US Army Corps of Engineers
Baltimore District

QUARTERLY OM&M REPORT NO. 17

July to September 2024

PFOS/PFOA Mitigation
Interim Storm Water Treatment System
Long Term Operation, Maintenance, and Monitoring Services

Stewart Air National Guard Base, New York
Contract No. W912DR-21-C-0035

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ACRONYMS AND ABBREVIATIONS

AFFF	aqueous film-forming foam
BES	Bristol Environmental Solutions, LLC
EPA	U.S Environmental Protection Agency
GAC	granular activated carbon
ISWTS	Interim Storm Water Treatment System
IX	ion exchange resin
mg/L	milligrams per liter
NTU	nephelometric turbidity units
OM&M	Operations, Maintenance, and Monitoring
PFAS	per- and polyfluoroalkyl substances
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid
ppt	parts per trillion
SANGB	Stewart Air National Guard Base

EXECUTIVE SUMMARY

An Interim Storm Water Treatment System (ISWTS) has been operating at Stewart Air National Guard Base (SANGB) in Newburgh, New York, since July 13, 2020. The ISWTS treats stormwater in the Recreation Pond. The stormwater is contaminated with perfluorooctanesulfonic acid (PFOS), perfluorooctanoic acid (PFOA), and other per- and polyfluoroalkyl substances (PFAS). Aqueous film-forming foam (AFFF) used at SANGB is the source of the PFAS contamination.

This report summarizes ISWTS Operations, Maintenance and Monitoring (OM&M) between July 1 and September 30, 2024. The ISWTS consists of pretreatment systems and four PFOS/PFOA treatment trains with three treatment vessels per train. Each treatment train consists of two granular activated carbon (GAC) vessels followed by one ion exchange resin (IX) vessel.

Performance monitoring PFOS/PFOA samples are normally collected weekly from the ISWTS influent, effluent, and intra-process sample ports to monitor ISWTS performance and PFOS/PFOA breakthrough. Intra-process sample ports are on the effluent from each PFOS/PFOA treatment vessel on all four trains, but only one of the four treatment trains are sampled each week.

One complete PFOS/PFOA treatment media change was performed between July 9 and July 18, 2024, because fouling of the media restricted the hydraulic capacity. The media exchange included replacement of the media in the coarse and fine sand filters along with the GAC and IX resin. Bristol Environmental Solutions, LLC (BES) also scheduled vessel replacement of Train B, which included a new IX resin vessel equipped with an intermediate sample port to increase the projects ability to monitor the IX resin performance. Following completion of the media change and Train B vessel replacement, the original Train B vessels were removed from the site for rejuvenation.

During the performance period, a total of 35,168,275 gallons of stormwater were treated and discharged over the outfall weir by the ISWTS. There were 92 days between July 1 and September 30, 2024. The Recreation Pond was drawn down below the outfall weir for 66 of the 92 days or 72% of the quarter, which is above average. Increased drawdown below the weir during this performance period was influenced by regional drought conditions and lower stormwater inflow.

PFOS and PFOA samples were collected 13 times on the influent and effluent during the performance period. The combined PFOS and PFOA influent average concentration during the performance period was 318 parts per trillion (ppt). The highest combined PFOS and PFOA effluent detection was 1.5 ppt on August 13 and the combined PFOS and PFOA effluent average concentration was 0.25 ppt during the OM&M period between July 1 and September 30, 2024.

1.0 INTRODUCTION

Bristol Environmental Solutions, LLC (BES), under Contract with the US Army Corps of Engineers is operating an Interim Storm Water Treatment System (ISWTS) on behalf of the Air National Guard at Stewart Air National Guard Base (SANGB) in Newburgh, New York. The stormwater is contaminated with perfluorooctanesulfonic acid (PFOS), perfluorooctanoic acid (PFOA) and other per- and polyfluoroalkyl substances (PFAS). Aqueous film-forming foam (AFFF) used at SANGB is the source of the PFAS contamination that is present in the stormwater.

The ISWTS intercepts stormwater from the Recreation Pond and discharges treated effluent over the existing Recreation Pond outfall weir. When weather conditions allow, the ISWTS draws down the pond level below the outfall weir and treats all stormwater discharges. The Recreation Pond drawdown below the weir provides a storage reservoir to prevent discharge of untreated stormwater when precipitation occurs. When precipitation events occur that exceed the ISWTS capacity the Recreation Pond fills up and both treated effluent and untreated stormwater go over the outfall weir.

This is the 17th Quarterly Report that summarizes Operations, Maintenance, and Monitoring (OM&M) activities conducted by BES at SANGB. This report summarizes ISWTS operations between July 1 and September 30, 2024, at SANGB.

2.0 GENERAL OPERATIONS SUMMARY

The ISWTS has been operating since July 13, 2020, following installation and commissioning of pretreatment system improvements in June and early July 2020. The ISWTS consists of four treatment trains with three treatment vessels per train. This report summarizes OM&M between July 1 and September 30, 2024, or months 49, 50, and 51 post startup.

During the performance period the system influent, intra-process monitoring (three locations) and effluent was monitored weekly to confirm treatment system effectiveness for PFOS, PFOA, and other PFAS. Intra-process monitoring consists of three locations at the outlet of each vessel. Additional performance sampling was also performed at a new intermediate intra-process sample port to monitor IX media performance on Train B over six events during the quarter. Performance sampling was conducted for a total of 13 days during the quarterly period. Final PFAS results are provided in **Table 1**.

PFOS and PFOA mitigation is performed by granular activated carbon (GAC) and ion exchange resin (IX) media that absorb these compounds and other PFAS. One complete PFOS and PFOA media change including GAC, IX, and the coarse and fine sand media was performed between 9 and 18 July 2024. This was completed because fouling of the media restricted the hydraulic capacity. During this period the highest PFOS and PFOA detected in the effluent was 1.5 ppt and the average was 0.25 ppt.

The analytical method used for all PFAS monitoring during the performance period was U.S. Environmental Protection Agency (EPA) 537.1 M. Final PFAS results for the entire quarter are provided in **Table 1**.

3.0 ISWTS CONFIGURATION DURING PERFORMANCE PERIOD

The ISWTS maintained the following unit processes; centrifugal separator, coarse sand filtration, fine sand filtration, primary and secondary bag filtration, followed by three stages of PFOS/PFOA adsorption treatment media.

During this reporting period, four PFOS/PFOA treatment trains (Trains A, B, C, and D) comprised of Primary GAC, Secondary GAC, and IX were employed. During previous reporting periods, BES determined that this configuration outperformed one stage of GAC with two stages of IX or three stages of GAC.

The GAC media used during the quarter was Calgon Filtrasorb 400 and the IX resin is Purolite PFA694. During previous operating periods, peracetic acid was introduced to combat biofouling but it was determined to not be effective and was not introduced to the ISWTS influent during the reporting period. During the quarter, the ultrasonic device (Pulsar 3000) was operated to mitigate seasonal algae growth in the Recreation Pond. The ISWTS configuration is shown in **Figure 1**.

4.0 GENERAL FACILITY OPERATIONS SUMMARY

During the performance period, over 35 million gallons of stormwater were treated. Effluent is either directed over the outfall weir or recycled back to the pond. During the performance period, all effluent was discharged over the outfall weir. The table below summarizes the total volume treated (gallons), run time (% of total time), and average treatment rate (gallons per minute) during each month of system operations. The total gallons summarized below represent the total treated water discharged over the weir during the performance period. Due to drier than normal conditions and limited stormwater inflow the ISWTS and influent pump did not run all the time. It is turned off when system maintenance is being performed, during power failures, and during periods when Recreation Pond drawdown objectives were achieved. Recreation Pond drawdown is managed to reduce excessive sediment intake from the bottom of the pond that would impact ISWTS operations and maintenance.

Month	Volume Treated (Gallons)	Run Time[1] (Percent)	Average Treatment Flow[2] (GPM)
July 2024	12,146,045	99%	274
August 2024	12,515,280	99%	302
September 2024	10,506,950	88%	260
Total	35,168,275		

[1]Run Time – Hours pump running divided by the total period time

[2]Average GPM – Average flow total gallons divided by operational hours

% = percent

GPM = gallons per minute

There were 92 days between July 1 and September 30, 2024. The Recreation Pond was drawn down below the outfall weir for 66 of the 92 days or 72% of the quarter, which is above average. Increased drawdown below the weir during this performance period was influenced by regional drought conditions and lower stormwater inflow.

The Recreation Pond level during the performance period is shown in **Figure 2**.

5.0 FACILITY PERFORMANCE MONITORING

The analytical method used for all PFAS monitoring during the performance period was EPA 537.1 M. Final PFAS results for the entire quarter are provided in **Table 1**.

5.1 INFLUENT AND EFFLUENT PFOS/PFOA AND TOTAL PFAS MONITORING

As previously noted, samples were collected 13 times on the influent and effluent during the performance period for PFOS, PFOA, and other PFAS compounds. **Figure 3** shows the influent and effluent combined PFOS and PFOA concentrations based on the validated results. As shown in **Figure 3**, the combined PFOS and PFOA influent and effluent average detected concentrations during the performance period were 318 ppt and 0.25 ppt, respectively. The maximum combined PFOS and PFOA influent concentration was 486 ppt on August 25, 2024. The maximum detection of PFOS/PFOA in the combined effluent, was 1.5 ppt on August 13, 2024. All influent and effluent PFAS sample results are provided in **Table 1**.

5.2 INTRA-PROCESS PFOS/PFOA AND TOTAL PFAS MONITORING

During the performance period, intra-process monitoring for PFOS/PFOA and other PFAS compounds was performed after all three media stages and at one new intermediate sample port on the Train B Resin vessel. Sample results are provided in **Table 1**.

Weekly intra-process samples are collected to monitor the performance of GAC and IX treatment from each of the four treatment trains. Each week one of the four trains (A, B, C, or D) are sampled. When intra-process samples are collected, they are collected from the primary GAC effluent, secondary GAC effluent, and IX effluent. Normally the trains are sampled in order and each train is sampled every fourth event. Results from intra-process monitoring, showed incremental breakthrough of PFOS/PFOA from the primary and then secondary GAC vessels followed by excellent PFOS/PFOA removal from the IX resin in the polish position. During the performance monitoring period BES collected six additional performance samples from a new intermediate sample port installed on the new Train B IX vessel. This new sample port will allow for enhanced monitoring of the IX media performance. The highest combined PFOS/PFOA concentrations in the Primary GAC effluent, Secondary GAC effluent, intermediate IX and IX effluent were 238, 122, 18, and 1.1 ppt respectively.

5.3 OTHER WATER QUALITY MONITORING

During the performance period additional monitoring was performed for total organic carbon, and glycols on the influent, IX resin influent and final effluent on July 30, 2024. These results are shown in **Table 2**. No glycols were detected in any of the samples. Elevated TOC is known to impact treatment media life. The ion exchange resin manufacturer recommends that TOC not be more than 2 milligrams per liter (mg/L). The influent TOC was 4.40 mg/L, and the GAC-2 effluent (influent to the resin) was 1.60 mg/L indicating that the influent TOC level to the resin was below the limit recommended by the resin manufacturer. Effluent TOC concentration was 1.30 mg/L.

5.4 TURBIDITY MONITORING

Turbidity is a measurement that can quantify the level of solids present in the water. It is an onsite test that is helpful to measure in real time, the influent water quality and intra-process performance to confirm the effectiveness of the pretreatment and filtration systems in removing solids. During the performance period, influent and effluent turbidity averaged 8.94 nephelometric turbidity units (NTUs) and 0.71 NTUs, respectively. A graph of the influent and effluent turbidity during the performance period is included as **Figure 4**.

5.5 BIOFOULING CONTROL

Peracetic acid was not introduced into the process influent during the performance period for biofouling mitigation. Instead, ultrasonic treatment in the pond was utilized to inhibit algae growth. See Section 8.0 for additional discussion on the observed effectiveness of the ultrasonic treatment.

6.0 SCHEDULED PREVENTIVE MAINTENANCE

During the performance period the following preventive maintenance activities were completed:

- Coarse and fine sand filter backwashes;
- Coarse and fine sand filter cleanings;
- Primary and secondary bag filter changes;
- Primary and secondary carbon backwashing;

During the performance period, the coarse and fine filters were each backwashed 652 and 654 times respectively and one cleaning event was completed. The primary and secondary bag filters were changed 30 and 57 times, respectively, during the performance period. To maintain acceptable PFAS treatment media pressure, the primary, and secondary GAC vessels were backwashed 15 and 6 times respectively during the quarter. The sand filter

maintenance, bag filter changes, GAC backwash events, and ion exchange resin observations are summarized in **Table 3**.

7.0 MATERIAL DISPOSAL

Waste bag filters, and spent ion exchange resin were generated during the previous quarter. On June 5, 2024, spent waste was demobilized from Stewart by the Onion Equipment Company for interim storage at the OEC facility in Indianapolis, Indiana. The spent waste bag filters, and spent ion exchange resin collected on June 5, 2024 and all waste generated through July 18, 2024 were transported from the site on July 22, 2024 for disposal shipment to US Ecology Subtitled C landfill in Michigan and included an additional eight 1.5 cubic yard Super Sacks of spent bag filters, five 1.5 cubic yard Super Sacks of spent coarse and fine sands and four Super Sacks of spent bag filters. The waste generated in June and July 2024, were combined for a single shipment to the US Ecology Subtitled C Landfill in Michigan. On Monday July 29, 2024, BES loaded sixteen 1.5 cubic yard Super Sacks of spent carbon for carbon regeneration to the Calgon Corporation in Kentucky. Material disposal documents are provided in Attachment 1.

8.0 PROJECTED ACTIVITIES FOR NEXT PERFORMANCE PERIOD

BES will continue operating the ISWTS with all four treatment trains configured as primary GAC, secondary GAC, and IX resin polish.

The low stormwater inflow to Recreation Pond did enhance pond elevation drawdown and media treatment performance for the remainder of the quarter. The lower operating times extended the media lifecycle and media performance to remove PFOS/PFOA throughout the period.

During the planned December 2024 media change, three vessels in one of the four treatment trains will be replaced as part of planned corrective maintenance.

The effectiveness of the Peracetic acid has been uncertain. Bristol turned off the Peracetic acid in the fourth quarter of 2022 to see if increased biofouling impacts can be detected. No increased biofouling effects were observed while peracetic acid was off, therefore, the addition of peracetic acid will remain off at this time. Instead, BES will further evaluate ultrasonic equipment to mitigate the growth of algae at the Recreation Pond.

