoic acid (PFHxA)	07/26/2023	8.56	1.79	--	NG/L	125.00		
Perfluorooctane sulfonamide (PFOSAm)	07/26/2023	2.32	1.79	--	NG/L	125.00		
Perfluorooctanesulfonate (PFOS)	07/26/2023	225	8.32	--	NG/L	125.00	D	
Perfluorooctanoic acid (PFOA)	07/26/2023	4.68	1.79	--	NG/L	125.00		
Perfluoropentanesulfonate (PFPeS)	07/26/2023	5.01	1.69	--	NG/L	125.00		
Perfluoropentanoic acid (PFPeA)	07/26/2023	6.33	1.79	--	NG/L	125.00		

Site ID : 084-90

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/16/2023	21.058	--	--	NG/L	95.00		
Perfluorohexanesulfonate (PFHxS)	08/16/2023	2.77	1.55	--	NG/L	95.00		
Perfluorohexanoic acid (PFHxA)	08/16/2023	0.896	1.69	--	NG/L	95.00	J	
Perfluorononanoic acid (PFNA)	08/16/2023	3.92	1.69	--	NG/L	95.00		
Perfluorooctanesulfonate (PFOS)	08/16/2023	12.8	1.57	--	NG/L	95.00		
Perfluorooctanoic acid (PFOA)	08/16/2023	0.672	1.69	--	NG/L	95.00	J	

Site ID : 084-91

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/16/2023	33.964	--	--	NG/L	125.00		
Perfluorobutanesulfonate (PFBS)	08/16/2023	0.834	1.67	--	NG/L	125.00	J	
Perfluorobutyric acid (PFBA)	08/16/2023	8.77	7.54	--	NG/L	125.00		
Perfluoroheptanoic acid (PFHpA)	08/16/2023	1.48	1.88	--	NG/L	125.00	J	
Perfluorohexanesulfonate (PFHxS)	08/16/2023	3.43	1.72	--	NG/L	125.00		
Perfluorohexanoic acid (PFHxA)	08/16/2023	4.14	1.88	--	NG/L	125.00		
Perfluorononanoic acid (PFNA)	08/16/2023	1.72	1.88	--	NG/L	125.00	J	
Perfluorooctanesulfonate (PFOS)	08/16/2023	9.28	1.75	--	NG/L	125.00		

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 084-91

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorooctanoic acid (PFOA)	08/16/2023	4.31	1.88	--	NG/L	125.00		

Site ID : 084-92

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/16/2023	1590.03	--	--	NG/L	145.00		
Perfluorobutanesulfonate (PFBS)	08/16/2023	17.5	1.58	--	NG/L	145.00		
Perfluorobutyric acid (PFBA)	08/16/2023	9.93	7.11	--	NG/L	145.00		
Perfluoroheptanesulfonate (PFHpS)	08/16/2023	15.2	1.69	--	NG/L	145.00		
Perfluoroheptanoic acid (PFHpA)	08/16/2023	11.4	1.78	--	NG/L	145.00		
Perfluorohexanesulfonate (PFHxS)	08/16/2023	421	1.62	--	NG/L	145.00		
Perfluorohexanoic acid (PFHxA)	08/16/2023	80.8	1.78	--	NG/L	145.00		
Perfluorononanoic acid (PFNA)	08/16/2023	1.2	1.78	--	NG/L	145.00	J	
Perfluorooctanesulfonate (PFOS)	08/16/2023	919	1.65	--	NG/L	145.00		
Perfluorooctanoic acid (PFOA)	08/16/2023	44.7	1.78	--	NG/L	145.00		
Perfluoropentanesulfonate (PFPeS)	08/16/2023	41.5	1.67	--	NG/L	145.00		
Perfluoropentanoic acid (PFPeA)	08/16/2023	27.8	1.78	--	NG/L	145.00		

Site ID : 084-93

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/28/2023	248.46	--	--	NG/L	95.00		
Perfluorobutanesulfonate (PFBS)	07/28/2023	2.19	1.6	--	NG/L	95.00		
Perfluoroheptanesulfonate (PFHpS)	07/28/2023	2.02	1.72	--	NG/L	95.00		
Perfluoroheptanoic acid (PFHpA)	07/28/2023	1.26	1.81	--	NG/L	95.00	J	
Perfluorohexanesulfonate (PFHxS)	07/28/2023	42.6	1.65	--	NG/L	95.00		
Perfluorohexanoic acid (PFHxA)	07/28/2023	3.51	1.81	--	NG/L	95.00		
Perfluorononanoic acid (PFNA)	07/28/2023	59	1.81	--	NG/L	95.00		
Perfluorooctanesulfonate (PFOS)	07/28/2023	130	1.68	--	NG/L	95.00		
Perfluorooctanoic acid (PFOA)	07/28/2023	3.54	1.81	--	NG/L	95.00		
Perfluoropentanesulfonate (PFPeS)	07/28/2023	2.86	1.7	--	NG/L	95.00		
Perfluoropentanoic acid (PFPeA)	07/28/2023	1.48	1.81	--	NG/L	95.00	J	

Site ID : 084-94

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/28/2023	229.58	--	--	NG/L	125.00		
1,4-Dioxane	07/28/2023	0.28	0.2	--	UG/L	125.00		
Perfluorobutanesulfonate (PFBS)	07/28/2023	5.53	1.59	--	NG/L	125.00		

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 084-94

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorobutyric acid (PFBA)	07/28/2023	2.88	7.16	--	NG/L	125.00	J	
Perfluoroheptanesulfonate (PFHpS)	07/28/2023	2.29	1.71	--	NG/L	125.00		
Perfluoroheptanoic acid (PFHpA)	07/28/2023	3.72	1.79	--	NG/L	125.00		
Perfluorohexanesulfonate (PFHxS)	07/28/2023	75.6	1.64	--	NG/L	125.00		
Perfluorohexanoic acid (PFHxA)	07/28/2023	11.9	1.79	--	NG/L	125.00		
Perfluorononanoic acid (PFNA)	07/28/2023	7.29	1.79	--	NG/L	125.00		
Perfluorooctane sulfonamide (PFOSAm)	07/28/2023	0.78	1.79	--	NG/L	125.00	J	
Perfluorooctanesulfonate (PFOS)	07/28/2023	96.5	1.66	--	NG/L	125.00		
Perfluorooctanoic acid (PFOA)	07/28/2023	7.14	1.79	--	NG/L	125.00		
Perfluoropentanesulfonate (PFPeS)	07/28/2023	9.26	1.68	--	NG/L	125.00		
Perfluoropentanoic acid (PFPeA)	07/28/2023	6.69	1.79	--	NG/L	125.00		

Site ID : 084-95

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/28/2023	14.548	--	--	NG/L	145.00		
1,4-Dioxane	07/28/2023	1.9	0.2	--	UG/L	145.00		
Perfluorobutanesulfonate (PFBS)	07/28/2023	1.82	1.5	--	NG/L	145.00		
Perfluorohexanesulfonate (PFHxS)	07/28/2023	7.1	1.55	--	NG/L	145.00		
Perfluorohexanoic acid (PFHxA)	07/28/2023	3.22	1.69	--	NG/L	145.00		
Perfluoropentanesulfonate (PFPeS)	07/28/2023	1.59	1.59	--	NG/L	145.00		
Perfluoropentanoic acid (PFPeA)	07/28/2023	0.818	1.69	--	NG/L	145.00	J	

Site ID : 084-96

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/27/2023	3359.21	--	--	NG/L	95.00		
Fluorotelomer sulfonate 6:2 (6:2 FTS)	07/27/2023	4.9	6.87	--	NG/L	95.00	J	
Perfluorobutanesulfonate (PFBS)	07/27/2023	26.6	1.6	--	NG/L	95.00		
Perfluorobutyric acid (PFBA)	07/27/2023	12.2	7.24	--	NG/L	95.00		
Perfluoroheptanesulfonate (PFHpS)	07/27/2023	58.5	1.72	--	NG/L	95.00		
Perfluoroheptanoic acid (PFHpA)	07/27/2023	21.5	1.81	--	NG/L	95.00		
Perfluorohexanesulfonate (PFHxS)	07/27/2023	908	24.8	--	NG/L	95.00	D	
Perfluorohexanoic acid (PFHxA)	07/27/2023	105	1.81	--	NG/L	95.00		
Perfluorononanoic acid (PFNA)	07/27/2023	1.88	1.81	--	NG/L	95.00		
Perfluorooctane sulfonamide (PFOSAm)	07/27/2023	1.63	1.81	--	NG/L	95.00	J	
Perfluorooctanesulfonate (PFOS)	07/27/2023	1830	25.2	--	NG/L	95.00	D	

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 084-96

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorooctanoic acid (PFOA)	07/27/2023	258	27.1	--	NG/L	95.00	D	
Perfluoropentanesulfonate (PFPeS)	07/27/2023	85.2	1.7	--	NG/L	95.00		
Perfluoropentanoic acid (PFPeA)	07/27/2023	45.8	1.81	--	NG/L	95.00		

Site ID : 084-97

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/27/2023	1094.12	--	--	NG/L	125.00		
Perfluorobutanesulfonate (PFBS)	07/27/2023	13	1.6	--	NG/L	125.00		
Perfluorobutyric acid (PFBA)	07/27/2023	6.34	7.21	--	NG/L	125.00	J	
Perfluoroheptanesulfonate (PFHpS)	07/27/2023	12.3	1.72	--	NG/L	125.00		
Perfluoroheptanoic acid (PFHpA)	07/27/2023	8.48	1.8	--	NG/L	125.00		
Perfluorohexanesulfonate (PFHxS)	07/27/2023	225	8.23	--	NG/L	125.00	D	
Perfluorohexanoic acid (PFHxA)	07/27/2023	40.1	1.8	--	NG/L	125.00		
Perfluorononanoic acid (PFNA)	07/27/2023	1.8	1.8	--	NG/L	125.00	J	
Perfluorooctanesulfonate (PFOS)	07/27/2023	722	8.36	--	NG/L	125.00	D	
Perfluorooctanoic acid (PFOA)	07/27/2023	21.3	1.8	--	NG/L	125.00		
Perfluoropentanesulfonate (PFPeS)	07/27/2023	22.2	1.7	--	NG/L	125.00		
Perfluoropentanoic acid (PFPeA)	07/27/2023	21.6	1.8	--	NG/L	125.00		

Site ID : 084-98

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/27/2023	8.88	--	--	NG/L	145.00		
1,4-Dioxane	07/27/2023	1.8	0.2	--	UG/L	145.00		
Perfluorobutanesulfonate (PFBS)	07/27/2023	1.93	1.56	--	NG/L	145.00		
Perfluorohexanesulfonate (PFHxS)	07/27/2023	4.78	1.6	--	NG/L	145.00		
Perfluoropentanesulfonate (PFPeS)	07/27/2023	2.17	1.65	--	NG/L	145.00		

Site ID : 093-04

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/07/2023	4673.58	--	--	NG/L	49.00		
Fluorotelomer sulfonate 6:2 (6:2 FTS)	08/07/2023	4.8	6.78	--	NG/L	49.00	J	
Perfluorobutanesulfonate (PFBS)	08/07/2023	35.8	1.58	--	NG/L	49.00		
Perfluorobutyric acid (PFBA)	08/07/2023	9.44	7.13	--	NG/L	49.00		
Perfluoroheptanesulfonate (PFHpS)	08/07/2023	49.4	1.7	--	NG/L	49.00		
Perfluoroheptanoic acid (PFHpA)	08/07/2023	20.5	1.78	--	NG/L	49.00		
Perfluorohexanesulfonate (PFHxS)	08/07/2023	612	16.3	--	NG/L	49.00	D	

Table 21-3
Current Firehouse PFAS Monitoring Well Data
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Site ID : 093-04

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorohexanoic acid (PFHxA)	08/07/2023	50.6	1.78	--	NG/L	49.00		
Perfluorononanoic acid (PFNA)	08/07/2023	5.34	1.78	--	NG/L	49.00		
Perfluorooctanesulfonate (PFOS)	08/07/2023	3760	33.1	--	NG/L	49.00	D	
Perfluorooctanoic acid (PFOA)	08/07/2023	42.1	1.78	--	NG/L	49.00		
Perfluoropentanesulfonate (PFPeS)	08/07/2023	61.9	1.68	--	NG/L	49.00		
Perfluoropentanoic acid (PFPeA)	08/07/2023	21.7	1.78	--	NG/L	49.00		

Site ID : 093-88

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/07/2023	0.716	--	--	NG/L	125.00		
Perfluorooctanesulfonate (PFOS)	08/07/2023	0.716	1.71	--	NG/L	125.00	J	

Site ID : 093-89

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/14/2023	5.69	--	--	NG/L	75.00		
Perfluorobutanesulfonate (PFBS)	08/14/2023	0.652	1.56	--	NG/L	75.00	J	
Perfluorohexanoic acid (PFHxA)	08/14/2023	0.666	1.76	--	NG/L	75.00	J	
Perfluorononanoic acid (PFNA)	08/14/2023	0.634	1.76	--	NG/L	75.00	J	
Perfluorooctanesulfonate (PFOS)	08/14/2023	2.99	1.64	--	NG/L	75.00		
Perfluorooctanoic acid (PFOA)	08/14/2023	0.748	1.76	--	NG/L	75.00	J	

Site ID : 093-90

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/14/2023	0.992	--	--	NG/L	105.00		
1,4-Dioxane	08/14/2023	0.4	0.2	--	UG/L	105.00		
Perfluorooctanesulfonate (PFOS)	08/14/2023	0.992	1.72	--	NG/L	105.00	J	

Site ID : 093-91

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/11/2023	35.426	--	--	NG/L	85.00		
Perfluorobutanesulfonate (PFBS)	08/11/2023	0.515	1.5	--	NG/L	85.00	J	
Perfluoroheptanoic acid (PFHpA)	08/11/2023	1.53	1.69	--	NG/L	85.00	J	
Perfluorohexanesulfonate (PFHxS)	08/11/2023	2.32	1.55	--	NG/L	85.00		
Perfluorohexanoic acid (PFHxA)	08/11/2023	6.84	1.69	--	NG/L	85.00		
Perfluorononanoic acid (PFNA)	08/11/2023	0.651	1.69	--	NG/L	85.00	J	
Perfluorooctanesulfonate (PFOS)	08/11/2023	16.5	1.57	--	NG/L	85.00		
Perfluorooctanoic acid (PFOA)	08/11/2023	2.71	1.69	--	NG/L	85.00		

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 093-91

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluoropentanoic acid (PFPeA)	08/11/2023	4.36	1.69	--	NG/L	85.00		

Site ID : 093-92

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/11/2023	71.492	--	--	NG/L	105.00		
Perfluorobutanesulfonate (PFBS)	08/11/2023	0.65	1.69	--	NG/L	105.00	J	
Perfluorohexanesulfonate (PFHxS)	08/11/2023	11.1	1.74	--	NG/L	105.00		
Perfluorohexanoic acid (PFHxA)	08/11/2023	1.56	1.9	--	NG/L	105.00	J	
Perfluorononanoic acid (PFNA)	08/11/2023	0.799	1.9	--	NG/L	105.00	J	
Perfluorooctanesulfonate (PFOS)	08/11/2023	55.5	1.76	--	NG/L	105.00		
Perfluorooctanoic acid (PFOA)	08/11/2023	0.753	1.9	--	NG/L	105.00	J	
Perfluoropentanesulfonate (PFPeS)	08/11/2023	1.13	1.79	--	NG/L	105.00	J	

Site ID : 093-93

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/16/2023	40.051	--	--	NG/L	60.00		
Perfluorohexanesulfonate (PFHxS)	08/16/2023	9.72	1.57	--	NG/L	60.00		
Perfluorooctanesulfonate (PFOS)	08/16/2023	29.7	1.6	--	NG/L	60.00		
Perfluoropentanesulfonate (PFPeS)	08/16/2023	0.631	1.62	--	NG/L	60.00	J	

Site ID : 093-94

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/16/2023	2397.17	--	--	NG/L	50.00		
Perfluorobutanesulfonate (PFBS)	08/16/2023	4.25	1.66	--	NG/L	50.00		
Perfluorobutyric acid (PFBA)	08/16/2023	4.72	7.5	--	NG/L	50.00	J	
Perfluoroheptanesulfonate (PFHpS)	08/16/2023	26.9	1.79	--	NG/L	50.00		
Perfluoroheptanoic acid (PFHpA)	08/16/2023	1.33	1.87	--	NG/L	50.00	J	
Perfluorohexanesulfonate (PFHxS)	08/16/2023	72.4	1.71	--	NG/L	50.00		
Perfluorohexanoic acid (PFHxA)	08/16/2023	7.12	1.87	--	NG/L	50.00		
Perfluorooctanesulfonate (PFOS)	08/16/2023	2260	1.74	--	NG/L	50.00		
Perfluorooctanoic acid (PFOA)	08/16/2023	8.72	1.87	--	NG/L	50.00		
Perfluoropentanesulfonate (PFPeS)	08/16/2023	9.78	1.76	--	NG/L	50.00		
Perfluoropentanoic acid (PFPeA)	08/16/2023	1.95	1.87	--	NG/L	50.00		

Site ID : 093-95

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/16/2023	25.085	--	--	NG/L	65.00		

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 093-95

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorohexanesulfonate (PFHxS)	08/16/2023	3.14	1.54	--	NG/L	65.00		
Perfluorohexanoic acid (PFHxA)	08/16/2023	0.645	1.68	--	NG/L	65.00	J	
Perfluorooctanesulfonate (PFOS)	08/16/2023	21.3	1.56	--	NG/L	65.00		

Site ID : 093-96

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/07/2023	416.75	--	--	NG/L	60.00		
Perfluorobutanesulfonate (PFBS)	08/07/2023	31.9	1.67	--	NG/L	60.00		
Perfluoroheptanesulfonate (PFHpS)	08/07/2023	2.7	1.8	--	NG/L	60.00		
Perfluoroheptanoic acid (PFHpA)	08/07/2023	1.39	1.89	--	NG/L	60.00	J	
Perfluorohexanesulfonate (PFHxS)	08/07/2023	278	8.62	--	NG/L	60.00	D	
Perfluorohexanoic acid (PFHxA)	08/07/2023	16	1.89	--	NG/L	60.00		
Perfluorooctanesulfonate (PFOS)	08/07/2023	20.1	1.75	--	NG/L	60.00		
Perfluorooctanoic acid (PFOA)	08/07/2023	12.8	1.89	--	NG/L	60.00		
Perfluoropentanesulfonate (PFPeS)	08/07/2023	49.6	1.77	--	NG/L	60.00		
Perfluoropentanoic acid (PFPeA)	08/07/2023	4.26	1.89	--	NG/L	60.00		

Site ID : 093-97

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/16/2023	86.771	--	--	NG/L	63.00		
Perfluoroheptanesulfonate (PFHpS)	08/16/2023	0.729	1.69	--	NG/L	63.00	J	
Perfluoroheptanoic acid (PFHpA)	08/16/2023	0.615	1.77	--	NG/L	63.00	J	
Perfluorohexanesulfonate (PFHxS)	08/16/2023	33.1	1.62	--	NG/L	63.00		
Perfluorohexanoic acid (PFHxA)	08/16/2023	3	1.77	--	NG/L	63.00		
Perfluorooctanesulfonate (PFOS)	08/16/2023	44.1	1.64	--	NG/L	63.00		
Perfluorooctanoic acid (PFOA)	08/16/2023	2.4	1.77	--	NG/L	63.00		
Perfluoropentanesulfonate (PFPeS)	08/16/2023	2.18	1.67	--	NG/L	63.00		
Perfluoropentanoic acid (PFPeA)	08/16/2023	0.647	1.77	--	NG/L	63.00	J	

Site ID : 093-98

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/16/2023	205.93	--	--	NG/L	65.00		
Perfluorobutanesulfonate (PFBS)	08/16/2023	1.32	1.55	--	NG/L	65.00	J	
Perfluoroheptanesulfonate (PFHpS)	08/16/2023	1.52	1.66	--	NG/L	65.00	J	
Perfluoroheptanoic acid (PFHpA)	08/16/2023	1.03	1.75	--	NG/L	65.00	J	
Perfluorohexanesulfonate (PFHxS)	08/16/2023	42.3	1.6	--	NG/L	65.00		

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 093-98

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorohexanoic acid (PFHxA)	08/16/2023	7.03	1.75	--	NG/L	65.00		
Perfluorooctanesulfonate (PFOS)	08/16/2023	144	1.62	--	NG/L	65.00		
Perfluorooctanoic acid (PFOA)	08/16/2023	2.88	1.75	--	NG/L	65.00		
Perfluoropentanesulfonate (PFPeS)	08/16/2023	3.9	1.64	--	NG/L	65.00		
Perfluoropentanoic acid (PFPeA)	08/16/2023	1.95	1.75	--	NG/L	65.00		

