

US Army Corps of Engineers
Baltimore District



**QUARTERLY OM&M
REPORT NO. 12**

April to June 2023

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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TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
ACRONYMS AND ABBREVIATIONS	ii
EXECUTIVE SUMMARY	1
1.0 INTRODUCTION	1
2.0 GENERAL COMPLIANCE SUMMARY	1
3.0 ISWTS CONFIGURATION DURING PERFORMANCE PERIOD	3
4.0 GENERAL FACILITY OPERATIONS SUMMARY	4
5.0 FACILITY PERFORMANCE MONITORING	5
5.1 Influent and Effluent PFOS and PFOA Monitoring	5
5.2 Intra-Process PFOS/PFOA and Total PFAS Monitoring	6
5.3 Other Water Quality Monitoring	6
5.4 Turbidity Monitoring	7
5.5 Peracetic Acid Addition	7
6.0 SCHEDULED PREVENTIVE MAINTANANCE	7
7.0 MATERIAL DISPOSAL	8
8.0 PROJECTED ACTIVITIES FOR NEXT PERFORMANCE PERIOD	8

TABLES

Table 1	PFOS and PFOA Water Quality Monitoring Results
Table 2	Other Water Quality Monitoring Results
Table 3	Preventive Maintenance Table

FIGURES

Figure 1	ISWTS Flow Diagram
Figure 2	Recreation Pond Level Chart
Figure 3	Influent and Effluent PFOS and PFOA Chart
Figure 4	Influent and Effluent Turbidity Chart

ATTACHMENT

Attachment 1	Material Disposal Documents
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ACRONYMS AND ABBREVIATIONS

AFFF	aqueous film forming foam
ANG	Air National Guard
BES	Bristol Environmental Solutions, LLC
EPA	U.S Environmental Protection Agency
F400	Calgon Filtrasorb 400
GAC	granular activated carbon
GPM	gallons per minute
HA	Health Advisory
ISWTS	Interim Storm Water Treatment System
mg/L	milligrams per liter
NTU	nephelometric turbidity units
OEC	Onion Equipment Company
OM&M	Operations, Maintenance, and Monitoring
PE	Process Effluent
PFAS	per- and polyfluoroalkyl substances
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid
ppt	parts per trillion
SANGB	Stewart Air National Guard Base
TOC	total organic carbon
USACE	US Army Corps of Engineers

EXECUTIVE SUMMARY

An Interim Storm Water Treatment System (ISWTS) is operating at Stewart Air National Guard Base (SANGB) in Newburgh, New York. The stormwater is contaminated with perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA). PFOS and PFOA are two constituents of aqueous film-forming foam (AFFF), that have been detected above the 2016 U.S. Environmental Protection Agency (EPA) drinking water lifetime Health Advisory (HA) standard of 70 parts per trillion (ppt) (individually or combined).

The ISWTS has been operating consistently since July 13, 2020. The ISWTS consists of four treatment trains with three treatment vessels per train. This report summarizes OM&M between April 1 and June 30, 2023. During the reporting period, two different three vessel regimes were operated. One regime consisted of two granular activated carbon (GAC) vessels followed by a resin (IX) vessel. The other operating regime consisted of three GAC vessels. Both regimes were operated and sampled to compare the performance of all GAC treatment against GAC and IX treatment. BES also installed twelve (12) new intra-process sample ports directly on the outlet of each treatment vessel, to compare the results to the existing intra-process sample ports on the bottom drain valves.

During weekly sampling activities differences were observed between the newly installed sample port locations and the original locations. The new intra-process ports detected breakthrough of PFAS compounds while the original sample ports were significantly less. It was determined that the new sample ports were more representative of process conditions and BES has standardized on using the new sample locations for breakthrough monitoring at the intra-process locations.

Based on elevated PFOS/PFOA breakthrough detections from the new intra-process effluent locations combined with findings from ongoing treatment comparison sampling, evaluating the performance of all-GAC treatment against GAC-IX treatment, BES

determined that all GAC treatment was not as effective. At the end of the quarter during the media change all trains were configured back to two stage GAC (primary and secondary) treatment followed by IX resin.

During the performance period, a total of 34,921,460 gallons of stormwater were treated and discharged over the outfall weir by the ISWTS. There were 91 days of operation between April 1 and June 30, 2023. During this period of performance, the Recreation Pond was drawn down for 61 of the 91 days or 67% of the time.

PFOS and PFOA samples were collected 12 times on the influent and effluent during the performance period. The combined PFOS and PFOA influent and effluent average concentrations during the performance period were 375 ppt and 1.4 ppt respectively. The highest effluent PFOS and PFOA concentration detected in the ISWTS effluent was 4.8 ppt for the OM&M period between April 1 and June 30, 2023.

1.0 INTRODUCTION

Bristol Environmental Solutions, LLC (BES), under Contract with the US Army Corps of Engineers (USACE) is operating an Interim Storm Water Treatment System (ISWTS) on behalf of the Air National Guard (ANG) at Stewart Air National Guard Base (SANGB) in Newburgh, New York. The stormwater is contaminated with perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA). PFOS and PFOA are two constituents of aqueous film-forming foam (AFFF), that have been detected above the 2016 U.S. Environmental Protection Agency (EPA) drinking water lifetime Health Advisory (HA) standard of 70 parts per trillion (ppt) (individually or combined).

The ISWTS intercepts stormwater from a Recreation Pond and discharges treated effluent over the existing Recreation Pond outfall weir. When weather conditions allow, the ISWTS draws down the pond level and treats all stormwater discharges. The Recreation Pond drawdown provides a storage reservoir to prevent discharge of PFOS/PFOA 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 12th quarterly report that summarizes Operations, Maintenance, and Monitoring (OM&M) activities conducted by BES at SANGB. This report summarizes ISWTS operations between April 1 and June 30, 2023, at SANGB and includes the contract award of Option Year 1 extending OM&M activities under modification 0001 and 0002 through the period of performance of September 13, 2023.

2.0 GENERAL OPERATIONALSUMMARY

The ISWTS has been operating consistently 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 April 1 and June 30, 2023, or months 34, 35, and 36 post start-up. During the performance period two (2) all-carbon treatment configurations from trains A and C were compared against two (2) carbon and ion exchange resin (IX) configurations from trains B and D. During the previous reporting period, BES determined that the existing intra-process sample ports may not be accurately detecting PFOS/PFOA breakthrough. To improve sample port accuracy and improve media configuration comparison of all GAC treatment against GAC and IX treatment, BES installed twelve (12) additional sample ports, directly on the outlet of each treatment vessel, to compare the new locations against the existing intra-process location results. Sixteen (16) additional comparison performance samples were collected in April and May 2023. In addition, eleven (11) samples were collected from the original intra-process sample locations on the vessel drain line concurrently with new sample locations on the outlets from each vessel. The intra-process sample port comparison sampling has determined the new intra-process sample locations should be used for all future intra-process breakthrough monitoring.

The performance comparison sampling of all GAC treatment versus GAC and IX Resin determined that two stages of GAC followed by IX Resin outperformed three stages of GAC for PFOS and PFOA mitigation as well as other per- and polyfluoroalkyl substances (PFAS).

Media performance monitoring results received on May 24, 2023, for samples collected on May 16, 2023, indicated diminishing PFOS/PFOA mitigation. This data combined with increased media fouling that was restricting ISWTS throughput above 250 gallons per minute (GPM) caused BES to schedule a complete media exchange event for June 2023. Analytical results from the Train D intra-process sampling and the overall effluent collected on May 16, 2023, are summarized as follows:

Treatment Train D	Treatment Train Effluent PFOS/PFOA (ppt)
Primary Carbon (GAC1)	200
Secondary Carbon (GAC 2)	79
IX Resin (R1)	1.7
Combined Effluent (Trains A, B, C, and D)	4.8

Following briefs to project stakeholders, BES reduced the risk of elevated effluent PFOS/PFOA by taking the two all-GAC trains A and C offline on Friday, May 26, 2023. BES expedited the mobilization for the next media change with Onion Equipment Company (OEC) to perform comprehensive media changeout and system improvements between June 5 and 12, 2023.

Due to increasing back pressure from the loading of solids and the inability of the ISWTS to process treatment flow rates above 250 GPM with only IX resin trains B and D operating, BES restarted all carbon trains A and C on Thursday, June 1, 2023, to maintain ISWTS drawdown of REC Pond water below the weir elevation and to provide adequate operating flows for daily maintenance activities including automated sand filter and manual media backwashing activities up to and during the media change.

The media change was completed between June 5 and 12, 2023. The final performance sample collected for Quarter 2 was collected on June 27, 2023.

The analytical method used was 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.

To improve media configuration comparison of all GAC treatment against GAC and IX treatment, BES installed twelve (12) additional sample ports, one from each treatment vessel, to evaluate new process flow locations against the existing intra-process location results.

As described in Quarterly Report No. 11 (January to March 2023), a comparison of the performance of the GAC-GAC-IX regime against an all GAC treatment regime was extended, to directly compare performance of each regime. In addition to the comparison of regime performance, the samples from the (12) new intra-process sample ports would be compared to the existing intra-process location results. The GAC media during the quarter was Calgon Filtrasorb 400 (F400) and the IX resin is Purolite PFA694. Peracetic acid was available but not introduced this quarter to see if any increased biofouling was observed as a result of not introducing it to the ISWTS influent. During the quarter, an ultrasonic device (Pulsar 3000) was installed in the pond to reduce seasonal algae growth and evaluate if it would reduce biofouling on the system and extend media life. The system configuration is shown in **Figure 1**.

4.0 GENERAL FACILITY OPERATIONS SUMMARY

During the performance period, a total of 34,921,460 gallons of stormwater were treated and discharged over the outfall weir by the ISWTS. All treated effluent was discharged over the outfall weir and no effluent was recirculated to the Recreation Pond during the performance period. The table below summarizes the total volume treated (gallons), operational time (hours), 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 water discharged over the weir. The ISWTS and influent pump does 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. Lower run times and volume treated were observed in June because recommended drawdown elevations were maintained for the majority of the month and the ISWTS pump cycled on and off to maintain maximum drawdown. These are the primary reasons why reduced run times can occur.

Month	Volume Treated (Gallons)	Operational Time ¹ (Hours)	Run Time ² (Percent)	Average Treatment Flow ³ (GPM)
April 2023	13,275,680	667	99%	332
May 2023	13,552,586	778	98%	290
June 2023	8,093,194	573	80%	235
Total	34,921,460	2,018		

¹Operation Time – Hours influent pump in operation during month

²Run Time – Hours pump running divided by the total period time

³Average GPM – Average flow total gallons divided by operational hours

There were 91 days of operation between April 1 and June 30, 2023. During this period of performance, the Recreation Pond was drawn down for 61 of the 91 days or 67% of the time. The Recreation Pond level during the performance period is shown on **Figure 2**.

5.0 FACILITY PERFORMANCE MONITORING

5.1 INFLUENT AND EFFLUENT PFOS AND PFOA MONITORING

As previously noted, PFOS and PFOA samples were collected 12 times on the influent and effluent during the performance period. **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 concentrations during the performance period were 375 ppt and 1.4 ppt, respectively. The maximum combined PFOS and PFOA influent concentration was 627 ppt on June 13, 2023. The maximum detection of PFOS/PFOA in the combined effluent, before the June 5, 2023, media exchange of all four treatment trains was 4.8 ppt on May 16, 2023. The maximum

effluent detection of PFOS/PFOA after media exchange was 1.4 ppt on June 13, 2023. The May 23, 2023, performance monitoring weekly samples were lost in transit by the shipper. As a result, there were no results for that weekly period.

5.2 INTRA-PROCESS PFOS/PFOA AND TOTAL PFAS MONITORING

During the performance period, intra-process monitoring for PFOS/PFOA and Total PFAS was performed after all three media stages. Sample results are provided in **Table 1**.

Intra-process samples were collected to compare the performance of GAC and IX treatment against all GAC treatment. The all GAC treatment was initially believed to be equally effective in PFOS, PFOA, and Total PFAS mitigation when compared to trains configured with GAC and IX. However, following installation of new intra-process sample ports in early April 2023, supplemental sampling discussed in Section 2.0 confirmed that PFOS/PFOA and total PFAS breakthrough for all GAC trains (trains A and C) occurred faster than the GAC and IX trains (trains B and D). As a result of the intra-process monitoring, all four trains were returned to two stages of GAC (primary and secondary) and the third vessel with IX resin during the media change performed during the quarter between June 5 and June 12, 2023.

