# STEWART AIR NATIONAL GUARD BASE
# PFOS/PFOA – INTERIM MITIGATION PROJECT

# INTERIM STORM WATER TREATMENT SYSTEM
# OPERATIONS, MAINTENANANCE & MONITORING REPORT

# QUARTERLY OM&M REPORT NO. 5
# JULY TO SEPTEMBER 2021

Immediate Response Action, Rapid Response Program
Contract No. W9128F-14-D-0009
Delivery Order No.: W9128F19F0079

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November 2021

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# ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| AFFF | aqueous film forming foam |
| ANG | Air National Guard |
| BERS-Weston | BERS-Weston Services JVA, LLC |
| 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 |
| OM&M | Operations, Maintenance, and Monitoring |
| PFAS | 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 |

# 1. INTRODUCTION

BERS-Weston Services JVA, LLC (BERS-Weston), 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 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 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 and fill up the Recreation Pond both treated effluent and untreated stormwater go over the outfall weir.

This is the fifth quarterly report that summarizes Operations, Maintenance, and Monitoring (OM&M) activities conducted by BERS-Weston at SANGB. This report summarizes ISWTS operations between 01 July and 30 September 2021 at SANGB.

# 2. GENERAL COMPLIANCE SUMMARY

The ISWTS operations began treatment of water on 13 July 2020, following installation and commissioning of pretreatment system improvements in June and early July 2020. This report summarizes OM&M between 01 July and 30 September 2021 or months 13, 14, and 15 post start-up. During the performance period the system influent, intra-process monitoring (3 locations) and effluent was monitored once or twice per week to confirm treatment system effectiveness for PFOS and PFOA as well as other per- and polyfluoroalkyl substances (PFAS). Performance sampling was conducted a total of 17 days during the quarterly period. Final PFAS results are provided in **Table 1**. Based on validated analytical data, all effluent sample results were well below the

discharge criteria of 70 ppt (individually or combined) in the off-base stormwater discharge at Recreation Pond.

## 3. 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, primary and secondary granular activated carbon (GAC), and ion exchange resin serving as a polishing media throughout this performance period. Peracetic acid continued to be introduced prior to the centrifugal separator at a low (safe) concentration to reduce biological growth in the system. The system configuration is shown on **Figure 1**.

## 4. GENERAL FACILITY OPERATIONS SUMMARY

During the performance period, a total of 36,149,785 gallons of stormwater was treated and discharged over the outfall weir by the ISWTS. No stormwater was treated and recirculated to the Recreation Pond during the performance period. The chart 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 sum of water discharged over the weir as no water was treated and recycled back to the pond. As noted in the below summary, 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.

| Month | Volume Treated (Gallons) | Operational Time[1] (Hours) | Run Time[2] (Percent) | Average Treatment Flow[3] (GPM) |
|---|---|---|---|---|
| July 2021 | 11,159,510 | 674 | 96% | 276 |
| August 2021 | 12,896,475 | 729 | 97% | 295 |
| Sept 2021 | 12,093,800 | 702 | 93% | 287 |
| Total | 36,149,785 | 2,105 | | |

[1]Operation Time – Hours influent pump in operation during month
[2]Run Time – Hours pump running divided by the total period time
[3]Average GPM – Average flow total gallons divided by operational hours

There were 92 days of operation between 01 July and 30 September 2021. During this period of performance, the Recreation Pond was drawn down for 37 of the 92 days or 40% of the time. The Recreation Pond level during the performance period is shown on **Figure 2**.

# 5. FACILITY PERFORMANCE MONITORING

## 5.1 INFLUENT AND EFFLUENT PFOS AND PFOA MONITORING

As previously noted, PFOS and PFOA samples were collected 17 times on the influent and effluent during the performance period. **Figure 3** shows the combined influent and effluent PFOS and PFOA concentrations based on the validated results. As shown in **Figure 3**, the combined PFOS and PFOA influent and effluent concentrations during the performance period were 306 ppt and 0.23 ppt, respectively.