Site ID : 094-275

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/14/2023	36.204	--	--	NG/L	85.00		
Perfluorobutanesulfonate (PFBS)	08/14/2023	0.656	1.61	--	NG/L	85.00	J	
Perfluorohexanesulfonate (PFHxS)	08/14/2023	6.64	1.66	--	NG/L	85.00		
Perfluorohexanoic acid (PFHxA)	08/14/2023	2.92	1.82	--	NG/L	85.00		
Perfluorononanoic acid (PFNA)	08/14/2023	2.23	1.82	--	NG/L	85.00		
Perfluorooctanesulfonate (PFOS)	08/14/2023	19.9	1.69	--	NG/L	85.00		
Perfluorooctanoic acid (PFOA)	08/14/2023	1.51	1.82	--	NG/L	85.00	J	
Perfluoropentanesulfonate (PFPeS)	08/14/2023	0.848	1.71	--	NG/L	85.00	J	
Perfluoropentanoic acid (PFPeA)	08/14/2023	1.5	1.82	--	NG/L	85.00	J	

Site ID : 094-276

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/14/2023	228.62	--	--	NG/L	105.00		
Perfluorobutanesulfonate (PFBS)	08/14/2023	1.21	1.65	--	NG/L	105.00	J	
Perfluoroheptanesulfonate (PFHpS)	08/14/2023	1.56	1.77	--	NG/L	105.00	J	
Perfluoroheptanoic acid (PFHpA)	08/14/2023	1.29	1.86	--	NG/L	105.00	J	
Perfluorohexanesulfonate (PFHxS)	08/14/2023	40.4	1.7	--	NG/L	105.00		
Perfluorohexanoic acid (PFHxA)	08/14/2023	5.52	1.86	--	NG/L	105.00		
Perfluorononanoic acid (PFNA)	08/14/2023	5.08	1.86	--	NG/L	105.00		
Perfluorooctanesulfonate (PFOS)	08/14/2023	164	1.73	--	NG/L	105.00		
Perfluorooctanoic acid (PFOA)	08/14/2023	3	1.86	--	NG/L	105.00		
Perfluoropentanesulfonate (PFPeS)	08/14/2023	3.56	1.75	--	NG/L	105.00		
Perfluoropentanoic acid (PFPeA)	08/14/2023	3	1.86	--	NG/L	105.00		

Site ID : 094-277

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/14/2023	50.414	--	--	NG/L	75.00		
Perfluorobutanesulfonate (PFBS)	08/14/2023	0.79	1.49	--	NG/L	75.00	J	

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 094-277

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluoroheptanoic acid (PFHpA)	08/14/2023	0.904	1.68	--	NG/L	75.00	J	
Perfluorohexanesulfonate (PFHxS)	08/14/2023	7.8	1.54	--	NG/L	75.00		
Perfluorohexanoic acid (PFHxA)	08/14/2023	1.45	1.68	--	NG/L	75.00	J	
Perfluorononanoic acid (PFNA)	08/14/2023	6.14	1.68	--	NG/L	75.00		
Perfluorooctanesulfonate (PFOS)	08/14/2023	28.4	1.56	--	NG/L	75.00		
Perfluorooctanoic acid (PFOA)	08/14/2023	2.73	1.68	--	NG/L	75.00		
Perfluoropentanesulfonate (PFPeS)	08/14/2023	1.19	1.58	--	NG/L	75.00	J	
Perfluoropentanoic acid (PFPeA)	08/14/2023	1.01	1.68	--	NG/L	75.00	J	

Site ID : 094-278

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/14/2023	105.601	--	--	NG/L	105.00		
Perfluorobutanesulfonate (PFBS)	08/14/2023	1.98	1.54	--	NG/L	105.00		
Perfluoroheptanesulfonate (PFHpS)	08/14/2023	0.731	1.66	--	NG/L	105.00	J	
Perfluoroheptanoic acid (PFHpA)	08/14/2023	1.1	1.74	--	NG/L	105.00	J	
Perfluorohexanesulfonate (PFHxS)	08/14/2023	20.7	1.59	--	NG/L	105.00		
Perfluorohexanoic acid (PFHxA)	08/14/2023	4.67	1.74	--	NG/L	105.00		
Perfluorononanoic acid (PFNA)	08/14/2023	19.7	1.74	--	NG/L	105.00		
Perfluorooctanesulfonate (PFOS)	08/14/2023	48.9	1.61	--	NG/L	105.00		
Perfluorooctanoic acid (PFOA)	08/14/2023	2.56	1.74	--	NG/L	105.00		
Perfluoropentanesulfonate (PFPeS)	08/14/2023	3.3	1.64	--	NG/L	105.00		
Perfluoropentanoic acid (PFPeA)	08/14/2023	1.96	1.74	--	NG/L	105.00		

Site ID : 102-12

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/17/2023	28.212	--	--	NG/L	58.00		
Perfluorobutanesulfonate (PFBS)	08/17/2023	1.4	1.64	--	NG/L	58.00	J	
Perfluorobutyric acid (PFBA)	08/17/2023	3.87	7.42	--	NG/L	58.00	J	
Perfluoroheptanoic acid (PFHpA)	08/17/2023	1.46	1.85	--	NG/L	58.00	J	
Perfluorohexanoic acid (PFHxA)	08/17/2023	5.11	1.85	--	NG/L	58.00		
Perfluorooctanesulfonate (PFOS)	08/17/2023	7.17	1.72	--	NG/L	58.00		
Perfluorooctanoic acid (PFOA)	08/17/2023	1.3	1.85	--	NG/L	58.00	J	
Perfluoropentanesulfonate (PFPeS)	08/17/2023	0.912	1.74	--	NG/L	58.00	J	
Perfluoropentanoic acid (PFPeA)	08/17/2023	6.99	1.85	--	NG/L	58.00	B	

Site ID : 102-26

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/09/2023	4.611	--	--	NG/L	95.00		

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 102-26

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorohexanesulfonate (PFHxS)	08/09/2023	0.821	1.68	--	NG/L	95.00	J	
Perfluorooctanesulfonate (PFOS)	08/09/2023	3.79	1.7	--	NG/L	95.00		

Site ID : 102-27

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/09/2023	4.93	--	--	NG/L	115.00		
Perfluorooctanesulfonate (PFOS)	08/09/2023	3.79	1.81	--	NG/L	115.00		
Perfluorooctanoic acid (PFOA)	08/09/2023	1.14	1.95	--	NG/L	115.00	J	

Site ID : 102-29

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/11/2023	31.343	--	--	NG/L	95.00		
Perfluorobutanesulfonate (PFBS)	08/11/2023	2.76	1.58	--	NG/L	95.00		
Perfluorobutyric acid (PFBA)	08/11/2023	2.54	7.14	--	NG/L	95.00	J	
Perfluoroheptanesulfonate (PFHpS)	08/11/2023	0.582	1.7	--	NG/L	95.00	J	
Perfluoroheptanoic acid (PFHpA)	08/11/2023	1.06	1.78	--	NG/L	95.00	J	
Perfluorohexanesulfonate (PFHxS)	08/11/2023	3.87	1.63	--	NG/L	95.00		
Perfluorohexanoic acid (PFHxA)	08/11/2023	2.53	1.78	--	NG/L	95.00		
Perfluorononanoic acid (PFNA)	08/11/2023	0.92	1.78	--	NG/L	95.00	J	
Perfluorooctanesulfonate (PFOS)	08/11/2023	9.26	1.66	--	NG/L	95.00		
Perfluorooctanoic acid (PFOA)	08/11/2023	4.78	1.78	--	NG/L	95.00		
Perfluoropentanesulfonate (PFPeS)	08/11/2023	0.791	1.68	--	NG/L	95.00	J	
Perfluoropentanoic acid (PFPeA)	08/11/2023	2.25	1.78	--	NG/L	95.00		

Site ID : 102-30

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/10/2023	30.281	--	--	NG/L	115.00		
Perfluorobutanesulfonate (PFBS)	08/10/2023	0.673	1.67	--	NG/L	115.00	J	
Perfluorohexanesulfonate (PFHxS)	08/10/2023	4.52	1.72	--	NG/L	115.00		
Perfluorohexanoic acid (PFHxA)	08/10/2023	2.13	1.89	--	NG/L	115.00		
Perfluorononanoic acid (PFNA)	08/10/2023	1.18	1.89	--	NG/L	115.00	J	
Perfluorooctanesulfonate (PFOS)	08/10/2023	20.8	1.75	--	NG/L	115.00		
Perfluorooctanoic acid (PFOA)	08/10/2023	0.978	1.89	--	NG/L	115.00	J	

Site ID : 102-31

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/11/2023	261.69	--	--	NG/L	135.00		

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 102-31

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1,4-Dioxane	08/11/2023	0.31	0.2	--	UG/L	135.00		
Perfluorobutanesulfonate (PFBS)	08/11/2023	6.36	1.57	--	NG/L	135.00		
Perfluorobutyric acid (PFBA)	08/11/2023	3.27	7.07	--	NG/L	135.00	J	
Perfluoroheptanesulfonate (PFHpS)	08/11/2023	2.73	1.69	--	NG/L	135.00		
Perfluoroheptanoic acid (PFHpA)	08/11/2023	1.53	1.77	--	NG/L	135.00	J	
Perfluorohexanesulfonate (PFHxS)	08/11/2023	75	1.62	--	NG/L	135.00		
Perfluorohexanoic acid (PFHxA)	08/11/2023	7.95	1.77	--	NG/L	135.00		
Perfluorononanoic acid (PFNA)	08/11/2023	1.68	1.77	--	NG/L	135.00	J	
Perfluorooctanesulfonate (PFOS)	08/11/2023	145	1.64	--	NG/L	135.00		
Perfluorooctanoic acid (PFOA)	08/11/2023	3.69	1.77	--	NG/L	135.00		
Perfluoropentanesulfonate (PFPeS)	08/11/2023	9.98	1.66	--	NG/L	135.00		
Perfluoropentanoic acid (PFPeA)	08/11/2023	4.5	1.77	--	NG/L	135.00		

Site ID : 102-36

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/09/2023	3.359	--	--	NG/L	75.00		
Perfluorohexanesulfonate (PFHxS)	08/09/2023	0.761	1.63	--	NG/L	75.00	J	
Perfluorooctanesulfonate (PFOS)	08/09/2023	1.87	1.66	--	NG/L	75.00		
Perfluorooctanoic acid (PFOA)	08/09/2023	0.728	1.79	--	NG/L	75.00	J	

Site ID : 102-37

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/09/2023	38.626	--	--	NG/L	70.00		
Perfluoroheptanoic acid (PFHpA)	08/09/2023	0.789	1.84	--	NG/L	70.00	J	
Perfluorohexanesulfonate (PFHxS)	08/09/2023	6.96	1.69	--	NG/L	70.00		
Perfluorohexanoic acid (PFHxA)	08/09/2023	2.62	1.84	--	NG/L	70.00		
Perfluorooctanesulfonate (PFOS)	08/09/2023	24.9	1.71	--	NG/L	70.00		
Perfluorooctanoic acid (PFOA)	08/09/2023	2	1.84	--	NG/L	70.00		
Perfluoropentanesulfonate (PFPeS)	08/09/2023	0.67	1.74	--	NG/L	70.00	J	
Perfluoropentanoic acid (PFPeA)	08/09/2023	0.687	1.84	--	NG/L	70.00	J	

Site ID : 102-38

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/16/2023	35.963	--	--	NG/L	75.00		
Perfluoroheptanesulfonate (PFHpS)	08/16/2023	0.886	1.86	--	NG/L	75.00	J	
Perfluoroheptanoic acid (PFHpA)	08/16/2023	0.666	1.96	--	NG/L	75.00	J	

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 102-38

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorohexanesulfonate (PFHxS)	08/16/2023	14.6	1.79	--	NG/L	75.00		
Perfluorohexanoic acid (PFHxA)	08/16/2023	0.807	1.96	--	NG/L	75.00	J	
Perfluorooctanesulfonate (PFOS)	08/16/2023	15.1	1.81	--	NG/L	75.00		
Perfluorooctanoic acid (PFOA)	08/16/2023	1.26	1.96	--	NG/L	75.00	J	
Perfluoropentanesulfonate (PFPeS)	08/16/2023	0.944	1.84	--	NG/L	75.00	J	
Perfluoropentanoic acid (PFPeA)	08/16/2023	1.7	1.96	--	NG/L	75.00	J	

Site ID : 102-39

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/16/2023	81.844	--	--	NG/L	75.00		
Perfluorobutanesulfonate (PFBS)	08/16/2023	2.05	1.7	--	NG/L	75.00		
Perfluoroheptanesulfonate (PFHpS)	08/16/2023	1.03	1.82	--	NG/L	75.00	J	
Perfluorohexanesulfonate (PFHxS)	08/16/2023	30.8	1.75	--	NG/L	75.00		
Perfluorohexanoic acid (PFHxA)	08/16/2023	3.86	1.91	--	NG/L	75.00		
Perfluorooctanesulfonate (PFOS)	08/16/2023	35.1	1.78	--	NG/L	75.00		
Perfluorooctanoic acid (PFOA)	08/16/2023	3.08	1.91	--	NG/L	75.00		
Perfluoropentanesulfonate (PFPeS)	08/16/2023	5.07	1.8	--	NG/L	75.00		
Perfluoropentanoic acid (PFPeA)	08/16/2023	0.854	1.91	--	NG/L	75.00	J	

Site ID : 102-40

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/10/2023	474.26	--	--	NG/L	150.00		
1,4-Dioxane	08/10/2023	2.2	0.21	--	UG/L	150.00		
Perfluorobutanesulfonate (PFBS)	08/10/2023	10.1	8.87	--	NG/L	150.00		
Perfluoroheptanesulfonate (PFHpS)	08/10/2023	4.94	9.53	--	NG/L	150.00	J	
Perfluorohexanesulfonate (PFHxS)	08/10/2023	111	9.14	--	NG/L	150.00		
Perfluorohexanoic acid (PFHxA)	08/10/2023	18.5	10	--	NG/L	150.00		
Perfluorooctanesulfonate (PFOS)	08/10/2023	301	9.28	--	NG/L	150.00		
Perfluorooctanoic acid (PFOA)	08/10/2023	9.46	10	--	NG/L	150.00	J	
Perfluoropentanesulfonate (PFPeS)	08/10/2023	13.7	9.41	--	NG/L	150.00		
Perfluoropentanoic acid (PFPeA)	08/10/2023	5.56	10	--	NG/L	150.00	J	

Site ID : 103-30

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/27/2023	119.6	--	--	NG/L	95.00		
Perfluorobutanesulfonate (PFBS)	07/27/2023	2.04	1.73	--	NG/L	95.00		

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 103-30

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluoroheptanesulfonate (PFHpS)	07/27/2023	0.846	1.86	--	NG/L	95.00	J	
Perfluoroheptanoic acid (PFHpA)	07/27/2023	0.824	1.95	--	NG/L	95.00	J	
Perfluorohexanesulfonate (PFHxS)	07/27/2023	21.1	1.78	--	NG/L	95.00		
Perfluorohexanoic acid (PFHxA)	07/27/2023	2.92	1.95	--	NG/L	95.00		
Perfluorononanoic acid (PFNA)	07/27/2023	24.6	1.95	--	NG/L	95.00		
Perfluorooctanesulfonate (PFOS)	07/27/2023	61.1	1.81	--	NG/L	95.00		
Perfluorooctanoic acid (PFOA)	07/27/2023	2	1.95	--	NG/L	95.00		
Perfluoropentanesulfonate (PFPeS)	07/27/2023	2.45	1.83	--	NG/L	95.00		
Perfluoropentanoic acid (PFPeA)	07/27/2023	1.72	1.95	--	NG/L	95.00	J	

Site ID : 103-31

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/27/2023	146.83	--	--	NG/L	115.00		
Perfluorobutanesulfonate (PFBS)	07/27/2023	4.49	1.55	--	NG/L	115.00		
Perfluoroheptanesulfonate (PFHpS)	07/27/2023	1.4	1.67	--	NG/L	115.00	J	
Perfluoroheptanoic acid (PFHpA)	07/27/2023	1.72	1.75	--	NG/L	115.00	J	
Perfluorohexanesulfonate (PFHxS)	07/27/2023	36	1.6	--	NG/L	115.00		
Perfluorohexanoic acid (PFHxA)	07/27/2023	7.37	1.75	--	NG/L	115.00		
Perfluorononanoic acid (PFNA)	07/27/2023	17.9	1.75	--	NG/L	115.00		
Perfluorooctanesulfonate (PFOS)	07/27/2023	66	1.62	--	NG/L	115.00		
Perfluorooctanoic acid (PFOA)	07/27/2023	3.75	1.75	--	NG/L	115.00		
Perfluoropentanesulfonate (PFPeS)	07/27/2023	4.99	1.65	--	NG/L	115.00		
Perfluoropentanoic acid (PFPeA)	07/27/2023	3.21	1.75	--	NG/L	115.00		

Site ID : 103-32

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/27/2023	317.771	--	--	NG/L	135.00		
1,4-Dioxane	07/27/2023	0.32	0.2	--	UG/L	135.00		
Perfluorobutanesulfonate (PFBS)	07/27/2023	17.1	1.63	--	NG/L	135.00		
Perfluorobutyric acid (PFBA)	07/27/2023	7.04	7.34	--	NG/L	135.00	J	
Perfluoroheptanesulfonate (PFHpS)	07/27/2023	9.06	1.75	--	NG/L	135.00		
Perfluoroheptanoic acid (PFHpA)	07/27/2023	6.81	1.83	--	NG/L	135.00		
Perfluorohexanesulfonate (PFHxS)	07/27/2023	72.8	8.38	--	NG/L	135.00	D	
Perfluorohexanoic acid (PFHxA)	07/27/2023	35.5	1.83	--	NG/L	135.00		
Perfluorononanoic acid (PFNA)	07/27/2023	0.761	1.83	--	NG/L	135.00	J	

Table 21-3
Current Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 103-32

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorooctanesulfonate (PFOS)	07/27/2023	104	8.51	--	NG/L	135.00	D	
Perfluorooctanoic acid (PFOA)	07/27/2023	16.8	1.83	--	NG/L	135.00		
Perfluoropentanesulfonate (PFPeS)	07/27/2023	29.4	1.73	--	NG/L	135.00		
Perfluoropentanoic acid (PFPeA)	07/27/2023	18.5	1.83	--	NG/L	135.00		

Site ID : 103-33

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/14/2023	275.72	--	--	NG/L	95.00		
Perfluorobutanesulfonate (PFBS)	08/14/2023	8.61	1.52	--	NG/L	95.00		
Perfluorobutyric acid (PFBA)	08/14/2023	4.2	6.84	--	NG/L	95.00	J	
Perfluoroheptanesulfonate (PFHpS)	08/14/2023	2.71	1.63	--	NG/L	95.00		
Perfluoroheptanoic acid (PFHpA)	08/14/2023	2.8	1.71	--	NG/L	95.00		
Perfluorohexanesulfonate (PFHxS)	08/14/2023	83.7	1.56	--	NG/L	95.00		
Perfluorohexanoic acid (PFHxA)	08/14/2023	11.4	1.71	--	NG/L	95.00		
Perfluorononanoic acid (PFNA)	08/14/2023	1.47	1.71	--	NG/L	95.00	J	
Perfluorooctanesulfonate (PFOS)	08/14/2023	132	1.59	--	NG/L	95.00		
Perfluorooctanoic acid (PFOA)	08/14/2023	6.18	1.71	--	NG/L	95.00		
Perfluoropentanesulfonate (PFPeS)	08/14/2023	13.6	1.61	--	NG/L	95.00		
Perfluoropentanoic acid (PFPeA)	08/14/2023	9.05	1.71	--	NG/L	95.00		

Site ID : 103-34

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/14/2023	207.649	--	--	NG/L	125.00		
Perfluorobutanesulfonate (PFBS)	08/14/2023	4.74	1.58	--	NG/L	125.00		
Perfluorobutyric acid (PFBA)	08/14/2023	3.7	7.13	--	NG/L	125.00	J	
Perfluoroheptanesulfonate (PFHpS)	08/14/2023	1.76	1.7	--	NG/L	125.00		
Perfluoroheptanoic acid (PFHpA)	08/14/2023	2.66	1.78	--	NG/L	125.00		
Perfluorohexanesulfonate (PFHxS)	08/14/2023	62.3	1.63	--	NG/L	125.00		
Perfluorohexanoic acid (PFHxA)	08/14/2023	8.19	1.78	--	NG/L	125.00		
Perfluorononanoic acid (PFNA)	08/14/2023	0.709	1.78	--	NG/L	125.00	J	
Perfluorooctanesulfonate (PFOS)	08/14/2023	102	1.66	--	NG/L	125.00		
Perfluorooctanoic acid (PFOA)	08/14/2023	6.25	1.78	--	NG/L	125.00		
Perfluoropentanesulfonate (PFPeS)	08/14/2023	9.84	1.68	--	NG/L	125.00		
Perfluoropentanoic acid (PFPeA)	08/14/2023	5.5	1.78	--	NG/L	125.00		