BES will continue to operate ultrasonic algae control equipment installed directly in the Recreation pond during the 2024 warm weather season. The ultrasonic algae control equipment transforms electrical signals to multiple soundwaves of ultrasonic frequencies that breaks the outer membrane of individual algae cells and inhibits growth. The technology was deployed in April 2023, and was successful in mitigating visible seasonal algae through October 2023. BES redeployed the ultrasonic equipment in March 2024, and observed similar results this warm weather season and will plan to keep it in operation until it is removed in the fourth quarter for the winter months..

Bristol will continue to evaluate modifications that could be considered to improve the overall system performance. In this reporting period, BES did evaluate pilot testing of automated washable bag filters to improve pre-treatment operations. The results found the process too restrictive and maintenance intensive for Recreation Pond water. No capital improvements are planned at this time.

TABLES

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RESULTS OF ANALYSES OF WATER **VALIDATED DATA**

	Bureau Veritas ID		ZPU321	ZPU326	ZPU327	ZPU323	ZPU325	ZPU324	ZPU322			
	Sampling Date		2024/07/02 10:30	2024/07/02 10:47	2024/07/02 10:47	2024/07/02 10:28	2024/07/02 10:44	2024/07/02 10:41	2024/07/02 10:33			
	Sample ID		**SANG-FB-07022024**	**SANG-INF-07022024**	**SANG-INF-07022024D**	**SANG-PEAR1-07022024**	**SANG-PEAG1-07022024**	**SANG-PEAG2-07022024**	**SANG-EFF-07022024**	**DL**	**LOD**	**LOQ**
Perfluorinated Compounds	**Method**	**UNITS**										
Perfluorobutanoic acid (PFBA)	EPA 537.1 M	ng/L	1.4 U	17	18	15	23	23	17	0.67	1.6	2.3
Perfluoropentanoic acid (PFPeA)	EPA 537.1 M	ng/L	0.70 U	44	48	1.7 J	50	45	1.3 J	0.25	0.8	2.3
Perfluorohexanoic acid (PFHxA)	EPA 537.1 M	ng/L	0.70 U	39	41	0.80 U	38	30	0.80 U	0.23	0.8	2.3
Perfluoroheptanoic acid (PFHpA)	EPA 537.1 M	ng/L	1.0 U	22	23	1.1 U	18	12	1.1 U	0.32	1.1	2.3
Perfluorooctanoic acid (PFOA)	EPA 537.1 M	ng/L	1.0 U	19	22	1.1 U	15	9	1.1 U	0.47	1.1	2.3
Perfluorononanoic acid (PFNA)	EPA 537.1 M	ng/L	1.0 U	5.5	6.5	1.1 U	3.9	2.1 J	1.1 U	0.4	1.1	2.3
Perfluorodecanoic acid (PFDA)	EPA 537.1 M	ng/L	1.0 U	4	4.8	1.1 U	2.6	1.0 J	1.1 U	0.33	1.1	2.3
Perfluoroundecanoic acid (PFUnA)	EPA 537.1 M	ng/L	1.0 U	0.54 J	0.82 J	1.1 U	1.1 U	1.1 U	1.1 U	0.42	1.1	2.3
Perfluorododecanoic acid (PFDoA)	EPA 537.1 M	ng/L	1.0 U	1.1 U	1.0 J	1.1 U	1.1 U	1.1 U	1.1 U	0.55	1.1	2.3
Perfluorotridecanoic acid (PFTRDA)	EPA 537.1 M	ng/L	0.70 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.27	0.8	2.3
Perfluorotetradecanoic acid(PFTEDA)	EPA 537.1 M	ng/L	1.0 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.44	1.1	2.3
Perfluorobutanesulfonic acid (PFBS)	EPA 537.1 M	ng/L	1.0 U	9.3	9.9	1.1 U	7.9	5.8	1.1 U	0.31	1.1	2.3
Perfluoropentanesulfonic acid PFPes	EPA 537.1 M	ng/L	1.0 U	11	12	1.1 U	8.3	4.6	1.1 U	0.39	1.1	2.3
Perfluorohexanesulfonic acid(PFHxS)	EPA 537.1 M	ng/L	1.0 U	60	64	1.1 U	44	26	1.1 U	0.32	1.1	2.3
Perfluoroheptanesulfonic acid PFHpS	EPA 537.1 M	ng/L	1.0 U	3.4	3.5	1.1 U	2.2 J	1.2 J	1.1 U	0.49	1.1	2.3
Perfluorooctanesulfonic acid (PFOS)	EPA 537.1 M	ng/L	1.0 U	200 (1)	190 (1)	1.1 U	120 (1)	68	1.1 U	4.7	10	20
Perfluorononanesulfonic acid (PFNS)	EPA 537.1 M	ng/L	1.4 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	0.73	1.6	2.3
Perfluorodecanesulfonic acid (PFDS)	EPA 537.1 M	ng/L	1.4 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	0.68	1.6	2.3
Perfluorooctane Sulfonamide (PFOSA)	EPA 537.1 M	ng/L	1.4 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	0.45	1.6	4.5
MeFOSAA	EPA 537.1 M	ng/L	1.4 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	0.8	1.6	4.5
EtFOSAA	EPA 537.1 M	ng/L	1.4 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	0.61	1.6	4.5
4:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	1.6 U	0.65 J	1.6 U	1.6 U	1.6 U	1.6 U	0.53	1.6	4.5
6:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	46	49	1.7 J	28	15	1.6 U	0.72	1.6	4.5
8:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	8.7	13	1.6 U	4.5	1.8 J	1.6 U	0.6	1.6	4.5
Hexafluoropropyleneoxide dimer acid	EPA 537.1 M	ng/L	1.4 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	0.47	1.6	4.5
4,8-Dioxa-3H-perfluorononanoic acid	EPA 537.1 M	ng/L	0.40 U	0.45 U	0.45 U	0.21 J	0.45 U	0.16 J	0.45 U	0.14	0.45	4.5
9Cl-PF3ONS (F-53B Major)	EPA 537.1 M	ng/L	1.0 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.48	1.1	4.5
11Cl-PF3OUdS (F-53B Minor)	EPA 537.1 M	ng/L	1.0 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.36	1.1	4.5

Notes:

(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x). Some results reference different lab limits due to dilution.

ng/L - nanograms per Liter or parts per trillion.

DL = Detection Limit

EFF = Effluent

FB= Field Blank

INF = Influent

J - Estimated result. Associated value may not be accurate or precise.

LOD = Limit of Detection

LOQ = Limit of Quantitation

SANGB = Stewart Air National Guard Base

U - Undetected. Compound was analyzed for, but not detected.

Sample SANG-FB-07022024 is a field blank.

Sample SANG-INF-07022024 D is a field duplicate of SANG-INF-07022024 .

Sample ports located in each of the 4 trains; A, B, C, D. such as: PBG1= post B train GAC unit 1.

PEAG1 = post E port A GAC Unit 1

PEAG2 = post E port A train GAC Unit 2

PEAR1 = post E port A Resin 1

Effluent (EFF) = Treated water that has passed through the ISWTS

Influent (INF) = Untreated water from Recreational Pond

ISWTS = Interim Storm Water Treatment System

C4M296V1 - 07/16/2024

RESULTS OF ANALYSES OF WATER **VALIDATED DATA**

Bureau Veritas ID			ZRK814	ZTA422	ZUT248	ZRK816	ZTA424	ZUT253	ZUT254	ZUT250	ZUT252	ZUT251	ZRK815	ZTA423	ZUT249			
Sampling Date			2024/07/09 08:30	2024/07/16 08:30	2024/07/23 07:55	2024/07/09 08:40	2024/07/16 08:40	2024/07/23 08:20	2024/07/23 08:20	2024/07/23 08:05	2024/07/23 08:15	2024/07/23 08:10	2024/07/09 08:35	2024/07/16 08:35	2024/07/23 08:00			
Sample ID			**SANG-FB-07092024**	**SANG-FB-07167024**	**SANG-FB-07232024**	**SANG-INF-07092024**	**SANG-INF-07167024**	**SANG-INF-07232024**	**SANG-INF-07232024D**	**SANG-PEAR1-07232024**	**SANG-PEAG1-07232024**	**SANG-PEAG2-07232024**	**SANG-EFF-07092024**	**SANG-EFF-07167024**	**SANG-EFF-07232024**	**DL**	**LOD**	**LOQ**
Perfluorinated Compounds	**Method**	**UNITS**																
Perfluorobutanoic acid (PFBA)	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.5 U	17	33	8.4	9.9	1.5 U	2.9	1.5 U	17	1.6 U	1.5 U	0.61	1.5	2.1
Perfluoropentanoic acid (PFPeA)	EPA 537.1 M	ng/L	0.70 U	0.70 U	0.73 U	52	80	47	53	0.73 U	6.5	0.73 U	1.2 J	0.39 J	0.73 U	0.23	0.73	2.1
Perfluorohexanoic acid (PFHxA)	EPA 537.1 M	ng/L	0.70 U	0.29 J	0.73 U	39	67	35	35	0.73 U	3.8	0.73 U	0.70 U	0.33 J	0.73 U	0.21	0.73	2.1
Perfluoroheptanoic acid (PFHpA)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	20	31	19	19	1.0 U	1.8 J	1.0 U	1.0 U	1.1 U	1.0 U	0.29	1	2.1
Perfluorooctanoic acid (PFOA)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	19	28	17	17	1.0 U	1.4 J	1.0 U	1.0 U	1.1 U	1.0 U	0.43	1	2.1
Perfluorononanoic acid (PFNA)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	4.6	7.5	4.7	4.6	1.0 U	0.41 J	1.0 U	1.0 U	1.1 U	1.0 U	0.36	1	2.1
Perfluorodecanoic acid (PFDA)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	4	6.5	3.2	3.3	1.0 U	1.0 U	1.0 U	1.0 U	1.1 U	1.0 U	0.3	1	2.1
Perfluoroundecanoic acid (PFUnA)	EPA 537.1 M	ng/L	1.0 U	0.54 J	1.0 U	0.46 J	1.2 J	0.50 J	0.51 J	1.0 U	1.0 U	1.0 U	1.0 U	1.1 U	1.0 U	0.39	1	2.1
Perfluorododecanoic acid (PFDoA)	EPA 537.1 M	ng/L	1.0 U	0.82 J	1.0 U	0.58 J	1.4 J	0.81 J	0.76 J	1.0 U	1.0 U	1.0 U	1.0 U	1.1 U	1.0 U	0.5	1	2.1
Perfluorotridecanoic acid (PFTRDA)	EPA 537.1 M	ng/L	0.70 U	1.1 J	0.73 U	0.70 U	0.81 J	0.73 U	0.73 U	0.41 J	0.73 U	0.73 U	0.70 U	0.63 J	0.73 U	0.25	0.73	2.1
Perfluorotetradecanoic acid (PFTEDA)	EPA 537.1 M	ng/L	1.0 U	0.83 J	1.0 U	1.0 U	1.1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.1 U	1.0 U	0.41	1	2.1
Perfluorobutanesulfonic acid (PFBS)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	9	17	7.7	7.8	1.0 U	0.50 J	1.0 U	1.0 U	1.1 U	1.0 U	0.28	1	2.1
Perfluoropentanesulfonic acid (PFPes)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	12	23	9.8	11	1.0 U	0.45 J	1.0 U	1.0 U	1.1 U	1.0 U	0.35	1	2.1
Perfluorohexanesulfonic acid (PFHxS)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	56	100	52	51	1.0 U	3	1.0 U	1.0 U	1.1 U	1.0 U	0.29	1	2.1
Perfluoroheptanesulfonic acid (PFHpS)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	3	6.3	2.9	3	1.0 U	1.0 U	1.0 U	1.0 U	1.1 U	1.0 U	0.45	1	2.1
Perfluorooctanesulfonic acid (PFOS)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	210 (1)	360 (1)	150 (1)	170 (1)	0.78 J	11	0.80 J	0.71 J	1.1 U	1.0 J	4.7	10	20
Perfluorononanesulfonic acid (PFNS)	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.5 U	1.4 U	1.6 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.4 U	1.6 U	1.5 U	0.67	1.5	2.1
Perfluorodecanesulfonic acid (PFDS)	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.5 U	1.4 U	1.6 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.4 U	1.6 U	1.5 U	0.63	1.5	2.1
Perfluorooctane Sulfonamide (PFOSA)	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.5 U	1.4 U	1.6 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.4 U	1.6 U	1.5 U	0.42	1.5	4.2
MeFOSAA	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.5 U	1.4 U	1.6 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.4 U	1.6 U	1.5 U	0.73	1.5	4.2
EtFOSAA	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.5 U	1.4 U	1.6 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.4 U	1.6 U	1.5 U	0.56	1.5	4.2
4:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.5 U	1.4 U	1.6 J	0.69 J	0.95 J	1.5 U	1.5 U	1.5 U	1.4 U	1.6 U	1.5 U	0.59	1.8	5
6:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.5 U	46	85	41	40	1.5 U	2.6 J	1.5 U	1.4 U	1.6 U	1.5 U	0.66	1.5	4.2
8:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.5 U	14	21	8.9	9.1	1.5 U	1.5 U	1.5 U	1.4 U	1.6 U	1.5 U	0.55	1.5	4.2
Hexafluoropropyleneoxide dimer acid	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.5 U	1.4 U	1.6 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.4 U	1.6 U	1.5 U	0.43	1.5	4.2
4,8-Dioxa-3H-perfluorononanoic acid	EPA 537.1 M	ng/L	0.40 U	0.40 U	0.42 U	0.40 U	0.33 J	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.40 U	0.45 U	0.42 U	0.13	0.42	4.2
9Cl-PF3ONS (F-53B Major)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	1.0 U	1.1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.1 U	1.0 U	0.44	1	4.2
11Cl-PF3OUdS (F-53B Minor)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	1.0 U	1.1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.1 U	1.0 U	0.33	1	4.2

Notes:

(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x). Some results reference different lab limits due to dilution.

ng/L - nanograms per Liter or parts per trillion.

DL = Detection Limit

EFF = Effluent

FB= Field Blank

INF = Influent

J - Estimated result. Associated value may not be accurate or precise.

LOD = Limit of Detection

LOQ = Limit of Quantitation

SANGB = Stewart Air National Guard Base

U - Undetected. Compound was analyzed for, but not detected.

Sample SANG-FB-07232024, 07092024 and 073162024 are field blanks.

Sample SANG-INF-07232024 D is a field duplicate of SANG-INF-07232024 .

Sample ports located in each of the 4 trains; A, B, C, D. such as: PBG1= post B train GAC unit 1.