## 5.2 INTRA-PROCESS PFOS AND PFOA MONITORING

With exception to the media exchange period, intra-process monitoring for PFOS and PFOA was performed after the primary and secondary GAC and Ion Exchange resin to confirm media effectiveness. The media was replaced between 12 and 19 July. During that period, sampling was only performed on the overall system influent and effluent. Based on intra-process sample results the maximum detection of PFOS/PFOA in the primary GAC was 28.3 ppt prior to the media change. The maximum detection of PFOS and PFOA in the secondary GAC was 0.6 ppt and the Ion Exchange resin was 1.5 ppt prior to the media exchange and still demonstrating adequate

removal. The media exchange was primarily performed because the media condition was restricting throughput and causing excessive maintenance. Following media changeout of the primary and secondary GAC and Ion Exchange resin, intra-process sampling for PFOS and PFOA were continued on a weekly basis to further confirm their effectiveness. The reduced frequency (once per week instead of twice per week) was performed based on the historical performance data now available. Increased frequency would be performed if reduced treatment system performance was observed. However, media performance for PFAS removal was sufficient for the remainder of the quarter.

## 5.3 OTHER WATER QUALITY MONITORING

During the performance period additional monitoring was performed monthly for total organic carbon (TOC), and glycols on the influent, secondary GAC effluent and final effluent. These results are shown in **Table 2**. 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 average influent TOC was 3.3 mg/L and the GAC effluent (influent to the resin) was 1.05 mg/L indicating that the influent TOC level to the Ion Exchange resin was acceptable. Glycol was not detected in any of the samples. No results were cause for concern or believed to 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 on-site test that is helpful to measure the influent water quality and intra-process samples to confirm the effectiveness of the treatment system in removing solids. During the performance period, influent and effluent turbidity averaged 9.36 nephelometric turbidity units (NTU) and 0.93 NTU, respectively. A graph of the influent and effluent turbidity during the performance period is included in **Figure 4**.

## 5.5 PERACETIC ACID ADDITION

As discussed, peracetic acid was added to the process influent to help reduce biological growth in the system. During the performance period 15.5 gallons of peracetic Acid was introduced and the

average dose was 0.43 gallons of peracetic acid per million gallons of water treated or 1.42 pounds per day.

# 6. 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;
- Coarse and fine sand filter media exchange;
- Primary and secondary bag filter changes;
- Primary and secondary carbon backwashing; and,
- Ion Exchange resin skimming.

During the performance period the coarse and fine sand filters were backwashed 686 and 644 times, respectively and a total of 24 cleaning events were completed. No sand media was replaced during the quarter. The primary and secondary bag filters were changed 28 and 23 times, respectively, during the performance period. To maintain acceptable PFAS treatment media pressure, the primary and secondary GAC was backwashed 22 and 7 times, respectively during the quarter. The resin was skimmed one time and all carbon and resin were replaced once during the performance period. The sand filter maintenance, bag filter changes, GAC backwash events, media change outs and Ion Exchange resin skimming activities are summarized in **Table 3**.

# 7. MATERIAL DISPOSAL

Waste sand filter media generated during the June 2021 sand filter media replacement was stored on-site and disposed of along with the spent media from the July 2021 PFAS media (GAC and Ion Exchange resin) change. The following waste streams were generated: Copies of all signed manifests and all disposal certifications are included in **Attachment 1.**

- Sand filter waste
- Spent Bag Filters
- GAC and Ion Exchange Media.

Copies of all signed manifests and all disposal certifications are included in **Attachment 1.** All waste was disposed of by incineration at Covanta Environmental Solutions of Indianapolis, Indiana. The table below summarizes the quantity of all wastes disposed of during the performance period.