Table 21-4
Current Firehouse PFAS Extraction Well Data
'Hits Only' July through September 2023

Site ID : 073-34 (CF-RW-A)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
537 TPFAS	07/07/2023	378.817	--	--	NG/L	0.00		
Perfluorobutanesulfonate (PFBS)	07/07/2023	9.6	1.57	--	NG/L	0.00		
Perfluorobutylsulfonamide (FBSA)	07/07/2023	3.33	3.52	--	NG/L	0.00	J	
Perfluorobutyric acid (PFBA)	07/07/2023	6.71	1.76	--	NG/L	0.00		
Perfluoroheptanesulfonate (PFHpS)	07/07/2023	2.9	1.67	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	07/07/2023	7.03	1.76	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	07/07/2023	88.8	1.6	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	07/07/2023	20.1	1.76	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	07/07/2023	0.719	1.76	--	NG/L	0.00	J	
Perfluorooctane sulfonamide (PFOSAm)	07/07/2023	0.708	1.76	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	07/07/2023	200	8.81	--	NG/L	0.00	D	
Perfluorooctanoic acid (PFOA)	07/07/2023	7.42	1.76	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	07/07/2023	10.4	1.66	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	07/07/2023	21.1	1.76	--	NG/L	0.00		
1633 TPFAS	08/10/2023	398.23	--	--	NG/L	0.00		
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	08/10/2023	1	5.9	--	NG/L	0.00	J	
Fluorotelomer sulfonate 6:2 (6:2 FTS)	08/10/2023	2.3	5.9	--	NG/L	0.00	J	
Perfluorobutanesulfonate (PFBS)	08/10/2023	11	1.5	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	08/10/2023	6.1	5.9	--	NG/L	0.00		
Perfluorodecanoic acid (PFDA)	08/10/2023	0.22	1.5	--	NG/L	0.00	J	
Perfluoroheptanesulfonate (PFHpS)	08/10/2023	3.9	1.5	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	08/10/2023	7	1.5	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	08/10/2023	73	1.5	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	08/10/2023	21	1.5	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	08/10/2023	0.81	1.5	--	NG/L	0.00	J	
Perfluorooctane sulfonamide (PFOSAm)	08/10/2023	1.3	1.5	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	08/10/2023	230	1.5	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	08/10/2023	6.6	1.5	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	08/10/2023	10	1.5	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	08/10/2023	24	2.9	--	NG/L	0.00		
1633 TPFAS	09/14/2023	210.94	--	--	NG/L	0.00		
Fluorotelomer sulfonate 6:2 (6:2 FTS)	09/14/2023	0.89	5.9	--	NG/L	0.00	J	
Perfluorobutanesulfonate (PFBS)	09/14/2023	6	1.5	--	NG/L	0.00		

Table 21-4
Current Firehouse PFAS Extraction Well Data
'Hits Only' July through September 2023

Site ID : 073-34 (CF-RW-A)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorobutyric acid (PFBA)	09/14/2023	3.9	5.9	--	NG/L	0.00	J	
Perfluorodecanoic acid (PFDA)	09/14/2023	0.13	1.5	--	NG/L	0.00	J	
Perfluoroheptanesulfonate (PFHpS)	09/14/2023	1.6	1.5	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	09/14/2023	4.1	1.5	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	09/14/2023	45	1.5	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	09/14/2023	14	1.5	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	09/14/2023	0.42	1.5	--	NG/L	0.00	J	
Perfluorooctane sulfonamide (PFOSAm)	09/14/2023	0.8	1.5	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	09/14/2023	110	1.5	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	09/14/2023	3.7	1.5	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	09/14/2023	6.4	1.5	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	09/14/2023	14	3	--	NG/L	0.00		

Site ID : 073-35 (CF-RW-B)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
537 TPFAS	07/07/2023	76.594	--	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	07/07/2023	7.69	1.59	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	07/07/2023	1.22	1.75	--	NG/L	0.00	J	
Perfluorononanoic acid (PFNA)	07/07/2023	1.83	1.75	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	07/07/2023	64.3	1.75	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	07/07/2023	0.9	1.75	--	NG/L	0.00	J	
Perfluorotridecanoic acid (PFTrDA)	07/07/2023	0.654	1.75	--	NG/L	0.00	J	
1633 TPFAS	08/10/2023	77.86	--	--	NG/L	0.00		
Perfluorobutanesulfonate (PFBS)	08/10/2023	0.32	1.5	--	NG/L	0.00	J	
Perfluoroheptanoic acid (PFHpA)	08/10/2023	0.31	1.5	--	NG/L	0.00	J	
Perfluorohexanesulfonate (PFHxS)	08/10/2023	7.3	1.5	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	08/10/2023	1.1	1.5	--	NG/L	0.00	J	
Perfluorononanoic acid (PFNA)	08/10/2023	1.9	1.5	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	08/10/2023	0.3	1.5	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	08/10/2023	64	1.5	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	08/10/2023	0.78	1.5	--	NG/L	0.00	J	
Perfluoropentanesulfonate (PFPeS)	08/10/2023	0.37	1.5	--	NG/L	0.00	J	
Perfluoropentanoic acid (PFPeA)	08/10/2023	0.55	3	--	NG/L	0.00	J	
Perfluorotridecanoic acid (PFTrDA)	08/10/2023	0.48	1.5	--	NG/L	0.00	J	

Table 21-4
Current Firehouse PFAS Extraction Well Data
'Hits Only' July through September 2023

Site ID : 073-35 (CF-RW-B)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluoroundecanoic acid (PFUdA)	08/10/2023	0.45	1.5	--	NG/L	0.00	J	
1633 TPFAS	09/14/2023	83.9	--	--	NG/L	0.00		
Perfluorobutanesulfonate (PFBS)	09/14/2023	0.31	1.5	--	NG/L	0.00	J	
Perfluoroheptanesulfonate (PFHpS)	09/14/2023	0.37	1.5	--	NG/L	0.00	J	
Perfluoroheptanoic acid (PFHpA)	09/14/2023	0.43	1.5	--	NG/L	0.00	J	
Perfluorohexanesulfonate (PFHxS)	09/14/2023	9.9	1.5	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	09/14/2023	1.3	1.5	--	NG/L	0.00	J	
Perfluorononanoic acid (PFNA)	09/14/2023	1.4	1.5	--	NG/L	0.00	J	
Perfluorooctane sulfonamide (PFOSAm)	09/14/2023	0.23	1.5	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	09/14/2023	67	1.5	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	09/14/2023	0.86	1.5	--	NG/L	0.00	J	
Perfluoropentanesulfonate (PFPeS)	09/14/2023	0.5	1.5	--	NG/L	0.00	J	
Perfluoropentanoic acid (PFPeA)	09/14/2023	0.6	2.9	--	NG/L	0.00	J	
Perfluorotridecanoic acid (PFTrDA)	09/14/2023	0.59	1.5	--	NG/L	0.00	J	
Perfluoroundecanoic acid (PFUdA)	09/14/2023	0.41	1.5	--	NG/L	0.00	J	

Site ID : 083-45 (CF-RW-C)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
537 TPFAS	07/07/2023	6.782	--	--	NG/L	0.00		
1,4-Dioxane	07/07/2023	0.93	0.2	--	UG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	07/07/2023	0.922	1.83	--	NG/L	0.00	J	
Perfluorohexanoic acid (PFHxA)	07/07/2023	1.37	2.01	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	07/07/2023	2.22	2.01	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	07/07/2023	1.17	2.01	--	NG/L	0.00	J	
Perfluoropentanoic acid (PFPeA)	07/07/2023	1.1	2.01	--	NG/L	0.00	J	
1633 TPFAS	08/10/2023	2.78	--	--	NG/L	0.00		
1,4-Dioxane	08/10/2023	1.7	0.2	--	UG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	08/10/2023	0.22	1.6	--	NG/L	0.00	J	
Perfluorohexanesulfonate (PFHxS)	08/10/2023	0.58	1.6	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	08/10/2023	1.6	1.6	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	08/10/2023	0.38	3.1	--	NG/L	0.00	J	
1633 TPFAS	09/14/2023	2.76	--	--	NG/L	0.00		
1,4-Dioxane	09/14/2023	1.7	0.2	--	UG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	09/14/2023	0.2	1.5	--	NG/L	0.00	J	

Table 21-4
Current Firehouse PFAS Extraction Well Data
'Hits Only' July through September 2023

Site ID : 083-45 (CF-RW-C)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorohexanesulfonate (PFHxS)	09/14/2023	0.74	1.5	--	NG/L	0.00	J	
Perfluorohexanoic acid (PFHxA)	09/14/2023	0.6	1.5	--	NG/L	0.00	J	
Perfluorooctanoic acid (PFOA)	09/14/2023	0.84	1.5	--	NG/L	0.00	J	
Perfluoropentanoic acid (PFPeA)	09/14/2023	0.38	2.9	--	NG/L	0.00	J	

Site ID : 083-46 (CF-RW-D)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
537 TPFAS	07/07/2023	159.638	--	--	NG/L	0.00		
Perfluorobutanesulfonate (PFBS)	07/07/2023	0.767	1.47	--	NG/L	0.00	J	
Perfluorobutyric acid (PFBA)	07/07/2023	0.806	1.65	--	NG/L	0.00	J	
Perfluoroheptanesulfonate (PFHpS)	07/07/2023	0.716	1.57	--	NG/L	0.00	J	
Perfluoroheptanoic acid (PFHpA)	07/07/2023	0.765	1.65	--	NG/L	0.00	J	
Perfluorohexanesulfonate (PFHxS)	07/07/2023	14	1.51	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	07/07/2023	1.95	1.65	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	07/07/2023	1.77	1.65	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	07/07/2023	136	1.65	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	07/07/2023	1.88	1.65	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	07/07/2023	0.984	1.65	--	NG/L	0.00	J	
1633 TPFAS	08/10/2023	103.83	--	--	NG/L	0.00		
Perfluorobutanesulfonate (PFBS)	08/10/2023	0.62	1.5	--	NG/L	0.00	J	
Perfluorobutyric acid (PFBA)	08/10/2023	0.9	5.8	--	NG/L	0.00	J	
Perfluoroheptanesulfonate (PFHpS)	08/10/2023	0.49	1.5	--	NG/L	0.00	J	
Perfluoroheptanoic acid (PFHpA)	08/10/2023	0.63	1.5	--	NG/L	0.00	J	
Perfluorohexanesulfonate (PFHxS)	08/10/2023	10	1.5	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	08/10/2023	1.8	1.5	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	08/10/2023	1.4	1.5	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	08/10/2023	85	1.5	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	08/10/2023	1.3	1.5	--	NG/L	0.00	J	
Perfluoropentanesulfonate (PFPeS)	08/10/2023	0.39	1.5	--	NG/L	0.00	J	
Perfluoropentanoic acid (PFPeA)	08/10/2023	0.78	2.9	--	NG/L	0.00	J	
Perfluoroundecanoic acid (PFUdA)	08/10/2023	0.52	1.5	--	NG/L	0.00	J	
1633 TPFAS	09/14/2023	91.37	--	--	NG/L	0.00		
Perfluorobutanesulfonate (PFBS)	09/14/2023	0.6	1.5	--	NG/L	0.00	J	
Perfluorobutyric acid (PFBA)	09/14/2023	0.8	6.1	--	NG/L	0.00	J	

Table 21-4
Current Firehouse PFAS Extraction Well Data
'Hits Only' July through September 2023

Site ID : 083-46 (CF-RW-D)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorodecanoic acid (PFDA)	09/14/2023	0.12	1.5	--	NG/L	0.00	J	
Perfluoroheptanoic acid (PFHpA)	09/14/2023	0.58	1.5	--	NG/L	0.00	J	
Perfluorohexanesulfonate (PFHxS)	09/14/2023	9.3	1.5	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	09/14/2023	1.7	1.5	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	09/14/2023	1.3	1.5	--	NG/L	0.00	J	
Perfluorooctane sulfonamide (PFOSAm)	09/14/2023	0.16	1.5	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	09/14/2023	74	1.5	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	09/14/2023	1.3	1.5	--	NG/L	0.00	J	
Perfluoropentanesulfonate (PFPeS)	09/14/2023	0.35	1.5	--	NG/L	0.00	J	
Perfluoropentanoic acid (PFPeA)	09/14/2023	0.75	3	--	NG/L	0.00	J	
Perfluoroundecanoic acid (PFUdA)	09/14/2023	0.41	1.5	--	NG/L	0.00	J	

Site ID : 084-102 (CF-RW-E)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
537 TPFAS	07/07/2023	656.71	--	--	NG/L	0.00		
Perfluorobutanesulfonate (PFBS)	07/07/2023	5.67	1.64	--	NG/L	0.00		
Perfluorobutylsulfonamide (FBSA)	07/07/2023	5.02	3.68	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	07/07/2023	3.52	1.84	--	NG/L	0.00		
Perfluoroheptanesulfonate (PFHpS)	07/07/2023	6.6	1.75	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	07/07/2023	4.31	1.84	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	07/07/2023	140	1.67	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	07/07/2023	16.3	1.84	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	07/07/2023	43.8	1.84	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	07/07/2023	1.22	1.84	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	07/07/2023	388	9.19	--	NG/L	0.00	D	
Perfluorooctanoic acid (PFOA)	07/07/2023	22.7	1.84	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	07/07/2023	11.3	1.73	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	07/07/2023	8.27	1.84	--	NG/L	0.00		
1633 TPFAS	08/10/2023	644.8	--	--	NG/L	0.00		
1,4-Dioxane	08/10/2023	0.17	0.2	--	UG/L	0.00	J	
Perfluorobutanesulfonate (PFBS)	08/10/2023	5.4	1.5	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	08/10/2023	3.3	6	--	NG/L	0.00	J	
Perfluoroheptanesulfonate (PFHpS)	08/10/2023	7	1.5	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	08/10/2023	4	1.5	--	NG/L	0.00		

Table 21-4
Current Firehouse PFAS Extraction Well Data
'Hits Only' July through September 2023

Site ID : 084-102 (CF-RW-E)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorohexanesulfonate (PFHxS)	08/10/2023	120	1.5	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	08/10/2023	16	1.5	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	08/10/2023	39	1.5	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	08/10/2023	2	1.5	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	08/10/2023	410	1.5	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	08/10/2023	20	1.5	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	08/10/2023	9.7	1.5	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	08/10/2023	8.4	3	--	NG/L	0.00		
1633 TPFAS	09/14/2023	621.33	--	--	NG/L	0.00		
Perfluorobutanesulfonate (PFBS)	09/14/2023	5.3	1.4	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	09/14/2023	3.1	5.7	--	NG/L	0.00	J	
Perfluorodecanoic acid (PFDA)	09/14/2023	0.23	1.4	--	NG/L	0.00	J	
Perfluoroheptanesulfonate (PFHpS)	09/14/2023	6.3	1.4	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	09/14/2023	4.1	1.4	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	09/14/2023	120	1.4	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	09/14/2023	15	1.4	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	09/14/2023	40	1.4	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	09/14/2023	1.7	1.4	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	09/14/2023	390	1.4	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	09/14/2023	18	1.4	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	09/14/2023	9.6	1.4	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	09/14/2023	8	2.9	--	NG/L	0.00		

Site ID : 102-32 (CF-RW-F)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
537 TPFAS	07/07/2023	6.57	--	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	07/07/2023	2.4	1.83	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	07/07/2023	4.17	2.01	--	NG/L	0.00		
1633 TPFAS	08/10/2023	6.69	--	--	NG/L	0.00		
1633 TPFAS	08/10/2023	25.44	--	--	NG/L	0.00		
Perfluorobutanesulfonate (PFBS)	08/10/2023	2.5	1.4	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	08/10/2023	0.75	5.7	--	NG/L	0.00	J	
Perfluoroheptanoic acid (PFHpA)	08/10/2023	0.4	1.4	--	NG/L	0.00	J	
Perfluorohexanesulfonate (PFHxS)	08/10/2023	2.6	1.5	--	NG/L	0.00		

Table 21-4
Current Firehouse PFAS Extraction Well Data
'Hits Only' July through September 2023

Site ID : 102-32 (CF-RW-F)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorohexanesulfonate (PFHxS)	08/10/2023	5.6	1.4	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	08/10/2023	0.39	1.5	--	NG/L	0.00	J	
Perfluorohexanoic acid (PFHxA)	08/10/2023	1.4	1.4	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	08/10/2023	0.28	1.4	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	08/10/2023	3.7	1.5	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	08/10/2023	12	1.4	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	08/10/2023	1.1	1.4	--	NG/L	0.00	J	
Perfluoropentanesulfonate (PFPeS)	08/10/2023	0.67	1.4	--	NG/L	0.00	J	
Perfluoropentanoic acid (PFPeA)	08/10/2023	0.74	2.9	--	NG/L	0.00	J	
1633 TPFAS	09/14/2023	3.77	--	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	09/14/2023	2.3	1.5	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	09/14/2023	0.27	1.5	--	NG/L	0.00	J	
Perfluorooctane sulfonamide (PFOSAm)	09/14/2023	1.2	16	--	NG/L	0.00	J D	

Site ID : 102-33 (CF-RW-G)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
537 TPFAS	07/07/2023	31.237	--	--	NG/L	0.00		
Perfluorobutanesulfonate (PFBS)	07/07/2023	3.2	1.55	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	07/07/2023	0.958	1.74	--	NG/L	0.00	J	
Perfluorohexanesulfonate (PFHxS)	07/07/2023	6.68	1.58	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	07/07/2023	1.42	1.74	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	07/07/2023	16	1.74	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	07/07/2023	1.43	1.74	--	NG/L	0.00	J	
Perfluoropentanesulfonate (PFPeS)	07/07/2023	0.816	1.63	--	NG/L	0.00	J	
Perfluoropentanoic acid (PFPeA)	07/07/2023	0.733	1.74	--	NG/L	0.00	J	
1633 TPFAS	09/14/2023	27.8	--	--	NG/L	0.00		
1,4-Dioxane	09/14/2023	0.1	0.2	--	UG/L	0.00	J	
Perfluorobutanesulfonate (PFBS)	09/14/2023	2.7	1.5	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	09/14/2023	0.75	5.8	--	NG/L	0.00	J	
Perfluoroheptanoic acid (PFHpA)	09/14/2023	0.33	1.5	--	NG/L	0.00	J	
Perfluorohexanesulfonate (PFHxS)	09/14/2023	5.9	1.5	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	09/14/2023	1.4	1.5	--	NG/L	0.00	J	
Perfluorononanoic acid (PFNA)	09/14/2023	0.27	1.5	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	09/14/2023	14	1.5	--	NG/L	0.00		

Table 21-4
Current Firehouse PFAS Extraction Well Data
'Hits Only' July through September 2023

Site ID : 102-33 (CF-RW-G)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorooctanoic acid (PFOA)	09/14/2023	1.2	1.5	--	NG/L	0.00	J	
Perfluoropentanesulfonate (PFPeS)	09/14/2023	0.59	1.5	--	NG/L	0.00	J	
Perfluoropentanoic acid (PFPeA)	09/14/2023	0.66	2.9	--	NG/L	0.00	J	

Site ID : 102-34 (CF-RW-H)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
537 TPFAS	07/07/2023	144.958	--	--	NG/L	0.00		
1,4-Dioxane	07/07/2023	0.68	0.2	--	UG/L	0.00		
Perfluorobutanesulfonate (PFBS)	07/07/2023	2.2	1.63	--	NG/L	0.00		
Perfluorobutylsulfonamide (FBSA)	07/07/2023	1.29	3.65	--	NG/L	0.00	J	
Perfluorobutyric acid (PFBA)	07/07/2023	1.34	1.83	--	NG/L	0.00	J	
Perfluoroheptanesulfonate (PFHpS)	07/07/2023	1.09	1.73	--	NG/L	0.00	J	
Perfluoroheptanoic acid (PFHpA)	07/07/2023	0.998	1.83	--	NG/L	0.00	J	
Perfluorohexanesulfonate (PFHxS)	07/07/2023	24.8	1.66	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	07/07/2023	4.67	1.83	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	07/07/2023	3.64	1.83	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	07/07/2023	98	1.83	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	07/07/2023	3.08	1.83	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	07/07/2023	1.87	1.72	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	07/07/2023	1.98	1.83	--	NG/L	0.00		
1633 TPFAS	08/10/2023	114.31	--	--	NG/L	0.00		
1,4-Dioxane	08/10/2023	0.56	0.2	--	UG/L	0.00		
Perfluorobutanesulfonate (PFBS)	08/10/2023	1.5	1.4	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	08/10/2023	1.4	5.7	--	NG/L	0.00	J	
Perfluoroheptanesulfonate (PFHpS)	08/10/2023	0.78	1.4	--	NG/L	0.00	J	
Perfluoroheptanoic acid (PFHpA)	08/10/2023	0.92	1.4	--	NG/L	0.00	J	
Perfluorohexanesulfonate (PFHxS)	08/10/2023	21	1.4	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	08/10/2023	3.9	1.4	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	08/10/2023	3.3	1.4	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	08/10/2023	0.21	1.4	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	08/10/2023	75	1.4	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	08/10/2023	2.5	1.4	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	08/10/2023	1.8	1.4	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	08/10/2023	2	2.9	--	NG/L	0.00	J	