5.3 OTHER WATER QUALITY MONITORING

During the performance period additional monitoring was performed for total organic carbon (TOC), and glycols on the influent, secondary GAC effluent, and final effluent on May 09, 2023. 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 3.90 mg/L, and the GAC-2 effluent (influent to the resin) was 1.90 mg/L indicating that the influent TOC level was close but not over the threshold. Effluent TOC

concentration was 1.20 mg/L. These results are within the manufacture's recommend values and likely did not negatively impact the ISWTS performance.

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 7.30 nephelometric turbidity units (NTUs) and 0.79 NTU, respectively. A graph of the influent and effluent turbidity during the performance period is included as **Figure 4**.

5.5 PERACETIC ACID ADDITION

As discussed, peracetic acid was not introduced into the process influent during the performance period to evaluate if increased biofouling could be detected and evaluate if ultrasonic treatment in the pond could independently reduce biofouling and ISWTS maintenance.

6.0 SCHEDULED PREVENTIVE MAINTANANCE

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, secondary, and tertiary carbon backwashing;
- Isolated system flushes and system inspections and checks;
- Ion exchange resin skimmings and inspections and;
- Replaced sample ports and sample tubing.

Prior to the start of this quarterly reporting period the sand filtration media was replaced in March. The coarse and fine sand filters were each backwashed 624 and 629 times, respectively and a total of four (4) cleaning events were completed. The primary and secondary bag filters were changed 16 and 45 times, respectively, during the performance period. To maintain acceptable PFAS treatment media pressure, the primary, secondary, and tertiary GAC vessels were backwashed 22 times, during the quarter. The resin was inspected and skimmed once during the quarter on May 10, 2023. 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, as well as spent GAC and ion exchange resin wastes were generated during the quarter. Spent GAC materials were shipped to Calgon Corporation facility in Catlettsburg, Kentucky, for thermal reactivation on June 28, 2023. Waste bag filters, and spent resin waste were shipped to US Ecology for disposal in a Subtitle C Landfill in Belleville, Michigan, on June 27, 2023. Spent media disposal activities are scheduled immediately following each media changeout to eliminate any onsite storage of solid wastes at SANGB. 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 using GAC, GAC, IX media and configured as primary GAC, secondary GAC, and IX resin polish.

The effectiveness of the Peracetic acid has been uncertain. Bristol turned off the Peracetic acid for the fourth quarter 2022 and quarters 1 and 2 of 2023, to see if increased biofouling impacts can be detected. No increased biofouling effects were observed during the first quarter and remained off to test Ultrasonic Algae Control System in the Recreation Pond to reduce algae growth. The ultrasonic equipment transforms electrical signals to multiple

soundwaves of ultrasonic frequencies that breaks the outer membrane of individual algae cells and inhibits growth. The new technology was deployed in April 2023 and was successful in mitigating visible seasonal algae and monitored through the end of June 2023. BES will evaluate over the summer season if any reduction in maintenance can be observed through the use of the ultrasonic treatment.

Bristol will continue to evaluate new technologies/materials to reduce biofouling impacts. No capital improvements are planned at this time.

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TABLES

TABLE 1 - COMBINED ANALYTICAL RESULTS

C396889V1_C396898V1 - 04/05/2023

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID			VMH646	VMH651	VMH652	VMH650	VMH649	VMH648	VKJ559	VMH647			
Sampling Date			2023/04/05 08:00	2023/04/05 08:40	2023/04/05 08:40	2023/04/05 08:35	2023/04/05 08:25	2023/04/05 08:15	2023/03/28 09:42	2023/04/05 08:08			
Sample ID			SANG-FB-04052023	SANG-INF-04052023	SANG-INF-04052023D	SANG-PEGG1-04052023	SANG-PEGG2-04052023	SANG-PEGG3-04052023	SANG-PBG1-03282023	SANG-EFF-04052023	DL	LOD	LOQ
Perfluorinated Compounds	Method	UNITS											
Perfluorobutanoic acid (PFBA)	EPA 537.1 M	ng/L	1.4 U	27	27	20	8.4	1.2 J	3.8	0.88 J	0.65	1.5	2.2
Perfluoropentanoic acid (PFPeA)	EPA 537.1 M	ng/L	0.70 U	79	80	55	16	0.77 J	7.6	0.52 J	0.24	0.77	2.2
Perfluorohexanoic acid (PFHxA)	EPA 537.1 M	ng/L	0.20 J (1)	67	69	42	9.5	0.33 J	5.4	0.29 J	0.22	0.77	2.2
Perfluoroheptanoic acid (PFHpA)	EPA 537.1 M	ng/L	1.0 U	32	34	19	3.8	0.28 J	2.3	0.28 J	0.31	1.1	2.2
Perfluorooctanoic acid (PFOA)	EPA 537.1 M	ng/L	1.0 U	35	34	18	2.9	1.0 U	2.2 J	1.0 U	0.45	1.1	2.2
Perfluorononanoic acid (PFNA)	EPA 537.1 M	ng/L	1.0 U	9.1	9.3	4.9	0.80 J	1.0 U	0.57 J	1.0 U	0.39	1.1	2.2
Perfluorodecanoic acid (PFDA)	EPA 537.1 M	ng/L	1.0 U	7.2	6.9	3.4	0.50 J	1.0 U	0.60 J	1.0 U	0.32	1.1	2.2
Perfluoroundecanoic acid (PFUnA)	EPA 537.1 M	ng/L	1.0 U	0.69 J	0.57 J	1.1 U	1.0 U	1.0 U	1.1 U	1.0 U	0.41	1.1	2.2
Perfluorododecanoic acid (PFDoA)	EPA 537.1 M	ng/L	1.0 U	0.58 J	0.59 J	1.1 U	1.0 U	1.0 U	1.1 U	1.0 U	0.53	1.1	2.2
Perfluorotridecanoic acid (PFTDA)	EPA 537.1 M	ng/L	0.70 U	0.77 U	0.77 U	0.77 U	0.70 U	0.70 U	0.77 U	0.70 U	0.26	0.77	2.2
Perfluorotetradecanoic acid (PFTEDA)	EPA 537.1 M	ng/L	1.0 U	1.1 U	1.1 U	1.1 U	1.0 U	1.0 U	1.1 U	1.0 U	0.43	1.1	2.2
Perfluorobutanesulfonic acid (PFBS)	EPA 537.1 M	ng/L	1.0 U	13	13	7.3	1.1 J	1.0 U	0.75 J	1.0 U	0.3	1.1	2.2
Perfluoropentanesulfonic acid PFPeS	EPA 537.1 M	ng/L	1.0 U	13	15	6.7	0.91 J	1.0 U	1.1 U	1.0 U	0.37	1.1	2.2
Perfluorohexanesulfonic acid (PFHxS)	EPA 537.1 M	ng/L	1.0 U	95	95	46	5.9	1.0 U	3.7	1.0 U	0.31	1.1	2.2
Perfluoroheptanesulfonic acid PFHpS	EPA 537.1 M	ng/L	1.0 U	4.7	4.5	2.1 J	1.0 U	1.0 U	1.1 U	1.0 U	0.47	1.1	2.2
Perfluorooctanesulfonic acid (PFOS)	EPA 537.1 M	ng/L	1.0 U	290 (2)	260 (2)	120 (2)	14	1.0 U	9.9	1.0 U	4.7	10	20
Perfluorononanesulfonic acid (PFNS)	EPA 537.1 M	ng/L	1.4 U	1.5 U	1.5 U	1.5 U	1.4 U	1.4 U	1.5 U	1.4 U	0.7	1.5	2.2
Perfluorodecanesulfonic acid (PFDS)	EPA 537.1 M	ng/L	1.4 U	1.5 U	1.5 U	1.5 U	1.4 U	1.4 U	1.5 U	1.4 U	0.66	1.5	2.2
Perfluorooctane Sulfonamide (PFOSA)	EPA 537.1 M	ng/L	1.4 U	1.5 U	1.5 U	1.5 U	1.4 U	1.4 U	1.5 U	1.4 U	0.44	1.5	4.4
MeFOSAA	EPA 537.1 M	ng/L	1.4 U	1.5 U	1.5 U	1.5 U	1.4 U	1.4 U	1.5 U	1.4 U	0.77	1.5	4.4
EtFOSAA	EPA 537.1 M	ng/L	1.4 U	1.5 U	1.5 U	1.5 U	1.4 U	1.4 U	1.5 U	1.4 U	0.59	1.5	4.4
4:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	0.92 J	0.97 J (1)	0.60 J (1)	1.4 U	1.4 U	1.5 U	1.4 U	0.52	1.5	4.4
6:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	85	86	42	5.2	1.4 U	3.4 J	1.4 U	0.69	1.5	4.4
8:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	17	18	8.4	1.8 J	0.60 J	1.1 J	1.4 U	0.58	1.5	4.4
Hexafluoropropyleneoxide dimer acid	EPA 537.1 M	ng/L	1.4 U	1.5 U	1.5 U	1.5 U	1.4 U	1.4 U	1.5 U	1.4 U	0.45	1.5	4.4
4,8-Dioxa-3H-perfluorononanoic acid	EPA 537.1 M	ng/L	0.40 U	0.44 U	0.44 U	0.44 U	0.40 U	0.40 U	0.44 U	0.40 U	0.13	0.44	4.4
9CI-PF3ONS (F-53B Major)	EPA 537.1 M	ng/L	1.0 U	1.1 U	1.1 U	1.1 U	1.0 U	1.0 U	1.1 U	1.0 U	0.46	1.1	4.4
11CI-PF3OUDS (F-53B Minor)	EPA 537.1 M	ng/L	1.0 U	1.1 U	1.1 U	1.1 U	1.0 U	1.0 U	1.1 U	1.0 U	0.35	1.1	4.4

Notes:

- (1) Result is estimated as analyte confirmation criterion (ion ratio) was not met. There is no direct correlation to the bias regardless of whether the ratio is above or below established limits. Sample results fall below the method LOD. Sample results were usable as flagged.
- (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.

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

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

SANGB = Stewart Air National Guard Base

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

Sample SANG-FB-04052023 is a field blank.

Sample SANG-INF-04052023D is a field duplicate of SANG-INF-04052023.