PEAG1 = post E portAD GAC Unit 1

PEAG2 = post E port A train GAC Unit 2

PEAR1 = post E port A Resin 1

Effluent (EFF) = Treated water that has passed through the ISWTS

Influent (INF) = Untreated water from Recreational Pond

ISWTS = Interim Storm Water Treatment System

C4N4751V1 - 07/30/2024

RESULTS OF ANALYSES OF WATER **VALIDATED DATA**

		Bureau Veritas ID	ZWL796	ZWL802	ZWL803	ZWL798	ZWL799	ZWL801	ZWL800	ZWL797			
		Sampling Date	2024/07/30 07:20	2024/07/30 07:50	2024/07/30 07:50	2024/07/30 07:30	2024/07/30 07:35	2024/07/30 07:45	2024/07/30 07:40	2024/07/30 07:25			
		Sample ID	**SANG-FB-07302024**	**SANG-INF-07302024**	**SANG-INF-07302024D**	**SANG-PEBR1-07302024**	**SANG-MIDBR1-07302024**	**SANG-PEBG1-07302024**	**SANG-PEBG2-07302024**	**SANG-EFF-07302024**	**DL**	**LOD**	**LOQ**
Perfluorinated Compounds	**Method**	**UNITS**											
Perfluorobutanoic acid (PFBA)	EPA 537.1 M	ng/L	1.6 U	31	32	1.6 U	0.93 J	12	2.4	1.6 U	0.82	1.9	2.8
Perfluoropentanoic acid (PFPeA)	EPA 537.1 M	ng/L	0.80 U	89	91	0.80 U	0.46 J	26	2.7	0.80 U	0.31	0.97	2.8
Perfluorohexanoic acid (PFHxA)	EPA 537.1 M	ng/L	0.80 U	72	76	0.80 U	0.80 U	18	1.3 J	0.80 U	0.28	0.97	2.8
Perfluoroheptanoic acid (PFHpA)	EPA 537.1 M	ng/L	1.1 U	35	36	1.1 U	1.1 U	7.7	0.61 J	1.1 U	0.39	1.4	2.8
Perfluorooctanoic acid (PFOA)	EPA 537.1 M	ng/L	1.1 U	31	31	1.1 U	1.1 U	6	0.55 J	1.1 U	0.57	1.4	2.8
Perfluorononanoic acid (PFNA)	EPA 537.1 M	ng/L	1.1 U	8.3	8.4	1.1 U	1.1 U	1.3 J	1.1 U	1.1 U	0.49	1.4	2.8
Perfluorodecanoic acid (PFDA)	EPA 537.1 M	ng/L	1.1 U	5.8	5.5	1.1 U	1.1 U	0.78 J	1.1 U	1.1 U	0.4	1.4	2.8
Perfluoroundecanoic acid (PFUnA)	EPA 537.1 M	ng/L	1.1 U	1.4 U	1.4 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.51	1.4	2.8
Perfluorododecanoic acid (PFDoA)	EPA 537.1 M	ng/L	1.1 U	1.6 J	1.5 J	1.1 U	0.66 J	1.1 U	1.1 U	1.1 U	0.67	1.4	2.8
Perfluorotridecanoic acid (PFTRDA)	EPA 537.1 M	ng/L	0.80 U	0.97 U	0.97 U	0.80 U	0.48 J	0.80 U	0.80 U	0.80 U	0.33	0.97	2.8
Perfluorotetradecanoic acid (PFTEDA)	EPA 537.1 M	ng/L	1.1 U	1.4 U	1.4 U	1.1 U	0.48 J	1.1 U	1.1 U	1.1 U	0.54	1.4	2.8
Perfluorobutanesulfonic acid (PFBS)	EPA 537.1 M	ng/L	1.1 U	20	20	0.33 J	1.1 U	3.8	1.1 U	1.1 U	0.38	1.4	2.8
Perfluoropentanesulfonic acid PFPes	EPA 537.1 M	ng/L	1.1 U	21	22	1.1 U	1.1 U	3.4	1.1 U	1.1 U	0.47	1.4	2.8
Perfluorohexanesulfonic acid (PFHxS)	EPA 537.1 M	ng/L	1.1 U	110	110	1.1 U	1.1 U	17	1.1 U	1.1 U	0.39	1.4	2.8
Perfluoroheptanesulfonic acid (PFHpS)	EPA 537.1 M	ng/L	1.1 U	6.2	6.9	1.1 U	1.1 U	0.92 J	1.1 U	1.1 U	0.6	1.4	2.8
Perfluorooctanesulfonic acid (PFOS)	EPA 537.1 M	ng/L	1.1 U	330 (1)	330 (1)	0.56 J	18	51	2.0 J	1.1 U	4.7	10	20
Perfluorononanesulfonic acid (PFNS)	EPA 537.1 M	ng/L	1.6 U	1.9 U	1.9 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	0.89	1.9	2.8
Perfluorodecanesulfonic acid (PFDS)	EPA 537.1 M	ng/L	1.6 U	1.9 U	1.9 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	0.83	1.9	2.8
Perfluorooctane Sulfonamide (PFOSA)	EPA 537.1 M	ng/L	1.6 U	1.2 J (2)	1.0 J	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	0.56	1.9	5.6
MeFOSAA	EPA 537.1 M	ng/L	1.6 U	1.9 U	1.9 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	0.97	1.9	5.6
EtFOSAA	EPA 537.1 M	ng/L	1.6 U	1.9 U	1.9 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	0.75	1.9	5.6
4:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.6 U	1.5 J	1.6 J	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	0.65	1.9	5.6
6:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.6 U	80	88	1.6 U	1.6 U	13	1.6 U	1.6 U	0.88	1.9	5.6
8:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.6 U	13	14	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	0.74	1.9	5.6
Hexafluoropropyleneoxide dimer acid	EPA 537.1 M	ng/L	1.6 U	1.9 U	1.9 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	0.57	1.9	5.6
4,8-Dioxa-3H-perfluorononanoic acid	EPA 537.1 M	ng/L	0.20 J	0.24 J	0.56 U	0.18 J	0.17 J	0.45 U	0.45 U	0.18 J	0.17	0.56	5.6
9Cl-PF3ONS (F-53B Major)	EPA 537.1 M	ng/L	1.1 U	1.4 U	1.4 U	1.1 U	0.63 J	1.1 U	1.1 U	1.1 U	0.58	1.4	5.6
11Cl-PF3OUdS (F-53B Minor)	EPA 537.1 M	ng/L	1.1 U	1.4 U	1.4 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.44	1.4	5.6

Notes:

(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x). Some results reference different lab limits due to dilution.

(2) Result is estimated as analyte confirmation criterion (ion ratio) was not met.

ng/L - nanograms per Liter or parts per trillion.

DL = Detection Limit

EFF = Effluent

FB= Field Blank

INF = Influent

J - Estimated result. Associated value may not be accurate or precise.

LOD = Limit of Detection

LOQ = Limit of Quantitation

SANGB = Stewart Air National Guard Base

U - Undetected. Compound was analyzed for, but not detected.

Sample SANG-FB-07302024 is field blank.

Sample SANG-INF-07302024 D is a field duplicate of SANG-INF-07302024 .

Sample ports located in each of the 4 trains; A, B, C, D. such as: PBG1= post B train GAC unit 1.

PEBG1 = post E port B GAC Unit 1

PEBG2 = post E port B train GAC Unit 2

PEBR1 = post E port B Resin 1

Effluent (EFF) = Treated water that has passed through the ISWTS

Influent (INF) = Untreated water from Recreational Pond

ISWTS = Interim Storm Water Treatment System

MIDBR1 = Train B Resin unit 1 middle sample port

C402049V1 - 08/06/2024

RESULTS OF ANALYSES OF WATER **VALIDATED DATA**

	Bureau Veritas ID		ZXY072	ZXY089	ZXY090	ZXY078	ZXY091	ZXY082	ZXY086	ZXY073			
	Sampling Date		2024/08/06 08:55	2024/08/06 09:20	2024/08/06 09:20	2024/08/06 09:05	2024/08/06 09:30	2024/08/06 09:10	2024/08/06 09:15	2024/08/06 09:00			
	Sample ID		**SANG-FB-08062024**	**SANG-INF-08062024**	**SANG-INF-08062024D**	**SANG-PECR1-08062024**	**SANG-MIDBRI-08062024**	**SANG-PECG2-08062024**	**SANG-PECG1-08062024**	**SANG-EFF-08062024**	**DL**	**LOD**	**LOQ**
Perfluorinated Compounds	**Method**	**UNITS**											
Perfluorobutanoic acid (PFBA)	EPA 537.1 M	ng/L	1.4 U	17	16	1.6 U	2.4	8.2	15	1.6 U	0.67	1.6	2.3
Perfluoropentanoic acid (PFPeA)	EPA 537.1 M	ng/L	0.26 J	62	63	0.31 J	2.0 J	12	38	0.80 U	0.25	0.8	2.3
Perfluorohexanoic acid (PFHxA)	EPA 537.1 M	ng/L	0.70 U	45	48	0.80 U	0.79 J	5.4	24	0.80 U	0.23	0.8	2.3
Perfluoroheptanoic acid (PFHpA)	EPA 537.1 M	ng/L	1.0 U	28	29	1.1 U	0.47 J	2.1 J	13	1.1 U	0.32	1.1	2.3
Perfluorooctanoic acid (PFOA)	EPA 537.1 M	ng/L	1.0 U	22	23	1.1 U	1.1 U	1.0 J	9.7	1.1 U	0.47	1.1	2.3
Perfluorononanoic acid (PFNA)	EPA 537.1 M	ng/L	1.0 U	6.5	6.3	1.1 U	1.1 U	1.1 U	2.7	1.1 U	0.4	1.1	2.3
Perfluorodecanoic acid (PFDA)	EPA 537.1 M	ng/L	1.0 U	4.2	4.2	1.1 U	1.1 U	1.1 U	1.4 J	1.1 U	0.33	1.1	2.3
Perfluoroundecanoic acid (PFUnA)	EPA 537.1 M	ng/L	1.0 U	0.79 J	0.70 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.42	1.1	2.3
Perfluorododecanoic acid (PFDoA)	EPA 537.1 M	ng/L	1.0 U	1.0 J	0.97 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.55	1.1	2.3
Perfluorotridecanoic acid (PFTrDA)	EPA 537.1 M	ng/L	0.70 U	0.80 U	0.37 J	0.80 U	0.34 J (1)	0.80 U	0.80 U	0.80 U	0.27	0.8	2.3
Perfluorotetradecanoic acid(PFTeDA)	EPA 537.1 M	ng/L	1.0 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.44	1.1	2.3
Perfluorobutanesulfonic acid (PFBS)	EPA 537.1 M	ng/L	1.0 U	12	11	0.48 J (1)	1.1 U	0.90 J	5.3	0.38 J (1)	0.31	1.1	2.3
Perfluoropentanesulfonic acid PFPeS	EPA 537.1 M	ng/L	1.0 U	13	12	1.1 U	1.1 U	0.52 J	5.2	1.1 U	0.39	1.1	2.3
Perfluorohexanesulfonic acid(PFHxS)	EPA 537.1 M	ng/L	1.0 U	76	79	1.1 U	1.1 U	2.1 J	29	1.1 U	0.32	1.1	2.3
Perfluoroheptanesulfonic acid PFHpS	EPA 537.1 M	ng/L	1.0 U	4.2	4	1.1 U	1.1 U	1.1 U	1.9 J	1.1 U	0.49	1.1	2.3
Perfluorooctanesulfonic acid (PFOS)	EPA 537.1 M	ng/L	1.0 U	230	220 (2)	1.1 J	11	5.2	84	1.1 U	0.53	1.1	2.3
Perfluorononanesulfonic acid (PFNS)	EPA 537.1 M	ng/L	1.4 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	0.73	1.6	2.3
Perfluorodecanesulfonic acid (PFDS)	EPA 537.1 M	ng/L	1.4 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	0.68	1.6	2.3
Perfluorooctane Sulfonamide (PFOSA)	EPA 537.1 M	ng/L	1.4 U	0.76 J (1)	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	0.45	1.6	4.5
MeFOSAA	EPA 537.1 M	ng/L	1.4 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	0.8	1.6	4.5
EtFOSAA	EPA 537.1 M	ng/L	1.4 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	0.61	1.6	4.5
4:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	0.78 J (1)	0.85 J (1)	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	0.53	1.6	4.5
6:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	52	52	1.6 U	1.6 U	1.5 J	20	1.6 U	0.72	1.6	4.5
8:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	13	13	1.6 U	0.70 J	0.68 J	3.9 J	1.6 U	0.6	1.6	4.5
Hexafluoropropyleneoxide dimer acid	EPA 537.1 M	ng/L	1.4 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	0.47	1.6	4.5
4,8-Dioxa-3H-perfluorononanoic acid	EPA 537.1 M	ng/L	0.40 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.14	0.45	4.5
9Cl-PF3ONS (F-53B Major)	EPA 537.1 M	ng/L	1.0 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.48	1.1	4.5
11Cl-PF3OUdS (F-53B Minor)	EPA 537.1 M	ng/L	1.0 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.36	1.1	4.5

Notes:

(1) Result is estimated as analyte confirmation criterion (ion ratio) was not met.

(2) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x). Some results reference different lab limits due to dilution.

ng/L - nanograms per Liter or parts per trillion.

DL = Detection Limit

EFF = Effluent

FB= Field Blank

INF = Influent

J - Estimated result. Associated value may not be accurate or precise.

LOD = Limit of Detection

LOQ = Limit of Quantitation

SANGB = Stewart Air National Guard Base

U - Undetected. Compound was analyzed for, but not detected.

Sample SANG-FB-08062024 is field blank.

Sample SANG-INF-08062024 D is a field duplicate of SANG-INF-08062024 .

Sample ports located in each of the 4 trains; A, B, C, D. such as: PBG1= post B train GAC unit 1.