Table 21-4
Current Firehouse PFAS Extraction Well Data
'Hits Only' July through September 2023

Site ID : 102-34 (CF-RW-H)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	09/14/2023	109.17	--	--	NG/L	0.00		
1,4-Dioxane	09/14/2023	0.78	0.2	--	UG/L	0.00		
Perfluorobutanesulfonate (PFBS)	09/14/2023	1.6	1.5	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	09/14/2023	1.4	5.9	--	NG/L	0.00	J	
Perfluoroheptanesulfonate (PFHpS)	09/14/2023	0.84	1.5	--	NG/L	0.00	J	
Perfluoroheptanoic acid (PFHpA)	09/14/2023	0.79	1.5	--	NG/L	0.00	J	
Perfluorohexanesulfonate (PFHxS)	09/14/2023	22	1.5	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	09/14/2023	4.1	1.5	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	09/14/2023	2.9	1.5	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	09/14/2023	0.14	1.5	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	09/14/2023	69	1.5	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	09/14/2023	2.6	1.5	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	09/14/2023	2	1.5	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	09/14/2023	1.8	3	--	NG/L	0.00	J	

Site ID : 102-35 (CF-RW-I)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
537 TPFAS	07/07/2023	69.038	--	--	NG/L	0.00		
Perfluorobutanesulfonate (PFBS)	07/07/2023	1.2	1.54	--	NG/L	0.00	J	
Perfluoroheptanesulfonate (PFHpS)	07/07/2023	0.88	1.64	--	NG/L	0.00	J	
Perfluorohexanesulfonate (PFHxS)	07/07/2023	27.9	1.57	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	07/07/2023	1.85	1.73	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	07/07/2023	31.7	1.73	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	07/07/2023	2.18	1.73	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	07/07/2023	2.75	1.62	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	07/07/2023	0.578	1.73	--	NG/L	0.00	J	
1633 TPFAS	09/14/2023	35.74	--	--	NG/L	0.00		
Perfluorobutanesulfonate (PFBS)	09/14/2023	0.64	1.6	--	NG/L	0.00	J	
Perfluoroheptanesulfonate (PFHpS)	09/14/2023	0.48	1.6	--	NG/L	0.00	J	
Perfluoroheptanoic acid (PFHpA)	09/14/2023	0.32	1.6	--	NG/L	0.00	J	
Perfluorohexanesulfonate (PFHxS)	09/14/2023	14	1.6	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	09/14/2023	1.2	1.6	--	NG/L	0.00	J	
Perfluorooctane sulfonamide (PFOSAm)	09/14/2023	0.68	1.6	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	09/14/2023	15	1.6	--	NG/L	0.00		

Table 21-4
Current Firehouse PFAS Extraction Well Data
'Hits Only' July through September 2023

Site ID : 102-35 (CF-RW-I)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorooctanoic acid (PFOA)	09/14/2023	1.7	1.6	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	09/14/2023	1.3	1.6	--	NG/L	0.00	J	
Perfluoropentanoic acid (PFPeA)	09/14/2023	0.42	3.2	--	NG/L	0.00	J	

Table 21-5
Current Firehouse PFAS Influent Data
'Hits Only' July through September 2023

Site ID : 084-99 (Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
537 TPFAS	07/03/2023	213.85	--	--	NG/L	0.00		
Perfluorobutanesulfonate (PFBS)	07/03/2023	3.14	1.5	--	NG/L	0.00		
Perfluorobutylsulfonamide (FBSA)	07/03/2023	1.67	3.37	--	NG/L	0.00	J	
Perfluorobutyric acid (PFBA)	07/03/2023	1.95	1.68	--	NG/L	0.00		
Perfluoroheptanesulfonate (PFHpS)	07/03/2023	1.74	1.6	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	07/03/2023	1.8	1.68	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	07/03/2023	45.3	1.53	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	07/03/2023	6.5	1.68	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	07/03/2023	7.22	1.68	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	07/03/2023	131	1.68	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	07/03/2023	5.59	1.68	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	07/03/2023	3.69	1.58	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	07/03/2023	4.25	1.68	--	NG/L	0.00		
8260 TVOC	07/13/2023	0.52	--	--	UG/L	0.00		
Chloroform	07/13/2023	0.52	0.5	--	UG/L	0.00		
537 TPFAS	07/20/2023	228.67	--	--	NG/L	0.00		
Perfluorobutanesulfonate (PFBS)	07/20/2023	2.95	1.61	--	NG/L	0.00		
Perfluorobutylsulfonamide (FBSA)	07/20/2023	1.61	3.62	--	NG/L	0.00	J	
Perfluorobutyric acid (PFBA)	07/20/2023	1.92	1.81	--	NG/L	0.00		
Perfluoroheptanesulfonate (PFHpS)	07/20/2023	2.14	1.72	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	07/20/2023	1.88	1.81	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	07/20/2023	42.9	1.65	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	07/20/2023	6	1.81	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	07/20/2023	7.54	1.81	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	07/20/2023	148	1.81	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	07/20/2023	5.76	1.81	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	07/20/2023	3.81	1.7	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	07/20/2023	4.16	1.81	--	NG/L	0.00		
1633 TPFAS	08/03/2023	188.82	--	--	NG/L	0.00		
8260 TVOC	08/03/2023	0.53	--	--	UG/L	0.00		
Chloroform	08/03/2023	0.53	0.5	--	UG/L	0.00		
Perfluorobutanesulfonate (PFBS)	08/03/2023	2.4	1.5	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	08/03/2023	1.5	6	--	NG/L	0.00	J	

Table 21-5
Current Firehouse PFAS Influent Data
'Hits Only' July through September 2023

Site ID : 084-99 (Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorodecanoic acid (PFDA)	08/03/2023	0.12	1.5	--	NG/L	0.00	J	
Perfluoroheptanesulfonate (PFHpS)	08/03/2023	1.6	1.5	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	08/03/2023	1.7	1.5	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	08/03/2023	35	1.5	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	08/03/2023	5.5	1.5	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	08/03/2023	7.5	1.5	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	08/03/2023	1.2	1.5	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	08/03/2023	120	1.5	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	08/03/2023	5.2	1.5	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	08/03/2023	3.2	1.5	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	08/03/2023	3.9	3	--	NG/L	0.00		
1633 TPFAS	08/14/2023	237.61	--	--	NG/L	0.00		
8260 TVOC	08/14/2023	0.66	--	--	UG/L	0.00		
Chloroform	08/14/2023	0.66	0.5	--	UG/L	0.00		
Perfluorobutanesulfonate (PFBS)	08/14/2023	4	1.5	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	08/14/2023	2	5.8	--	NG/L	0.00	J	
Perfluoroheptanesulfonate (PFHpS)	08/14/2023	2.1	1.5	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	08/14/2023	2.3	1.5	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	08/14/2023	44	1.5	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	08/14/2023	7.7	1.5	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	08/14/2023	9.6	1.5	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	08/14/2023	0.71	1.5	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	08/14/2023	150	1.5	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	08/14/2023	6.1	1.5	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	08/14/2023	4.1	1.5	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	08/14/2023	5	2.9	--	NG/L	0.00		
1633 TPFAS	09/05/2023	155.84	--	--	NG/L	0.00		
8260 TVOC	09/05/2023	0.48	--	--	UG/L	0.00		
Chloroform	09/05/2023	0.48	0.5	--	UG/L	0.00	J	
Perfluorobutanesulfonate (PFBS)	09/05/2023	2.7	1.4	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	09/05/2023	1.5	5.8	--	NG/L	0.00	J	
Perfluoroheptanesulfonate (PFHpS)	09/05/2023	1.4	1.4	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	09/05/2023	1.7	1.4	--	NG/L	0.00		

Table 21-5
Current Firehouse PFAS Influent Data
'Hits Only' July through September 2023

Site ID : 084-99 (Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorohexanesulfonate (PFHxS)	09/05/2023	34	1.4	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	09/05/2023	5.4	1.4	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	09/05/2023	6.8	1.4	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	09/05/2023	0.64	1.4	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	09/05/2023	90	1.4	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	09/05/2023	4.9	1.4	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	09/05/2023	3.1	1.4	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	09/05/2023	3.7	2.9	--	NG/L	0.00		
1633 TPFAS	09/18/2023	159.86	--	--	NG/L	0.00		
8260 TVOC	09/18/2023	0.46	--	--	UG/L	0.00		
1,4-Dioxane	09/18/2023	0.17	0.2	--	UG/L	0.00	J	
Chloroform	09/18/2023	0.46	0.5	--	UG/L	0.00	J	
Perfluorobutanesulfonate (PFBS)	09/18/2023	2.3	1.6	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	09/18/2023	1.5	6.4	--	NG/L	0.00	J	
Perfluoroheptanesulfonate (PFHpS)	09/18/2023	1.2	1.6	--	NG/L	0.00	J	
Perfluoroheptanoic acid (PFHpA)	09/18/2023	1.5	1.6	--	NG/L	0.00	J	
Perfluorohexanesulfonate (PFHxS)	09/18/2023	31	1.6	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	09/18/2023	5.1	1.6	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	09/18/2023	6.3	1.6	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	09/18/2023	0.46	1.6	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	09/18/2023	100	1.6	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	09/18/2023	4	1.6	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	09/18/2023	2.9	1.6	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	09/18/2023	3.6	3.2	--	NG/L	0.00		

Table 21-6
Current Firehouse PFAS Effluent Data
'Hits Only' July through September 2023

Site ID : 084-101 (Effluent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
537 TPFAS	07/03/2023	0	--	--	NG/L	0.00		
1,4-Dioxane	07/03/2023	0.2	0.2	--	UG/L	0.00	U	
8260 TVOC	07/13/2023	0	--	--	UG/L	0.00		
537 TPFAS	07/20/2023	0	--	--	NG/L	0.00		
1,4-Dioxane	07/20/2023	0.21	0.21	--	UG/L	0.00	U	
1633 TPFAS	08/03/2023	1.3	--	--	NG/L	0.00		
8260 TVOC	08/03/2023	0	--	--	UG/L	0.00		
1,4-Dioxane	08/03/2023	0.2	0.2	--	UG/L	0.00	U	
Perfluorooctane sulfonamide (PFOSAm)	08/03/2023	1.3	1.5	--	NG/L	0.00	J	
1633 TPFAS	08/14/2023	0.58	--	--	NG/L	0.00		
8260 TVOC	08/14/2023	0	--	--	UG/L	0.00		
1,4-Dioxane	08/14/2023	0.2	0.2	--	UG/L	0.00	U	
Perfluorooctane sulfonamide (PFOSAm)	08/14/2023	0.58	1.5	--	NG/L	0.00	J	
1633 TPFAS	09/05/2023	0.21	--	--	NG/L	0.00		
8260 TVOC	09/05/2023	0	--	--	UG/L	0.00		
1,4-Dioxane	09/05/2023	0.2	0.2	--	UG/L	0.00	U	
Perfluorooctane sulfonamide (PFOSAm)	09/05/2023	0.21	1.4	--	NG/L	0.00	J	
1633 TPFAS	09/18/2023	0.51	--	--	NG/L	0.00		
8260 TVOC	09/18/2023	0	--	--	UG/L	0.00		
1,4-Dioxane	09/18/2023	0.2	0.2	--	UG/L	0.00	U	
Perfluorohexanoic acid (PFHxA)	09/18/2023	0.4	1.5	--	NG/L	0.00	J	
Perfluorooctane sulfonamide (PFOSAm)	09/18/2023	0.11	1.5	--	NG/L	0.00	J	

Qualifiers :
D = Compound was identified in an analysis at a secondary dilution factor.
E = Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
J = Estimated value.
N2 = Not usable based on the results that are not distinguishable from background. The value is less than or equal to the sum of the MDA and the uncertainty or RDL.
U = Compound not detected.

Organic Compounds :
B = Compound was found in both the sample And associated laboratory blank.

Inorganic Compounds :
B = Result Is between instrument detection limit And contract required reporting limit.

OU X Former Firehouse PFAS Pump & Treat System

Process: Groundwater extraction with liquid phase granular activated carbon (GAC) treatment for per- and polyfluoroalkyl substances (PFAS), with discharge to recharge basins.

Goal: Final cleanup goals will be determined following the completion of the forthcoming Remedial Investigation/Feasibility Study and documented in the future OU X Record of Decision (ROD).

Start Date: January 2023

Table 22-1
Pumping Rates (gpm)

Extraction Well	RW-A	RW-B	RW-C
Site Id #	085-414	096-132	105-79
Screen Interval (ft bls)	44-64	83-103	104-124
Desired Flow Rate (gpm)	**50**	**75**	**100**
July (Avg gpm)	53	75	103
August " "	55	77	106
September " "	49	62	76
Actual (Avg. over Qtr.)	**52**	**71**	**95**

OU X Former Firehouse PFAS Pump & Treat System

Figure 22-1
Cumulative Pounds of PFAS Removed

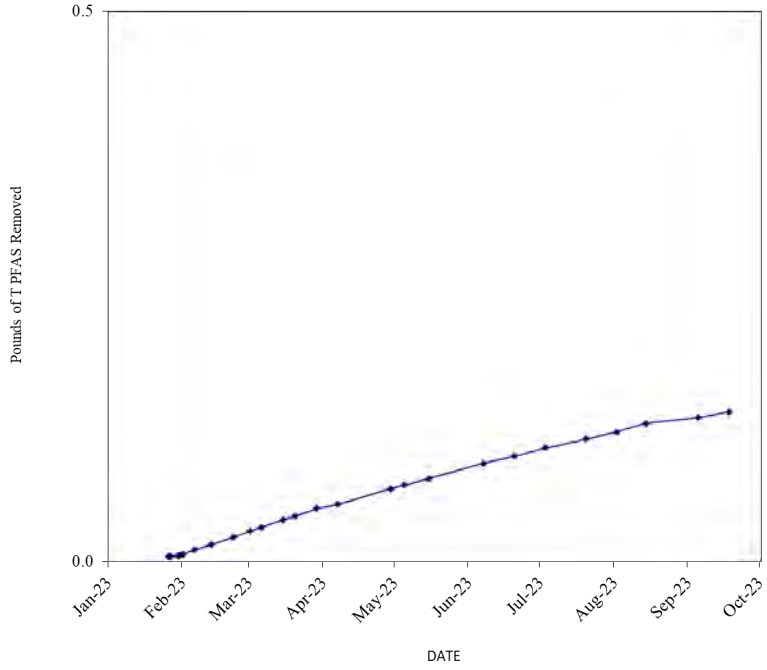
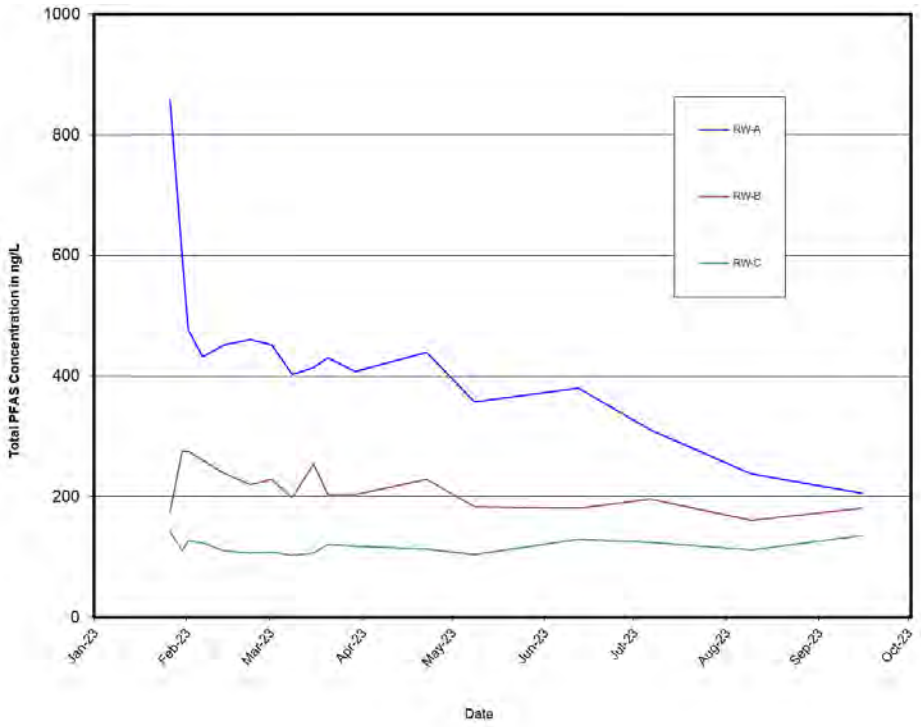


Figure 22-2
Extraction Well Total PFAS Concentration vs. Time



OU X Former Firehouse PFAS Pump & Treat System

Table 22-2
Effluent Water Quality
SPDES Equivalency Permit Concentrations July 1 through September 30, 2023

Parameter	Permit Limit	Max. Measured Value	Units	Frequency
Flow	**750**	**238**	**GPM**	**Continuous**
pH (range)	**5.0 – 8.5**	**5.7– 6.1***	**SU**	**Monthly**
Perfluoroocanesulfonic acid (PFOS)	**2.7**	**<1.73**	**ng/L**	**Monthly[1]**
Perfluorooctanoic acid (PFOA)	**6.7**	**<1.73**	**µg/L**	**Monthly[1]**
1,4-Dioxane	**0.35**	**0.1J**	**µg/L**	**Monthly[1]**
Chloroform	**7.0**	**<0.5**	**µg/L**	**Monthly[1]**
Methylene Chloride	**5.0**	**<0.5**	**µg/L**	**Monthly[1]**

[1] The minimum measurement frequency shall be monthly following a period of 8 consecutive weekly sampling events showing no exceedances of the stated discharge limitations.
* Minimum to maximum value for pH during this operational period.
J = The analyte was detected above the Method Detection Limit but below the Reporting Limit, the result is estimated.
< = The analyte was not detected above the Method Detection Limit.

Monitoring Activities

The Former Firehouse monitoring well data show the highest total PFAS concentration (13,833 ng/L) in monitoring well 075-811, immediately downgradient of the Former Firehouse. The total PFAS concentration in monitoring wells 075-809 and 075-810, were 2,757.7 ng/L and 3,431.5 ng/L, respectively. The Former Firehouse monitoring well network is shown on **Figure 22-3**. The 'Hits Only' third quarter 2023 data are summarized in **Table 22-3**.

System Operations

July 2023:
The system ran normally for the month. The system treated approximately 10 million gallons of water.