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

PEGG1 = post E port C train GAC Unit 1

PEGG2 = post E port C train GAC Unit 2

PEGG3 = post E port C train Resin 1

PBG1 = post B train GAC Unit 1

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

Influent (INF) = Untreated water from Recreational Pond

ISWTS = Interim Storm Water Treatment System

TABLE 1 - COMBINED ANALYTICAL RESULTS

C3A1480V1_C3A1471V1 - 04/11/2023

RESULTS OF ANALYSES OF WATER			VALIDATED DATA										
Bureau Veritas ID			VNH509	VNH514	VNH515	VNH511	VNH513	VNH512	VNH450	VNH510			
Sampling Date			2023/04/11 08:00	2023/04/11 08:40	2023/04/11 08:40	2023/04/11 08:10	2023/04/11 08:30	2023/04/11 08:18	2023/04/11 08:32	2023/04/11 08:05			
Sample ID			SANG-FB-04112023	SANG-INF-04112023	SANG-INF-04112023D	SANG-PEDR1-04112023	SANG-PEDG1-04112023	SANG-PEDG2-04112023	SANG-PDG1-04112023	SANG-EFF-04112023	DL	LOD	LOQ
Perfluorinated Compounds	Method	UNITS											
Perfluorobutanoic acid (PFBA)	EPA 537.1 M	ng/L	1.4 U	28	29	1.5 U	20	10	2.0 J	1.4 J	0.65	1.5	2.2
Perfluoropentanoic acid (PFPeA)	EPA 537.1 M	ng/L	0.70 U	88	86	0.77 U	51	20	2.5	0.75 J	0.24	0.77	2.2
Perfluorohexanoic acid (PFHxA)	EPA 537.1 M	ng/L	0.70 U	73	72	0.24 J	39	13	1.7 J	0.45 J	0.22	0.77	2.2
Perfluoroheptanoic acid (PFHpA)	EPA 537.1 M	ng/L	1.0 U	36	35	0.51 J	17	5	1.1 J	1.1 U	0.31	1.1	2.2
Perfluorooctanoic acid (PFOA)	EPA 537.1 M	ng/L	1.0 U	37	37	1.1 U	17	4.4	0.78 J	1.1 U	0.45	1.1	2.2
Perfluorononanoic acid (PFNA)	EPA 537.1 M	ng/L	1.0 U	9.3	9.3	1.1 U	4.1	0.98 J	1.1 U	1.1 U	0.39	1.1	2.2
Perfluorodecanoic acid (PFDA)	EPA 537.1 M	ng/L	1.0 U	6.7	6.9	1.1 U	2.6	0.52 J	1.1 U	1.1 U	0.32	1.1	2.2
Perfluoroundecanoic acid (PFUnA)	EPA 537.1 M	ng/L	1.0 U	0.65 J	0.57 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.41	1.1	2.2
Perfluorododecanoic acid (PFDoA)	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	0.53	1.1	2.2
Perfluorotridecanoic acid (PFTRDA)	EPA 537.1 M	ng/L	0.70 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.26	0.77	2.2
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	0.43	1.1	2.2
Perfluorobutanesulfonic acid (PFBS)	EPA 537.1 M	ng/L	1.0 U	16	16	1.1 U	7.4	1.6 J	0.31 J	1.1 U	0.3	1.1	2.2
Perfluoropentanesulfonic acid PFPS	EPA 537.1 M	ng/L	1.0 U	17	15	1.1 U	6.5	1.4 J	0.45 J	1.1 U	0.37	1.1	2.2
Perfluorohexanesulfonic acid (PFHxS)	EPA 537.1 M	ng/L	1.0 U	110 (1)	110 (1)	1.1 U	46	8.3	1.6 J	1.1 U	2.8	10	20
Perfluoroheptanesulfonic acid PFHpS	EPA 537.1 M	ng/L	1.0 U	5.4	5.3	1.1 U	2.4	0.57 J	1.1 U	1.1 U	0.47	1.1	2.2
Perfluorooctanesulfonic acid (PFOS)	EPA 537.1 M	ng/L	1.0 U	330 (1)	330 (1)	1.1 U	130 (1)	21	4.8	1.1 U	4.7	10	20
Perfluorononanesulfonic acid (PFNS)	EPA 537.1 M	ng/L	1.4 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	1.4 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.66	1.5	2.2
Perfluorooctane Sulfonamide (PFOSA)	EPA 537.1 M	ng/L	1.4 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.44	1.5	4.4
MeFOSAA	EPA 537.1 M	ng/L	1.4 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.77	1.5	4.4
EtFOSAA	EPA 537.1 M	ng/L	1.4 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	4.4
4:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	1.3 J	1.1 J	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.52	1.5	4.4
6:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	90	85	1.5 U	35	6.7	1.1 J	1.5 U	0.69	1.5	4.4
8:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	18	18	1.5 U	6.4	1.3 J	1.5 U	1.5 U	0.58	1.5	4.4
Hexafluoropropyleneoxide dimer acid	EPA 537.1 M	ng/L	1.4 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	4.4
4,8-Dioxa-3H-perfluorononanoic acid	EPA 537.1 M	ng/L	0.40 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.13	0.44	4.4
9CI-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	0.46	1.1	4.4
11CI-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	0.35	1.1	4.4

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.

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

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

SANGB = Stewart Air National Guard Base

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

Sample SANG-FB-04112023 is a field blank.

Sample SANG-INF-04112023D is a field duplicate of SANG-INF-04112023.

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 train GAC Unit 1

PEDG2 = post E port D train GAC Unit 2

PEDR1 = post E port D train 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

TABLE 1 - COMBINED ANALYTICAL RESULTS

C3A7955V1_C3A7977V1 - 04/17/2023

RESULTS OF ANALYSES OF WATER															
Bureau Veritas ID			VOQ063	VOQ068	VOQ069	VOQ067	VOQ066	VOQ065	VOQ164	VOQ165	VOQ166	VOQ064			
Sampling Date			2023/04/17 08:55	2023/04/17 09:33	2023/04/17 09:33	2023/04/17 09:25	2023/04/17 09:17	2023/04/17 09:08	2023/04/17 09:10	2023/04/17 09:20	2023/04/17 09:27	2023/04/17 09:00			
Sample ID			SANG-FB-04172023	SANG-INF-04172023	SANG-INF-04172023D	SANG-PEAG1-04172023	SANG-PEAG2-04172023	SANG-PEAG3-04172023	SANG-PEBR1-04172023	SANG-PEBG2-04172023	SANG-PEBG1-04172023	SANG-EFF-04172023	DL	LOD	LOQ
Perfluorinated Compounds	Method	UNITS													
Perfluorobutanoic acid (PFBA)	EPA 537.1 M	ng/L	1.4 U	18	18	15	7.9	1.9 J	1.4 U	7.9	15	0.74 J	0.59	1.4	2
Perfluoropentanoic acid (PFPeA)	EPA 537.1 M	ng/L	0.70 U	59	60	34	13	1.5 J	0.70 U	12	35	0.48 J	0.22	0.7	2
Perfluorohexanoic acid (PFHxA)	EPA 537.1 M	ng/L	0.70 U	51	51	26	7.2	0.70 U	0.70 U	6.5	27	0.70 U	0.2	0.7	2
Perfluoroheptanoic acid (PFHpA)	EPA 537.1 M	ng/L	1.0 U	24	25	11	2.2	1.0 U	1.0 U	1.9 J	12	1.0 U	0.28	1	2
Perfluorooctanoic acid (PFOA)	EPA 537.1 M	ng/L	1.0 U	27	26	9.8	1.6 J	1.0 U	1.0 U	1.4 J	11	1.0 U	0.41	1	2
Perfluorononanoic acid (PFNA)	EPA 537.1 M	ng/L	1.0 U	7.3	7.6	2.6	1.0 U	1.0 U	1.0 U	1.0 U	2.8	1.0 U	0.35	1	2
Perfluorodecanoic acid (PFDA)	EPA 537.1 M	ng/L	1.0 U	6.5	6.7	2	1.0 U	1.0 U	1.0 U	1.0 U	2.2	1.0 U	0.29	1	2
Perfluoroundecanoic acid (PFUnA)	EPA 537.1 M	ng/L	1.0 U	0.73 J	0.74 J	1.0 U	1.0 U	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	0.58 J (1)	0.52 J	1.0 U	1.0 U	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	0.70 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	1.0 U	1.0 U	0.39	1	2
Perfluoropentadecanoic acid (PFpS)	EPA 537.1 M	ng/L	1.0 U	8.9	9	3.6	0.94 J	1.0 U	1.0 U	0.61 J	4.1	1.0 U	0.27	1	2
Perfluoropentanesulfonic acid PFpS	EPA 537.1 M	ng/L	1.0 U	9.2	8.8	3.1	1.0 U	1.0 U	1.0 U	1.0 U	2.8	1.0 U	0.34	1	2
Perfluorohexanesulfonic acid (PFHxS)	EPA 537.1 M	ng/L	1.0 U	67	64	22	2.5	1.0 U	1.0 U	2	24	1.0 U	0.28	1	2
Perfluoroheptanesulfonic acid PFHpS	EPA 537.1 M	ng/L	1.0 U	2.8	3	0.78 J	1.0 U	1.0 U	1.0 U	1.0 U	0.78 J	1.0 U	0.43	1	2
Perfluorooctanesulfonic acid (PFOS)	EPA 537.1 M	ng/L	1.0 U	250 (2)	250 (2)	61	6.2	1.0 U	1.0 U	4.9	65	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	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	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	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	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	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	0.63 J	1.4 U	1.4 U	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	58	57	19	2.6 J	1.4 U	1.4 U	2.1 J	21	1.4 U	0.63	1.4	4
8:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	18	18	4.3	1.4 U	1.4 U	1.4 U	1.4 U	5.2	1.4 U	0.53	1.4	4
Hexafluoroisopropyleneoxide 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	1.4 U	1.4 U	0.41	1.4	4
4,8-Dioxo-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	0.40 U	0.40 U	0.12	0.4	4
9CI-PF3ONS (F-538 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	1.0 U	1.0 U	0.42	1	4
11CI-PF3OUs (F-538 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	1.0 U	1.0 U	0.32	1	4

Notes:
(1) Result is estimated as analyte confirmation criteria (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.
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
ng/L = nanograms per Liter or parts per trillion.
SANGB = Stewart Air National Guard Base
U = Undetected. Compound was analyzed for, but not detected.
Sample SANG-FB-04172023 is a field blank.
Sample SANG-INF-04172023D is a field duplicate of SANG-INF-04172023.

Sample ports located in each of the 4 trains; A, B, C, D, such as: PEBG1= post B train GAC unit 1.
PEAG1 = post E port A train GAC Unit 1
PEAG2 = post E port A train GAC Unit 2
PEAG3 = post E port A train GAC Unit 3
PEBG1 = Post E port B train GAC Unit 1
PEBG2 = Post E port B train GAC Unit 2
PEBR1 = Post E port B train 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

TABLE 1 - COMBINED ANALYTICAL RESULTS

C3B7040V1_C3B7049V1 - 04/25/2023

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID			VALIDATED DATA														
Sampling Date			VQN684	VQN689	VQN690	VQN686	VQN688	VQN687	VQN709	VQN708	VQN707	VQN706	VQN685				
Sample ID			2023/04/25 07:55	2023/04/25 08:30	2023/04/25 08:30	2023/04/25 08:08	2023/04/25 08:23	2023/04/25 08:15	2023/04/25 08:26	2023/04/25 08:25	2023/04/25 08:17	2023/04/25 08:10	2023/04/25 08:00				
			SANG-FB-04252023	SANG-INF-04252023	SANG-INF-04252023D	SANG-PEDR1-04252023	SANG-PEDG1-04252023	SANG-PEDG2-04252023	SANG-PCG1-04252023	SANG-PEGC1-04252023	SANG-PEGC2-04252023	SANG-PEGC3-04252023	SANG-EFF-04252023	DL	LOD	LOQ	
Perfluorinated Compounds	Method	UNITS															
Perfluorobutanoic acid (PFBA)	EPA 537.1 M	ng/L	1.4 U	12	12	1.4 U	10	6.8	0.86 J	10	6.8	3.4	2.2	0.59	1.4	2	
Perfluoropentanoic acid (PFPeA)	EPA 537.1 M	ng/L	0.70 U	35	37	0.30 J	26	14	1.1 J	27	12	3.4	2.6	0.22	0.7	2	
Perfluorohexanoic acid (PFHxA)	EPA 537.1 M	ng/L	0.70 U	29	30	0.70 U	20	8.8	0.68 J	20	7	1.3 J	1.3 J	0.2	0.7	2	
Perfluoroheptanoic acid (PFHpA)	EPA 537.1 M	ng/L	1.0 U	20	22	1.0 U	12	4.2	0.51 J	12	3.2	0.55 J	0.60 J	0.28	1	2	
Perfluorooctanoic acid (PFOA)	EPA 537.1 M	ng/L	1.0 U	23	24	1.0 U	12	4	1.0 U	12	2.8	1.0 U	1.0 U	0.41	1	2	
Perfluorononanoic acid (PFNA)	EPA 537.1 M	ng/L	1.0 U	7.9	8.5	1.0 U	3.6	1.2 J	1.0 U	3.7	0.86 J	1.0 U	1.0 U	0.35	1	2	
Perfluorodecanoic acid (PFDA)	EPA 537.1 M	ng/L	1.0 U	2.5	2.5	1.0 U	1.3 J	0.49 J	1.0 U	1.3 J	0.38 J	1.0 U	1.0 U	0.29	1	2	
Perfluoroundecanoic acid (PFUnA)	EPA 537.1 M	ng/L	1.0 U	0.53 J	0.51 J	1.0 U	0.38 J	1.0 U	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	0.49 J	0.51 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.48	1	2	
Perfluorotridecanoic acid (PFTDA)	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	0.70 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	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	6.1	6.5	1.0 U	3.6	1.3 J	1.0 U	3.6	1.1 J	0.33 J	0.29 J	0.27	1	2	
Perfluoropentanesulfonic acid PFPeS	EPA 537.1 M	ng/L	1.0 U	6.5	6.7	1.0 U	3.2	0.95 J	1.0 U	3.3	0.65 J	1.0 U	1.0 U	0.34	1	2	
Perfluorohexanesulfonic acid(PFHxS)	EPA 537.1 M	ng/L	1.0 U	52	55	1.0 U	25	6	0.49 J	26	4	1.0 U	0.37 J	0.28	1	2	
Perfluoroheptanesulfonic acid PFHpS	EPA 537.1 M	ng/L	1.0 U	2.6	2.7	1.0 U	1.5 J	0.68 J	1.0 U	1.4 J	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	220 (2)	220 (2)	1.0 U	80	18	1.8 J	81	11	0.83 J	1.3 J	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	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	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	0.46 J (1)	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.4	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	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	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	0.66 J (1)	0.67 J	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.47	1.4	4	
6:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	43	44	1.4 U	17	5.1	1.4 U	18	3.5 J	1.4 U	1.4 U	0.63	1.4	4	
8:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	9.9	9.8	1.4 U	2.8 J	0.84 J	1.4 U	2.9 J	0.61 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	1.4 U	1.4 U	1.4 U	1.4 U	0.41	1.4	4	
4,8-Dioxo-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	0.40 U	0.40 U	0.40 U	0.12	0.4	4	
9CI-PF3ONS (F-538 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	1.0 U	1.0 U	1.0 U	0.42	1	4	
11CI-PF3OUDS (F-538 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	1.0 U	1.0 U	1.0 U	0.32	1	4	

Notes:

(1) Result is estimated as analyte confirmation criteria (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.