PECG1 = post E port C GAC Unit 1

PECG2 = post E port C train GAC Unit 2

PECR1 = post E port C Resin 1

Effluent (EFF) = Treated water that has passed through the ISWTS

Influent (INF) = Untreated water from Recreational Pond

ISWTS = Interim Storm Water Treatment System

MIDBR1 = Train B Resin unit 1 middle sample port

C4P0566V1 - 08/13/2024

RESULTS OF ANALYSES OF WATER **Validated**

Bureau Veritas ID			ZZQ663	ZZQ668	ZZQ669	ZZQ665	ZZQ667	ZZQ666	ZZQ670	ZZQ664			
Sampling Date			2024/08/13 07:55	2024/08/13 08:20	2024/08/13 08:20	2024/08/13 08:05	2024/08/13 08:15	2024/08/13 08:10	2024/08/13 08:25	2024/08/13 08:00			
Sample ID			**SANG-FB-08132024**	**SANG-INF-08132024**	**SANG-INF-08132024D**	**SANG-PEDR1-08132024**	**SANG-PEDG1-08132024**	**SANG-PEDG2-08132024**	**SANG-MIDBR1-08132024**	**SANG-EFF-08132024**	**DL**	**LOD**	**LOQ**
Perfluorinated Compounds	**Method**	**UNITS**											
Perfluorobutanoic acid (PFBA)	EPA 537.1 M	ng/L	1.5 U	22	23	1.5 U	18	12	7.1	1.5 U	0.64	1.5	2.2
Perfluoropentanoic acid (PFPeA)	EPA 537.1 M	ng/L	0.76 U	68	68	0.76 U	45	24	8.1	0.76 U	0.24	0.76	2.2
Perfluorohexanoic acid (PFHxA)	EPA 537.1 M	ng/L	0.76 U	50	54	0.76 U	31	15	3.4	0.76 U	0.22	0.76	2.2
Perfluoroheptanoic acid (PFHpA)	EPA 537.1 M	ng/L	1.1 U	30	32	1.1 U	17	7.6	1.4 J	1.1 U	0.3	1.1	2.2
Perfluorooctanoic acid (PFOA)	EPA 537.1 M	ng/L	1.1 U	25	27	1.1 U	13	5.4	1.1 J	1.1 U	0.45	1.1	2.2
Perfluorononanoic acid (PFNA)	EPA 537.1 M	ng/L	1.1 U	6.1	6.8	1.1 U	2.9	1.0 J	1.1 U	1.1 U	0.38	1.1	2.2
Perfluorodecanoic acid (PFDA)	EPA 537.1 M	ng/L	1.1 U	4.3	4.7	1.1 U	1.7 J	0.47 J	1.1 U	1.1 U	0.32	1.1	2.2
Perfluoroundecanoic acid (PFUnA)	EPA 537.1 M	ng/L	1.1 U	0.49 J	0.44 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.4	1.1	2.2
Perfluorododecanoic acid (PFDoA)	EPA 537.1 M	ng/L	1.1 U	0.74 J	0.65 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.52	1.1	2.2
Perfluorotridecanoic acid (PFTrDA)	EPA 537.1 M	ng/L	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.26	0.76	2.2
Perfluorotetradecanoic acid (PFTeDA)	EPA 537.1 M	ng/L	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.42	1.1	2.2
Perfluorobutanesulfonic acid (PFBS)	EPA 537.1 M	ng/L	1.1 U	13	14	0.49 J (1)	7.5	3	1.1 U	1.1 U	0.29	1.1	2.2
Perfluoropentanesulfonic acid (PFPeS)	EPA 537.1 M	ng/L	1.1 U	14	16	1.1 U	6.8	2.3	1.1 U	1.1 U	0.37	1.1	2.2
Perfluorohexanesulfonic acid (PFHxS)	EPA 537.1 M	ng/L	1.1 U	84	90	1.1 U	41	15	1.2 J	1.1 U	0.3	1.1	2.2
Perfluoroheptanesulfonic acid (PFHpS)	EPA 537.1 M	ng/L	1.1 U	3.8	4.2	1.1 U	1.6 J	0.60 J	1.1 U	1.1 U	0.47	1.1	2.2
Perfluorooctanesulfonic acid (PFOS)	EPA 537.1 M	ng/L	1.1 U	300 (2)	300 (2)	0.99 J	120 (2)	45	9.4	1.5 J	0.51	1.1	2.2
Perfluorononanesulfonic acid (PFNS)	EPA 537.1 M	ng/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.7	1.5	2.2
Perfluorodecanesulfonic acid (PFDS)	EPA 537.1 M	ng/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.65	1.5	2.2
Perfluorooctane Sulfonamide (PFOSA)	EPA 537.1 M	ng/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.43	1.5	4.3
MeFOSAA	EPA 537.1 M	ng/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.76	1.5	4.3
EtFOSAA	EPA 537.1 M	ng/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.59	1.5	4.3
4:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.51	1.5	4.3
6:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.5 U	58	64	1.5 U	29	11	3.1 J	1.5 U	0.68	1.5	4.3
8:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.5 U	16	17	1.5 U	5.3	2.0 J	1.4 J	1.5 U	0.58	1.5	4.3
Hexafluoropropyleneoxide dimer acid	EPA 537.1 M	ng/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.45	1.5	4.3
4,8-Dioxa-3H-perfluorononanoic acid	EPA 537.1 M	ng/L	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.13	0.43	4.3
9Cl-PF3ONS (F-53B Major)	EPA 537.1 M	ng/L	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.46	1.1	4.3
11Cl-PF3OUdS (F-53B Minor)	EPA 537.1 M	ng/L	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.35	1.1	4.3

Notes:

(1) Result is estimated as analyte confirmation criterion (ion ratio) was not met.

(2) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x). Some results reference different lab limits due to dilution.

ng/L - nanograms per Liter or parts per trillion.

DL = Detection Limit

EFF = Effluent

FB= Field Blank

INF = Influent

J - Estimated result. Associated value may not be accurate or precise.

LOD = Limit of Detection

LOQ = Limit of Quantitation

SANGB = Stewart Air National Guard Base

U - Undetected. Compound was analyzed for, but not detected.

Sample SANG-FB-08132024 is field blank.

Sample SANG-INF-08132024 D is a field duplicate of SANG-INF-08132024 .

Sample ports located in each of the 4 trains; A, B, C, D. such as: PBG1= post B train GAC unit 1.

PEDG1 = post E port D GAC Unit 1

PEDG2 = post E port D train GAC Unit 2

PEDR1 = post E port D Resin 1

Effluent (EFF) = Treated water that has passed through the ISWTS

Influent (INF) = Untreated water from Recreational Pond

ISWTS = Interim Storm Water Treatment System

MIDBR1 = Train B Resin unit 1 middle sample port

C4Q0108V1 - 08/20/2024

RESULTS OF ANALYSES OF WATER **VALIDATED DATA**

	Bureau Veritas ID		AAPK79	AAPK84	AAPK85	AAPK81	AAPK83	AAPK82	AAPK86	AAPK80			
	Sampling Date		2024/08/20 08:15	2024/08/20 08:33	2024/08/20 08:33	2024/08/20 08:24	2024/08/20 08:30	2024/08/20 08:27	2024/08/20 08:39	2024/08/20 08:18			
	Sample ID		**SANG-FB-08202024**	**SANG-INF-08202024**	**SANG-INF-08202024D**	**SANG-PEAR1-08202024**	**SANG-PEAG1-08202024**	**SANG-PEAG2-08202024**	**SANG-MIDBR1-0820/2024**	**SANG-EFF-08202024**	**DL**	**LOD**	**LOQ**
Perfluorinated Compounds	**Method**	**UNITS**											
Perfluorobutanoic acid (PFBA)	EPA 537.1 M	ng/L	1.4 U	19	20	1.4 U	2.3	1.6 J	11	1.4 U	0.59	1.4	2
Perfluoropentanoic acid (PFPeA)	EPA 537.1 M	ng/L	0.70 U	67	61	0.70 U	4.8	2.4	11	0.70 U	0.22	0.7	2
Perfluorohexanoic acid (PFHxA)	EPA 537.1 M	ng/L	0.70 U	52	49	0.70 U	3.2	1.3 J	3.2	0.70 U	0.2	0.7	2
Perfluoroheptanoic acid (PFHpA)	EPA 537.1 M	ng/L	1.0 U	27	27	1.0 U	1.5 J	0.58 J	1.0 J	1.0 U	0.28	1	2
Perfluorooctanoic acid (PFOA)	EPA 537.1 M	ng/L	1.0 U	24	22	1.0 U	1.2 J	1.0 U	0.72 J	1.0 U	0.41	1	2
Perfluorononanoic acid (PFNA)	EPA 537.1 M	ng/L	1.0 U	6.6	6.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.35	1	2
Perfluorodecanoic acid (PFDA)	EPA 537.1 M	ng/L	1.0 U	5.1	5.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.29	1	2
Perfluoroundecanoic acid (PFUnA)	EPA 537.1 M	ng/L	1.0 U	0.93 J	0.95 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.37	1	2
Perfluorododecanoic acid (PFDoA)	EPA 537.1 M	ng/L	1.0 U	1.1 J	1.2 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.48	1	2
Perfluorotridecanoic acid (PFTrDA)	EPA 537.1 M	ng/L	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.24	0.7	2
Perfluorotetradecanoic acid (PFTeDA)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.39	1	2
Perfluorobutanesulfonic acid (PFBS)	EPA 537.1 M	ng/L	1.0 U	12	12	1.0 U	0.63 J	1.0 U	1.0 U	1.0 U	0.27	1	2
Perfluoropentanesulfonic acid (PFPeS)	EPA 537.1 M	ng/L	1.0 U	13	11	1.0 U	1.1 J	1.0 U	1.0 U	1.0 U	0.34	1	2
Perfluorohexanesulfonic acid (PFHxS)	EPA 537.1 M	ng/L	1.0 U	71	72	1.0 U	2.7	1.0 U	1.0 U	1.0 U	0.28	1	2
Perfluoroheptanesulfonic acid (PFHpS)	EPA 537.1 M	ng/L	1.0 U	3.7	3.9	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.43	1	2
Perfluorooctanesulfonic acid (PFOS)	EPA 537.1 M	ng/L	1.0 U	330 (1)	300 (1)	1.0 U	8.3	0.88 J	1.6 J	1.0 U	0.47	1	2
Perfluorononanesulfonic acid (PFNS)	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.64	1.4	2
Perfluorodecanesulfonic acid (PFDS)	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.6	1.4	2
Perfluorooctane Sulfonamide (PFOSA)	EPA 537.1 M	ng/L	1.4 U	1.4 U	0.58 J	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.4	1.4	4
MeFOSAA	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.7	1.4	4
EtFOSAA	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.54	1.4	4
4:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	1.2 J	1.1 J	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.47	1.4	4
6:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	59	57	1.4 U	2.0 J	1.4 U	1.6 J	1.4 U	0.63	1.4	4
8:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	15	15	1.4 U	0.59 J	1.4 U	1.4 U	1.4 U	0.53	1.4	4
Hexafluoropropyleneoxide dimer acid	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.41	1.4	4
4,8-Dioxa-3H-perfluorononanoic acid	EPA 537.1 M	ng/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.12	0.4	4
9Cl-PF3ONS (F-53B Major)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.42	1	4
11Cl-PF3OUdS (F-53B Minor)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.32	1	4

Notes:

(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x). Some results reference different lab limits due to dilution.

ng/L - nanograms per Liter or parts per trillion.

DL = Detection Limit

EFF = Effluent

FB= Field Blank

INF = Influent

J - Estimated result. Associated value may not be accurate or precise.

LOD = Limit of Detection

LOQ = Limit of Quantitation

SANGB = Stewart Air National Guard Base

U - Undetected. Compound was analyzed for, but not detected.

Sample SANG-FB-08202024 is field blank.

Sample SANG-INF-08202024 D is a field duplicate of SANG-INF-08202024 .

Sample ports located in each of the 4 trains; A, B, C, D. such as: PBG1= post B train GAC unit 1.