OU X Former Firehouse PFAS Pump & Treat System

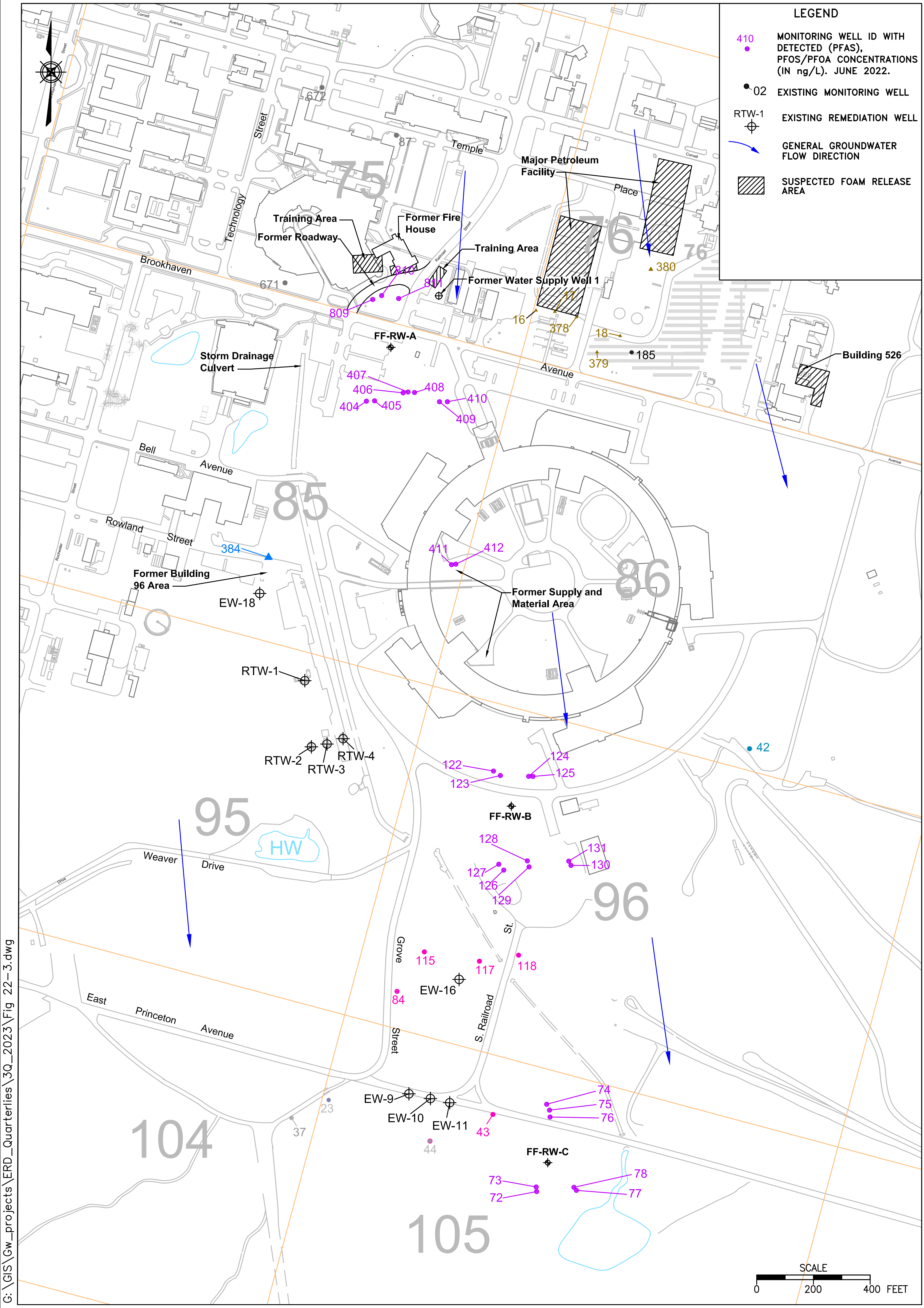
August 2023:
The system ran normally for the month. The system treated approximately 11 million gallons of water.

September 2023:
Wells FF-RW-B and FF-RW-C were shut off from September 25 to October 2 for a planned electrical outage for maintenance work. The system treated approximately 8 million gallons of water.

The system treated approximately 29 million gallons of water during the third quarter of 2023.The treatment system 'Hits Only' data, including individual extraction wells, influent, and effluent is summarized in **Table 22-4** through **22-6**.

Planned Operational Changes

- Maintain full time operation of the treatment system.
- As of June 16, 2023, discontinue monthly sampling for VOCs using EPA Method 8260LL on extraction wells FF-RW-A through FF-RW-C based on non-detect/low concentrations of VOCs in these wells. If elevated VOCs are observed in the monthly system influent sampling, the individual extraction wells may be sampled for VOCs in the future as appropriate.
- Starting in August 2023, the analytical method for treatment system PFAS was transitioned from EPA Method 537.1 to EPA Method 1633.


LEGEND
410
MONITORING WELL ID WITH DETECTED (PFAS), PFOS/PFOA CONCENTRATIONS (IN ng/L). JUNE 2022.
02
EXISTING MONITORING WELL
RTW-1
EXISTING REMEDIATION WELL
GENERAL GROUNDWATER FLOW DIRECTION
SUSPECTED FOAM RELEASE AREA
Cornell
Avenue
Street
Technology
Temple
Place
Brookhaven
Avenue
Bell
Avenue
Rowland
Street
Rochester
Railroad
Weaver
Drive
East
Princeton
Avenue
Grove
Street
S. Railroad
St.
75
76
85
86
95
96
104
105
HW
672
87
671
Training Area
Former Roadway
Former Fire House
Training Area
Former Water Supply Well 1
Major Petroleum Facility
809
810
811
16
17
378
380
18
379
185
Building 526
FF-RW-A
Storm Drainage Culvert
407
406
408
404
405
410
409
384
Former Building 96 Area
EW-18
411
412
Former Supply and Material Area
RTW-1
RTW-2
RTW-3
RTW-4
122
123
124
125
42
FF-RW-B
128
127
126
129
131
130
115
117
118
84
EW-16
EW-9
EW-10
EW-11
23
37
43
44
74
75
76
FF-RW-C
73
72
78
77
SCALE
0
200
400 FEET
G:\GIS\Gw_projects\ERD_Quarterlies\3Q_2023\Fig 22-3.dwg

Brookhaven National Laboratory

ENVIRONMENTAL PROTECTION DIVISION

TITLE:

FORMER FIREHOUSE PERMANENT MONITORING WELLS

SITEWIDE REMEDIATION SYSTEMS
THIRD QUARTER 2023 OPERATIONS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	—	05/19/23	—
CHKD:	APPD:	REV.:	NOTES:
LDS		10/30/23	—
FIGURE NO.:	22-3		

Table 22-3
Former Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 075-809

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/10/2023	2757.7	--	--	NG/L	37.50		
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	07/10/2023	1.6	15	--	NG/L	37.50	J	
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	07/10/2023	1.2	15	--	NG/L	37.50	J	
Perfluorobutanesulfonate (PFBS)	07/10/2023	8.4	1.5	--	NG/L	37.50		
Perfluorobutyric acid (PFBA)	07/10/2023	14	5.8	--	NG/L	37.50		
Perfluoroheptanesulfonate (PFHpS)	07/10/2023	48	1.5	--	NG/L	37.50		
Perfluoroheptanoic acid (PFHpA)	07/10/2023	20	1.5	--	NG/L	37.50		
Perfluorohexanesulfonate (PFHxS)	07/10/2023	1100	15	--	NG/L	37.50	D	
Perfluorohexanoic acid (PFHxA)	07/10/2023	69	1.5	--	NG/L	37.50		
Perfluorononanoic acid (PFNA)	07/10/2023	2.6	1.5	--	NG/L	37.50		
Perfluorooctane sulfonamide (PFOSAm)	07/10/2023	3.9	1.5	--	NG/L	37.50		
Perfluorooctanesulfonate (PFOS)	07/10/2023	1300	15	--	NG/L	37.50	D	
Perfluorooctanoic acid (PFOA)	07/10/2023	150	1.5	--	NG/L	37.50		
Perfluoropentanesulfonate (PFPeS)	07/10/2023	23	1.5	--	NG/L	37.50		
Perfluoropentanoic acid (PFPeA)	07/10/2023	16	2.9	--	NG/L	37.50		
solids-tot	07/10/2023	110	4	--	MG/L	37.50		

Site ID : 075-810

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/10/2023	3431.51	--	--	NG/L	37.50		
Perfluorobutanesulfonate (PFBS)	07/10/2023	21	1.4	--	NG/L	37.50		
Perfluorobutyric acid (PFBA)	07/10/2023	19	5.6	--	NG/L	37.50		
Perfluorodecanoic acid (PFDA)	07/10/2023	0.61	1.4	--	NG/L	37.50	J	
Perfluoroheptanesulfonate (PFHpS)	07/10/2023	76	1.4	--	NG/L	37.50		
Perfluoroheptanoic acid (PFHpA)	07/10/2023	15	1.4	--	NG/L	37.50		
Perfluorohexanesulfonate (PFHxS)	07/10/2023	860	14	--	NG/L	37.50	D	
Perfluorohexanoic acid (PFHxA)	07/10/2023	100	1.4	--	NG/L	37.50		
Perfluorononanoic acid (PFNA)	07/10/2023	6.6	1.4	--	NG/L	37.50		
Perfluorooctane sulfonamide (PFOSAm)	07/10/2023	3.3	1.4	--	NG/L	37.50		
Perfluorooctanesulfonate (PFOS)	07/10/2023	2200	14	--	NG/L	37.50	D	
Perfluorooctanoic acid (PFOA)	07/10/2023	78	1.4	--	NG/L	37.50		
Perfluoropentanesulfonate (PFPeS)	07/10/2023	29	1.4	--	NG/L	37.50		
Perfluoropentanoic acid (PFPeA)	07/10/2023	23	2.8	--	NG/L	37.50		
solids-tot	07/10/2023	50	4	--	MG/L	37.50		

Table 22-3
Former Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 075-810

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Strontium-90	07/10/2023	0.29	0.222	0.156	PCI/L	37.50		N2

Site ID : 075-811

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/10/2023	13833	--	--	NG/L	37.50		
Perfluorobutanesulfonate (PFBS)	07/10/2023	85	16	--	NG/L	37.50		
Perfluorobutyric acid (PFBA)	07/10/2023	71	63	--	NG/L	37.50		
Perfluoroheptanesulfonate (PFHpS)	07/10/2023	54	16	--	NG/L	37.50		
Perfluoroheptanoic acid (PFHpA)	07/10/2023	190	16	--	NG/L	37.50		
Perfluorohexanesulfonate (PFHxS)	07/10/2023	6500	160	--	NG/L	37.50	D	
Perfluorohexanoic acid (PFHxA)	07/10/2023	2300	16	--	NG/L	37.50		
Perfluorononanoic acid (PFNA)	07/10/2023	13	16	--	NG/L	37.50	J	
Perfluorooctane sulfonamide (PFOSAm)	07/10/2023	890	16	--	NG/L	37.50		
Perfluorooctanesulfonate (PFOS)	07/10/2023	1900	16	--	NG/L	37.50		
Perfluorooctanoic acid (PFOA)	07/10/2023	1500	16	--	NG/L	37.50		
Perfluoropentanesulfonate (PFPeS)	07/10/2023	70	16	--	NG/L	37.50		
Perfluoropentanoic acid (PFPeA)	07/10/2023	260	32	--	NG/L	37.50		
solids-tot	07/10/2023	30	4	--	MG/L	37.50		

Site ID : 075-87

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/21/2023	36.02	--	--	NG/L	107.50		
Perfluorobutanesulfonate (PFBS)	07/21/2023	1.2	1.4	--	NG/L	107.50	J	
Perfluorobutyric acid (PFBA)	07/21/2023	4	5.7	--	NG/L	107.50	J	
Perfluorodecanoic acid (PFDA)	07/21/2023	0.42	1.4	--	NG/L	107.50	J	
Perfluoroheptanoic acid (PFHpA)	07/21/2023	1.2	1.4	--	NG/L	107.50	J	
Perfluorohexanesulfonate (PFHxS)	07/21/2023	4.9	1.4	--	NG/L	107.50		
Perfluorohexanoic acid (PFHxA)	07/21/2023	3.5	1.4	--	NG/L	107.50		
Perfluorononanoic acid (PFNA)	07/21/2023	1.6	1.4	--	NG/L	107.50		
Perfluorooctanesulfonate (PFOS)	07/21/2023	9	1.4	--	NG/L	107.50		
Perfluorooctanoic acid (PFOA)	07/21/2023	6.5	1.4	--	NG/L	107.50		
Perfluoropentanoic acid (PFPeA)	07/21/2023	2.1	2.9	--	NG/L	107.50	J	
Perfluoroundecanoic acid (PFUdA)	07/21/2023	1.6	1.4	--	NG/L	107.50		

Site ID : 085-350

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/17/2023	15.48	--	--	NG/L	34.50		

Table 22-3
Former Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 085-350

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
8260 TVOC	07/17/2023	4.5	--	--	UG/L	34.50		
Perfluorobutanesulfonate (PFBS)	07/17/2023	1.7	1.3	--	NG/L	34.50		
Perfluorobutyric acid (PFBA)	07/17/2023	3.5	5.3	--	NG/L	34.50	J	
Perfluoroheptanoic acid (PFHpA)	07/17/2023	0.77	1.3	--	NG/L	34.50	J	
Perfluorohexanoic acid (PFHxA)	07/17/2023	0.87	1.3	--	NG/L	34.50	J	
Perfluorooctanesulfonate (PFOS)	07/17/2023	4.4	1.3	--	NG/L	34.50		
Perfluorooctanoic acid (PFOA)	07/17/2023	3.4	1.3	--	NG/L	34.50		
Perfluoropentanoic acid (PFPeA)	07/17/2023	0.84	2.7	--	NG/L	34.50	J	
Tetrachloroethylene	07/17/2023	4.5	0.5	--	UG/L	34.50		

Site ID : 085-384

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/21/2023	55.1	--	--	NG/L	37.50		
Perfluorobutanesulfonate (PFBS)	07/21/2023	2.9	1.4	--	NG/L	37.50		
Perfluorobutyric acid (PFBA)	07/21/2023	7.7	5.6	--	NG/L	37.50		
Perfluorodecanoic acid (PFDA)	07/21/2023	0.66	1.4	--	NG/L	37.50	J	
Perfluoroheptanoic acid (PFHpA)	07/21/2023	1.5	1.4	--	NG/L	37.50		
Perfluorohexanesulfonate (PFHxS)	07/21/2023	4.1	1.4	--	NG/L	37.50		
Perfluorohexanoic acid (PFHxA)	07/21/2023	2	1.4	--	NG/L	37.50		
Perfluorononanoic acid (PFNA)	07/21/2023	1.4	1.4	--	NG/L	37.50		
Perfluorooctane sulfonamide (PFOSAm)	07/21/2023	0.45	1.4	--	NG/L	37.50	J	
Perfluorooctanesulfonate (PFOS)	07/21/2023	26	1.4	--	NG/L	37.50		
Perfluorooctanoic acid (PFOA)	07/21/2023	5.4	1.4	--	NG/L	37.50		
Perfluoropentanoic acid (PFPeA)	07/21/2023	2.4	2.8	--	NG/L	37.50	J	
Perfluoroundecanoic acid (PFUdA)	07/21/2023	0.59	1.4	--	NG/L	37.50	J	

Site ID : 085-404

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/12/2023	98.63	--	--	NG/L	37.50		
Perfluorobutanesulfonate (PFBS)	07/12/2023	2.5	1.5	--	NG/L	37.50		
Perfluorobutyric acid (PFBA)	07/12/2023	6.6	5.9	--	NG/L	37.50		
Perfluoroheptanoic acid (PFHpA)	07/12/2023	3.3	1.5	--	NG/L	37.50		
Perfluorohexanesulfonate (PFHxS)	07/12/2023	27	1.5	--	NG/L	37.50		
Perfluorohexanoic acid (PFHxA)	07/12/2023	6.2	1.5	--	NG/L	37.50		
Perfluorononanoic acid (PFNA)	07/12/2023	1.8	1.5	--	NG/L	37.50		

Table 22-3
Former Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 085-404

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorooctane sulfonamide (PFOSAm)	07/12/2023	0.33	1.5	--	NG/L	37.50	J	
Perfluorooctanesulfonate (PFOS)	07/12/2023	31	1.5	--	NG/L	37.50		
Perfluorooctanoic acid (PFOA)	07/12/2023	13	1.5	--	NG/L	37.50		
Perfluoropentanesulfonate (PFPeS)	07/12/2023	1.1	1.5	--	NG/L	37.50	J	
Perfluoropentanoic acid (PFPeA)	07/12/2023	5.8	3	--	NG/L	37.50		
solids-tot	07/12/2023	50	4	--	MG/L	37.50		

Site ID : 085-405

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/10/2023	66.26	--	--	NG/L	55.00		
Perfluorobutanesulfonate (PFBS)	07/10/2023	3.2	1.5	--	NG/L	55.00		
Perfluorobutyric acid (PFBA)	07/10/2023	11	6	--	NG/L	55.00		
Perfluorodecanoic acid (PFDA)	07/10/2023	0.16	1.5	--	NG/L	55.00	J	
Perfluoroheptanesulfonate (PFHpS)	07/10/2023	1.4	1.5	--	NG/L	55.00	J	
Perfluoroheptanoic acid (PFHpA)	07/10/2023	2.8	1.5	--	NG/L	55.00		
Perfluorohexanesulfonate (PFHxS)	07/10/2023	26	1.5	--	NG/L	55.00		
Perfluorohexanoic acid (PFHxA)	07/10/2023	4.3	1.5	--	NG/L	55.00		
Perfluorononanoic acid (PFNA)	07/10/2023	1.8	1.5	--	NG/L	55.00		
Perfluorooctanoic acid (PFOA)	07/10/2023	11	1.5	--	NG/L	55.00		
Perfluoropentanesulfonate (PFPeS)	07/10/2023	1.2	1.5	--	NG/L	55.00	J	
Perfluoropentanoic acid (PFPeA)	07/10/2023	3.4	3	--	NG/L	55.00		

Site ID : 085-406

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/11/2023	1547.4	--	--	NG/L	37.50		
Perfluorobutanesulfonate (PFBS)	07/11/2023	6.1	1.4	--	NG/L	37.50		
Perfluorobutyric acid (PFBA)	07/11/2023	13	5.7	--	NG/L	37.50		
Perfluoroheptanesulfonate (PFHpS)	07/11/2023	20	1.4	--	NG/L	37.50		
Perfluoroheptanoic acid (PFHpA)	07/11/2023	8.9	1.4	--	NG/L	37.50		
Perfluorohexanesulfonate (PFHxS)	07/11/2023	360	1.4	--	NG/L	37.50		
Perfluorohexanoic acid (PFHxA)	07/11/2023	54	1.4	--	NG/L	37.50		
Perfluorononanoic acid (PFNA)	07/11/2023	3.9	1.4	--	NG/L	37.50		
Perfluorooctane sulfonamide (PFOSAm)	07/11/2023	5.8	1.4	--	NG/L	37.50		
Perfluorooctanesulfonate (PFOS)	07/11/2023	1000	14	--	NG/L	37.50	D	
Perfluorooctanoic acid (PFOA)	07/11/2023	53	1.4	--	NG/L	37.50		

Table 22-3
Former Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 085-406

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluoropentanesulfonate (PFPeS)	07/11/2023	6.7	1.4	--	NG/L	37.50		
Perfluoropentanoic acid (PFPeA)	07/11/2023	16	2.8	--	NG/L	37.50		
solids-tot	07/11/2023	30	4	--	MG/L	37.50		

Site ID : 085-407

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/11/2023	780.13	--	--	NG/L	55.00		
Perfluorobutanesulfonate (PFBS)	07/11/2023	5.9	1.6	--	NG/L	55.00		
Perfluorobutyric acid (PFBA)	07/11/2023	10	6.4	--	NG/L	55.00		
Perfluorodecanoic acid (PFDA)	07/11/2023	0.13	1.6	--	NG/L	55.00	J	
Perfluoroheptanesulfonate (PFHpS)	07/11/2023	6.6	1.6	--	NG/L	55.00		
Perfluoroheptanoic acid (PFHpA)	07/11/2023	12	1.6	--	NG/L	55.00		
Perfluorohexanesulfonate (PFHxS)	07/11/2023	290	1.6	--	NG/L	55.00		
Perfluorohexanoic acid (PFHxA)	07/11/2023	110	1.6	--	NG/L	55.00		
Perfluorononanoic acid (PFNA)	07/11/2023	2.1	1.6	--	NG/L	55.00		
Perfluorooctane sulfonamide (PFOSAm)	07/11/2023	24	1.6	--	NG/L	55.00		
Perfluorooctanesulfonate (PFOS)	07/11/2023	200	1.6	--	NG/L	55.00		
Perfluorooctanoic acid (PFOA)	07/11/2023	100	1.6	--	NG/L	55.00		
Perfluoropentanesulfonate (PFPeS)	07/11/2023	5.4	1.6	--	NG/L	55.00		
Perfluoropentanoic acid (PFPeA)	07/11/2023	14	3.2	--	NG/L	55.00		

Site ID : 085-408

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/10/2023	137.07	--	--	NG/L	65.00		
Perfluorobutanesulfonate (PFBS)	07/10/2023	2.3	1.6	--	NG/L	65.00		
Perfluorobutyric acid (PFBA)	07/10/2023	6.2	6.2	--	NG/L	65.00		
Perfluoroheptanesulfonate (PFHpS)	07/10/2023	0.77	1.6	--	NG/L	65.00	J	
Perfluoroheptanoic acid (PFHpA)	07/10/2023	3.1	1.6	--	NG/L	65.00		
Perfluorohexanesulfonate (PFHxS)	07/10/2023	34	1.6	--	NG/L	65.00		
Perfluorohexanoic acid (PFHxA)	07/10/2023	13	1.6	--	NG/L	65.00		
Perfluorononanoic acid (PFNA)	07/10/2023	1.2	1.6	--	NG/L	65.00	J	
Perfluorooctane sulfonamide (PFOSAm)	07/10/2023	33	1.6	--	NG/L	65.00		
Perfluorooctanesulfonate (PFOS)	07/10/2023	24	1.6	--	NG/L	65.00		
Perfluorooctanoic acid (PFOA)	07/10/2023	15	1.6	--	NG/L	65.00		
Perfluoropentanesulfonate (PFPeS)	07/10/2023	1.2	1.6	--	NG/L	65.00	J	