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

ng/L = nanograms per liter or parts per trillion.

SANGB = Stewart Air National Guard Base

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

Sample SANG-FB-04252023 is a field blank.

Sample SANG-INF-04252023D is a field duplicate of SANG-INF-04252023.

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 train GAC Unit 1

PEDG2 = post E port D train GAC Unit 2

PEDR1 = post E port D train Resin 1

PEGG1 = post E port C train GAC Unit 1

PEGG2 = post E port C train GAC Unit 2

PEGG3 = post E port C train GAS Unit 3

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

Influent (INF) = Untreated water from Recreational Pond

ISWTS = Interim Storm Water Treatment System

TABLE 1 - COMBINED ANALYTICAL RESULTS

C3C4556V1_C3C4568V1 - 05/02/2023

RESULTS OF ANALYSES OF WATER

VALIDATED DATA															
Bureau Veritas ID			VS8457	VS8462	VS8463	VS8459	VS8461	VS8460	VS8523	VS8522	VS8521	VS8520	VS8458		
Sampling Date			2023/05/02 07:55	2023/05/02 08:30	2023/05/02 08:30	2023/05/02 08:07	2023/05/02 08:22	2023/05/02 08:15	2023/05/03 08:26	2023/05/03 08:24	2023/05/03 08:17	2023/05/03 08:09	2023/05/02 08:00		
Sample ID			SANG-FB-05022023	SANG-INF-05022023	SANG-INF-05022023D	SANG-PEBR1-05022023	SANG-PEBG1-05022023	SANG-PEBG2-05022023	SANG-PAG1-05022023	SANG-PEAG1-05022023	SANG-PEAG2-05022023	SANG-PEAG3-05022023	SANG-EFF-05022023	DL	LOD
Perfluorinated Compounds	Method	UNITS													
Perfluorobutanoic acid (PFBA)	EPA 537.1 M	ng/L	1.4 U	16	16	1.4 U	12	8.5	12	14	8.5	4.3	1.9 J	0.59	1.4 2
Perfluoropentanoic acid (PFPeA)	EPA 537.1 M	ng/L	0.70 U	42	42	0.70 U	32	17	31	35	17	6.2	2.7	0.22	0.7 2
Perfluorohexanoic acid (PFHxA)	EPA 537.1 M	ng/L	0.70 U	35	36	0.70 U	25	12	26	28	13	3.2	1.3 J	0.2	0.7 2
Perfluoroheptanoic acid (PFHpA)	EPA 537.1 M	ng/L	1.0 U	26	27	1.0 U	16	6.4	16	18	6.6	1.5 J	0.55 J	0.28	1 2
Perfluorooctanoic acid (PFOA)	EPA 537.1 M	ng/L	1.0 U	29	29	1.0 U	16	5.5	17	18	5.9	1.1 J	0.44 J	0.41	1 2
Perfluorononanoic acid (PFNA)	EPA 537.1 M	ng/L	1.0 U	11	11	1.0 U	5.3	1.4 J	5.2	5.5	1.6 J	1.0 U	1.0 U	0.35	1 2
Perfluorodecanoic acid (PFDA)	EPA 537.1 M	ng/L	1.0 U	3.8	3.8	1.0 U	1.2 J	0.47 J	1.2 J	1.3 J	0.40 J	1.0 U	1.0 U	0.29	1 2
Perfluoroundecanoic acid (PFUnA)	EPA 537.1 M	ng/L	1.0 U	0.48 J	0.39 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.37	1 2
Perfluorododecanoic acid (PFDoA)	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	1.0 U	1.0 U	1.0 U	0.48	1 2
Perfluorotridecanoic acid (PFTDoA)	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	0.70 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	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	7.2	7.1	1.0 U	4.3	1.7 J	4.3	4.7	1.7 J	0.37 J	1.0 U	0.27	1 2
Perfluoropentanesulfonic acid PFPeS	EPA 537.1 M	ng/L	1.0 U	8.9	8.3	1.0 U	4.4	1.1 J	4.5	4.5	1.2 J	1.0 U	1.0 U	0.34	1 2
Perfluorohexanesulfonic acid (PFHxS)	EPA 537.1 M	ng/L	1.0 U	70	71	1.0 U	37	10	38	40	11	1.4 J	0.34 J	0.28	1 2
Perfluoroheptanesulfonic acid PFHpS	EPA 537.1 M	ng/L	1.0 U	3.1	2.9	1.0 U	1.4 J	1.0 U	1.5 J	1.6 J	0.44 J	1.0 U	1.0 U	0.43	1 2
Perfluorooctanesulfonic acid (PFOS)	EPA 537.1 M	ng/L	1.0 U	270 (1)	250 (1)	1.0 U	110 (1)	25	99 (1)	120 (1)	28 (1)	2.9	0.71 J	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	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	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	0.61 J	0.50 J	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.4	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	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	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	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.47	1.4 4
6:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	49	51	1.4 U	19	6	20	21	6	1.4 U	1.4 U	0.63	1.4 4
8:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	18	19	1.4 U	3.3 J	0.86 J	3.3 J	4.3	0.91 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	1.4 U	1.4 U	1.4 U	1.4 U	0.41	1.4 4
4,8-Dioxo-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	0.40 U	0.40 U	0.40 U	0.12	0.4 4
9CI-PF3ONS (F-538 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	1.0 U	1.0 U	1.0 U	0.42	1 4
11CI-PF3OUDS (F-538 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	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.
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
ng/L = nanograms per Liter or parts per trillion.
SANGB = Stewart Air National Guard Base
U - Undetected. Compound was analyzed for, but not detected.
Sample SANG-FB-05022023 is a field blank.
Sample SANG-INF-05022023D is a field duplicate of SANG-INF-05022023.
Sample ports located in each of the 4 trains; A, B, C, D. such as: PBG1= post B train GAC unit 1
PAG1 = post A train GAC Unit 1
PEAG1 = post E port A GAC Unit 1
PEAG2 = post E port A train GAC Unit 2
PEAG3 = post E port A train GAC Unit 3
PEBG1 = post E port B GAC Unit 1
PEBG2 = post E port B 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

TABLE 1 - COMBINED ANALYTICAL RESULTS

C3D2485V1 - 05/09/2023

RESULTS OF ANALYSES OF WATER

VALIDATED DATA

Bureau Veritas ID			VTR634	VTR639	VTR640	VTR638	VTR637	VTR636	VTR635			
Sampling Date			2023/05/09 08:00	2023/05/09 08:30	2023/05/09 08:30	2023/05/09 08:22	2023/05/09 08:16	2023/05/09 08:10	2023/05/09 08:05			
Sample ID			SANG-FB-05092023	SANG-INF-05092023	SANG-INF-05092023D	SANG-PEAG1-05092023	SANG-PEAG2-05092023	SANG-PEAG3-05092023	SANG-EFF-05092023	DL	LOD	LOQ
Perfluorinated Compounds	Method	UNITS										
Perfluorobutanoic acid (PFBA)	EPA 537.1 M	ng/L	1.4 U	17	17	17	12	7.1	3.6	0.59	1.4	2
Perfluoropentanoic acid (PFPeA)	EPA 537.1 M	ng/L	0.70 U	59	58	47	27	11	4.5	0.22	0.7	2
Perfluorohexanoic acid (PFHxA)	EPA 537.1 M	ng/L	0.23 J (1)	48	48	36	18	5.6	2.2	0.2	0.7	2
Perfluoroheptanoic acid (PFHpA)	EPA 537.1 M	ng/L	1.0 U	26	27	17	7.4	1.9 J	0.79 J	0.28	1	2
Perfluorooctanoic acid (PFOA)	EPA 537.1 M	ng/L	1.0 U	28	29	16	6.3	1.3 J	0.51 J	0.41	1	2
Perfluorononanoic acid (PFNA)	EPA 537.1 M	ng/L	1.0 U	9.1	8.8	4.6	1.6 J	0.37 J	1.0 U	0.35	1	2
Perfluorodecanoic acid (PFDA)	EPA 537.1 M	ng/L	1.0 U	4.7	4.8	2.2	0.88 J	0.36 J	1.0 U	0.29	1	2
Perfluoroundecanoic acid (PFUnA)	EPA 537.1 M	ng/L	1.0 U	0.63 J	0.57 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	0.69 J	0.53 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	0.34 J	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	10	6.7	2.8	0.68 J	0.37 J	0.27	1	2
Perfluoropentanesulfonic acid PFPes	EPA 537.1 M	ng/L	1.0 U	14	15	7.3	2.3	1.0 U	1.0 U	0.34	1	2
Perfluorohexanesulfonic acid(PFHxS)	EPA 537.1 M	ng/L	1.0 U	83	80	42	13	1.9 J	0.65 J	0.28	1	2
Perfluoroheptanesulfonic acid PFHpS	EPA 537.1 M	ng/L	1.0 U	4.4	4.5	2.1	0.85 J	1.0 U	1.0 U	0.43	1	2
Perfluorooctanesulfonic acid (PFOS)	EPA 537.1 M	ng/L	1.0 U	340 (2)	310 (2)	140 (2)	36	4.4	1.5 J	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	0.46 J (1)	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	0.93 J	0.96 J	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	62	61	24	8.4	1.4 U	1.4 U	0.63	1.4	4
8:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	23	23	8.1	2.2 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
9CI-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
11CI-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) Result is estimated as analyte confirmation criteria (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.

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

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

SANGB = Stewart Air National Guard Base

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

Sample SANG-FB-05092023 is a field blank.

Sample SANG-INF-05092023D is a field duplicate of SANG-INF-05092023.

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 train GAC Unit 1

PEAG2 = post E port A train GAC Unit 2

PEAG3 = post E port A train GAC Unit 3

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

Influent (INF) = Untreated water from Recreational Pond

ISWTS = Interim Storm Water Treatment System

TABLE 1 - COMBINED ANALYTICAL RESULTS

C3E0518V1 - 05/16/2023

RESULTS OF ANALYSES OF WATER

VALIDATED DATA

Bureau Veritas ID			VVJ420	VVJ425	VVJ426	VVJ422	VVJ424	VVJ423	VVJ421			
Sampling Date			2023/05/16 09:55	2023/05/16 10:30	2023/05/16 10:30	2023/05/16 10:08	2023/05/16 10:24	2023/05/16 10:16	2023/05/16 10:00			
Sample ID			SANG-FB-05162023	SANG-INF-05162023	SANG-INF-05162023D	SANG-PEDR1-05162023	SANG-PEDG1-05162023	SANG-PEDG2-05162023	SANG-EFF-05162023	DL	LOD	LOQ
Perfluorinated Compounds	Method	UNITS										
Perfluorobutanoic acid (PFBA)	EPA 537.1 M	ng/L	1.5 U	30	28	1.5 U	24	22	6.8	0.65	1.5	2.2
Perfluoropentanoic acid (PFPeA)	EPA 537.1 M	ng/L	0.77 U	100	95	0.77 U	68	54	11	0.24	0.77	2.2
Perfluorohexanoic acid (PFHxA)	EPA 537.1 M	ng/L	0.77 U	83	77	0.77 U	50	34	4.1	0.22	0.77	2.2
Perfluoroheptanoic acid (PFHpA)	EPA 537.1 M	ng/L	1.1 U	39	37	1.1 U	21	12	0.56 J	0.31	1.1	2.2
Perfluorooctanoic acid (PFOA)	EPA 537.1 M	ng/L	1.1 U	42	40	1.1 U	20	12	1.1 U	0.45	1.1	2.2
Perfluorononanoic acid (PFNA)	EPA 537.1 M	ng/L	1.1 U	11	10	1.1 U	5.1	2.4	1.1 U	0.39	1.1	2.2
Perfluorodecanoic acid (PFDA)	EPA 537.1 M	ng/L	1.1 U	7.4	6.6	1.1 U	3.3	1.2 J	1.1 U	0.32	1.1	2.2
Perfluoroundecanoic acid (PFUnA)	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	0.41	1.1	2.2
Perfluorododecanoic acid (PFDoA)	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	0.53	1.1	2.2
Perfluorotridecanoic acid (PFTDA)	EPA 537.1 M	ng/L	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.26	0.77	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	0.43	1.1	2.2
Perfluorobutanesulfonic acid (PFBS)	EPA 537.1 M	ng/L	1.1 U	16	15	1.1 U	9.2	4	1.1 U	0.3	1.1	2.2
Perfluoropentanesulfonic acid PFPeS	EPA 537.1 M	ng/L	1.1 U	20	20	1.1 U	10	3.5	1.1 U	0.37	1.1	2.2
Perfluorohexanesulfonic acid (PFHxS)	EPA 537.1 M	ng/L	1.1 U	120 (1)	120 (1)	1.1 U	61	22	0.69 J	2.8	10	20
Perfluoroheptanesulfonic acid PFHpS	EPA 537.1 M	ng/L	1.1 U	6.8	6.5	1.1 U	2.6	0.85 J	1.1 U	0.47	1.1	2.2
Perfluorooctanesulfonic acid (PFOS)	EPA 537.1 M	ng/L	1.1 U	430 (1)	420 (1)	1.7 J	180 (1)	67	4.8	4.7	10	20
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	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	0.66	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	0.44	1.5	4.4
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	0.77	1.5	4.4
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	0.59	1.5	4.4
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	0.52	1.5	4.4
6:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.5 U	87	85	1.5 U	38	19	1.5 U	0.69	1.5	4.4
8:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.5 U	23	20	1.0 J	12	5.8	1.3 J	0.58	1.5	4.4
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	0.45	1.5	4.4
4,8-Dioxo-3H-perfluorononanoic acid	EPA 537.1 M	ng/L	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.13	0.44	4.4
9CI-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	0.46	1.1	4.4
11CI-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	0.35	1.1	4.4

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.