PEAG1 = post E port A GAC Unit 1

PEAG2 = post E port A train GAC Unit 2

PEAR1 = post E port A Resin 1

Effluent (EFF) = Treated water that has passed through the ISWTS

Influent (INF) = Untreated water from Recreational Pond

ISWTS = Interim Storm Water Treatment System

MIDBR1 = Train B Resin unit 1 middle sample port

C4Q8303V1 - 08/27/2024

RESULTS OF ANALYSES OF WATER **VALIDATED DATA**

	Bureau Veritas ID		ABGO65	ABGO70	ABGO71	ABGO67	ABGO69	ABGO68	ABGO72	ABGO66			
	Sampling Date		2024/08/27 08:25	2024/08/27 08:50	2024/08/27 08:50	2024/08/27 08:35	2024/08/27 08:45	2024/08/27 08:40	2024/08/27 08:55	2024/08/27 08:30			
	Sample ID		**SANG-FB-08272024**	**SANG-INF-08272024**	**SANG-INF-08272024D**	**SANG-PEBR1-08272024**	**SANG-PEBG1-08272024**	**SANG-PEBG2-08272024**	**SANG-MIDBR1-0827/2024**	**SANG-EFF-08272024**	**DL**	**LOD**	**LOQ**
Perfluorinated Compounds	**Method**	**UNITS**											
Perfluorobutanoic acid (PFBA)	EPA 537.1 M	ng/L	1.4 U	34	33	1.8 U	30	23	20	1.4 U	0.67	1.6	2.3
Perfluoropentanoic acid (PFPeA)	EPA 537.1 M	ng/L	0.70 U	99	98	0.88 U	70	46	26	0.70 U	0.25	0.8	2.3
Perfluorohexanoic acid (PFHxA)	EPA 537.1 M	ng/L	0.70 U	81	82	0.88 U	54	30	8.7	0.70 U	0.23	0.8	2.3
Perfluoroheptanoic acid (PFHpA)	EPA 537.1 M	ng/L	1.0 U	40	40	1.3 U	24	12	2.3 J	1.0 U	0.32	1.1	2.3
Perfluorooctanoic acid (PFOA)	EPA 537.1 M	ng/L	1.0 U	36	36	1.3 U	18	8.7	1.4 J	1.0 U	0.47	1.1	2.3
Perfluorononanoic acid (PFNA)	EPA 537.1 M	ng/L	1.0 U	9.7	9.8	1.3 U	4.7	2.0 J	1.1 U	1.0 U	0.4	1.1	2.3
Perfluorodecanoic acid (PFDA)	EPA 537.1 M	ng/L	1.0 U	7	6.6	1.3 U	3.1	0.95 J	1.1 U	1.0 U	0.33	1.1	2.3
Perfluoroundecanoic acid (PFUnA)	EPA 537.1 M	ng/L	1.0 U	0.53 J	0.49 J	1.3 U	1.1 U	1.1 U	1.1 U	1.0 U	0.42	1.1	2.3
Perfluorododecanoic acid (PFDoA)	EPA 537.1 M	ng/L	1.0 U	0.67 J	0.59 J	1.3 U	1.1 U	1.1 U	1.1 U	1.0 U	0.55	1.1	2.3
Perfluorotridecanoic acid (PFTrDA)	EPA 537.1 M	ng/L	0.70 U	0.76 U	0.76 U	0.88 U	0.80 U	0.80 U	0.80 U	0.70 U	0.27	0.8	2.3
Perfluorotetradecanoic acid (PFTeDA)	EPA 537.1 M	ng/L	1.0 U	1.1 U	1.1 U	1.3 U	1.1 U	1.1 U	1.1 U	1.0 U	0.44	1.1	2.3
Perfluorobutanesulfonic acid (PFBS)	EPA 537.1 M	ng/L	1.0 U	20	19	1.3 U	11	5.2	1.1 U	1.0 U	0.31	1.1	2.3
Perfluoropentanesulfonic acid (PFPeS)	EPA 537.1 M	ng/L	1.0 U	30	28	1.3 U	13	5.3	1.1 U	1.0 U	0.39	1.1	2.3
Perfluorohexanesulfonic acid (PFHxS)	EPA 537.1 M	ng/L	1.0 U	120 (1)	130 (1)	1.3 U	65	29	1.7 J	1.0 U	0.32	1.1	2.3
Perfluoroheptanesulfonic acid (PFHpS)	EPA 537.1 M	ng/L	1.0 U	9.2	8	1.3 U	2.9	0.98 J	1.1 U	1.0 U	0.49	1.1	2.3
Perfluorooctanesulfonic acid (PFOS)	EPA 537.1 M	ng/L	1.0 U	450 (1)	430 (1)	1.3 U	220	96	10	1.0 U	0.53	1.1	2.3
Perfluorononanesulfonic acid (PFNS)	EPA 537.1 M	ng/L	1.4 U	1.6 U	1.6 U	1.8 U	1.6 U	1.6 U	1.6 U	1.4 U	0.73	1.6	2.3
Perfluorodecanesulfonic acid (PFDS)	EPA 537.1 M	ng/L	1.4 U	1.6 U	1.6 U	1.8 U	1.6 U	1.6 U	1.6 U	1.4 U	0.68	1.6	2.3
Perfluorooctane Sulfonamide (PFOSA)	EPA 537.1 M	ng/L	1.4 U	1.5 U	1.5 U	1.8 U	1.6 U	1.6 U	1.6 U	1.4 U	0.45	1.6	4.5
MeFOSAA	EPA 537.1 M	ng/L	1.4 U	1.5 U	1.6 U	1.8 U	1.6 U	1.6 U	1.6 U	1.4 U	0.8	1.6	4.5
EtFOSAA	EPA 537.1 M	ng/L	1.4 U	1.5 U	1.6 U	1.8 U	1.6 U	1.6 U	1.6 U	1.4 U	0.61	1.6	4.5
4:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	1.2 J	0.85 J	1.8 U	1.6 U	1.6 U	1.6 U	1.4 U	0.53	1.6	4.5
6:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	72	85	1.8 U	36	16	4.3 J	1.4 U	0.72	1.6	4.5
8:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	13	14	1.8 U	3.8 J	1.6 U	1.6 U	1.4 U	0.6	1.6	4.5
Hexafluoropropyleneoxide dimer acid	EPA 537.1 M	ng/L	1.4 U	1.6 U	1.6 U	1.8 U	1.6 U	1.6 U	1.6 U	1.4 U	0.47	1.6	4.5
4,8-Dioxa-3H-perfluorononanoic acid	EPA 537.1 M	ng/L	0.40 U	0.45 U	0.45 U	0.50 U	0.45 U	0.45 U	0.45 U	0.40 U	0.14	0.45	4.5
9Cl-PF3ONS (F-53B Major)	EPA 537.1 M	ng/L	1.0 U	1.1 U	1.1 U	1.3 U	1.1 U	1.1 U	1.1 U	1.0 U	0.48	1.1	4.5
11Cl-PF3OUdS (F-53B Minor)	EPA 537.1 M	ng/L	1.0 U	1.1 U	1.1 U	1.3 U	1.1 U	1.1 U	1.1 U	1.0 U	0.36	1.1	4.5

Notes:

(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x). Some results reference different lab limits due to dilution.

ng/L - nanograms per Liter or parts per trillion.

DL = Detection Limit

EFF = Effluent

FB= Field Blank

INF = Influent

J - Estimated result. Associated value may not be accurate or precise.

LOD = Limit of Detection

LOQ = Limit of Quantitation

SANGB = Stewart Air National Guard Base

U - Undetected. Compound was analyzed for, but not detected.

Sample SANG-FB-08272024 is field blank.

Sample SANG-INF-08272024 D is a field duplicate of SANG-INF-08272024 .

Sample ports located in each of the 4 trains; A, B, C, D. such as: PBG1= post B train GAC unit 1.

PEBG1 = post E port B GAC Unit 1

PEBG2 = post E port B train GAC Unit 2

PEBR1 = post E port B Resin 1

Effluent (EFF) = Treated water that has passed through the ISWTS

Influent (INF) = Untreated water from Recreational Pond

ISWTS = Interim Storm Water Treatment System

MIDBR1 = Train B Resin unit 1 middle sample port

C4R4815V1 - 09/03/2024

RESULTS OF ANALYSES OF WATER **VALIDATED DATA**

	Bureau Veritas ID		ABUL48	ABUL53	ABUL54	ABUL50	ABUL52	ABUL51	ABUL49			
	Sampling Date		2024/09/03 07:40	2024/09/03 08:05	2024/09/03 08:05	2024/09/03 07:50	2024/09/03 08:00	2024/09/03 07:55	2024/09/03 07:45			
	Sample ID		**SANG-FB-09032024**	**SANG-INF-09032024**	**SANG-INF-09032024D**	**SANG-PECR1-09032024**	**SANG-PECG1-09032024**	**SANG-PECG2-09032024**	**SANG-EFF-09032024**	**DL**	**LOD**	**LOQ**
Perfluorinated Compounds	**Method**	**UNITS**										
Perfluorobutanoic acid (PFBA)	EPA 537.1 M	ng/L	1.4 U	19	21	1.4 U	23	19	1.4 U	0.59	1.4	2
Perfluoropentanoic acid (PFPeA)	EPA 537.1 M	ng/L	0.70 U	49	61	0.70 U	50	36	0.70 U	0.22	0.7	2
Perfluorohexanoic acid (PFHxA)	EPA 537.1 M	ng/L	0.70 U	44	47	0.70 U	39	22	0.70 U	0.2	0.7	2
Perfluoroheptanoic acid (PFHpA)	EPA 537.1 M	ng/L	1.0 U	23	25	1.0 U	18	8.4	1.0 U	0.28	1	2
Perfluorooctanoic acid (PFOA)	EPA 537.1 M	ng/L	1.0 U	20	21	1.0 U	14	5.2	1.0 U	0.41	1	2
Perfluorononanoic acid (PFNA)	EPA 537.1 M	ng/L	1.0 U	5.5	5.8	1.0 U	3.5	1.0 J	1.0 U	0.35	1	2
Perfluorodecanoic acid (PFDA)	EPA 537.1 M	ng/L	1.0 U	3.8	4.2	1.0 U	2	0.57 J	1.0 U	0.29	1	2
Perfluoroundecanoic acid (PFUnA)	EPA 537.1 M	ng/L	1.0 U	0.52 J	0.49 J	1.0 U	1.0 U	1.0 U	1.0 U	0.37	1	2
Perfluorododecanoic acid (PFDoA)	EPA 537.1 M	ng/L	1.0 U	0.81 J	0.70 J	1.0 U	1.0 U	1.0 U	1.0 U	0.48	1	2
Perfluorotridecanoic acid (PFTrDA)	EPA 537.1 M	ng/L	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.24	0.7	2
Perfluorotetradecanoic acid (PFTeDA)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.39	1	2
Perfluorobutanesulfonic acid (PFBS)	EPA 537.1 M	ng/L	1.0 U	10	11	1.0 U	8	3.9	1.0 U	0.27	1	2
Perfluoropentanesulfonic acid (PFPeS)	EPA 537.1 M	ng/L	1.0 U	13	13	1.0 U	9.5	3.1	1.0 U	0.34	1	2
Perfluorohexanesulfonic acid (PFHxS)	EPA 537.1 M	ng/L	1.0 U	62	64	1.0 U	44	14	1.0 U	0.28	1	2
Perfluoroheptanesulfonic acid (PFHpS)	EPA 537.1 M	ng/L	1.0 U	3.4	3.7	1.0 U	2.1	0.59 J	1.0 U	0.43	1	2
Perfluorooctanesulfonic acid (PFOS)	EPA 537.1 M	ng/L	1.0 U	220 (1)	250 (1)	0.61 J	120 (1)	28	1.0 U	4.7	10	20
Perfluorononanesulfonic acid (PFNS)	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.64	1.4	2
Perfluorodecanesulfonic acid (PFDS)	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.6	1.4	2
Perfluorooctane Sulfonamide (PFOSA)	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.4	1.4	4
MeFOSAA	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.7	1.4	4
EtFOSAA	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.54	1.4	4
4:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	0.77 J	0.86 J	1.4 U	0.59 J	1.4 U	1.4 U	0.47	1.4	4
6:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	43	46	1.4 U	27	7.6	1.4 U	0.63	1.4	4
8:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	7.2	8.3	1.4 U	2.8 J	0.69 J	1.4 U	0.53	1.4	4
Hexafluoropropyleneoxide dimer acid	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.41	1.4	4
4,8-Dioxa-3H-perfluorononanoic acid	EPA 537.1 M	ng/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.12	0.4	4
9Cl-PF3ONS (F-53B Major)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.42	1	4
11Cl-PF3OUdS (F-53B Minor)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.32	1	4

Notes:

(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x). Some results reference different lab limits due to dilution.

ng/L - nanograms per Liter or parts per trillion.

DL = Detection Limit

EFF = Effluent

FB= Field Blank

INF = Influent

J - Estimated result. Associated value may not be accurate or precise.

LOD = Limit of Detection

LOQ = Limit of Quantitation

SANGB = Stewart Air National Guard Base

U - Undetected. Compound was analyzed for, but not detected.

Sample SANG-FB-09032024 is field blank.

Sample SANG-INF-09032024 D is a field duplicate of SANG-INF-09032024 .

Sample ports located in each of the 4 trains; A, B, C, D. such as: PBG1= post B train GAC unit 1.

PECG1 = post E port C GAC Unit 1

PECG2 = post E port C train GAC Unit 2

PECR1 = post E port C Resin 1

Effluent (EFF) = Treated water that has passed through the ISWTS

Influent (INF) = Untreated water from Recreational Pond

ISWTS = Interim Storm Water Treatment System

C4S3300V1 - 09/10/2024

RESULTS OF ANALYSES OF WATER **VALIDATED DATA**

	Bureau Veritas ID		ACMH17	ACMH22	ACMH23	ACMH19	ACMH21	ACMH20	ACMH18			
	Sampling Date		2024/09/10 07:55	2024/09/10 08:20	2024/09/10 08:20	2024/09/10 08:05	2024/09/10 08:15	2024/09/10 08:10	2024/09/10 08:00			
	Sample ID		**SANG-FB-09102024**	**SANG-INF-09102024**	**SANG-INF-09102024D**	**SANG-PEDR1-09102024**	**SANG-PEDG1-09102024**	**SANG-PEDG2-09102024**	**SANG-EFF-09102024**	**DL**	**LOD**	**LOQ**
Perfluorinated Compounds	**Method**	**UNITS**										
Perfluorobutanoic acid (PFBA)	EPA 537.1 M	ng/L	1.5 U	21	15	1.5 U	20	18	0.94 J	0.61	1.5	2.1
Perfluoropentanoic acid (PFPeA)	EPA 537.1 M	ng/L	0.73 U	81	73	0.88 U	59	38	0.88 U	0.31	0.97	2.8
Perfluorohexanoic acid (PFHxA)	EPA 537.1 M	ng/L	0.73 U	57	51	0.88 U	41	23	0.88 U	0.28	0.97	2.8
Perfluoroheptanoic acid (PFHpA)	EPA 537.1 M	ng/L	1.0 U	29	26	1.3 U	19	9.3	1.3 U	0.39	1.4	2.8
Perfluorooctanoic acid (PFOA)	EPA 537.1 M	ng/L	1.0 U	25	22	1.3 U	15	6.6	1.3 U	0.57	1.4	2.8
Perfluorononanoic acid (PFNA)	EPA 537.1 M	ng/L	1.0 U	7.1	6.7	1.3 U	3.9	2.0 J	1.3 U	0.49	1.4	2.8
Perfluorodecanoic acid (PFDA)	EPA 537.1 M	ng/L	1.0 U	5.3	4.8	1.3 U	2.4 J	1.1 J	1.3 U	0.4	1.4	2.8
Perfluoroundecanoic acid (PFUnA)	EPA 537.1 M	ng/L	1.0 U	1.0 J	0.94 J	1.3 U	0.55 J	1.3 U	1.3 U	0.51	1.4	2.8
Perfluorododecanoic acid (PFDoA)	EPA 537.1 M	ng/L	1.0 U	1.1 J	0.94 J	1.3 U	1.3 U	1.3 U	1.3 U	0.67	1.4	2.8
Perfluorotridecanoic acid (PFTrDA)	EPA 537.1 M	ng/L	0.73 U	0.97 U	0.97 U	0.88 U	0.88 U	0.88 U	0.88 U	0.33	0.97	2.8
Perfluorotetradecanoic acid (PFTeDA)	EPA 537.1 M	ng/L	1.0 U	1.4 U	1.4 U	1.3 U	1.3 U	1.3 U	1.3 U	0.54	1.4	2.8
Perfluorobutanesulfonic acid (PFBS)	EPA 537.1 M	ng/L	1.0 U	13	12	1.3 U	8.4	4.1	1.3 U	0.38	1.4	2.8
Perfluoropentanesulfonic acid (PFPeS)	EPA 537.1 M	ng/L	1.0 U	14	12	1.3 U	7.4	2.9	1.3 U	0.47	1.4	2.8
Perfluorohexanesulfonic acid (PFHxS)	EPA 537.1 M	ng/L	1.0 U	75	68	1.3 U	41	16	1.3 U	0.39	1.4	2.8
Perfluoroheptanesulfonic acid (PFHpS)	EPA 537.1 M	ng/L	1.0 U	4.6	4.1	1.3 U	2.2 J	1.0 J	1.3 U	0.6	1.4	2.8
Perfluorooctanesulfonic acid (PFOS)	EPA 537.1 M	ng/L	1.0 U	210 (1)	210 (1)	1.3 U	110 (1)	44	1.3 U	4.7	10	20
Perfluorononanesulfonic acid (PFNS)	EPA 537.1 M	ng/L	1.5 U	1.9 U	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	0.89	1.9	2.8
Perfluorodecanesulfonic acid (PFDS)	EPA 537.1 M	ng/L	1.5 U	1.9 U	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	0.83	1.9	2.8
Perfluorooctane Sulfonamide (PFOSA)	EPA 537.1 M	ng/L	1.5 U	0.62 J	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	0.56	1.9	5.6
MeFOSAA	EPA 537.1 M	ng/L	1.5 U	1.9 U	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	0.97	1.9	5.6
EtFOSAA	EPA 537.1 M	ng/L	1.5 U	1.9 U	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	0.75	1.9	5.6
4:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.5 U	1.2 J (2)	1.3 J	1.8 U	1.8 U	0.63 J	1.8 U	0.65	1.9	5.6
6:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.5 U	51	50	1.8 U	24	9.1	1.8 U	0.88	1.9	5.6
8:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.5 U	6.6	6.3	1.8 U	2.5 J	0.85 J	1.8 U	0.74	1.9	5.6
Hexafluoropropyleneoxide dimer acid	EPA 537.1 M	ng/L	1.5 U	1.9 U	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	0.57	1.9	5.6
4,8-Dioxa-3H-perfluorononanoic acid	EPA 537.1 M	ng/L	0.42 U	0.56 U	0.56 U	0.50 U	0.50 U	0.50 U	0.50 U	0.17	0.56	5.6
9Cl-PF3ONS (F-53B Major)	EPA 537.1 M	ng/L	1.0 U	1.4 U	1.4 U	1.3 U	1.3 U	1.3 U	1.3 U	0.58	1.4	5.6
11Cl-PF3OUdS (F-53B Minor)	EPA 537.1 M	ng/L	1.0 U	1.4 U	1.4 U	1.3 U	1.3 U	1.3 U	1.3 U	0.44	1.4	5.6

Notes:

(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x). Some results reference different lab limits due to dilution.