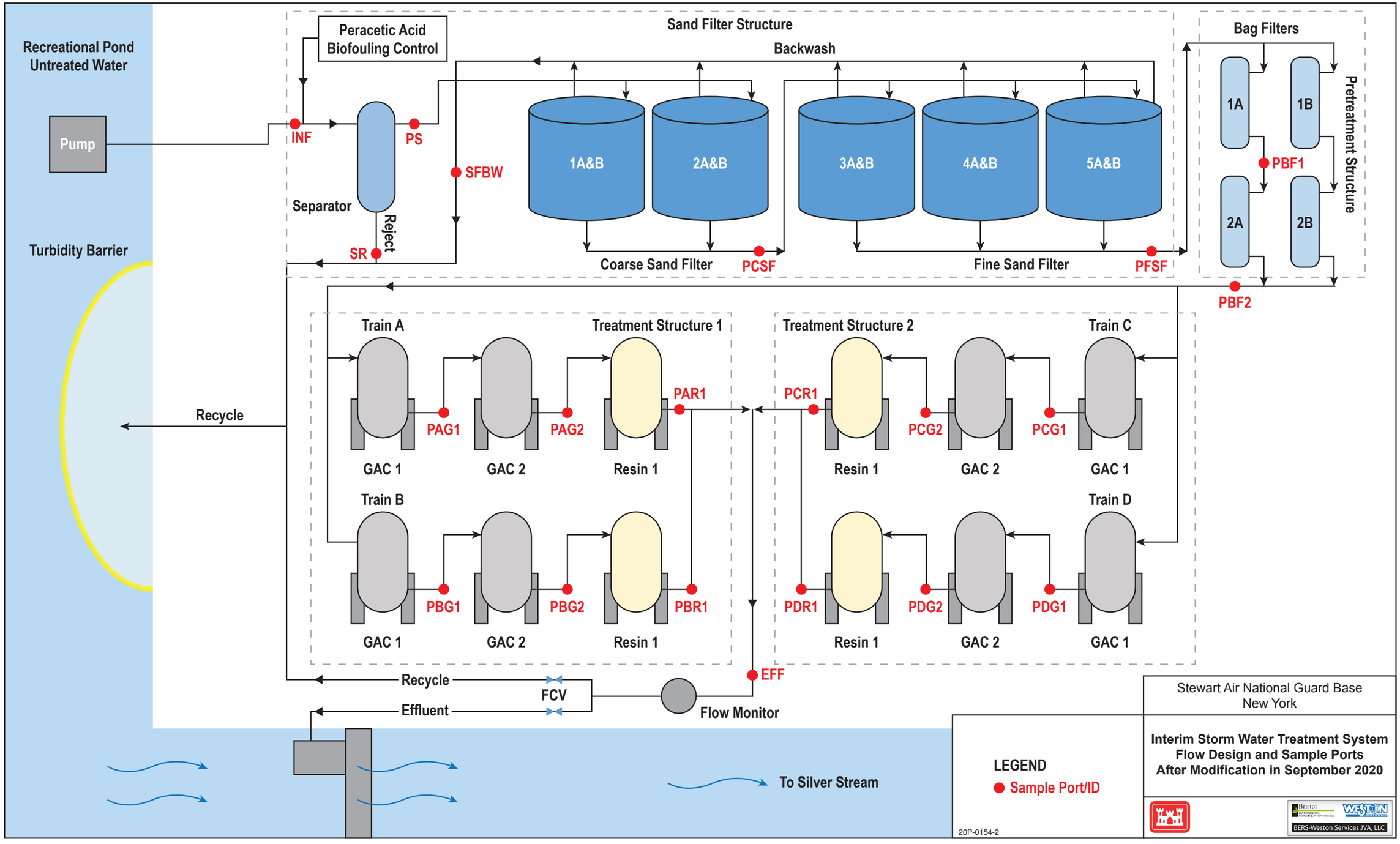
| Date - Non RCRA Waste Left Site | Non-RCRA Spent Treatment Media Description | No of items | Manifest Number | Date(s) Delivered to Covanta Facility (Indianapolis, Indiana) | Total Media Weight (lbs) - Covanta Scale |
|---|---|---|---|---|---|
| 7/7/2021 | 4 super sacks of sand and 4 super sacks of bag filters | 8 | 21-11A | 22 and 23 July PO-00340-10 through PO-00340-14 - 5 loads | 71,400 |
| 7/10/2021 | 1 super sack of sand, 2 super sacks of resin and 3 super sacks of bag filters | 6 | 21-11B | | |
| 7/14/2021 | 4 super sacks of carbon. | 4 | 21-11C | | |
| 7/20/2021 | 12 super sacks of carbon | 12 | 21-11D | | |
| 7/20/2021 | 9 super sacks of resin | 9 | 21-11E | | |

## 8. PROJECTED ACTIVITIES FOR NEXT PERFORMANCE PERIOD

During the next performance period one additional media change is anticipated to meet performance objectives. No capital improvements are planned at this time.