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

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

SANGB = Stewart Air National Guard Base

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

Sample SANG-FB-05162023 is a field blank.

Sample SANG-INF-05162023D is a field duplicate of SANG-INF-05162023.

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 train GAC Unit 1

PEDG2 = post E port D train GAC Unit 2

PEDR1 = post E port D train 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

TABLE 1 - COMBINED ANALYTICAL RESULTS

C3F6852V1 - 05/31/2023

RESULTS OF ANALYSES OF WATER

VALIDATED DATA

Bureau Veritas ID			VYY134	VYY139	VYY140	VYY136	VYY138	VYY137	VYY135			
Sampling Date			2023/05/31 08:55	2023/05/31 09:35	2023/05/31 09:35	2023/05/31 09:10	2023/05/31 09:25	2023/05/31 09:18	2023/05/31 09:00			
Sample ID			SANG-FB-05312023	SANG-INF-05312023	SANG-INF-05312023D	SANG-PEBR1-05312023	SANG-PEBG1-05312023	SANG-PEBG2-05312023	SANG-EFF-05312023	DL	LOD	LOQ
Perfluorinated Compounds	Method	UNITS										
Perfluorobutanoic acid (PFBA)	EPA 537.1 M	ng/L	1.4 U	38	39	1.5 U	37	32	0.87 J	0.65	1.5	2.2
Perfluoropentanoic acid (PFPeA)	EPA 537.1 M	ng/L	0.70 U	110	110	0.77 U	100	77	0.77 U	2.2	7	20
Perfluorohexanoic acid (PFHxA)	EPA 537.1 M	ng/L	0.70 U	99	100	0.77 U	78	51	0.77 U	0.22	0.77	2.2
Perfluoroheptanoic acid (PFHpA)	EPA 537.1 M	ng/L	1.0 U	44	44	1.1 U	31	18	1.1 U	0.31	1.1	2.2
Perfluorooctanoic acid (PFOA)	EPA 537.1 M	ng/L	1.0 U	44	45	1.1 U	28	13	1.1 U	0.45	1.1	2.2
Perfluorononanoic acid (PFNA)	EPA 537.1 M	ng/L	1.0 U	11	11	1.1 U	5.8	2.6	1.1 U	0.39	1.1	2.2
Perfluorodecanoic acid (PFDA)	EPA 537.1 M	ng/L	1.0 U	7.4	7.8	1.1 U	3.3	1.1 J	1.1 U	0.32	1.1	2.2
Perfluoroundecanoic acid (PFUnA)	EPA 537.1 M	ng/L	1.0 U	0.57 J	0.61 J	1.1 U	1.1 U	1.1 U	1.1 U	0.41	1.1	2.2
Perfluorododecanoic acid (PFDoA)	EPA 537.1 M	ng/L	1.0 U	0.69 J	0.69 J	1.1 U	1.1 U	1.1 U	1.1 U	0.53	1.1	2.2
Perfluorotridecanoic acid (PFTRDA)	EPA 537.1 M	ng/L	0.70 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.26	0.77	2.2
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	0.43	1.1	2.2
Perfluorobutanesulfonic acid (PFBS)	EPA 537.1 M	ng/L	1.0 U	22	23	1.1 U	15	8.9	1.1 U	0.3	1.1	2.2
Perfluoropentanesulfonic acid PFPeS	EPA 537.1 M	ng/L	1.0 U	26	26	1.1 U	16	7.5	1.1 U	0.37	1.1	2.2
Perfluorohexanesulfonic acid (PFHxS)	EPA 537.1 M	ng/L	1.0 U	150	140	1.1 U	90	42	1.1 U	2.8	10	20
Perfluoroheptanesulfonic acid PFHpS	EPA 537.1 M	ng/L	1.0 U	8.3	7.9	1.1 U	4.2	1.6 J	1.1 U	0.47	1.1	2.2
Perfluorooctanesulfonic acid (PFOS)	EPA 537.1 M	ng/L	1.0 U	430	460	0.59 J	220	99	0.75 J	4.7	10	20
Perfluorononanesulfonic acid (PFNS)	EPA 537.1 M	ng/L	1.4 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	1.4 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.66	1.5	2.2
Perfluorooctane Sulfonamide (PFOSA)	EPA 537.1 M	ng/L	1.4 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.44	1.5	4.4
MeFOSAA	EPA 537.1 M	ng/L	1.4 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.77	1.5	4.4
EtFOSAA	EPA 537.1 M	ng/L	1.4 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.59	1.5	4.4
4:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	1.5 J	2.1 J	1.5 U	0.74 J	1.5 U	1.5 U	0.47	1.4	4
6:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	110	100	1.5 U	54	25	1.5 U	6.3	14	40
8:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	21	21	1.5 U	5.2	1.7 J	1.5 U	0.58	1.5	4.4
Hexafluoropropyleneoxide dimer acid	EPA 537.1 M	ng/L	1.4 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.45	1.5	4.4
4,8-Dioxa-3H-perfluorononanoic acid	EPA 537.1 M	ng/L	0.40 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.13	0.44	4.4
9CI-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	0.46	1.1	4.4
11CI-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	0.35	1.1	4.4

Notes:

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
 ng/L = nanograms per Liter or parts per trillion.
 SANGB = Stewart Air National Guard Base
 U = Undetected. Compound was analyzed for, but not detected.
 Sample SANG-FB-05312023 is a field blank.
 Sample SANG-INF-05312023D is a field duplicate of SANG-INF-05312023.

Sample ports located in each of the 4 trains; A, B, C, D. such as: PEBG1= post B train GAC Unit 1.
 PEBG1 = post E port B train GAC Unit 1
 PEBG2 = post E port B train GAC Unit 2
 PEBR1 = post E port B train 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

TABLE 1 - COMBINED ANALYTICAL RESULTS

C3H2393V1 - 06/13/2023

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID			VALIDATED DATA								
Sampling Date			2023/06/13 08:30	2023/06/13 09:10	2023/06/13 09:10	2023/06/13 08:45	2023/06/13 09:00	2023/06/13 08:52	2023/06/13 08:38		
Sample ID			SANG-FB-06132023	SANG-INF-06132023	SANG-INF-06132023D	SANG-PEAR1-06132023	SANG-PEAG1-06132023	SANG-PEAG2-06132023	SANG-EFF-06132023	DL	LOD
Perfluorinated Compounds											
Method	UNITS										
EPA 537.1 M	ng/L		0.67 J	41	44	1.4 U	0.73 J	1.4 U	1.4 U	0.59	1.4
EPA 537.1 M	ng/L		0.70 U	150 (1)	150 (1)	0.70 U	1.4 J	0.70 U	0.70 U	2.2	7
EPA 537.1 M	ng/L		0.70 U	130 (1)	130 (1)	0.70 U	1.0 J	0.70 U	0.70 U	2	7
EPA 537.1 M	ng/L		1.0 U	53	53	1.0 U	0.50 J	1.0 U	1.0 U	0.28	1
EPA 537.1 M	ng/L		1.0 U	57	58	1.0 U	0.49 J	1.0 U	1.0 U	0.41	1
EPA 537.1 M	ng/L		1.0 U	13	13	1.0 U	1.0 U	1.0 U	1.0 U	0.35	1
EPA 537.1 M	ng/L		1.0 U	9.4	9.8	1.0 U	1.0 U	1.0 U	1.0 U	0.29	1
EPA 537.1 M	ng/L		1.0 U	1.1 J	1.1 J	1.0 U	1.0 U	1.0 U	1.0 U	0.37	1
EPA 537.1 M	ng/L		1.0 U	1.4 J	1.5 J	1.0 U	1.0 U	1.0 U	1.0 U	0.48	1
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
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
EPA 537.1 M	ng/L		1.0 U	31	32	1.0 U	1.0 U	1.0 U	1.0 U	0.27	1
EPA 537.1 M	ng/L		1.0 U	37	36	1.0 U	1.0 U	1.0 U	1.0 U	0.34	1
EPA 537.1 M	ng/L		1.0 U	190 (1)	190 (1)	1.0 U	0.52 J	1.0 U	1.0 U	2.8	10
EPA 537.1 M	ng/L		1.0 U	9.4	9.8	1.0 U	1.0 U	1.0 U	1.0 U	0.43	1
EPA 537.1 M	ng/L		1.0 U	570 (1)	550 (1)	1.1 J	3.9	1.3 J	1.4 J	4.7	10
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
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
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
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
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
EPA 537.1 M	ng/L		1.4 U	1.5 J	1.4 J	1.4 U	1.4 U	1.4 U	1.4 U	0.47	1.4
EPA 537.1 M	ng/L		1.4 U	140 (1)	140 (1)	1.4 U	0.70 J	1.4 U	1.4 U	6.3	14
EPA 537.1 M	ng/L		1.4 U	26	24	1.2 J	2.1 J	1.5 J	1.5 J	0.53	1.4
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
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
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
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

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.

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

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

DL = Detection Limit

EFF = Effluent

FB= Field Blank

INF = Influent

LOD = Limit of Detection

LOQ = Limit of Quantitation

SANGB = Stewart Air National Guard Base

Sample SANG-FB-06132023 is a field blank.

Sample SANG-INF-06132023D is a field duplicate of SANG-INF-06132023.

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 train GAC Unit 1

PEAG2 = post E port A train GAC Unit 2

PEAR1 = post E port A train 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