(2) Result is estimated as analyte confirmation criterion (ion ratio) was not met.

ng/L - nanograms per Liter or parts per trillion.

DL = Detection Limit

EFF = Effluent

FB= Field Blank

INF = Influent

J - Estimated result. Associated value may not be accurate or precise.

LOD = Limit of Detection

LOQ = Limit of Quantitation

SANGB = Stewart Air National Guard Base

U - Undetected. Compound was analyzed for, but not detected.

Sample SANG-FB-09102024 is field blank.

Sample SANG-INF-09102024 D is a field duplicate of SANG-INF-09102024 .

Sample ports located in each of the 4 trains; A, B, C, D. such as: PBG1= post B train GAC unit 1.

PEDG1 = post E port D GAC Unit 1

PEDG2 = post E port D train GAC Unit 2

PEDR1 = post E port D Resin 1

Effluent (EFF) = Treated water that has passed through the ISWTS

Influent (INF) = Untreated water from Recreational Pond

ISWTS = Interim Storm Water Treatment System

C4T1895V1 - 09/17/2024

RESULTS OF ANALYSES OF WATER **Validated**

	Bureau Veritas ID		ADEX48	ADEX53	ADEX54	ADEX50	ADEX52	ADEX51	ADEX49			
	Sampling Date		2024/09/17 07:25	2024/09/17 07:50	2024/09/17 07:50	2024/09/17 07:35	2024/09/17 07:45	2024/09/17 07:40	2024/09/17 07:30			
	Sample ID		**SANG-FB-0917/2024**	**SANG-INF-09172024**	**SANG-INF-09172024D**	**SANG-PEAR1-09172024**	**SANG-PEAG1-09172024**	**SANG-PEAG2-09172024**	**SANG-EFF-09172024**	**DL**	**LOD**	**LOQ**
Perfluorinated Compounds	**Method**	**UNITS**										
Perfluorobutanoic acid (PFBA)	EPA 537.1 M	ng/L	1.4 U	32	33	1.4 U	32	24	1.5 J	0.59	1.4	2
Perfluoropentanoic acid (PFPeA)	EPA 537.1 M	ng/L	0.70 U	98	94	0.70 U	78	44	0.70 U	0.22	0.7	2
Perfluorohexanoic acid (PFHxA)	EPA 537.1 M	ng/L	0.70 U	77	79	0.70 U	54	24	0.70 U	0.2	0.7	2
Perfluoroheptanoic acid (PFHpA)	EPA 537.1 M	ng/L	1.0 U	36	38	1.0 U	23	8	1.0 U	0.28	1	2
Perfluorooctanoic acid (PFOA)	EPA 537.1 M	ng/L	1.0 U	33	34	1.0 U	17	5	1.0 U	0.41	1	2
Perfluorononanoic acid (PFNA)	EPA 537.1 M	ng/L	1.0 U	8.4	8.6	1.0 U	3.8	1.2 J	1.0 U	0.35	1	2
Perfluorodecanoic acid (PFDA)	EPA 537.1 M	ng/L	1.0 U	5.6	5.7	1.0 U	2.1	0.44 J	1.0 U	0.29	1	2
Perfluoroundecanoic acid (PFUnA)	EPA 537.1 M	ng/L	1.0 U	0.52 J	0.53 J	1.0 U	1.0 U	1.0 U	1.0 U	0.37	1	2
Perfluorododecanoic acid (PFDoA)	EPA 537.1 M	ng/L	1.0 U	0.55 J	0.58 J	1.0 U	1.0 U	1.0 U	1.0 U	0.48	1	2
Perfluorotridecanoic acid (PFTrDA)	EPA 537.1 M	ng/L	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.24	0.7	2
Perfluorotetradecanoic acid (PFTeDA)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.39	1	2
Perfluorobutanesulfonic acid (PFBS)	EPA 537.1 M	ng/L	1.0 U	20	20	1.0 U	12	4.1	1.0 U	0.27	1	2
Perfluoropentanesulfonic acid (PFPeS)	EPA 537.1 M	ng/L	1.0 U	21	21	1.0 U	12	2.9	1.0 U	0.34	1	2
Perfluorohexanesulfonic acid (PFHxS)	EPA 537.1 M	ng/L	1.0 U	120 (1)	120 (1)	1.0 U	62	15	1.0 U	2.8	10	20
Perfluoroheptanesulfonic acid (PFHpS)	EPA 537.1 M	ng/L	1.0 U	5.7	5.8	1.0 U	2.7	1.0 U	1.0 U	0.43	1	2
Perfluorooctanesulfonic acid (PFOS)	EPA 537.1 M	ng/L	1.0 U	390 (1)	390 (1)	1.0 U	160 (1)	34	1.0 U	4.7	10	20
Perfluorononanesulfonic acid (PFNS)	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.64	1.4	2
Perfluorodecanesulfonic acid (PFDS)	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.6	1.4	2
Perfluorooctane Sulfonamide (PFOSA)	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.4	1.4	4
MeFOSAA	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.7	1.4	4
EtFOSAA	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.54	1.4	4
4:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	1.3 J	0.98 J	1.4 U	0.53 J (2)	1.4 U	1.4 U	0.47	1.4	4
6:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	74	76	1.4 U	29	6.3	1.4 U	0.63	1.4	4
8:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	8.5	9	1.4 U	1.6 J	1.4 U	1.4 U	0.53	1.4	4
Hexafluoropropyleneoxide dimer acid	EPA 537.1 M	ng/L	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.41	1.4	4
4,8-Dioxa-3H-perfluorononanoic acid	EPA 537.1 M	ng/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.12	0.4	4
9Cl-PF3ONS (F-53B Major)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.42	1	4
11Cl-PF3OUdS (F-53B Minor)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.32	1	4

Notes:

(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x). Some results reference different lab limits due to dilution.

(2) Result is estimated as analyte confirmation criterion (ion ratio) was not met.

ng/L - nanograms per Liter or parts per trillion.

DL = Detection Limit

EFF = Effluent

FB= Field Blank

INF = Influent

J - Estimated result. Associated value may not be accurate or precise.

LOD = Limit of Detection

LOQ = Limit of Quantitation

SANGB = Stewart Air National Guard Base

U - Undetected. Compound was analyzed for, but not detected.

Sample SANG-FB-09172024 is field blank.

Sample SANG-INF-09172024 D is a field duplicate of SANG-INF-09172024 .

Sample ports located in each of the 4 trains; A, B, C, D. such as: PBG1= post B train GAC unit 1.

PEAG1 = post E portAD GAC Unit 1

PEAG2 = post E port A train GAC Unit 2

PEAR1 = post E port A Resin 1

Effluent (EFF) = Treated water that has passed through the ISWTS

Influent (INF) = Untreated water from Recreational Pond

ISWTS = Interim Storm Water Treatment System

C4U0401V1 - 09/24/2024

RESULTS OF ANALYSES OF WATER **VALIDATED DATA**

	Bureau Veritas ID		ADXW79	ADXW84	ADXW85	ADXW81	ADXW83	ADXW82	ADXW86	ADXW80			
	Sampling Date		2024/09/24 10:30	2024/09/24 10:48	2024/09/24 10:48	2024/09/24 10:39	2024/09/24 10:45	2024/09/24 10:42	2024/09/24 10:54	2024/09/24 10:33			
	Sample ID		**SANG-FB-0924/2024**	**SANG-INF-09242024**	**SANG-INF-09242024D**	**SANG-PEBR1-09242024**	**SANG-PEBG1-09242024**	**SANG-PEBG2-09242024**	**SANG-MIDBRI-09242024**	**SANG-EFF-09242024**	**DL**	**LOD**	**LOQ**
Perfluorinated Compounds	**Method**	**UNITS**											
Perfluorobutanoic acid (PFBA)	EPA 537.1 M	ng/L	1.5 U	41	43	5.5	37	33	28	3	0.61	1.5	2.1
Perfluoropentanoic acid (PFPeA)	EPA 537.1 M	ng/L	0.73 U	120 (1)	120 (1)	0.31 J	95	71	49	0.73 U	0.23	0.73	2.1
Perfluorohexanoic acid (PFHxA)	EPA 537.1 M	ng/L	0.73 U	98	100	0.73 U	73	51	22	0.73 U	0.21	0.73	2.1
Perfluoroheptanoic acid (PFHpA)	EPA 537.1 M	ng/L	1.0 U	44	46	1.0 U	30	19	6.2	1.0 U	0.29	1	2.1
Perfluorooctanoic acid (PFOA)	EPA 537.1 M	ng/L	1.0 U	39	38	1.0 U	21	12	3.4	1.0 U	0.43	1	2.1
Perfluorononanoic acid (PFNA)	EPA 537.1 M	ng/L	1.0 U	9.2	9.5	1.0 U	4.2	2.6	0.87 J	1.0 U	0.36	1	2.1
Perfluorodecanoic acid (PFDA)	EPA 537.1 M	ng/L	1.0 U	6.2	6.1	1.0 U	2.3	1.0 J	0.50 J	1.0 U	0.3	1	2.1
Perfluoroundecanoic acid (PFUnA)	EPA 537.1 M	ng/L	1.0 U	0.80 J	0.71 J	1.0 U	0.52 J	1.0 U	0.39 J	1.0 U	0.39	1	2.1
Perfluorododecanoic acid (PFDoA)	EPA 537.1 M	ng/L	1.0 U	0.74 J	0.67 J	1.0 U	1.0 U	1.0 U	0.78 J	1.0 U	0.5	1	2.1
Perfluorotridecanoic acid (PFTrDA)	EPA 537.1 M	ng/L	0.73 U	0.73 U	0.73 U	0.73 U	0.35 J	0.73 U	0.73 U	0.73 U	0.25	0.73	2.1
Perfluorotetradecanoic acid (PFTeDA)	EPA 537.1 M	ng/L	1.0 U	0.45 J	1.0 U	1.0 U	0.45 J	1.0 U	1.0 U	1.0 U	0.41	1	2.1
Perfluorobutanesulfonic acid (PFBS)	EPA 537.1 M	ng/L	1.0 U	25	25	1.0 U	16	11	1.3 J	1.0 U	0.28	1	2.1
Perfluoropentanesulfonic acid (PFPeS)	EPA 537.1 M	ng/L	1.0 U	27	29	1.0 U	16	9.2	0.91 J	1.0 U	0.35	1	2.1
Perfluorohexanesulfonic acid (PFHxS)	EPA 537.1 M	ng/L	1.0 U	150 (1)	150 (1)	1.0 U	89	52	6.6	1.0 U	0.29	1	2.1
Perfluoroheptanesulfonic acid (PFHpS)	EPA 537.1 M	ng/L	1.0 U	7.9	8	1.0 U	3.8	2.1	1.0 U	1.0 U	0.45	1	2.1
Perfluorooctanesulfonic acid (PFOS)	EPA 537.1 M	ng/L	1.0 U	420 (1)	430 (1)	1.0 U	210 (1)	110 (1)	31	1.0 U	0.49	1	2.1
Perfluorononanesulfonic acid (PFNS)	EPA 537.1 M	ng/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.67	1.5	2.1
Perfluorodecanesulfonic acid (PFDS)	EPA 537.1 M	ng/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.63	1.5	2.1
Perfluorooctane Sulfonamide (PFOSA)	EPA 537.1 M	ng/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.42	1.5	4.2
MeFOSAA	EPA 537.1 M	ng/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.73	1.5	4.2
EtFOSAA	EPA 537.1 M	ng/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.56	1.5	4.2
4:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.5 U	1.4 J (2)	1.7 J	1.5 U	1.1 J	0.84 J	0.68 J (2)	1.5 U	0.49	1.5	4.2
6:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.5 U	96	94	1.5 U	40	21	8.4	1.5 U	0.66	1.5	4.2
8:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.5 U	12	12	1.5 U	1.5 J	1.5 U	1.5 U	1.5 U	0.55	1.5	4.2
Hexafluoropropyleneoxide dimer acid	EPA 537.1 M	ng/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.43	1.5	4.2
4,8-Dioxa-3H-perfluorononanoic acid	EPA 537.1 M	ng/L	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.13	0.42	4.2
9Cl-PF3ONS (F-53B Major)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.44	1	4.2
11Cl-PF3OUdS (F-53B Minor)	EPA 537.1 M	ng/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.33	1	4.2

Notes:

(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x). Some results reference different lab limits due to dilution.

(2) Result is estimated as analyte confirmation criterion (ion ratio) was not met.

ng/L - nanograms per Liter or parts per trillion.

DL = Detection Limit

EFF = Effluent

FB= Field Blank

INF = Influent

J - Estimated result. Associated value may not be accurate or precise.

LOD = Limit of Detection

LOQ = Limit of Quantitation

SANGB = Stewart Air National Guard Base

U - Undetected. Compound was analyzed for, but not detected.

Sample SANG-FB-09242024 is field blank.

Sample SANG-INF-09242024 D is a field duplicate of SANG-INF-09242024 .

Sample ports located in each of the 4 trains; A, B, C, D. such as: PBG1= post B train GAC unit 1.