# FIGURES

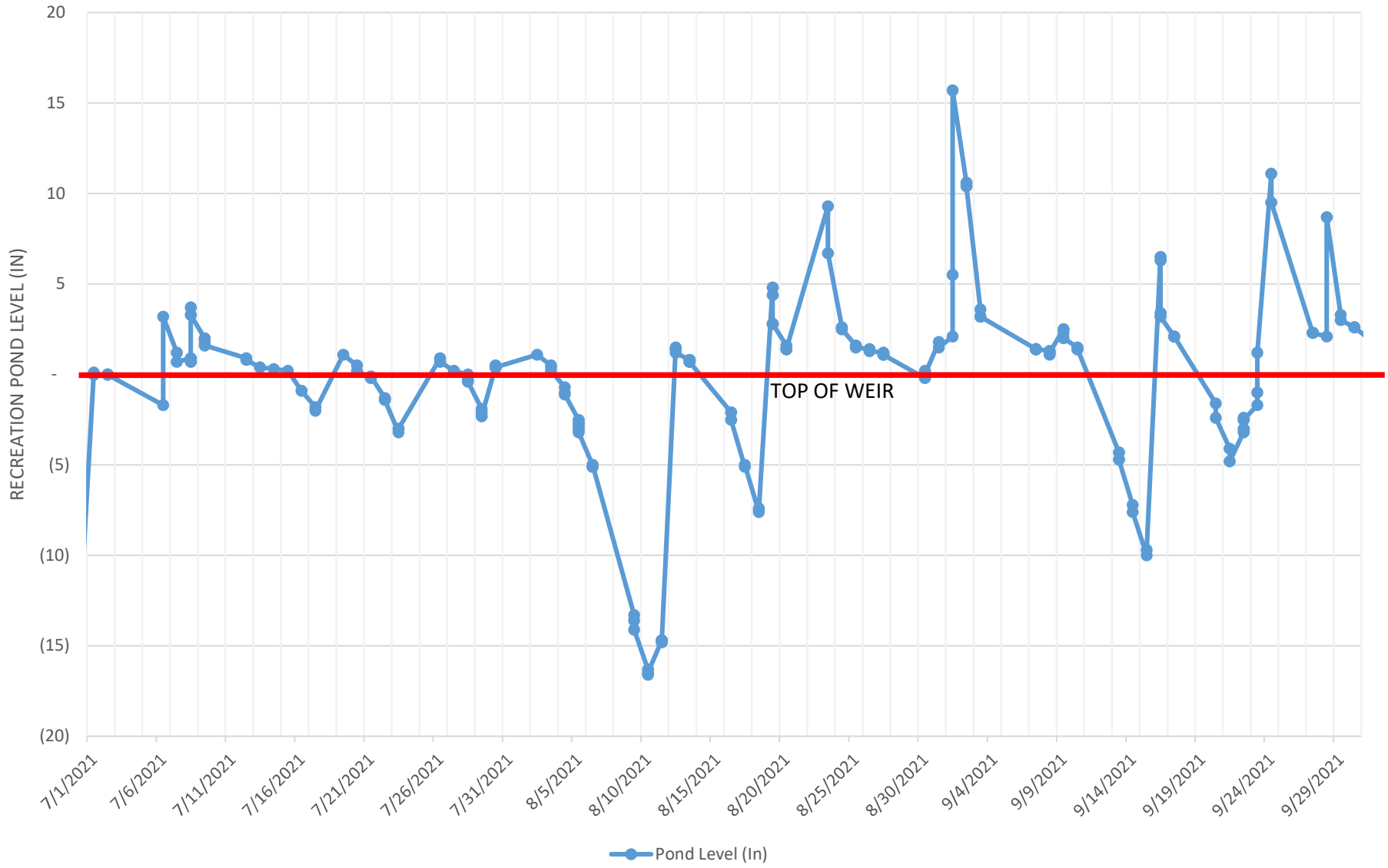
# FIGURE 1


Recreational Pond
Untreated Water
Pump
Turbidity Barrier
Peracetic Acid
Biofouling Control
Sand Filter Structure
Backwash
INF
PS
SFBW
Separator
Reject
SR
1A&B
2A&B
3A&B
4A&B
5A&B
Coarse Sand Filter
PCSF
Fine Sand Filter
PFSF
Bag Filters
1A
1B
2A
2B
PBF1
Pretreatment Structure
PBF2
Train A
Treatment Structure 1
PAG1
PAG2
PAR1
GAC 1
GAC 2
Resin 1
Train B
PBG1
PBG2
PBR1
Treatment Structure 2
Train C
PCR1
PCG2
PCG1
Train D
PDR1
PDG2
PDG1
Recycle
Effluent
FCV
EFF
Flow Monitor
To Silver Stream
LEGEND
Sample Port/ID
20P-0154-2
Stewart Air National Guard Base
New York
Interim Storm Water Treatment System
Flow Design and Sample Ports
After Modification in September 2020
BERS-Weston Services JVA, LLC