TABLE 1 - COMBINED ANALYTICAL RESULTS

C311076V1 - 06/20/2023

RESULTS OF ANALYSES OF WATER

VALIDATED DATA

Bureau Veritas ID			WDZ353	WDZ358	WDZ359	WDZ355	WDZ357	WDZ356	WDZ354			
Sampling Date			2023/06/20 11:00	2023/06/20 11:40	2023/06/20 11:40	2023/06/20 11:17	2023/06/20 11:32	2023/06/20 11:25	2023/06/20 11:10			
Sample ID			SANG-FB-06202023	SANG-INF-06202023	SANG-INF-06202023D	SANG-PEBR1-06202023	SANG-PEBG1-062012023	SANG-PEBG2-06202023	SANG-EFF-06202023	DL	LOD	LOQ
Perfluorinated Compounds	Method	UNITS										
Perfluorobutanoic acid (PFBA)	EPA 537.1 M	ng/L	1.4 U	26	26	1.5 U	4.7	1.5 U	1.5 U	0.65	1.5	2.2
Perfluoropentanoic acid (PFPeA)	EPA 537.1 M	ng/L	0.70 U	87	86	0.77 U	11	0.77 U	0.77 U	0.24	0.77	2.2
Perfluorohexanoic acid (PFHxA)	EPA 537.1 M	ng/L	0.70 U	71	73	0.77 U	8.3	0.77 U	0.77 U	0.22	0.77	2.2
Perfluoroheptanoic acid (PFHpA)	EPA 537.1 M	ng/L	1.0 U	32	32	1.1 U	3.1	1.1 U	1.1 U	0.31	1.1	2.2
Perfluorooctanoic acid (PFOA)	EPA 537.1 M	ng/L	1.0 U	33	32	1.1 U	2.9	1.1 U	1.1 U	0.45	1.1	2.2
Perfluorononanoic acid (PFNA)	EPA 537.1 M	ng/L	1.0 U	8.1	7.9	1.1 U	0.45 J	1.1 U	1.1 U	0.39	1.1	2.2
Perfluorodecanoic acid (PFDA)	EPA 537.1 M	ng/L	1.0 U	5.9	5.8	1.1 U	1.1 U	1.1 U	1.1 U	0.32	1.1	2.2
Perfluoroundecanoic acid (PFUnA)	EPA 537.1 M	ng/L	1.0 U	0.46 J	0.43 J	1.1 U	1.1 U	1.1 U	1.1 U	0.41	1.1	2.2
Perfluorododecanoic acid (PFDoA)	EPA 537.1 M	ng/L	1.0 U	0.72 J	0.73 J	1.1 U	1.1 U	1.1 U	1.1 U	0.53	1.1	2.2
Perfluorotridecanoic acid (PFTRDA)	EPA 537.1 M	ng/L	0.70 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.26	0.77	2.2
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	0.43	1.1	2.2
Perfluorobutanesulfonic acid (PFBS)	EPA 537.1 M	ng/L	1.0 U	17	16	1.1 U	0.85 J	1.1 U	1.1 U	0.3	1.1	2.2
Perfluoropentanesulfonic acid PFPeS	EPA 537.1 M	ng/L	1.0 U	27	27	1.1 U	0.68 J	1.1 U	1.1 U	0.37	1.1	2.2
Perfluorohexanesulfonic acid (PFHxS)	EPA 537.1 M	ng/L	1.0 U	110	110	1.1 U	7.6	1.1 U	1.1 U	0.31	1.1	2.2
Perfluoroheptanesulfonic acid PFHpS	EPA 537.1 M	ng/L	1.0 U	6	6	1.1 U	0.62 J	1.1 U	1.1 U	0.47	1.1	2.2
Perfluorooctanesulfonic acid (PFOS)	EPA 537.1 M	ng/L	1.0 U	370 (1)	350 (1)	1.1 U	25	1.1 U	1.1 U	4.7	10	20
Perfluorononanesulfonic acid (PFNS)	EPA 537.1 M	ng/L	1.4 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	1.4 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.66	1.5	2.2
Perfluorooctane Sulfonamide (PFOSA)	EPA 537.1 M	ng/L	1.4 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.44	1.5	4.4
MeFOSAA	EPA 537.1 M	ng/L	1.4 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.77	1.5	4.4
EtFOSAA	EPA 537.1 M	ng/L	1.4 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.59	1.5	4.4
4:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	1.1 J	1.2 J	1.5 U	1.4 U	1.5 U	1.5 U	0.47	1.4	4
6:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	70	73	1.5 U	5.3	1.5 U	1.5 U	0.63	1.4	4
8:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.4 U	12	14	1.5 U	1.4 J	1.5 U	1.5 U	0.53	1.4	4
Hexafluoropropyleneoxide dimer acid	EPA 537.1 M	ng/L	1.4 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.45	1.5	4.4
4,8-Dioxa-3H-perfluorononanoic acid	EPA 537.1 M	ng/L	0.40 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.13	0.44	4.4
9CI-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	0.46	1.1	4.4
11CI-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	0.35	1.1	4.4

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.

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

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

SANGB = Stewart Air National Guard Base

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

Sample SANG-FB-06202023 is a field blank.

Sample SANG-INF-06202023D is a field duplicate of SANG-INF-06202023.

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 train GAC Unit 1

PEBG2 = post E port B train GAC Unit 2

PEBR1 = post E port B train 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

TABLE 1 - COMBINED ANALYTICAL RESULTS

C3J1468V1 - 06/27/2023

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID			VALIDATED DATA										
Sampling Date			WGD490	WGD495	WGD496	WGD492	WGD494	WGD493	WGD491				
Sample ID			2023/06/27 07:25	2023/06/27 07:58	2023/06/27 07:58	2023/06/27 07:38	2023/06/27 07:52	2023/06/27 07:45	2023/06/27 07:30				
Sample ID			SANG-FB-06272023	SANG-INF-06272023	SANG-INF-06272023D	SANG-PECR1-06272023	SANG-PEG1-062712023	SANG-PEG2-06272023	SANG-EFF-06272023	DL	LOD	LOQ	
Perfluorinated Compounds	Method	UNITS											
Perfluorobutanoic acid (PFBA)	EPA 537.1 M	ng/L	1.5 U	7	7.3	1.4 U	4.8	1.5 U	1.5 U	0.65	1.5	2.2	
Perfluoropentanoic acid (PFPeA)	EPA 537.1 M	ng/L	0.77 U	23	23	0.70 U	12	0.71 J	0.77 U	0.24	0.77	2.2	
Perfluorohexanoic acid (PFHxA)	EPA 537.1 M	ng/L	0.77 U	16	17	0.70 U	7.8	0.36 J	0.77 U	0.22	0.77	2.2	
Perfluoroheptanoic acid (PFHpA)	EPA 537.1 M	ng/L	1.1 U	10	10	1.0 U	4.1	1.1 U	1.1 U	0.31	1.1	2.2	
Perfluorooctanoic acid (PFOA)	EPA 537.1 M	ng/L	1.1 U	10	9.8	1.0 U	3.3	1.1 U	1.1 U	0.45	1.1	2.2	
Perfluorononanoic acid (PFNA)	EPA 537.1 M	ng/L	1.1 U	3.3	3.3	1.0 U	0.92 J	1.1 U	1.1 U	0.39	1.1	2.2	
Perfluorodecanoic acid (PFDA)	EPA 537.1 M	ng/L	1.1 U	2.3	2.3	1.0 U	0.74 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	0.43 J	0.42 J	1.0 U	1.0 U	1.1 U	1.1 U	0.41	1.1	2.2	
Perfluorododecanoic acid (PFDoA)	EPA 537.1 M	ng/L	1.1 U	0.61 J	0.62 J	1.0 U	1.0 U	1.1 U	1.1 U	0.53	1.1	2.2	
Perfluorotridecanoic acid (PFTRDA)	EPA 537.1 M	ng/L	0.70 U	0.26 J (1)	0.27 J	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	0.48 J (1)	0.45 J (1)	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	1.1 U	3.1	3.2	1.0 U	1.2 J	1.1 U	1.1 U	0.3	1.1	2.2	
Perfluoropentanesulfonic acid PFPS	EPA 537.1 M	ng/L	1.1 U	3.1	3.1	1.0 U	1.0 J	1.1 U	1.1 U	0.37	1.1	2.2	
Perfluorohexanesulfonic acid (PFHxS)	EPA 537.1 M	ng/L	1.1 U	23	22	1.0 U	7	1.1 U	1.1 U	0.31	1.1	2.2	
Perfluoroheptanesulfonic acid PFHpS	EPA 537.1 M	ng/L	1.1 U	1.2 J	1.2 J	1.0 U	0.58 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	87	86	1.0 U	21	0.54 J	1.1 U	0.52	1.1	2.2	
Perfluorononanesulfonic acid (PFNS)	EPA 537.1 M	ng/L	1.5 U	1.5 U	1.5 U	1.4 U	1.4 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	1.4 U	1.4 U	1.5 U	1.5 U	0.66	1.5	2.2	
Perfluorooctane Sulfonamide (PFOSA)	EPA 537.1 M	ng/L	1.4 U	1.4 U	0.59 J (1)	1.4 U	1.4 U	1.4 U	1.4 U	0.4	1.4	4	
MeFOSAA	EPA 537.1 M	ng/L	1.5 U	1.5 U	1.5 U	1.4 U	1.4 U	1.5 U	1.5 U	0.77	1.5	4.4	
EtFOSAA	EPA 537.1 M	ng/L	1.5 U	1.5 U	1.5 U	1.4 U	1.4 U	1.5 U	1.5 U	0.59	1.5	4.4	
4:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.5 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	1.5 U	0.47	1.4	4	
6:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.5 U	15	16	1.4 U	5.1	1.5 U	1.5 U	0.63	1.4	4	
8:2 Fluorotelomer sulfonic acid	EPA 537.1 M	ng/L	1.5 U	6.3	6	1.4 U	1.9 J	1.5 U	1.5 U	0.58	1.5	4.4	
Hexafluoropropyleneoxide dimer acid	EPA 537.1 M	ng/L	1.5 U	1.5 U	1.5 U	1.4 U	1.4 U	1.5 U	1.5 U	0.45	1.5	4.4	
4,8-Dioxa-3H-perfluorononanoic acid	EPA 537.1 M	ng/L	0.44 U	0.44 U	0.44 U	0.40 U	0.40 U	0.44 U	0.44 U	0.13	0.44	4.4	
9CI-PF3ONS (F-53B Major)	EPA 537.1 M	ng/L	1.1 U	1.1 U	1.1 U	1.0 U	1.0 U	1.1 U	1.1 U	0.46	1.1	4.4	
11CI-PF3OUds (F-53B Minor)	EPA 537.1 M	ng/L	1.1 U	1.1 U	1.1 U	1.0 U	1.0 U	1.1 U	1.1 U	0.35	1.1	4.4	

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.

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

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

SANGB = Stewart Air National Guard Base

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

Sample SANG-FB-06202023 is a field blank.

Sample SANG-INF-06202023D is a field duplicate of SANG-INF-06202023.

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

PEG1 = post E port C train GAC Unit 1

PEG2 = post E port C train GAC Unit 2

PECR1 = post E port C train 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

TABLE 2 - OTHER WATER QUALITY MONITORING RESULTS



Glycols				
Sample Parameter/Sample ID	Sampling Date	Influent (SANG-INF-05092023 mg/L)	PBG2 Effluent (SANG-PAG2-05092023 mg/L)	Effluent (SANG-EFF-05092023 mg/L)
Diethylene glycol	5/9/2023	<52	<52	<52
Ethylene glycol		<10	<10	<10
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	5/9/2023	3.90	1.90	1.20

TABLE 3 - PREVENTIVE MAINTENANCE

Date	Primary Bag Filter Change and Type of Filters Installed	Secondary Bag Filter Change and Type of Filters Installed	Treatment Process Backwashed	Sand Filter Cleaning or Changeout	Media Change Out	Resin Vessel Skimming
4/3/2023						
4/4/2023		10 Micron Regular	Primary Carbon vessels A1, B1, C1, & D1			
4/5/2023		10 Micron Regular				
4/6/2023		10 Micron Regular				
4/7/2023	25 Micron Pleated	10 Micron Pleated				
4/10/2023		10 Micron Regular				
4/11/2023		10 Micron Regular				
4/12/2023		10 Micron Regular	Primary Carbon vessels A1, B1, C1, & D1			
4/13/2023		10 Micron Regular		Coarse Sand Filters (1A/1B)		
4/14/2023	25 Micron Pleated	10 Micron Pleated				
4/16/2023		10 Micron Pleated				
4/17/2023						
4/18/2023				Coarse Sand Filters (2A/2B)		
4/19/2023	25 Micron Regular	10 Micron Regular				
4/20/2023		10 Micron Regular	Primary Carbon vessels A1, B1, C1, & D1 Tertiary A3 & C3			
4/21/2023	25 Micron Pleated	10 Micron Pleated				

TABLE 3 - PREVENTIVE MAINTENANCE

Date	Primary Bag Filter Change and Type of Filters Installed	Secondary Bag Filter Change and Type of Filters Installed	Treatment Process Backwashed	Sand Filter Cleaning or Changeout	Media Change Out	Resin Vessel Skimming
4/24/2023						
4/25/2023		10 Micron Pleated	Primary Carbon vessels A1, B1, C1, & D1			
4/26/2023						
4/27/2023				Fine Sand Filters (3A/3B)		
4/28/2023	25 Micron Pleated	10 Micron Pleated				
5/1/2023						
5/2/2023			Primary Carbon vessels A1, B1, C1, & D1			
5/3/2023			Secondary Carbon vessels A2, B2, C2, & D2			
5/4/2023				Fine Sand Filters (4A/4B)		
5/5/2023	25 Micron Pleated	10 Micron Pleated				
5/8/2023		10 Micron Regular				
5/9/2023		10 Micron Regular	Primary Carbon vessels A1, B1, C1, & D1			
5/10/2023	25 Micron Regular	10 Micron Regular				Trains D&B Resin was skimmed ≈55 gal/6.5 cu.ft.