PEBG1 = post E port B GAC Unit 1

PEBG2 = post E port B train GAC Unit 2

PEBR1 = post E port B Resin 1

Effluent (EFF) = Treated water that has passed through the ISWTS

Influent (INF) = Untreated water from Recreational Pond

ISWTS = Interim Storm Water Treatment System

MIDBR1 = Train B Resin unit 1 middle sample port

TABLE 2 - OTHER WATER QUALITY MONITORING RESULTS

Glycols				
Sample Parameter/Sample ID	**Sampling Date**	**Influent (SANG-INF-07302024 mg/L)**	**PBG2 Effluent (SANG-PEBG2-07302024 mg/L)**	**Effluent (SANG-EFF-07302024 mg/L)**
Diethylene glycol	7/30/2024	<52	<52	<52
Ethylene glycol		<13	<13	<13
Propylene glycol		<10	<10	<10
Triethylene Glycol		<54	<54	<54

Total Organic Carbon (TOC)				
Sample Parameter	**Sampling Date**	**Influent (mg/L)**	**PDG2 Effluent (mg/L)**	**Effluent (mg/L)**
TOC	7/30/2024	4.40	1.60	1.30

TABLE 3 - PREVENTIVE MAINTENANCE

Date	Primary Bag Filter Change and Type of	Secondary Bag Filter Change and Type of Filters Installed	Treatment Process Backwashed	Sand Filter Cleaning or Changeout	Media Change Out	Resin Vessel Skimming
7/1/2024	25 Micron Regular					
7/2/2024		10 Micron Regular				
7/3/2024			Primary Carbon vessels A1, B1, C1, & D1			
7/4/2024	25 Micron Regular	10 Micron Regular				
7/5/2024	25 Micron Pleated					
7/8/2024		10 Micron Regular				
7/9/2024	25 Micron Pleated			Replaced media in Course Sand Filters (1A/1B, 2A/2B) with 5 bags of gravel and 16 bags coarse sand/vessel		
7/10/2024		10 Micron Regular		Replaced media in Fine Sand Filters (3A/3B, 4A/4B, & 5A/5B) with 5 bags of gravel and 16 bags fine sand/vessel		

TABLE 3 - PREVENTIVE MAINTENANCE

Date	Primary Bag Filter Change and Type of	Secondary Bag Filter Change and Type of Filters Installed	Treatment Process Backwashed	Sand Filter Cleaning or Changeout	Media Change Out	Resin Vessel Skimming
7/11/2024					Remove GAC/IX media from Treatment Train D. Install ≈2,500 lbs of virgin F-400 carbon in (D1 & D2), fill with water and degas overnight. Train D Resin vessel loaded with anthracite underbedding, followed by ≈63 cubic feet of Purolite PFA694 IX resin.	
7/12/2024	25 Micron Pleated	10 Micron Pleated	Backwash GAC Vessels D1 & D2 and put Treatment Train D in service		Remove GAC/IX media from Treatment Train C. Install ≈2,500 lbs of virgin F-400 carbon in (C1 & C2), fill with water and degas overnight. Train C Resin vessel loaded with anthracite underbedding, followed by ≈63 cubic feet of Purolite PFA694 IX resin.	
7/13/2024		10 Micron Regular	Backwash GAC Vessels C1 & C2 and put Treatment Train C in service			

TABLE 3 - PREVENTIVE MAINTENANCE

Date	Primary Bag Filter Change and Type of	Secondary Bag Filter Change and Type of Filters Installed	Treatment Process Backwashed	Sand Filter Cleaning or Changeout	Media Change Out	Resin Vessel Skimming
7/15/2024	25 Micron Pleated	10 Micron Regular			Remove GAC/IX media from Treatment Train A. Install ≈2,500 lbs of virgin F-400 carbon in (A1 & A2), fill with water and degas overnight. Train A Resin vessel loaded with anthracite underbedding, followed by ≈63 cubic feet of Purolite PFA694 IX resin.	
7/16/2024			Backwash GAC Vessels A1 & A2 and put Treatment Train A in service		Remove GAC/IX media from Treatment Train B. Existing Train B Vessels removed from Treatment structure for scheduled replacement.	

TABLE 3 - PREVENTIVE MAINTENANCE

Date	Primary Bag Filter Change and Type of	Secondary Bag Filter Change and Type of Filters Installed	Treatment Process Backwashed	Sand Filter Cleaning or Changeout	Media Change Out	Resin Vessel Skimming
7/17/2024		10 Micron Regular			Install new Treatment Vessels in Train B. Install new Itermediate sample port in Train B Resin Vessel. Reconnect all piping to Treatment Train B vessels. Install ≈2,500 lbs of virgin F-400 carbon in (B1 & B2), fill with water and degas overnight. Train B Resin vessel loaded with anthracite underbedding, followed by ≈63 cubic feet of Purolite PFA694 IX resin.	
7/18/2024	25 Micron Regular		Backwash GAC Vessels B1 & B2 and put Treatment Train B in service with new vessels and media			
7/19/2024		10 Micron Pleated				
7/22/2024	25 Micron Pleated	10 Micron Regular				
7/23/2024			Primary Carbon vessels A1, B1, C1, & D1			
7/24/2024		10 Micron Regular				

TABLE 3 - PREVENTIVE MAINTENANCE

Date	Primary Bag Filter Change and Type of	Secondary Bag Filter Change and Type of Filters Installed	Treatment Process Backwashed	Sand Filter Cleaning or Changeout	Media Change Out	Resin Vessel Skimming
7/25/2024	25 Micron Regular	10 Micron Regular				
7/26/2024	25 Micron Pleated	10 Micron Pleated				
7/27/2024	25 Micron Regular	10 Micron Regular				
7/29/2024	25 Micron Regular	10 Micron Regular				
7/30/2024		10 Micron Regular				
7/31/2024		10 Micron Regular	Primary Carbon vessels A1, B1, C1, & D1			
8/1/2024	25 Micron Regular	10 Micron Regular				
8/2/2024	25 Micron Pleated	10 Micron Pleated				
8/6/2024	25 Micron Regular	10 Micron Regular				
8/7/2024			Primary Carbon vessels A1, B1, C1, & D1			
8/8/2024		10 Micron Regular	Secondary Carbon vessels A2, B2, C2, & D2			
8/9/2024	25 Micron Pleated	10 Micron Pleated				
8/14/2024		10 Micron Regular	Primary Carbon vessels A1, B1, C1, & D1			

TABLE 3 - PREVENTIVE MAINTENANCE

Date	Primary Bag Filter Change and Type of	Secondary Bag Filter Change and Type of Filters Installed	Treatment Process Backwashed	Sand Filter Cleaning or Changeout	Media Change Out	Resin Vessel Skimming
8/16/2024	25 Micron Pleated	10 Micron Pleated				
8/19/2024		10 Micron Regular				
8/20/2024	25 Micron Regular	10 Micron Regular				
8/21/2024		10 Micron Regular				
8/22/2024		10 Micron Regular	Primary Carbon vessels A1, B1, C1, & D1			
8/23/2024	25 Micron Pleated	10 Micron Pleated				
8/25/2024		10 Micron Pleated				
8/26/2024		10 Micron Pleated				
8/27/2024	25 Micron Pleated					
8/28/2024		10 Micron Regular	Primary Carbon vessels A1, B1, C1, & D1			
8/29/2024		10 Micron Regular replaced in Morning & 10 Micron Regular were replaced again later in morning for second time				

TABLE 3 - PREVENTIVE MAINTENANCE

Date	Primary Bag Filter Change and Type of	Secondary Bag Filter Change and Type of Filters Installed	Treatment Process Backwashed	Sand Filter Cleaning or Changeout	Media Change Out	Resin Vessel Skimming
8/30/2024	25 Micron Pleated	10 Micron Pleated				
9/3/2024	25 Micron Pleated	10 Micron Pleated				
9/4/2024		10 Micron Pleated	Primary Carbon vessels A1, B1, C1, & D1			
9/5/2024		10 Micron Regular				
9/6/2024	25 Micron Pleated	10 Micron Pleated				
9/7/2024		10 Micron Regular				
9/8/2024		10 Micron Regular				
9/9/2024		10 Micron Pleated				
9/10/2024	25 Micron Regular	10 Micron Regular				
9/11/2024		10 Micron Regular				
9/12/2024		10 Micron Regular replaced in Morning & 10 Micron Regular were replaced again at noon for second time	Primary Carbon vessels A1, B1, C1, & D1			
9/13/2024	25 Micron Pleated	10 Micron Regular				

TABLE 3 - PREVENTIVE MAINTENANCE

Date	Primary Bag Filter Change and Type of	Secondary Bag Filter Change and Type of Filters Installed	Treatment Process Backwashed	Sand Filter Cleaning or Changeout	Media Change Out	Resin Vessel Skimming
9/16/2024	25 Micron Regular	10 Micron Pleated				
9/17/2024		10 Micron Regular				
9/18/2024		10 Micron Pleated	Primary Carbon vessels A1, B1, C1, & D1			
9/19/2024			Secondary Carbon vessels A2, B2, C2, & D2			
9/20/2024	25 Micron Pleated	10 Micron Pleated				
9/23/2024		10 Micron Regular replaced in Morning & 10 Micron Pleated were replaced again in afternoon for second time				
9/24/2024	25 Micron Pleated	10 Micron Pleated				
9/25/2024		10 Micron Pleated	Primary Carbon vessels A1, B1, C1, & D1			
9/26/2024	25 Micron Regular			Coarse Sand Filters 1A/1B		
9/27/2024	25 Micron Pleated	10 Micron Regular				
9/30/2024		10 Micron Pleated				

FIGURES

Recreational Pond
Untreated Water

Pump

Ultrasonic

Turbidity
Barrier

Sand Filter Structure

Backwash

INF

Centrifugal
Separator

PS

SFBW

Reject

SR

1A&B

2A&B

Coarse Sand Filters

PCSF

3A&B

4A&B

5A&B

Fine Sand Filters

PFSF

Bag Filters

1A

1B

Pretreatment
Structure

PBF1

2A

2B

PBF2

Train A

Treatment Structure 1

GAC 1

PEAG1

GAC 2

PEAG2

Resin 1

PEAR1

Train B

GAC 1

PEBG1

GAC 2

PEBG2

Resin 1

PEBR1

Treatment Structure 2

Resin 1

PECR1

GAC 2

PECG2

GAC 1

PECG1

Train C

Train D

Resin 1

PEDR1

GAC 2

PEDG2

GAC 1

PEDG1

Recycle

Recycle

FCV

Effluent

EFF

Flow Monitor

ISWTS Outfall Structure

Pond Outlet Weir

To Silver Stream

LEGEND

● Sample Port/ID

20P-0154-3

Interim Storm Water Treatment System
Process Flow Diagram
Revision 5 - September 2024