Table 22-3
Former Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 085-408

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluoropentanoic acid (PFPeA)	07/10/2023	3.3	3.1	--	NG/L	65.00		

Site ID : 085-409

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/11/2023	40.6	--	--	NG/L	37.50		
Perfluorobutanesulfonate (PFBS)	07/11/2023	3	1.5	--	NG/L	37.50		
Perfluorobutyric acid (PFBA)	07/11/2023	5	6	--	NG/L	37.50	J	
Perfluoroheptanoic acid (PFHpA)	07/11/2023	1.7	1.5	--	NG/L	37.50		
Perfluorohexanesulfonate (PFHxS)	07/11/2023	15	1.5	--	NG/L	37.50		
Perfluorohexanoic acid (PFHxA)	07/11/2023	2.4	1.5	--	NG/L	37.50		
Perfluorononanoic acid (PFNA)	07/11/2023	0.31	1.5	--	NG/L	37.50	J	
Perfluorooctane sulfonamide (PFOSAm)	07/11/2023	0.14	1.5	--	NG/L	37.50	J	
Perfluorooctanesulfonate (PFOS)	07/11/2023	5.8	1.5	--	NG/L	37.50		
Perfluorooctanoic acid (PFOA)	07/11/2023	5.9	1.5	--	NG/L	37.50		
Perfluoropentanesulfonate (PFPeS)	07/11/2023	0.55	1.5	--	NG/L	37.50	J	
Perfluoropentanoic acid (PFPeA)	07/11/2023	0.8	3	--	NG/L	37.50	J	
solids-tot	07/11/2023	50	4	--	MG/L	37.50		

Site ID : 085-410

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/11/2023	805.59	--	--	NG/L	55.00		
Perfluorobutanesulfonate (PFBS)	07/11/2023	8.7	1.4	--	NG/L	55.00		
Perfluorobutyric acid (PFBA)	07/11/2023	5.8	5.5	--	NG/L	55.00		
Perfluoroheptanesulfonate (PFHpS)	07/11/2023	21	1.4	--	NG/L	55.00		
Perfluoroheptanoic acid (PFHpA)	07/11/2023	2.6	1.4	--	NG/L	55.00		
Perfluorohexanesulfonate (PFHxS)	07/11/2023	85	1.4	--	NG/L	55.00		
Perfluorohexanoic acid (PFHxA)	07/11/2023	7	1.4	--	NG/L	55.00		
Perfluorononanoic acid (PFNA)	07/11/2023	1.6	1.4	--	NG/L	55.00		
Perfluorooctane sulfonamide (PFOSAm)	07/11/2023	0.29	1.4	--	NG/L	55.00	J	
Perfluorooctanesulfonate (PFOS)	07/11/2023	650	14	--	NG/L	55.00	D	
Perfluorooctanoic acid (PFOA)	07/11/2023	18	1.4	--	NG/L	55.00		
Perfluoropentanesulfonate (PFPeS)	07/11/2023	2.8	1.4	--	NG/L	55.00		
Perfluoropentanoic acid (PFPeA)	07/11/2023	2.8	2.8	--	NG/L	55.00		
solids-tot	07/11/2023	60	4	--	MG/L	55.00		

Site ID : 085-411

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/13/2023	359.2	--	--	NG/L	55.00		

Table 22-3
Former Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 085-411

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorobutanesulfonate (PFBS)	07/13/2023	2.7	1.4	--	NG/L	55.00		
Perfluorobutyric acid (PFBA)	07/13/2023	6.1	5.7	--	NG/L	55.00		
Perfluoroheptanesulfonate (PFHpS)	07/13/2023	3.5	1.4	--	NG/L	55.00		
Perfluoroheptanoic acid (PFHpA)	07/13/2023	5.3	1.4	--	NG/L	55.00		
Perfluorohexanesulfonate (PFHxS)	07/13/2023	140	1.4	--	NG/L	55.00		
Perfluorohexanoic acid (PFHxA)	07/13/2023	27	1.4	--	NG/L	55.00		
Perfluorononanoic acid (PFNA)	07/13/2023	1.4	1.4	--	NG/L	55.00		
Perfluorooctane sulfonamide (PFOSAm)	07/13/2023	14	1.4	--	NG/L	55.00		
Perfluorooctanesulfonate (PFOS)	07/13/2023	87	1.4	--	NG/L	55.00		
Perfluorooctanoic acid (PFOA)	07/13/2023	65	1.4	--	NG/L	55.00		
Perfluoropentanesulfonate (PFPeS)	07/13/2023	3	1.4	--	NG/L	55.00		
Perfluoropentanoic acid (PFPeA)	07/13/2023	4.2	2.8	--	NG/L	55.00		
Settleable Solids	07/13/2023	20	4	--	MG/L	55.00		

Site ID : 085-43

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/21/2023	58.91	--	--	NG/L	26.00		
Perfluorobutanesulfonate (PFBS)	07/21/2023	0.47	1.4	--	NG/L	26.00	J	
Perfluorobutyric acid (PFBA)	07/21/2023	4.3	5.7	--	NG/L	26.00	J	
Perfluorodecanoic acid (PFDA)	07/21/2023	0.7	1.4	--	NG/L	26.00	J	
Perfluoroheptanoic acid (PFHpA)	07/21/2023	1.6	1.4	--	NG/L	26.00		
Perfluorohexanesulfonate (PFHxS)	07/21/2023	2.3	1.4	--	NG/L	26.00		
Perfluorohexanoic acid (PFHxA)	07/21/2023	2.4	1.4	--	NG/L	26.00		
Perfluorononanoic acid (PFNA)	07/21/2023	1.5	1.4	--	NG/L	26.00		
Perfluorooctane sulfonamide (PFOSAm)	07/21/2023	0.46	1.4	--	NG/L	26.00	J	
Perfluorooctanesulfonate (PFOS)	07/21/2023	36	1.4	--	NG/L	26.00		
Perfluorooctanoic acid (PFOA)	07/21/2023	6.7	1.4	--	NG/L	26.00		
Perfluoropentanoic acid (PFPeA)	07/21/2023	2.2	2.9	--	NG/L	26.00	J	
Perfluoroundecanoic acid (PFUdA)	07/21/2023	0.28	1.4	--	NG/L	26.00	J	

Site ID : 086-123

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/21/2023	16.1	--	--	NG/L	34.50		
Perfluorobutanesulfonate (PFBS)	07/21/2023	1.1	1.5	--	NG/L	34.50	J	
Perfluorobutyric acid (PFBA)	07/21/2023	6.1	6.1	--	NG/L	34.50		

Table 22-3
Former Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 086-123

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluoroheptanoic acid (PFHpA)	07/21/2023	1.5	1.5	--	NG/L	34.50		
Perfluorohexanesulfonate (PFHxS)	07/21/2023	1.4	1.5	--	NG/L	34.50	J	
Perfluorohexanoic acid (PFHxA)	07/21/2023	1.7	1.5	--	NG/L	34.50		
Perfluorooctanoic acid (PFOA)	07/21/2023	3.1	1.5	--	NG/L	34.50		
Perfluoropentanoic acid (PFPeA)	07/21/2023	1.2	3	--	NG/L	34.50	J	

Site ID : 095-170

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/25/2023	24.77	--	--	NG/L	50.00		
8260 TVOC	07/25/2023	1.4	--	--	UG/L	50.00		
Chloroform	07/25/2023	1.4	0.5	--	UG/L	50.00		
Perfluorobutanesulfonate (PFBS)	07/25/2023	0.43	1.4	--	NG/L	50.00	J	
Perfluorobutyric acid (PFBA)	07/25/2023	14	5.7	--	NG/L	50.00		
Perfluorodecanoic acid (PFDA)	07/25/2023	0.32	1.4	--	NG/L	50.00	J	
Perfluoroheptanoic acid (PFHpA)	07/25/2023	1	1.4	--	NG/L	50.00	J	
Perfluorohexanesulfonate (PFHxS)	07/25/2023	0.75	1.4	--	NG/L	50.00	J	
Perfluorohexanoic acid (PFHxA)	07/25/2023	2.2	1.4	--	NG/L	50.00		
Perfluorononanoic acid (PFNA)	07/25/2023	0.47	1.4	--	NG/L	50.00	J	
Perfluorooctanesulfonate (PFOS)	07/25/2023	2.4	1.4	--	NG/L	50.00		
Perfluorooctanoic acid (PFOA)	07/25/2023	1.4	1.4	--	NG/L	50.00		
Perfluoropentanoic acid (PFPeA)	07/25/2023	1.8	2.8	--	NG/L	50.00	J	

Site ID : 095-171

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/21/2023	30.15	--	--	NG/L	50.00		
Perfluorobutanesulfonate (PFBS)	07/21/2023	1	1.5	--	NG/L	50.00	J	
Perfluorobutyric acid (PFBA)	07/21/2023	9.3	6	--	NG/L	50.00		
Perfluorodecanoic acid (PFDA)	07/21/2023	0.34	1.5	--	NG/L	50.00	J	
Perfluoroheptanoic acid (PFHpA)	07/21/2023	2.3	1.5	--	NG/L	50.00		
Perfluorohexanesulfonate (PFHxS)	07/21/2023	2.8	1.5	--	NG/L	50.00		
Perfluorohexanoic acid (PFHxA)	07/21/2023	1.9	1.5	--	NG/L	50.00		
Perfluorononanoic acid (PFNA)	07/21/2023	0.71	1.5	--	NG/L	50.00	J	
Perfluorooctanesulfonate (PFOS)	07/21/2023	6.7	1.5	--	NG/L	50.00		
Perfluorooctanoic acid (PFOA)	07/21/2023	3.3	1.5	--	NG/L	50.00		
Perfluoropentanoic acid (PFPeA)	07/21/2023	1.8	3	--	NG/L	50.00	J	

Table 22-3
Former Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 096-115

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/21/2023	79.74	--	--	NG/L	90.00		
Perfluorobutanesulfonate (PFBS)	07/21/2023	4.1	1.5	--	NG/L	90.00		
Perfluorobutyric acid (PFBA)	07/21/2023	11	5.9	--	NG/L	90.00		
Perfluorodecanoic acid (PFDA)	07/21/2023	0.52	1.5	--	NG/L	90.00	J	
Perfluoroheptanoic acid (PFHpA)	07/21/2023	3.7	1.5	--	NG/L	90.00		
Perfluorohexanesulfonate (PFHxS)	07/21/2023	18	1.5	--	NG/L	90.00		
Perfluorohexanoic acid (PFHxA)	07/21/2023	11	1.5	--	NG/L	90.00		
Perfluorononanoic acid (PFNA)	07/21/2023	1.7	1.5	--	NG/L	90.00		
Perfluorooctanesulfonate (PFOS)	07/21/2023	11	1.5	--	NG/L	90.00		
Perfluorooctanoic acid (PFOA)	07/21/2023	6.8	1.5	--	NG/L	90.00		
Perfluoropentanesulfonate (PFPeS)	07/21/2023	0.92	1.5	--	NG/L	90.00	J	
Perfluoropentanoic acid (PFPeA)	07/21/2023	11	3	--	NG/L	90.00		

Site ID : 096-117

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/21/2023	103.02	--	--	NG/L	90.00		
1,4-Dioxane	07/21/2023	0.17	0.2	--	UG/L	90.00	J	
Perfluorobutanesulfonate (PFBS)	07/21/2023	1.5	1.4	--	NG/L	90.00		
Perfluorobutyric acid (PFBA)	07/21/2023	5.5	5.7	--	NG/L	90.00	J	
Perfluorodecanoic acid (PFDA)	07/21/2023	2	1.4	--	NG/L	90.00		
Perfluoroheptanesulfonate (PFHpS)	07/21/2023	0.61	1.4	--	NG/L	90.00	J	
Perfluoroheptanoic acid (PFHpA)	07/21/2023	2.5	1.4	--	NG/L	90.00		
Perfluorohexanesulfonate (PFHxS)	07/21/2023	16	1.4	--	NG/L	90.00		
Perfluorohexanoic acid (PFHxA)	07/21/2023	3.6	1.4	--	NG/L	90.00		
Perfluorononanoic acid (PFNA)	07/21/2023	8	1.4	--	NG/L	90.00		
Perfluorooctane sulfonamide (PFOSAm)	07/21/2023	0.25	1.4	--	NG/L	90.00	J	
Perfluorooctanesulfonate (PFOS)	07/21/2023	51	1.4	--	NG/L	90.00		
Perfluorooctanoic acid (PFOA)	07/21/2023	7	1.4	--	NG/L	90.00		
Perfluoropentanesulfonate (PFPeS)	07/21/2023	1.3	1.4	--	NG/L	90.00	J	
Perfluoropentanoic acid (PFPeA)	07/21/2023	3	2.9	--	NG/L	90.00		
Perfluoroundecanoic acid (PFUdA)	07/21/2023	0.76	1.4	--	NG/L	90.00	J	

Site ID : 096-118

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/20/2023	495.96	--	--	NG/L	89.00		

Table 22-3
Former Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 096-118

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluoro-3-methoxypropanoic acid (PFMPA)	07/20/2023	1	2.9	--	NG/L	89.00	J	
Perfluorobutanesulfonate (PFBS)	07/20/2023	4.8	1.5	--	NG/L	89.00		
Perfluorobutyric acid (PFBA)	07/20/2023	9.6	5.8	--	NG/L	89.00		
Perfluorodecanoic acid (PFDA)	07/20/2023	0.36	1.5	--	NG/L	89.00	J	
Perfluoroheptanesulfonate (PFHpS)	07/20/2023	5.2	1.5	--	NG/L	89.00		
Perfluoroheptanoic acid (PFHpA)	07/20/2023	7.5	1.5	--	NG/L	89.00		
Perfluorohexanesulfonate (PFHxS)	07/20/2023	190	1.5	--	NG/L	89.00		
Perfluorohexanoic acid (PFHxA)	07/20/2023	52	1.5	--	NG/L	89.00		
Perfluorononanoic acid (PFNA)	07/20/2023	2	1.5	--	NG/L	89.00		
Perfluorooctane sulfonamide (PFOSAm)	07/20/2023	3.7	1.5	--	NG/L	89.00		
Perfluorooctanesulfonate (PFOS)	07/20/2023	140	1.5	--	NG/L	89.00		
Perfluorooctanoic acid (PFOA)	07/20/2023	63	1.5	--	NG/L	89.00		
Perfluoropentanesulfonate (PFPeS)	07/20/2023	4.8	1.5	--	NG/L	89.00		
Perfluoropentanoic acid (PFPeA)	07/20/2023	12	2.9	--	NG/L	89.00		

Site ID : 096-122

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/13/2023	665.5	--	--	NG/L	65.00		
Perfluorobutanesulfonate (PFBS)	07/13/2023	5.6	1.4	--	NG/L	65.00		
Perfluorobutyric acid (PFBA)	07/13/2023	8.8	5.7	--	NG/L	65.00		
Perfluoroheptanesulfonate (PFHpS)	07/13/2023	4.1	1.4	--	NG/L	65.00		
Perfluoroheptanoic acid (PFHpA)	07/13/2023	9.6	1.4	--	NG/L	65.00		
Perfluorohexanesulfonate (PFHxS)	07/13/2023	310	1.4	--	NG/L	65.00		
Perfluorohexanoic acid (PFHxA)	07/13/2023	71	1.4	--	NG/L	65.00		
Perfluorononanoic acid (PFNA)	07/13/2023	1.4	1.4	--	NG/L	65.00		
Perfluorooctane sulfonamide (PFOSAm)	07/13/2023	13	1.4	--	NG/L	65.00		
Perfluorooctanesulfonate (PFOS)	07/13/2023	140	1.4	--	NG/L	65.00		
Perfluorooctanoic acid (PFOA)	07/13/2023	87	1.4	--	NG/L	65.00		
Perfluoropentanesulfonate (PFPeS)	07/13/2023	5	1.4	--	NG/L	65.00		
Perfluoropentanoic acid (PFPeA)	07/13/2023	10	2.8	--	NG/L	65.00		
Settleable Solids	07/13/2023	40	4	--	MG/L	65.00		

Site ID : 096-123

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/13/2023	142.76	--	--	NG/L	125.00		

Table 22-3
Former Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 096-123

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorobutanesulfonate (PFBS)	07/13/2023	4.5	1.5	--	NG/L	125.00		
Perfluorobutyric acid (PFBA)	07/13/2023	6.1	6	--	NG/L	125.00		
Perfluoroheptanesulfonate (PFHpS)	07/13/2023	2.2	1.5	--	NG/L	125.00		
Perfluoroheptanoic acid (PFHpA)	07/13/2023	1.9	1.5	--	NG/L	125.00		
Perfluorohexanesulfonate (PFHxS)	07/13/2023	39	1.5	--	NG/L	125.00		
Perfluorohexanoic acid (PFHxA)	07/13/2023	4.9	1.5	--	NG/L	125.00		
Perfluorononanoic acid (PFNA)	07/13/2023	0.96	1.5	--	NG/L	125.00	J	
Perfluorooctane sulfonamide (PFOSAm)	07/13/2023	0.4	1.5	--	NG/L	125.00	J	
Perfluorooctanesulfonate (PFOS)	07/13/2023	69	1.5	--	NG/L	125.00		
Perfluorooctanoic acid (PFOA)	07/13/2023	9.1	1.5	--	NG/L	125.00		
Perfluoropentanesulfonate (PFPeS)	07/13/2023	2.4	1.5	--	NG/L	125.00		
Perfluoropentanoic acid (PFPeA)	07/13/2023	2.3	3	--	NG/L	125.00	J	
Settleable Solids	07/13/2023	130	4	--	MG/L	125.00		

Site ID : 096-124

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/13/2023	86.92	--	--	NG/L	75.00		
Perfluorobutanesulfonate (PFBS)	07/13/2023	1.3	1.4	--	NG/L	75.00	J	
Perfluorobutyric acid (PFBA)	07/13/2023	5.9	5.6	--	NG/L	75.00		
Perfluoroheptanoic acid (PFHpA)	07/13/2023	2	1.4	--	NG/L	75.00		
Perfluorohexanesulfonate (PFHxS)	07/13/2023	3.5	1.4	--	NG/L	75.00		
Perfluorohexanoic acid (PFHxA)	07/13/2023	2.9	1.4	--	NG/L	75.00		
Perfluorononanoic acid (PFNA)	07/13/2023	56	1.4	--	NG/L	75.00		
Perfluorooctane sulfonamide (PFOSAm)	07/13/2023	0.22	1.4	--	NG/L	75.00	J	
Perfluorooctanesulfonate (PFOS)	07/13/2023	5.6	1.4	--	NG/L	75.00		
Perfluorooctanoic acid (PFOA)	07/13/2023	6.8	1.4	--	NG/L	75.00		
Perfluoropentanoic acid (PFPeA)	07/13/2023	2.7	2.8	--	NG/L	75.00	J	
Settleable Solids	07/13/2023	60	4	--	MG/L	75.00		

Site ID : 096-125

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/13/2023	39.01	--	--	NG/L	125.00		
1633 TPFAS	07/13/2023	97.73	--	--	NG/L	95.00		
Perfluorobutanesulfonate (PFBS)	07/13/2023	2	1.4	--	NG/L	125.00		
Perfluorobutanesulfonate (PFBS)	07/13/2023	3.6	1.4	--	NG/L	95.00		