TABLE 3 - PREVENTIVE MAINTENANCE

Date	Primary Bag Filter Change and Type of Filters Installed	Secondary Bag Filter Change and Type of Filters Installed	Treatment Process Backwashed	Sand Filter Cleaning or Changeout	Media Change Out	Resin Vessel Skimming
5/11/2023		10 Micron Pleated		Fine Sand Filters (5A/5B)		
5/12/2023		10 Micron Pleated				
5/15/2023		10 Micron Regular	Primary Carbon vessels A1, B1, C1, & D1			
5/16/2023		10 Micron Regular				
5/17/2023	25 Micron Regular	10 Micron Regular	Primary Carbon vessels A1, B1, C1, & D1			
5/18/2023		10 Micron Regular	Secondary Carbon vessels A2, B2, C2, & D2			
5/19/2023	25 Micron Pleated	10 Micron Pleated	Primary Carbon vessels A1, B1, C1, & D1			
5/22/2023	25 Micron Regular	10 Micron Regular				
5/23/2023		10 Micron Regular	Primary Carbon vessels A1, B1, C1, & D1			
5/24/2023		10 Micron Regular				
5/25/2023		10 Micron Regular		Coarse Sand Filters (1A/1B)		
5/30/2023	25 Micron Regular	10 Micron Regular	Primary Carbon vessels A1, B1, C1, & D1			
5/31/2023		10 Micron Regular				
6/1/2023		10 Micron Regular	Primary Carbon vessels A1, B1, C1, & D1			
6/2/2023	25 Micron Pleated					

TABLE 3 - PREVENTIVE MAINTENANCE

Date	Primary Bag Filter Change and Type of Filters Installed	Secondary Bag Filter Change and Type of Filters Installed	Treatment Process Backwashed	Sand Filter Cleaning or Changeout	Media Change Out	Resin Vessel Skimming
6/5/2023		10 Micron Regular	Primary Carbon vessels A1, B1, C1, & D1			
6/6/2023					Both Train C1 & C2 GAC vessels loaded with (≈2,500 lbs.) of new F-400 carbon, each. Train C Resin loaded with (17 ft ³) of new anthracite and (63 ft ³) of new resin	
6/7/2023		10 Micron Regular			Both Train A1 & A2 GAC vessels loaded with (≈2,500 lbs.) of new F-400 carbon, each. Train A Resin loaded with (17 ft ³) of new anthracite and (63 ft ³) of new resin	
6/8/2023			Primary Carbon vessel A1 Secondary Carbon vessel A2		Both Train B1 & B2 GAC vessels loaded with (≈2,500 lbs.) of new F-400 carbon, each. Train B Resin loaded with (17 ft ³) of new anthracite and (63 ft ³) of new resin	
6/9/2023			Primary Carbon vessel B1 Secondary Carbon vessel B2		Both Train D1 & D2 GAC vessels loaded with (≈2,500 lbs.) of new F-400 carbon, each. Train D Resin loaded with (17 ft ³) of new anthracite and (63 ft ³) of new resin	
6/12/2023			Primary Carbon vessels A1, B1, C1, & D1			
6/13/2023		10 Micron Regular				

TABLE 3 - PREVENTIVE MAINTENANCE

Date	Primary Bag Filter Change and Type of Filters Installed	Secondary Bag Filter Change and Type of Filters Installed	Treatment Process Backwashed	Sand Filter Cleaning or Changeout	Media Change Out	Resin Vessel Skimming
6/14/2023			Secondary Carbon vessels A2, B2, C2, & D2	Coarse Sand Filters (2A/2B)		
6/15/2023		10 Micron Regular				
6/16/2023	25 Micron Pleated	10 Micron Pleated				
6/19/2023		10 Micron Regular				
6/20/2023	25 Micron Regular	10 Micron Regular	Primary Carbon vessels A1, B1, C1, & D1			
6/21/2023		10 Micron Regular		Fine Sand Filters (3A/3B)		
6/22/2023		10 Micron Regular				
6/23/2023	25 Micron Pleated	10 Micron Pleated				
6/26/2023	25 Micron Regular	10 Micron Regular	Primary Carbon vessels A1, B1, C1, & D1			
6/27/2023		10 Micron Regular				
6/28/2023						
6/29/2023			Primary Carbon vessels A1, B1, C1, & D1			
6/30/2023	Lost power to ISWTS site.					