Stewart Air National Guard Base

FIGURE 2 - RECREATION POND LEVEL CHART

July to September 2024

ISWTS SANGB - RECREATION POND LEVEL

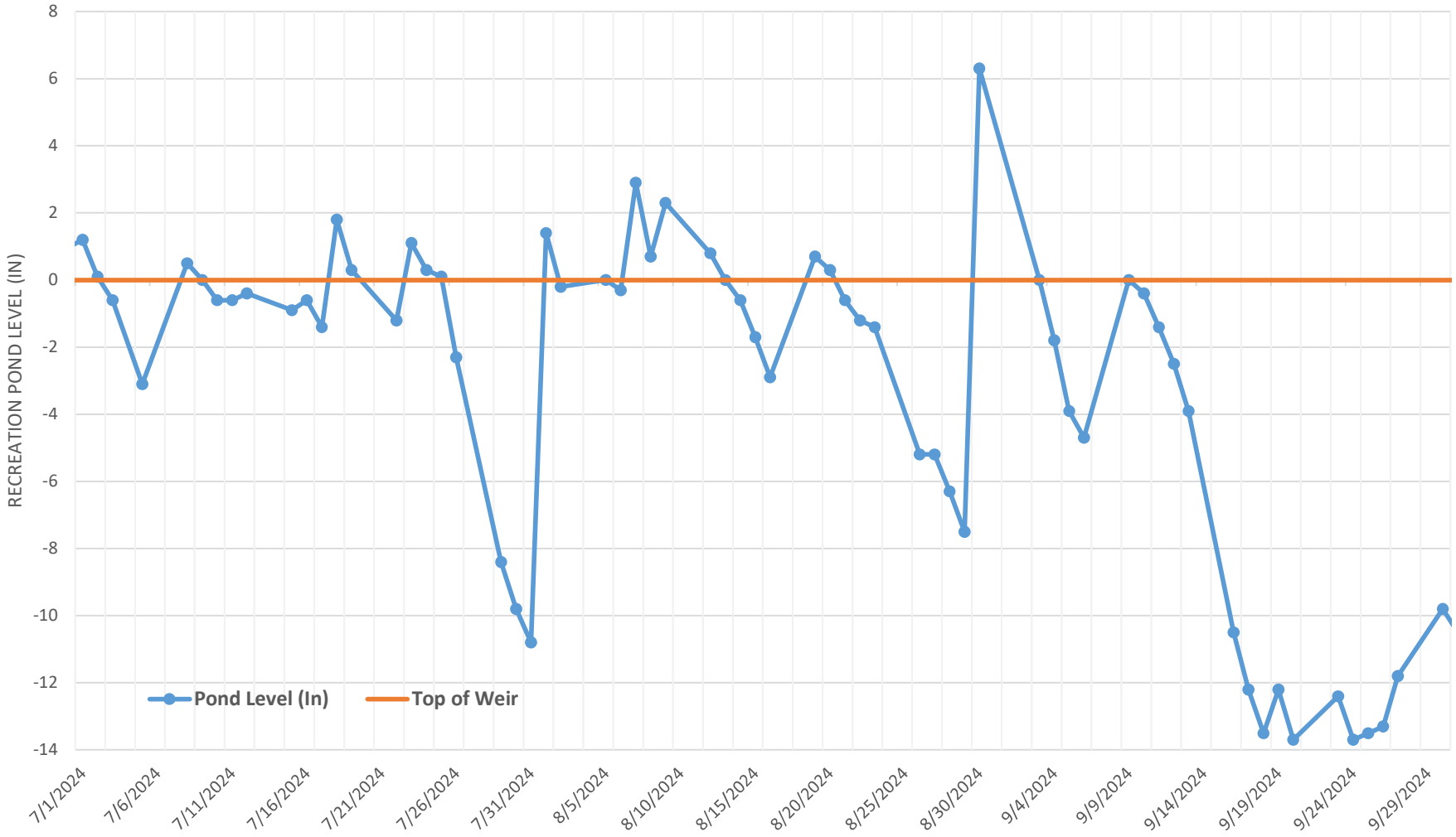
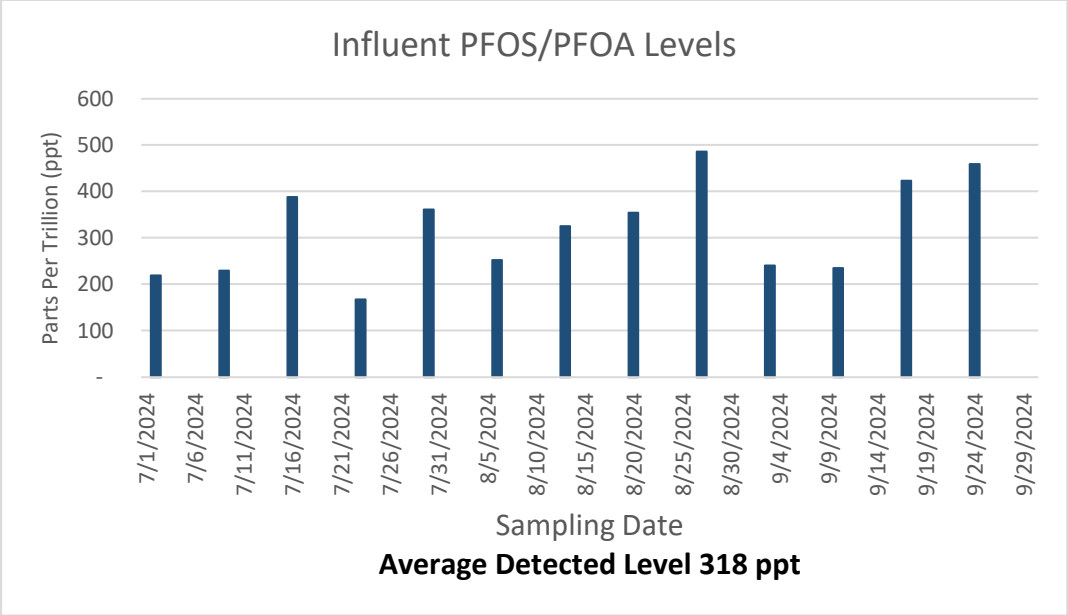
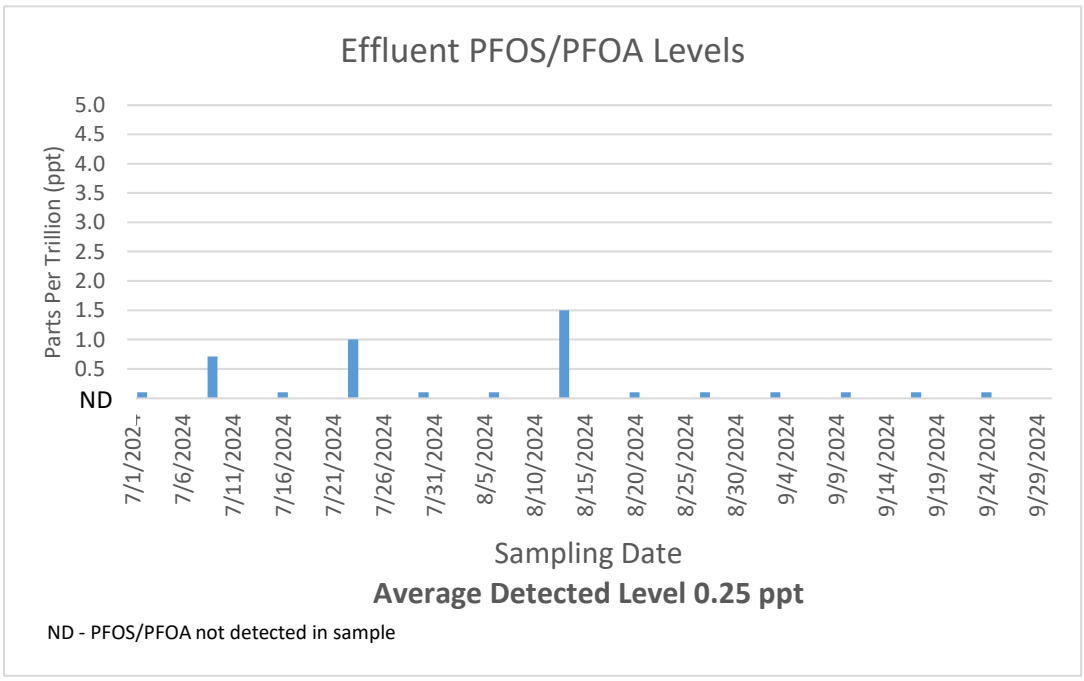


FIGURE 3 - INFLUENT AND EFFLUENT PFOS AND PFOA CHARTS



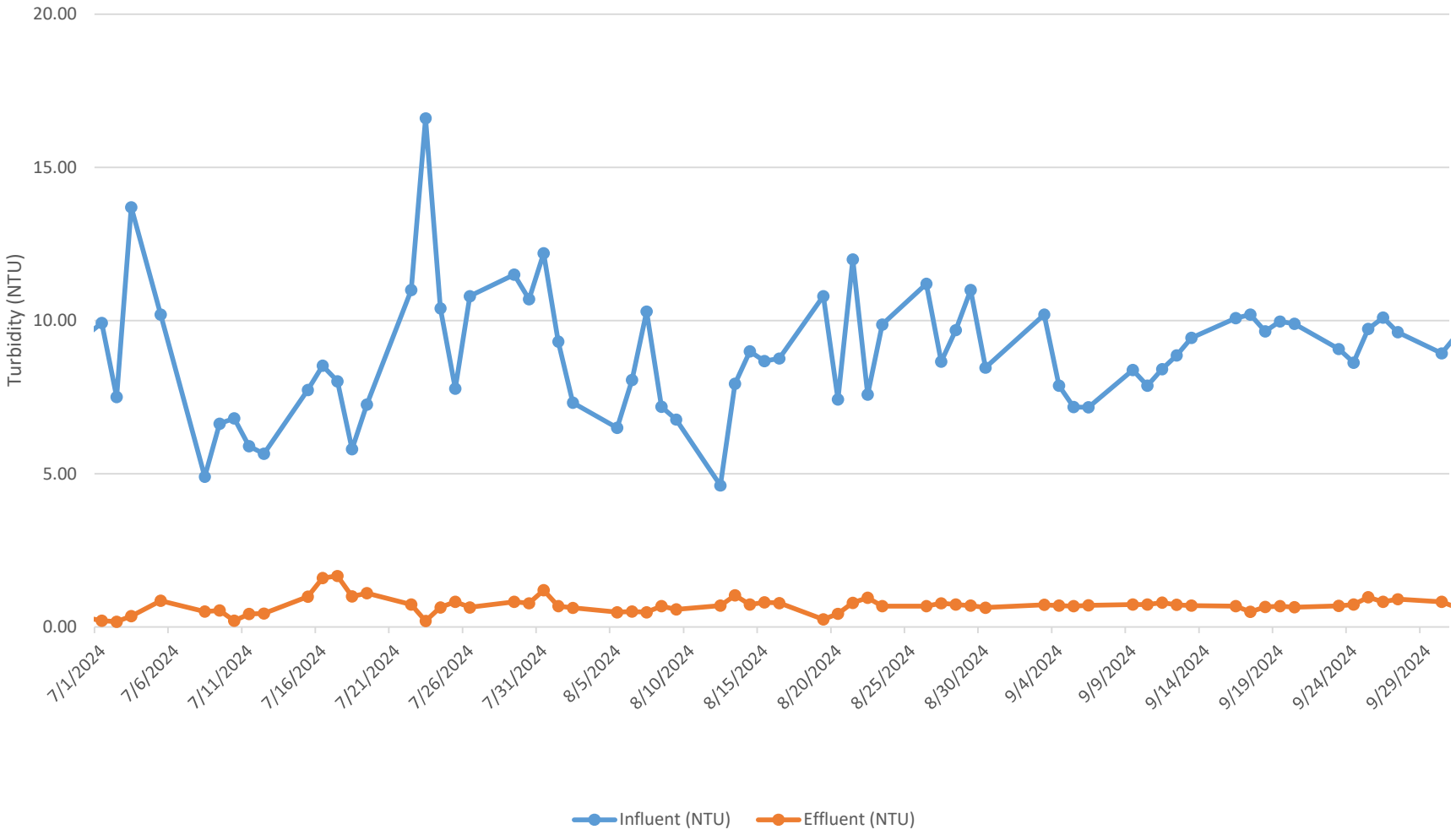


ND - PFOS/PFOA not detected in sample

FIGURE - 4 - INFLUENT AND EFFLUENT TURBIDITY CHART

July to September 2024

Influent and Effluent Turbidity



ATTACHMENT 1

Waste Disposal

ONION EQUIPMENT COMPANY

5705 W 73rd Street
Indianapolis, IN 46278
Phone: (317) 762-6007

November 26, 2024

Re: Stewart ANG July 2024 Media Exchange Event

To whom it may concern,

Attached are the manifests and disposal certificates for the waste generated on the service event which occurred in July of 2024.

Thank you,

Eric Patterson

CERTIFICATE OF DESTRUCTION AND ACTIVATED CARBON REACTIVATION

CAN Number: 6973N

Company: Onion Equipment Company
5705 West 73rd St.
Indianapolis, IN 46278-1741

Issue Date: November 26, 2024

Service Order # 60020584

CCC CAN Number: 6973N / 19-03N-1

Waste Classification: RCRA non-hazardous

Treatment Method: Thermal Reactivation

Calgon Carbon hereby certifies on the above date 20,000 pounds of spent carbon received under the indicated carbon profile application number and customer manifest was reactivated in accordance with the state and federal regulations by thermal processing that removes and destroys the volatile and semi-volatile contaminants adsorbed on the spent carbon.

Calgon Carbon Corporation

Robert Natili

Quality Assurance Supervisor

Calgon Carbon Corporation
200 Neville Road
Pittsburgh, PA 15225

Phone 412-771-4050

Larkin Express Logistics, LLC
Straight Bill of Lading

07:24 2024 1350

Order No 1180890
Ref No

Order date 07/25/2024 0800
BOL 19-03o-2

Shipper	Consignee	Bill To
Onion Equipment Company 5705 W 73rd St P100 INDIANAPOLIS, IN 46278 LARKIN (716) 332-6625	Wayne Disposal Inc SITE #2 LANDFILL 49350 N Interstate 94 Service Dr BELLEVILLE, MI 48111 SITE #2 LANDFIL APPT FRIDAY 7/25 8AM	Larkin Express Logistics, LLC P.O. Box 50910 Knoxville, TN 37950

Load Information

Commodity	16 Bags Resin, (6) Bags Filter Bags	Weight	34000.0	Pieces	22

Dispatch Information

Delivered at BELLEVILLE, MI E.T.A. Trailer

Reference numbers

*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading state whether weight is "carrier's or shipper's weight".	REMIT C.O.D TO: ADDRESS	C.O.D Amt. $	C.O.D FEE: PREPAID ☐ COLLECT ☐ $	TOTAL CHARGES: $

Note-Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding $ _____ per _____	Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement. The carrier shall not make delivery of this shipment without payment of freight and all other charges. _____ Signature of Consignor	FREIGHT CHARGES Bill to Larkin Unless Checked: ☐ Freight prepaid ☐ Collect

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said rout to destination and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Freight Classifications in effect on the date hereof, if this is a rail or rail-water shipment or (2) in the applicable motor carrier classification or tariff, if this is a motor carrier shipment. Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

Mark with 'RQ' if appropriate to designate Hazardous Materials as defined in the U.S. Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading per 172.201(a)(1)(v) of Title 49 Code of Federal Regulations. A shipper of hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception to the regulations is provided in the Regulations for a particular material.	The number and content of hazardous materials is the responsibility of individual company interpretation of requirements as described in 49 Code of Federal Regulations 172. Shipping Papers. Such description consists of the following per Sections 172.201 Hazardous Material Table and Sections 172.202 and 172.203: Proper Shipping name, hazardous class, UN identification number, packing group, and subsidiary classes.	Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 United States Code, Sections 14706(c (1)(A) and (B).

SHIPPER	RECEIVER
PER	PER

1 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transfortation according to the applicable regulations of the U.S. Department of Transportation.

Carrier acknowledges receipt of packages and any required placards. Carrier certifies emergency response information was made available and or carrier has the U.S. Department of Transportation emergency resonse guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

19451755

Non-Hazardous Waste Manifest

Non-Hazardous Waste Manifest	Generator ID Number	Waste Profile Number	Waste Tracking (Manifest) Number
	NYD 981 183 338	F220121WDI-OTS	19-03O-2

Customer Billing Name and Mailing	Generator's Site Address
Onion Equipment Company 5705 W 73rd Street - Indianapolis, IN 46278 Customer Billing Phone: (317) 694-7576	Stewart ANG Base 1 Maquire Way, Newburgh, NY 12550 Generator's Phone:

Transporter 1 Company Name	US EPA ID Number
Transporter 2 Company Name	US EPA ID Number
Designated Facility Name and Site Address WAYNE DISPOSAL, INC. SITE #2 LANDFILL 49350 N I-94 SERVICE DRIVE- BELLEVILLE, MI 48111 Facility's Phone: 412-771-4050, X4116	US EPA ID Number MID 048 090 633

	Waste Shipping Name and Description	Containers No.	Containers Type	Total Quantity	Unit Wt / Vol.	Disposal Method
1	F220121WDI / Spent PFAS Filtration Media	23	1 CYD BAG	32,500	LB	Landfill
2						
3						
4						

Special Handling Instructions and Additional Information	24 Hour Emergency Response Phone
(16) Bags Resin, (6) Bags Filter Bags Delivery Appointment Friday 7/26 at 8AM. Conf.# 1285672	317-694-7576 Emergency Response Guide Number

GENERATOR'S / OFFEROR'S CERTIFICATION: I hereby certify that the above-described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Generator's Offeror's Printed / Typed Name	Signature	Month	Day	Year
Eric Patterson (agent for SANG)		July	22	2024

Transporter's Acknowledgement of Receipt of Materials

	Signature	Month	Day	Year
Transporter 1 Printed / Typed Name [redacted] GMS, Jamaica, NY		July	22	2024
Transporter 2 Printed Typed Name	Signature	Month	Day	Year

Discrepancy

Discrepancy Indication Space	☐ Quantity	☐ Type	☐ Residue	☐ Partial Rejection	☐ Full Rejection

Alternate Facility (or Generator) Facility's Phone:	US EPA ID Number

Signature of Alternate Facility (or Generator)	Month	Day	Year

Designated Facility Owner or Operator: Certification of Receipt of materials covered by the manifest except as noted in Discrepancy section

Printed / Typed Name	Signature	Month	Day	Year

19451756

CERTIFICATE OF DISPOSAL

REPUBLIC SERVICES

This certificate is to verify the wastes specified on Manifest # 19-030-2

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et sea.

FACILITY NAME: (Please check one)

☐ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)

☑ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive
Bellville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____