Table 22-3
Former Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 096-125

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorobutyric acid (PFBA)	07/13/2023	5.2	5.7	--	NG/L	95.00	J	
Perfluorobutyric acid (PFBA)	07/13/2023	6.4	5.8	--	NG/L	125.00		
Perfluoroheptanoic acid (PFHpA)	07/13/2023	1.7	1.4	--	NG/L	125.00		
Perfluoroheptanoic acid (PFHpA)	07/13/2023	1.9	1.4	--	NG/L	95.00		
Perfluorohexanesulfonate (PFHxS)	07/13/2023	5.8	1.4	--	NG/L	125.00		
Perfluorohexanesulfonate (PFHxS)	07/13/2023	50	1.4	--	NG/L	95.00		
Perfluorohexanoic acid (PFHxA)	07/13/2023	3.2	1.4	--	NG/L	125.00		
Perfluorohexanoic acid (PFHxA)	07/13/2023	6.5	1.4	--	NG/L	95.00		
Perfluorononanoic acid (PFNA)	07/13/2023	0.71	1.4	--	NG/L	95.00	J	
Perfluorononanoic acid (PFNA)	07/13/2023	1.4	1.4	--	NG/L	125.00		
Perfluorooctane sulfonamide (PFOSAm)	07/13/2023	0.12	1.4	--	NG/L	95.00	J	
Perfluorooctanesulfonate (PFOS)	07/13/2023	8.3	1.4	--	NG/L	125.00		
Perfluorooctanesulfonate (PFOS)	07/13/2023	14	1.4	--	NG/L	95.00		
Perfluorooctanoic acid (PFOA)	07/13/2023	6.9	1.4	--	NG/L	125.00		
Perfluorooctanoic acid (PFOA)	07/13/2023	9.9	1.4	--	NG/L	95.00		
Perfluoropentanesulfonate (PFPeS)	07/13/2023	0.51	1.4	--	NG/L	125.00	J	
Perfluoropentanesulfonate (PFPeS)	07/13/2023	2.9	1.4	--	NG/L	95.00		
Perfluoropentanoic acid (PFPeA)	07/13/2023	2.8	2.9	--	NG/L	125.00	J	
Perfluoropentanoic acid (PFPeA)	07/13/2023	2.9	2.9	--	NG/L	95.00		
Settleable Solids	07/13/2023	70	4	--	MG/L	95.00		
Settleable Solids	07/13/2023	70	4	--	MG/L	125.00		

Site ID : 096-126

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/21/2023	130.2	--	--	NG/L	60.00		
Perfluorobutanesulfonate (PFBS)	07/21/2023	4.4	1.5	--	NG/L	60.00		
Perfluorobutyric acid (PFBA)	07/21/2023	6.5	5.9	--	NG/L	60.00		
Perfluoroheptanesulfonate (PFHpS)	07/21/2023	1.8	1.5	--	NG/L	60.00		
Perfluoroheptanoic acid (PFHpA)	07/21/2023	2.8	1.5	--	NG/L	60.00		
Perfluorohexanesulfonate (PFHxS)	07/21/2023	38	1.5	--	NG/L	60.00		
Perfluorohexanoic acid (PFHxA)	07/21/2023	9.7	1.5	--	NG/L	60.00		
Perfluorononanoic acid (PFNA)	07/21/2023	1.3	1.5	--	NG/L	60.00	J	
Perfluorooctane sulfonamide (PFOSAm)	07/21/2023	3.8	1.5	--	NG/L	60.00		
Perfluorooctanesulfonate (PFOS)	07/21/2023	44	1.5	--	NG/L	60.00		

Table 22-3
Former Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 096-126

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorooctanoic acid (PFOA)	07/21/2023	12	1.5	--	NG/L	60.00		
Perfluoropentanesulfonate (PFPeS)	07/21/2023	2.1	1.5	--	NG/L	60.00		
Perfluoropentanoic acid (PFPeA)	07/21/2023	3.8	3	--	NG/L	60.00		

Site ID : 096-127

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/21/2023	428.3	--	--	NG/L	115.00		
Perfluorobutanesulfonate (PFBS)	07/21/2023	3.6	1.5	--	NG/L	115.00		
Perfluorobutyric acid (PFBA)	07/21/2023	5.2	5.9	--	NG/L	115.00	J	
Perfluoroheptanesulfonate (PFHpS)	07/21/2023	2.8	1.5	--	NG/L	115.00		
Perfluoroheptanoic acid (PFHpA)	07/21/2023	8.1	1.5	--	NG/L	115.00		
Perfluorohexanesulfonate (PFHxS)	07/21/2023	170	1.5	--	NG/L	115.00		
Perfluorohexanoic acid (PFHxA)	07/21/2023	48	1.5	--	NG/L	115.00		
Perfluorononanoic acid (PFNA)	07/21/2023	1.2	1.5	--	NG/L	115.00	J	
Perfluorooctane sulfonamide (PFOSAm)	07/21/2023	9.7	1.5	--	NG/L	115.00		
Perfluorooctanesulfonate (PFOS)	07/21/2023	99	1.5	--	NG/L	115.00		
Perfluorooctanoic acid (PFOA)	07/21/2023	69	1.5	--	NG/L	115.00		
Perfluoropentanesulfonate (PFPeS)	07/21/2023	4.1	1.5	--	NG/L	115.00		
Perfluoropentanoic acid (PFPeA)	07/21/2023	7.6	2.9	--	NG/L	115.00		

Site ID : 096-128

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/17/2023	169.6	--	--	NG/L	60.00		
Perfluorobutanesulfonate (PFBS)	07/17/2023	2.3	1.4	--	NG/L	60.00		
Perfluorobutyric acid (PFBA)	07/17/2023	11	5.7	--	NG/L	60.00		
Perfluoroheptanesulfonate (PFHpS)	07/17/2023	1.4	1.4	--	NG/L	60.00		
Perfluoroheptanoic acid (PFHpA)	07/17/2023	5.7	1.4	--	NG/L	60.00		
Perfluorohexanesulfonate (PFHxS)	07/17/2023	55	1.4	--	NG/L	60.00		
Perfluorohexanoic acid (PFHxA)	07/17/2023	21	1.4	--	NG/L	60.00		
Perfluorononanoic acid (PFNA)	07/17/2023	1.5	1.4	--	NG/L	60.00		
Perfluorooctane sulfonamide (PFOSAm)	07/17/2023	4.7	1.4	--	NG/L	60.00		
Perfluorooctanesulfonate (PFOS)	07/17/2023	39	1.4	--	NG/L	60.00		
Perfluorooctanoic acid (PFOA)	07/17/2023	20	1.4	--	NG/L	60.00		
Perfluoropentanesulfonate (PFPeS)	07/17/2023	1.3	1.4	--	NG/L	60.00	J	
Perfluoropentanoic acid (PFPeA)	07/17/2023	6.7	2.9	--	NG/L	60.00		

Table 22-3
Former Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 096-129

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/17/2023	142.84	--	--	NG/L	115.00		
Perfluorobutanesulfonate (PFBS)	07/17/2023	4.5	1.5	--	NG/L	115.00		
Perfluorobutyric acid (PFBA)	07/17/2023	4.8	5.8	--	NG/L	115.00	J	
Perfluoroheptanesulfonate (PFHpS)	07/17/2023	2.6	1.5	--	NG/L	115.00		
Perfluoroheptanoic acid (PFHpA)	07/17/2023	1.9	1.5	--	NG/L	115.00		
Perfluorohexanesulfonate (PFHxS)	07/17/2023	31	1.5	--	NG/L	115.00		
Perfluorohexanoic acid (PFHxA)	07/17/2023	5.1	1.5	--	NG/L	115.00		
Perfluorononanoic acid (PFNA)	07/17/2023	0.44	1.5	--	NG/L	115.00	J	
Perfluorooctanesulfonate (PFOS)	07/17/2023	78	1.5	--	NG/L	115.00		
Perfluorooctanoic acid (PFOA)	07/17/2023	9.8	1.5	--	NG/L	115.00		
Perfluoropentanesulfonate (PFPeS)	07/17/2023	2.5	1.5	--	NG/L	115.00		
Perfluoropentanoic acid (PFPeA)	07/17/2023	2.2	2.9	--	NG/L	115.00	J	

Site ID : 096-130

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/17/2023	29.99	--	--	NG/L	60.00		
Perfluorobutanesulfonate (PFBS)	07/17/2023	0.99	1.5	--	NG/L	60.00	J	
Perfluorobutyric acid (PFBA)	07/17/2023	4.5	6	--	NG/L	60.00	J	
Perfluoroheptanoic acid (PFHpA)	07/17/2023	1.6	1.5	--	NG/L	60.00		
Perfluorohexanesulfonate (PFHxS)	07/17/2023	3.3	1.5	--	NG/L	60.00		
Perfluorohexanoic acid (PFHxA)	07/17/2023	2.1	1.5	--	NG/L	60.00		
Perfluorononanoic acid (PFNA)	07/17/2023	4.5	1.5	--	NG/L	60.00		
Perfluorooctanesulfonate (PFOS)	07/17/2023	6.9	1.5	--	NG/L	60.00		
Perfluorooctanoic acid (PFOA)	07/17/2023	3.9	1.5	--	NG/L	60.00		
Perfluoropentanesulfonate (PFPeS)	07/17/2023	0.2	1.5	--	NG/L	60.00	J	
Perfluoropentanoic acid (PFPeA)	07/17/2023	2	3	--	NG/L	60.00	J	

Site ID : 096-131

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/17/2023	47.66	--	--	NG/L	115.00		
Perfluorobutanesulfonate (PFBS)	07/17/2023	0.84	1.4	--	NG/L	115.00	J	
Perfluorobutyric acid (PFBA)	07/17/2023	4.1	5.7	--	NG/L	115.00	J	
Perfluoroheptanoic acid (PFHpA)	07/17/2023	1.5	1.4	--	NG/L	115.00		
Perfluorohexanesulfonate (PFHxS)	07/17/2023	3	1.4	--	NG/L	115.00		
Perfluorohexanoic acid (PFHxA)	07/17/2023	1.7	1.4	--	NG/L	115.00		

Table 22-3
Former Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 096-131

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorononanoic acid (PFNA)	07/17/2023	25	1.4	--	NG/L	115.00		
Perfluorooctanesulfonate (PFOS)	07/17/2023	3.4	1.4	--	NG/L	115.00		
Perfluorooctanoic acid (PFOA)	07/17/2023	6.3	1.4	--	NG/L	115.00		
Perfluoropentanesulfonate (PFPeS)	07/17/2023	0.32	1.4	--	NG/L	115.00	J	
Perfluoropentanoic acid (PFPeA)	07/17/2023	1.5	2.8	--	NG/L	115.00	J	

Site ID : 096-84

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/25/2023	73.5	--	--	NG/L	128.50		
Perfluorobutanesulfonate (PFBS)	07/25/2023	1.6	1.4	--	NG/L	128.50		
Perfluorobutyric acid (PFBA)	07/25/2023	12	5.8	--	NG/L	128.50		
Perfluoroheptanoic acid (PFHpA)	07/25/2023	7.2	1.4	--	NG/L	128.50		
Perfluorohexanesulfonate (PFHxS)	07/25/2023	8	1.4	--	NG/L	128.50		
Perfluorohexanoic acid (PFHxA)	07/25/2023	13	1.4	--	NG/L	128.50		
Perfluorononanoic acid (PFNA)	07/25/2023	1.7	1.4	--	NG/L	128.50		
Perfluorooctanesulfonate (PFOS)	07/25/2023	8.9	1.4	--	NG/L	128.50		
Perfluorooctanoic acid (PFOA)	07/25/2023	10	1.4	--	NG/L	128.50		
Perfluoropentanesulfonate (PFPeS)	07/25/2023	1.1	1.4	--	NG/L	128.50	J	
Perfluoropentanoic acid (PFPeA)	07/25/2023	10	2.9	--	NG/L	128.50		

Site ID : 105-43

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/20/2023	55.44	--	--	NG/L	147.50		
1,4-Dioxane	07/20/2023	0.48	0.2	--	UG/L	147.50		
Perfluorobutanesulfonate (PFBS)	07/20/2023	1.6	1.5	--	NG/L	147.50		
Perfluorobutyric acid (PFBA)	07/20/2023	5.6	5.9	--	NG/L	147.50	J	
Perfluorodecanoic acid (PFDA)	07/20/2023	0.65	1.5	--	NG/L	147.50	J	
Perfluoroheptanoic acid (PFHpA)	07/20/2023	1.9	1.5	--	NG/L	147.50		
Perfluorohexanesulfonate (PFHxS)	07/20/2023	15	1.5	--	NG/L	147.50		
Perfluorohexanoic acid (PFHxA)	07/20/2023	4.1	1.5	--	NG/L	147.50		
Perfluorononanoic acid (PFNA)	07/20/2023	9.1	1.5	--	NG/L	147.50		
Perfluorooctanesulfonate (PFOS)	07/20/2023	7.7	1.5	--	NG/L	147.50		
Perfluorooctanoic acid (PFOA)	07/20/2023	5.9	1.5	--	NG/L	147.50		
Perfluoropentanesulfonate (PFPeS)	07/20/2023	1.1	1.5	--	NG/L	147.50	J	
Perfluoropentanoic acid (PFPeA)	07/20/2023	2.2	2.9	--	NG/L	147.50	J	

Table 22-3
Former Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 105-43

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluoroundecanoic acid (PFUdA)	07/20/2023	0.59	1.5	--	NG/L	147.50	J	

Site ID : 105-44

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/21/2023	39.56	--	--	NG/L	152.50		
Perfluorobutanesulfonate (PFBS)	07/21/2023	0.94	1.5	--	NG/L	152.50	J	
Perfluorobutyric acid (PFBA)	07/21/2023	6.5	5.8	--	NG/L	152.50		
Perfluoroheptanoic acid (PFHpA)	07/21/2023	1.7	1.5	--	NG/L	152.50		
Perfluorohexanesulfonate (PFHxS)	07/21/2023	10	1.5	--	NG/L	152.50		
Perfluorohexanoic acid (PFHxA)	07/21/2023	3.6	1.5	--	NG/L	152.50		
Perfluorononanoic acid (PFNA)	07/21/2023	0.29	1.5	--	NG/L	152.50	J	
Perfluorooctanesulfonate (PFOS)	07/21/2023	7	1.5	--	NG/L	152.50		
Perfluorooctanoic acid (PFOA)	07/21/2023	4.2	1.5	--	NG/L	152.50		
Perfluoropentanesulfonate (PFPeS)	07/21/2023	0.93	1.5	--	NG/L	152.50	J	
Perfluoropentanoic acid (PFPeA)	07/21/2023	4.4	2.9	--	NG/L	152.50		

Site ID : 105-72

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/18/2023	42.89	--	--	NG/L	105.00		
Perfluorobutanesulfonate (PFBS)	07/18/2023	1.6	1.4	--	NG/L	105.00		
Perfluorobutyric acid (PFBA)	07/18/2023	4.4	5.7	--	NG/L	105.00	J	
Perfluoroheptanoic acid (PFHpA)	07/18/2023	1.7	1.4	--	NG/L	105.00		
Perfluorohexanesulfonate (PFHxS)	07/18/2023	9.9	1.4	--	NG/L	105.00		
Perfluorohexanoic acid (PFHxA)	07/18/2023	2.9	1.4	--	NG/L	105.00		
Perfluorononanoic acid (PFNA)	07/18/2023	2	1.4	--	NG/L	105.00		
Perfluorooctane sulfonamide (PFOSAm)	07/18/2023	0.59	1.4	--	NG/L	105.00	J	
Perfluorooctanesulfonate (PFOS)	07/18/2023	9.5	1.4	--	NG/L	105.00		
Perfluorooctanoic acid (PFOA)	07/18/2023	6.6	1.4	--	NG/L	105.00		
Perfluoropentanesulfonate (PFPeS)	07/18/2023	1	1.4	--	NG/L	105.00	J	
Perfluoropentanoic acid (PFPeA)	07/18/2023	2.7	2.8	--	NG/L	105.00	J	

Site ID : 105-73

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/18/2023	235.27	--	--	NG/L	125.00		
Perfluorobutanesulfonate (PFBS)	07/18/2023	2.5	1.5	--	NG/L	125.00		
Perfluorobutyric acid (PFBA)	07/18/2023	4.9	5.9	--	NG/L	125.00	J	

Table 22-3
Former Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 105-73

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluoroheptanesulfonate (PFHpS)	07/18/2023	2.9	1.5	--	NG/L	125.00		
Perfluoroheptanoic acid (PFHpA)	07/18/2023	3	1.5	--	NG/L	125.00		
Perfluorohexanesulfonate (PFHxS)	07/18/2023	120	1.5	--	NG/L	125.00		
Perfluorohexanoic acid (PFHxA)	07/18/2023	17	1.5	--	NG/L	125.00		
Perfluorononanoic acid (PFNA)	07/18/2023	5.5	1.5	--	NG/L	125.00		
Perfluorooctane sulfonamide (PFOSAm)	07/18/2023	0.47	1.5	--	NG/L	125.00	J	
Perfluorooctanesulfonate (PFOS)	07/18/2023	49	1.5	--	NG/L	125.00		
Perfluorooctanoic acid (PFOA)	07/18/2023	23	1.5	--	NG/L	125.00		
Perfluoropentanesulfonate (PFPeS)	07/18/2023	2.8	1.5	--	NG/L	125.00		
Perfluoropentanoic acid (PFPeA)	07/18/2023	4.2	2.9	--	NG/L	125.00		

Site ID : 105-74

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/20/2023	258.7	--	--	NG/L	95.00		
Perfluorobutanesulfonate (PFBS)	07/20/2023	2.7	1.5	--	NG/L	95.00		
Perfluorobutyric acid (PFBA)	07/20/2023	7	6	--	NG/L	95.00		
Perfluoroheptanesulfonate (PFHpS)	07/20/2023	7.4	1.5	--	NG/L	95.00		
Perfluoroheptanoic acid (PFHpA)	07/20/2023	3.4	1.5	--	NG/L	95.00		
Perfluorohexanesulfonate (PFHxS)	07/20/2023	97	1.5	--	NG/L	95.00		
Perfluorohexanoic acid (PFHxA)	07/20/2023	10	1.5	--	NG/L	95.00		
Perfluorononanoic acid (PFNA)	07/20/2023	1.4	1.5	--	NG/L	95.00	J	
Perfluorooctane sulfonamide (PFOSAm)	07/20/2023	1.3	1.5	--	NG/L	95.00	J	
Perfluorooctanesulfonate (PFOS)	07/20/2023	100	1.5	--	NG/L	95.00		
Perfluorooctanoic acid (PFOA)	07/20/2023	18	1.5	--	NG/L	95.00		
Perfluoropentanesulfonate (PFPeS)	07/20/2023	3.6	1.5	--	NG/L	95.00		
Perfluoropentanoic acid (PFPeA)	07/20/2023	6.9	3	--	NG/L	95.00		

Site ID : 105-75

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/20/2023	133.5	--	--	NG/L	115.00		
Perfluorobutanesulfonate (PFBS)	07/20/2023	1.4	1.5	--	NG/L	115.00	J	
Perfluorobutyric acid (PFBA)	07/20/2023	3.3	6	--	NG/L	115.00	J	
Perfluoroheptanesulfonate (PFHpS)	07/20/2023	1.8	1.5	--	NG/L	115.00		
Perfluoroheptanoic acid (PFHpA)	07/20/2023	1.8	1.5	--	NG/L	115.00		
Perfluorohexanesulfonate (PFHxS)	07/20/2023	57	1.5	--	NG/L	115.00		

Table 22-3
Former Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 105-75

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorohexanoic acid (PFHxA)	07/20/2023	7.6	1.5	--	NG/L	115.00		
Perfluorononanoic acid (PFNA)	07/20/2023	0.9	1.5	--	NG/L	115.00	J	
Perfluorooctane sulfonamide (PFOSAm)	07/20/2023	1.4	1.5	--	NG/L	115.00	J	
Perfluorooctanesulfonate (PFOS)	07/20/2023	41	1.5	--	NG/L	115.00		
Perfluorooctanoic acid (PFOA)	07/20/2023	14	1.5	--	NG/L	115.00		
Perfluoropentanesulfonate (PFPeS)	07/20/2023	1.4	1.5	--	NG/L	115.00	J	
Perfluoropentanoic acid (PFPeA)	07/20/2023	1.9	3	--	NG/L	115.00	J	

Site ID : 105-76

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/20/2023	167	--	--	NG/L	135.00		
1,4-Dioxane	07/20/2023	0.33	0.2	--	UG/L	135.00		
Perfluorobutanesulfonate (PFBS)	07/20/2023	2.3	1.5	--	NG/L	135.00		
Perfluorobutyric acid (PFBA)	07/20/2023	4.6	6.1	--	NG/L	135.00	J	
Perfluoroheptanesulfonate (PFHpS)	07/20/2023	3.5	1.5	--	NG/L	135.00		
Perfluoroheptanoic acid (PFHpA)	07/20/2023	3.2	1.5	--	NG/L	135.00		
Perfluorohexanesulfonate (PFHxS)	07/20/2023	82	1.5	--	NG/L	135.00		
Perfluorohexanoic acid (PFHxA)	07/20/2023	9	1.5	--	NG/L	135.00		
Perfluorononanoic acid (PFNA)	07/20/2023	2.1	1.5	--	NG/L	135.00		
Perfluorooctanesulfonate (PFOS)	07/20/2023	40	1.5	--	NG/L	135.00		
Perfluorooctanoic acid (PFOA)	07/20/2023	15	1.5	--	NG/L	135.00		
Perfluoropentanesulfonate (PFPeS)	07/20/2023	3.1	1.5	--	NG/L	135.00		
Perfluoropentanoic acid (PFPeA)	07/20/2023	2.2	3	--	NG/L	135.00	J	