FIGURES

FIGURE 1

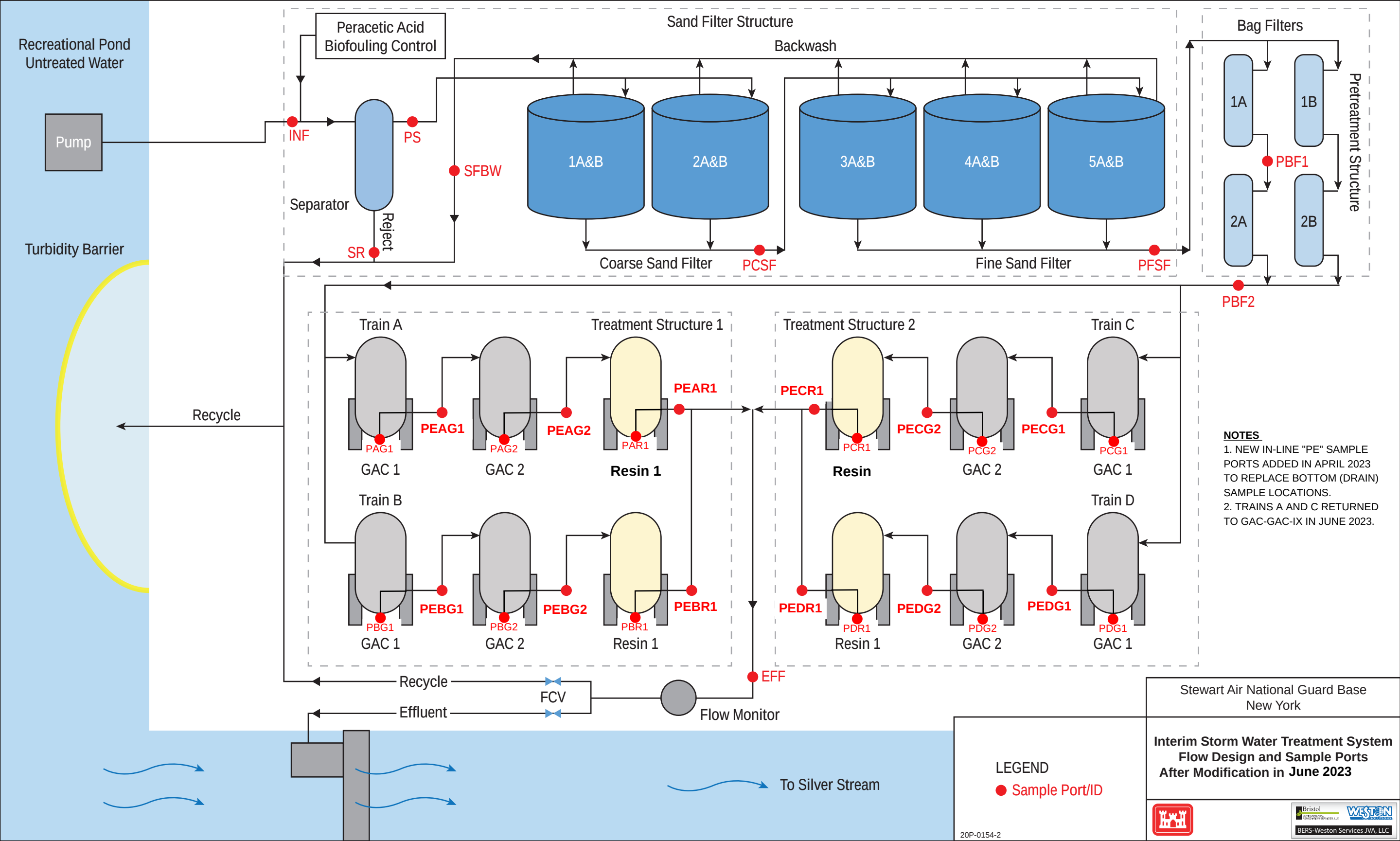


FIGURE 2 - RECREATION POND LEVEL CHART

APRIL TO JUNE 2023

ISWTS SANGB - RECREATION POND LEVEL

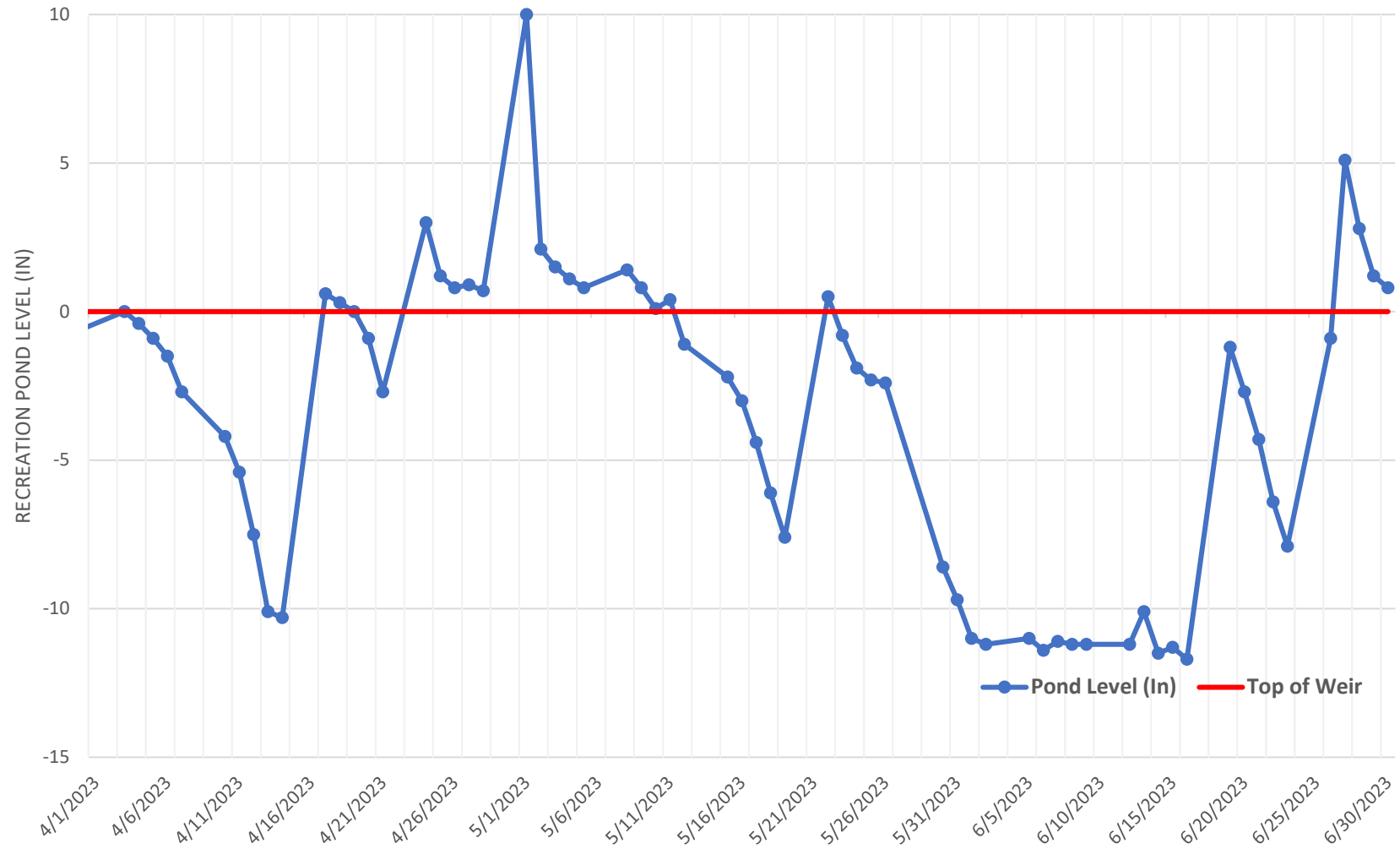


FIGURE 3 - INFLUENT AND EFFLUENT PFOS AND PFOA CHARTS

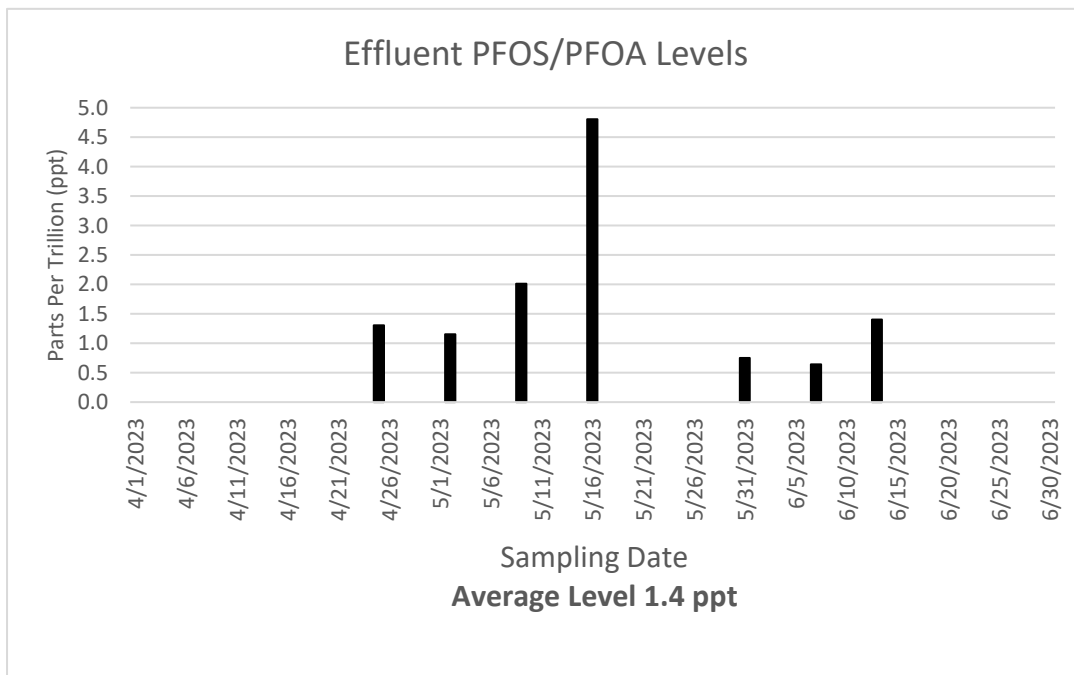
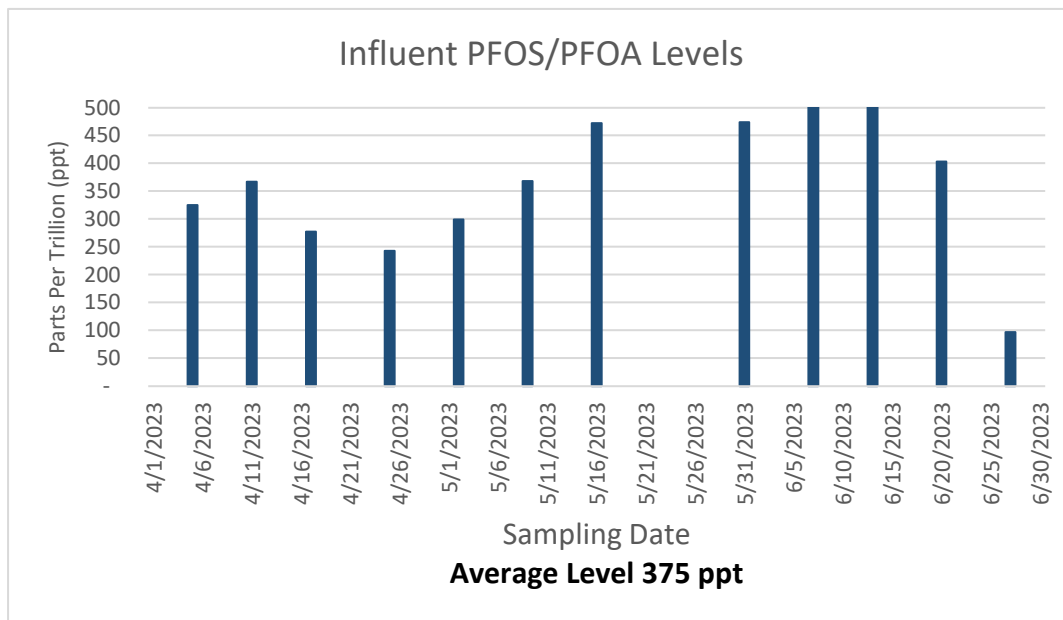
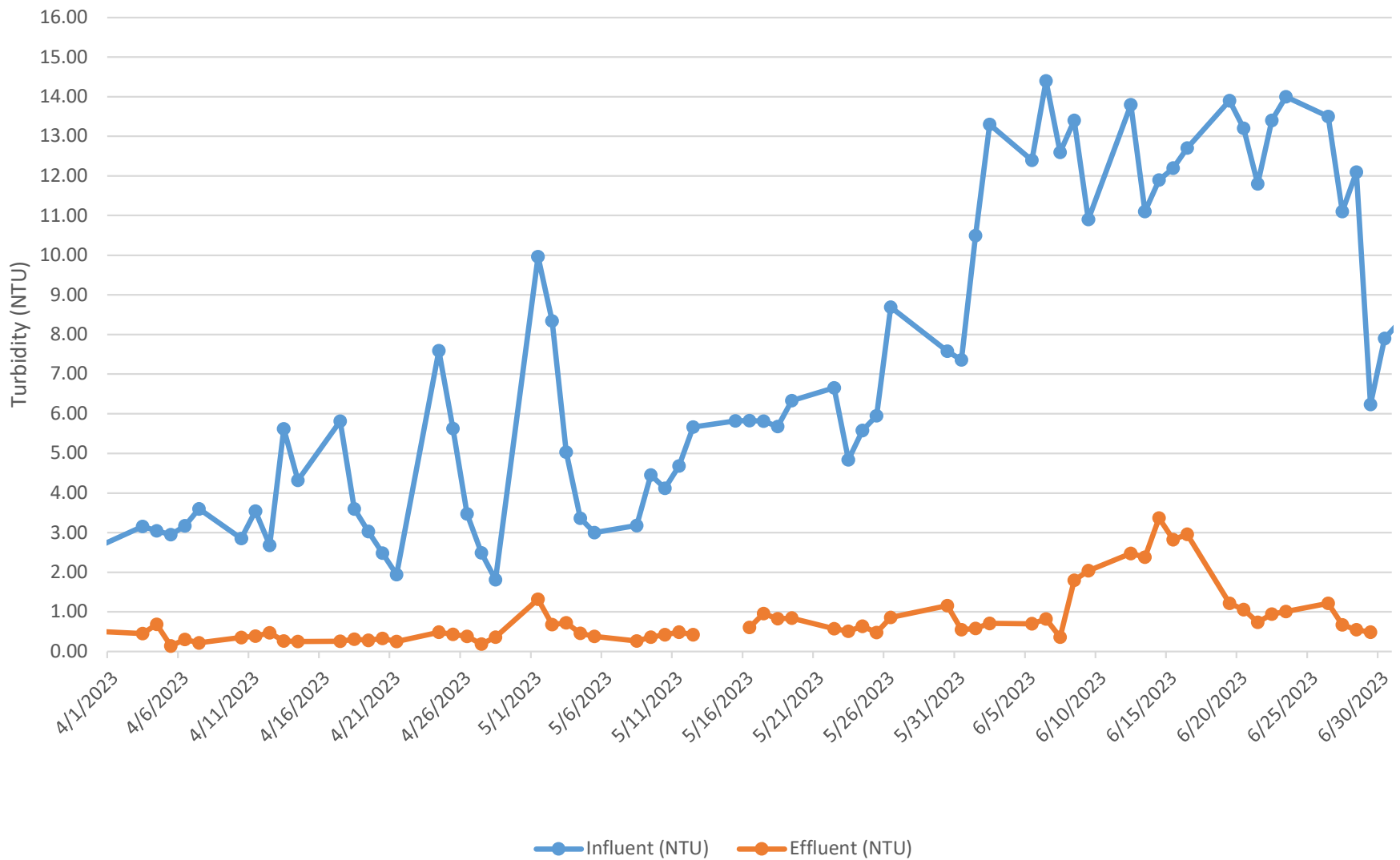


FIGURE - 4 - INFLUENT AND EFFLUENT TURBIDITY CHART

April to June 2023

Influent and Effluent Turbidity



ATTACHMENT 1

Material Disposal Documents

April 24, 2023

Re: Stewart ANG June 2023 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 on and after June 8, 2023

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: October 4, 2023

Service Order # 60016870

CCC CAN Number: 6973N

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 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

10/4/23

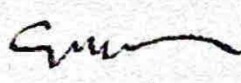
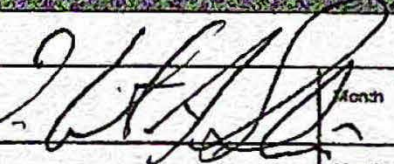
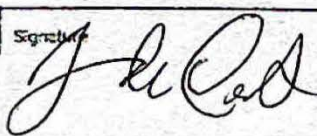
Quality Assurance Supervisor

Calgon Carbon Corporation

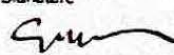
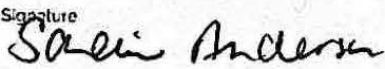
200 Neville Road
Pittsburgh, PA 15225

Phone 412-771-4050

Non-Hazardous Waste Manifest

GENERATOR SECTION					
Non-Hazardous Waste Manifest	Generator ID Number NYD981183338	Waste Profile Number 6973N	Waste Tracking (Manifest) Number 19-03K-1		
Customer Billing Name and Mailing Onion Equipment Company 5705 W 73rd Street - Indianapolis, IN 46278 Customer Billing Phone: (317) 694-7576		Generator's Site Address Stewart ANG Base 1 Maquire Way, Newburgh, NY 12550 Generator's Phone:			
Transporter 1 Company Name Dart Trucking			US EPA ID Number		
Transporter 2 Company Name			US EPA ID Number		
Designated Facility Name and Site Address Calgon Carbon Corporation, 15024 US 23, Cattlesburgh, KY 41129 C/O Dart Trucking, 11017 Market St, North Lima, OH 44452 Facility's Phone: 412-771-4050, X4116			US EPA ID Number PAD000736942		
Waste Shipping Name and Description	Containers		Total Quantity	Unit Vol / Vol.	Disposal Method
	No.	Type			
1 non RCRA Spent Activated Carbon; Non DOT Regulated	20	1 CYD BAG	25,000	LB	Reactivation
2			20,000		
3					
4					
Special Handling Instructions and Additional Information Profile 6973N Note item 1 weight is dry weight basis			24 Hour Emergency Response Phone (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 Eric D Patterson		Signature 	Month June	Day 15	Year 2023
TRANSPORTER SECTION					
Transporter's Acknowledgement of Receipt of Materials					
Transporter 1 Printed / Typed Name KENT A. SHANKER		Signature 	Month 6	Day 28	Year 2023
Transporter 2 Printed / Typed Name		Signature	Month	Day	Year
DESIGNATED FACILITY SECTION					
Discrepancy					
Discrepancy Indication Space	☐ Quantity	☐ Type	☐ Residue	☐ Partial Rejection	☐ Full Rejection
Alternate Facility (or Generator)			US EPA ID Number		
Facility's Phone:					
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 Joseph Du Bois		Signature 	Month June	Day 29	Year 2023

Non-Hazardous Waste Manifest

GENERATOR SECTION					
Non-Hazardous Waste Manifest	Generator ID Number NYD 981 183 338	Waste Profile Number F220121WDI-OTS	Waste Tracking (Manifest) Number 19-03K-2		
Customer Billing Name and Mailing Onion Equipment Company 5705 W 73rd Street - Indianapolis, IN 46278 Customer Billing Phone: (317) 694-7576		Generator's Site Address Stewart ANG Base 1 Maquire Way, Newburgh, NY 12550 Generator's Phone:			
Transporter 1 Company Name Onion				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		Total Quantity	Unit Wt / Vol.	Disposal Method
	No.	Type			
1 F220121WDI / Spent PFAS Filtration Media	19	1 CYD BAG	9,440 8,000	LB	Landfill
2					
3					
4					
Special Handling Instructions and Additional Information (4) Bags Resin, (4) Bags Filter Bags (5)				24 Hour Emergency Response Phone 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 Eric Patterson (agent for SANG)		Signature  Digitally signed by Eric Patterson DN: cn=Eric Patterson, o=OCC Process, ou=State of Tennessee, email=Eric.Patterson@occp.com, c=US Date: 2023.11.21 13:07:44-0500	Month June	Day 14	Year 2023
TRANSPORTER SECTION					
Transporter's Acknowledgement of Receipt of Materials					
Transporter 1 Printed / Typed Name		Signature	Month	Day	Year
Transporter 2 Printed / Typed Name		Signature	Month	Day	Year
DESIGNATED FACILITY SECTION					
Discrepancy					
Discrepancy Indication Space	☐ Quantity	☐ Type	☐ Residue	☐ Partial Rejection	☐ Full Rejection
Alternate Facility (or Generator)				US EPA ID Number	
Facility's Phone:					
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 Sonchita Anderson		Signature 	Month 7	Day 10	Year 23

This certificate is to verify the wastes specified on Manifest # 19-03K-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: _____

B. Minon