Site ID : 105-77

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/18/2023	544.3	--	--	NG/L	105.00		
Perfluorobutanesulfonate (PFBS)	07/18/2023	3.8	1.4	--	NG/L	105.00		
Perfluorobutyric acid (PFBA)	07/18/2023	6.8	5.5	--	NG/L	105.00		
Perfluoroheptanesulfonate (PFHpS)	07/18/2023	13	1.4	--	NG/L	105.00		
Perfluoroheptanoic acid (PFHpA)	07/18/2023	5.3	1.4	--	NG/L	105.00		
Perfluorohexanesulfonate (PFHxS)	07/18/2023	240	1.4	--	NG/L	105.00		
Perfluorohexanoic acid (PFHxA)	07/18/2023	32	1.4	--	NG/L	105.00		
Perfluorononanoic acid (PFNA)	07/18/2023	3.5	1.4	--	NG/L	105.00		
Perfluorooctane sulfonamide (PFOSAm)	07/18/2023	5.3	1.4	--	NG/L	105.00		

Table 22-3
Former Firehouse PFAS Monitoring Well Data
'Hits Only' July through September 2023

Site ID : 105-77

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorooctanesulfonate (PFOS)	07/18/2023	170	1.4	--	NG/L	105.00		
Perfluorooctanoic acid (PFOA)	07/18/2023	52	1.4	--	NG/L	105.00		
Perfluoropentanesulfonate (PFPeS)	07/18/2023	5.2	1.4	--	NG/L	105.00		
Perfluoropentanoic acid (PFPeA)	07/18/2023	7.4	2.8	--	NG/L	105.00		
Settleable Solids	07/18/2023	40	4	--	MG/L	105.00		

Site ID : 105-78

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	07/18/2023	103	--	--	NG/L	125.00		
Perfluorobutanesulfonate (PFBS)	07/18/2023	2.8	1.5	--	NG/L	125.00		
Perfluorobutyric acid (PFBA)	07/18/2023	5.1	6	--	NG/L	125.00	J	
Perfluoroheptanesulfonate (PFHpS)	07/18/2023	2.3	1.5	--	NG/L	125.00		
Perfluoroheptanoic acid (PFHpA)	07/18/2023	1.9	1.5	--	NG/L	125.00		
Perfluorohexanesulfonate (PFHxS)	07/18/2023	37	1.5	--	NG/L	125.00		
Perfluorohexanoic acid (PFHxA)	07/18/2023	5	1.5	--	NG/L	125.00		
Perfluorononanoic acid (PFNA)	07/18/2023	2.2	1.5	--	NG/L	125.00		
Perfluorooctane sulfonamide (PFOSAm)	07/18/2023	0.3	1.5	--	NG/L	125.00	J	
Perfluorooctanesulfonate (PFOS)	07/18/2023	31	1.5	--	NG/L	125.00		
Perfluorooctanoic acid (PFOA)	07/18/2023	8.6	1.5	--	NG/L	125.00		
Perfluoropentanesulfonate (PFPeS)	07/18/2023	3.1	1.5	--	NG/L	125.00		
Perfluoropentanoic acid (PFPeA)	07/18/2023	3.7	3	--	NG/L	125.00		

Table 22-4
Former Firehouse PFAS Extraction Well Data
'Hits Only' July through September 2023

Site ID : 085-414 (FF-RW-A)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
537 TPFAS	07/06/2023	310.29	--	--	NG/L	0.00		
Perfluorobutanesulfonate (PFBS)	07/06/2023	3.25	1.53	--	NG/L	0.00		
Perfluorobutylsulfonamide (FBSA)	07/06/2023	1.7	3.45	--	NG/L	0.00	J	
Perfluorobutyric acid (PFBA)	07/06/2023	9.39	1.72	--	NG/L	0.00		
Perfluoroheptanesulfonate (PFHpS)	07/06/2023	2.52	1.64	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	07/06/2023	3.52	1.72	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	07/06/2023	93.7	1.57	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	07/06/2023	18.2	1.72	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	07/06/2023	1.46	1.72	--	NG/L	0.00	J	
Perfluorooctane sulfonamide (PFOSAm)	07/06/2023	11.4	1.72	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	07/06/2023	133	1.72	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	07/06/2023	25.3	1.72	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	07/06/2023	1.92	1.62	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	07/06/2023	4.93	1.72	--	NG/L	0.00		
1633 TPFAS	08/09/2023	237.5	--	--	NG/L	0.00		
Perfluorobutanesulfonate (PFBS)	08/09/2023	2.8	1.5	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	08/09/2023	7.7	6	--	NG/L	0.00		
Perfluoroheptanesulfonate (PFHpS)	08/09/2023	2.1	1.5	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	08/09/2023	3.4	1.5	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	08/09/2023	69	1.5	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	08/09/2023	16	1.5	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	08/09/2023	1.5	1.5	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	08/09/2023	16	1.5	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	08/09/2023	90	1.5	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	08/09/2023	23	1.5	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	08/09/2023	1.6	1.5	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	08/09/2023	4.4	3	--	NG/L	0.00		
1633 TPFAS	09/15/2023	206.5	--	--	NG/L	0.00		
1,4-Dioxane	09/15/2023	0.12	0.2	--	UG/L	0.00	J	
Perfluorobutanesulfonate (PFBS)	09/15/2023	2.6	1.6	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	09/15/2023	7.8	6.3	--	NG/L	0.00		
Perfluoroheptanesulfonate (PFHpS)	09/15/2023	2	1.6	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	09/15/2023	3.1	1.6	--	NG/L	0.00		

Table 22-4
Former Firehouse PFAS Extraction Well Data
'Hits Only' July through September 2023

Site ID : 085-414 (FF-RW-A)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorohexanesulfonate (PFHxS)	09/15/2023	57	1.6	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	09/15/2023	12	1.6	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	09/15/2023	1.6	1.6	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	09/15/2023	13	1.6	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	09/15/2023	85	1.6	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	09/15/2023	17	1.6	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	09/15/2023	1.5	1.6	--	NG/L	0.00	J	
Perfluoropentanoic acid (PFPeA)	09/15/2023	3.9	3.2	--	NG/L	0.00		

Site ID : 096-132 (FF-RW-B)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
537 TPFAS	07/06/2023	195.5	--	--	NG/L	0.00		
Perfluorobutanesulfonate (PFBS)	07/06/2023	2.99	1.54	--	NG/L	0.00		
Perfluorobutylsulfonamide (FBSA)	07/06/2023	1.45	3.47	--	NG/L	0.00	J	
Perfluorobutyric acid (PFBA)	07/06/2023	7.21	1.73	--	NG/L	0.00		
Perfluoroheptanesulfonate (PFHpS)	07/06/2023	2.31	1.65	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	07/06/2023	2.83	1.73	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	07/06/2023	68.3	1.58	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	07/06/2023	12.7	1.73	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	07/06/2023	2.88	1.73	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	07/06/2023	1.64	1.73	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	07/06/2023	71.6	1.73	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	07/06/2023	15.8	1.73	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	07/06/2023	1.86	1.63	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	07/06/2023	3.93	1.73	--	NG/L	0.00		
1633 TPFAS	08/09/2023	160.8	--	--	NG/L	0.00		
1,4-Dioxane	08/09/2023	0.25	0.2	--	UG/L	0.00		
Perfluorobutanesulfonate (PFBS)	08/09/2023	2.8	1.6	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	08/09/2023	6.1	6.4	--	NG/L	0.00	J	
Perfluoroheptanesulfonate (PFHpS)	08/09/2023	2	1.6	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	08/09/2023	3.1	1.6	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	08/09/2023	60	1.6	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	08/09/2023	13	1.6	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	08/09/2023	3.6	1.6	--	NG/L	0.00		

Table 22-4
Former Firehouse PFAS Extraction Well Data
'Hits Only' July through September 2023

Site ID : 096-132 (FF-RW-B)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorooctane sulfonamide (PFOSAm)	08/09/2023	2.1	1.6	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	08/09/2023	48	1.6	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	08/09/2023	15	1.6	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	08/09/2023	1.6	1.6	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	08/09/2023	3.5	3.2	--	NG/L	0.00		
1633 TPFAS	09/15/2023	180.5	--	--	NG/L	0.00		
1,4-Dioxane	09/15/2023	0.23	0.21	--	UG/L	0.00		
Perfluorobutanesulfonate (PFBS)	09/15/2023	2.7	1.4	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	09/15/2023	6.3	5.7	--	NG/L	0.00		
Perfluoroheptanesulfonate (PFHpS)	09/15/2023	1.7	1.4	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	09/15/2023	3.1	1.4	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	09/15/2023	69	1.4	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	09/15/2023	13	1.4	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	09/15/2023	4.3	1.4	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	09/15/2023	2.5	1.4	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	09/15/2023	56	1.4	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	09/15/2023	16	1.4	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	09/15/2023	2	1.4	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	09/15/2023	3.9	2.8	--	NG/L	0.00		

Site ID : 105-79 (FF-RW-C)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
537 TPFAS	07/06/2023	124.61	--	--	NG/L	0.00		
Perfluorobutanesulfonate (PFBS)	07/06/2023	2.2	1.6	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	07/06/2023	5.97	1.8	--	NG/L	0.00		
Perfluoroheptanesulfonate (PFHpS)	07/06/2023	2.12	1.71	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	07/06/2023	2.19	1.8	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	07/06/2023	44.9	1.64	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	07/06/2023	7.51	1.8	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	07/06/2023	2.1	1.8	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	07/06/2023	40.6	1.8	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	07/06/2023	11.9	1.8	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	07/06/2023	1.55	1.69	--	NG/L	0.00	J	
Perfluoropentanoic acid (PFPeA)	07/06/2023	3.57	1.8	--	NG/L	0.00		

Table 22-4
Former Firehouse PFAS Extraction Well Data
'Hits Only' July through September 2023

Site ID : 105-79 (FF-RW-C)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
1633 TPFAS	08/09/2023	111.7	--	--	NG/L	0.00		
1,4-Dioxane	08/09/2023	0.27	0.2	--	UG/L	0.00		
Perfluorobutanesulfonate (PFBS)	08/09/2023	2	1.5	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	08/09/2023	5.5	5.9	--	NG/L	0.00	J	
Perfluoroheptanesulfonate (PFHpS)	08/09/2023	2.1	1.5	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	08/09/2023	2.4	1.5	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	08/09/2023	45	1.5	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	08/09/2023	8.2	1.5	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	08/09/2023	1.9	1.5	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	08/09/2023	1.3	1.5	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	08/09/2023	27	1.5	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	08/09/2023	11	1.5	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	08/09/2023	1.8	1.5	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	08/09/2023	3.5	2.9	--	NG/L	0.00		
1633 TPFAS	09/15/2023	135.6	--	--	NG/L	0.00		
1,4-Dioxane	09/15/2023	0.22	0.2	--	UG/L	0.00		
Perfluorobutanesulfonate (PFBS)	09/15/2023	1.9	1.6	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	09/15/2023	5.6	6.2	--	NG/L	0.00	J	
Perfluoroheptanesulfonate (PFHpS)	09/15/2023	2.6	1.6	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	09/15/2023	2.4	1.6	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	09/15/2023	51	1.6	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	09/15/2023	9.2	1.6	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	09/15/2023	1.8	1.6	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	09/15/2023	1.1	1.6	--	NG/L	0.00	J	
Perfluorooctanesulfonate (PFOS)	09/15/2023	42	1.6	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	09/15/2023	12	1.6	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	09/15/2023	2.2	1.6	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	09/15/2023	3.8	3.1	--	NG/L	0.00		

Table 22-5
Former Firehouse PFAS Influent Data
'Hits Only' July through September 2023

Site ID : 076-422 (Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
537 TPFAS	07/03/2023	175.43	--	--	NG/L	0.00		
8260 TVOC	07/03/2023	0.38	--	--	UG/L	0.00		
Chloroform	07/03/2023	0.38	0.5	--	UG/L	0.00	J	
Perfluorobutanesulfonate (PFBS)	07/03/2023	2.84	1.53	--	NG/L	0.00		
Perfluorobutylsulfonamide (FBSA)	07/03/2023	1.3	3.43	--	NG/L	0.00	J	
Perfluorobutyric acid (PFBA)	07/03/2023	6.85	1.72	--	NG/L	0.00		
Perfluoroheptanesulfonate (PFHpS)	07/03/2023	2.2	1.63	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	07/03/2023	2.64	1.72	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	07/03/2023	57.5	1.56	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	07/03/2023	11.6	1.72	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	07/03/2023	2.15	1.72	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	07/03/2023	3.08	1.72	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	07/03/2023	65.2	1.72	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	07/03/2023	14.2	1.72	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	07/03/2023	1.85	1.61	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	07/03/2023	4.02	1.72	--	NG/L	0.00		
537 TPFAS	07/20/2023	190.02	--	--	NG/L	0.00		
Perfluorobutanesulfonate (PFBS)	07/20/2023	3.03	1.49	--	NG/L	0.00		
Perfluorobutylsulfonamide (FBSA)	07/20/2023	1.36	3.34	--	NG/L	0.00	J	
Perfluorobutyric acid (PFBA)	07/20/2023	6.87	1.67	--	NG/L	0.00		
Perfluoroheptanesulfonate (PFHpS)	07/20/2023	2.14	1.59	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	07/20/2023	2.65	1.67	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	07/20/2023	65.6	1.52	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	07/20/2023	12.4	1.67	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	07/20/2023	2.45	1.67	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	07/20/2023	3.08	1.67	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	07/20/2023	67.8	1.67	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	07/20/2023	16.3	1.67	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	07/20/2023	2.16	1.57	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	07/20/2023	4.18	1.67	--	NG/L	0.00		
1633 TPFAS	08/02/2023	144.6	--	--	NG/L	0.00		
8260 TVOC	08/02/2023	0.45	--	--	UG/L	0.00		
Chloroform	08/02/2023	0.45	0.5	--	UG/L	0.00	J	

Table 22-5
Former Firehouse PFAS Influent Data
'Hits Only' July through September 2023

Site ID : 076-422 (Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluorobutanesulfonate (PFBS)	08/02/2023	2.4	1.6	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	08/02/2023	5.1	6.3	--	NG/L	0.00	J	
Perfluoroheptanesulfonate (PFHpS)	08/02/2023	1.7	1.6	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	08/02/2023	2.5	1.6	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	08/02/2023	50	1.6	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	08/02/2023	9.9	1.6	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	08/02/2023	2.2	1.6	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	08/02/2023	3.4	1.6	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	08/02/2023	49	1.6	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	08/02/2023	13	1.6	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	08/02/2023	1.9	1.6	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	08/02/2023	3.5	3.2	--	NG/L	0.00		
1633 TPFAS	08/14/2023	174.8	--	--	NG/L	0.00		
8260 TVOC	08/14/2023	0.4	--	--	UG/L	0.00		
Chloroform	08/14/2023	0.4	0.5	--	UG/L	0.00	J	
Perfluorobutanesulfonate (PFBS)	08/14/2023	2.9	1.5	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	08/14/2023	6.4	6.2	--	NG/L	0.00		
Perfluoroheptanesulfonate (PFHpS)	08/14/2023	2.9	1.5	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	08/14/2023	2.8	1.5	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	08/14/2023	60	1.5	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	08/14/2023	12	1.5	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	08/14/2023	2.5	1.5	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	08/14/2023	3.7	1.5	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	08/14/2023	61	1.5	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	08/14/2023	15	1.5	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	08/14/2023	1.8	1.5	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	08/14/2023	3.8	3.1	--	NG/L	0.00		
1633 TPFAS	09/05/2023	156.5	--	--	NG/L	0.00		
8260 TVOC	09/05/2023	0.32	--	--	UG/L	0.00		
Chloroform	09/05/2023	0.32	0.5	--	UG/L	0.00	J	
Perfluorobutanesulfonate (PFBS)	09/05/2023	2.5	1.4	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	09/05/2023	6.3	5.7	--	NG/L	0.00		
Perfluoroheptanesulfonate (PFHpS)	09/05/2023	1.8	1.4	--	NG/L	0.00		

Table 22-5
Former Firehouse PFAS Influent Data
'Hits Only' July through September 2023

Site ID : 076-422 (Influent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
Perfluoroheptanoic acid (PFHpA)	09/05/2023	2.5	1.4	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	09/05/2023	52	1.4	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	09/05/2023	9.8	1.4	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	09/05/2023	2.3	1.4	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	09/05/2023	4.1	1.4	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	09/05/2023	55	1.4	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	09/05/2023	15	1.4	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	09/05/2023	1.6	1.4	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	09/05/2023	3.6	2.8	--	NG/L	0.00		
1633 TPFAS	09/18/2023	157.792	--	--	NG/L	0.00		
8260 TVOC	09/18/2023	0.34	--	--	UG/L	0.00		
1,4-Dioxane	09/18/2023	0.12	0.2	--	UG/L	0.00	J	
Chloroform	09/18/2023	0.34	0.5	--	UG/L	0.00	J	
Perfluorobutanesulfonate (PFBS)	09/18/2023	2.5	1.4	--	NG/L	0.00		
Perfluorobutyric acid (PFBA)	09/18/2023	6	5.7	--	NG/L	0.00		
Perfluorodecanoic acid (PFDA)	09/18/2023	0.092	1.4	--	NG/L	0.00	J	
Perfluoroheptanesulfonate (PFHpS)	09/18/2023	1.9	1.4	--	NG/L	0.00		
Perfluoroheptanoic acid (PFHpA)	09/18/2023	2.8	1.4	--	NG/L	0.00		
Perfluorohexanesulfonate (PFHxS)	09/18/2023	54	1.4	--	NG/L	0.00		
Perfluorohexanoic acid (PFHxA)	09/18/2023	10	1.4	--	NG/L	0.00		
Perfluorononanoic acid (PFNA)	09/18/2023	2.6	1.4	--	NG/L	0.00		
Perfluorooctane sulfonamide (PFOSAm)	09/18/2023	4.3	1.4	--	NG/L	0.00		
Perfluorooctanesulfonate (PFOS)	09/18/2023	54	1.4	--	NG/L	0.00		
Perfluorooctanoic acid (PFOA)	09/18/2023	14	1.4	--	NG/L	0.00		
Perfluoropentanesulfonate (PFPeS)	09/18/2023	1.9	1.4	--	NG/L	0.00		
Perfluoropentanoic acid (PFPeA)	09/18/2023	3.7	2.8	--	NG/L	0.00		

Table 22-6
Former Firehouse PFAS Effluent Data
'Hits Only' July through September 2023

Site ID : 076-424 (Effluent)

Chemical	Sample Date	Value	Det. Limit	Error	Units	Depth	Lab Qual	Review Qual
537 TPFAS	07/03/2023	0	--	--	NG/L	0.00		
8260 TVOC	07/03/2023	0	--	--	UG/L	0.00		
1,4-Dioxane	07/03/2023	0.2	0.2	--	UG/L	0.00	U	
537 TPFAS	07/20/2023	0	--	--	NG/L	0.00		
1,4-Dioxane	07/20/2023	0.2	0.2	--	UG/L	0.00	U	
1633 TPFAS	08/02/2023	0	--	--	NG/L	0.00		
8260 TVOC	08/02/2023	0	--	--	UG/L	0.00		
1,4-Dioxane	08/02/2023	0.2	0.2	--	UG/L	0.00	U	
1633 TPFAS	08/14/2023	0	--	--	NG/L	0.00		
8260 TVOC	08/14/2023	0	--	--	UG/L	0.00		
1,4-Dioxane	08/14/2023	0.2	0.2	--	UG/L	0.00	U	
1633 TPFAS	09/05/2023	0.12	--	--	NG/L	0.00		
8260 TVOC	09/05/2023	0	--	--	UG/L	0.00		
1,4-Dioxane	09/05/2023	0.2	0.2	--	UG/L	0.00	U	
Perfluorooctane sulfonamide (PFOSAm)	09/05/2023	0.12	1.4	--	NG/L	0.00	J	
1633 TPFAS	09/18/2023	0	--	--	NG/L	0.00		
8260 TVOC	09/18/2023	0	--	--	UG/L	0.00		
1,4-Dioxane	09/18/2023	0.1	0.2	--	UG/L	0.00	J	

Qualifiers :
D = Compound was identified in an analysis at a secondary dilution factor.
E = Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
J = Estimated value.
N2 = Not usable based on the results that are not distinguishable from background. The value is less than or equal to the sum of the MDA and the uncertainty or RDL.
U = Compound not detected.

Organic Compounds :
B = Compound was found in both the sample And associated laboratory blank.

Inorganic Compounds :
B = Result Is between instrument detection limit And contract required reporting limit.