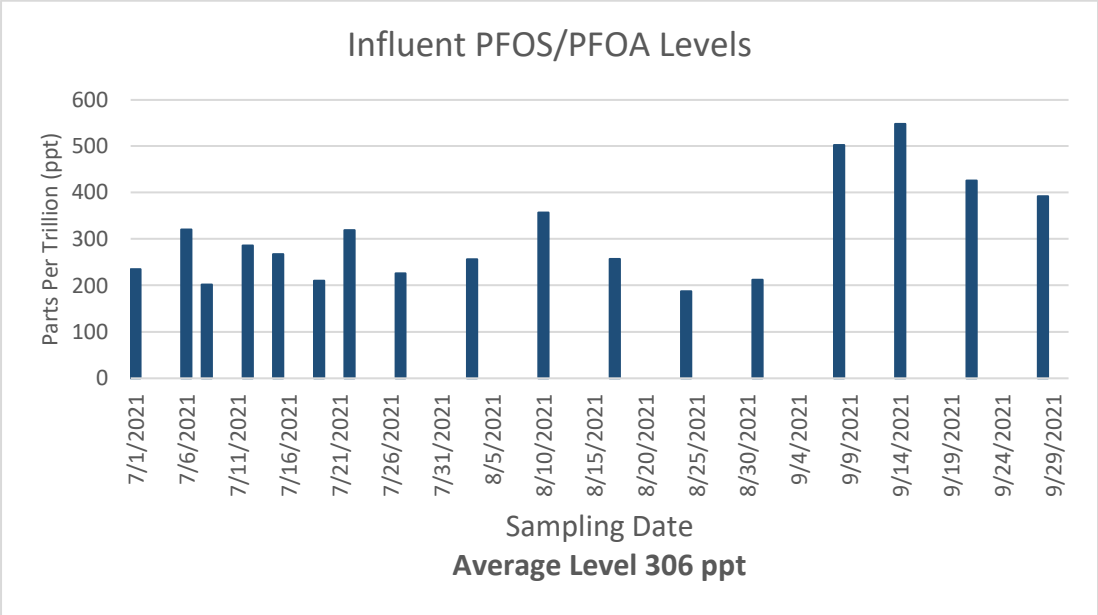
# FIGURE 2 - RECREATION POND LEVEL CHART

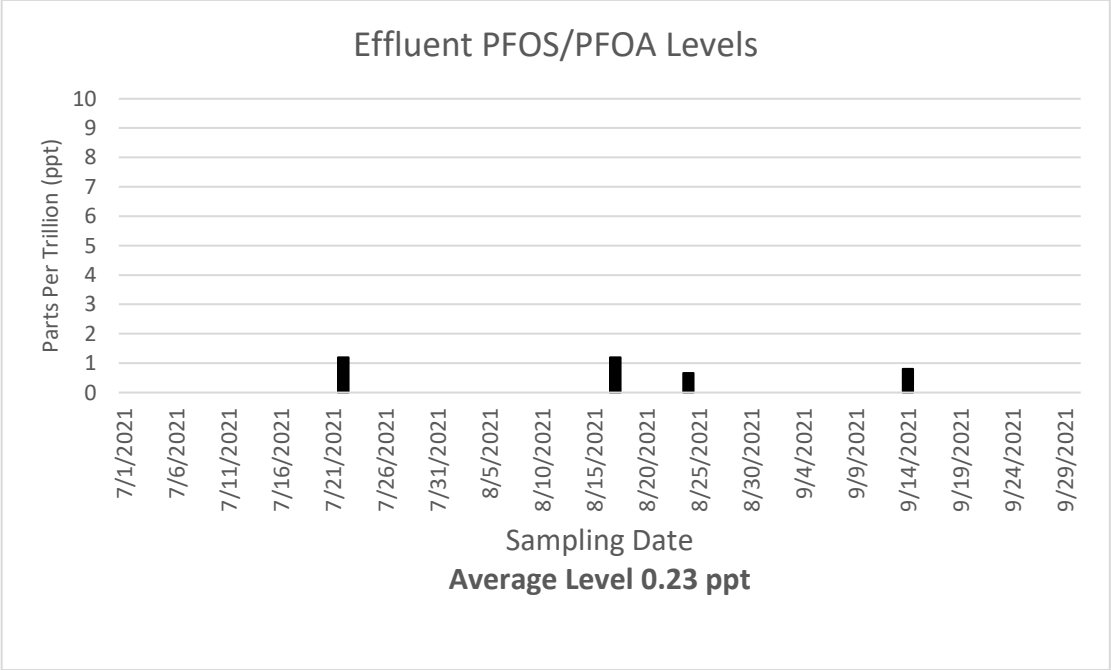
## JULY TO SEPTEMBER 2021

## ISWTS SANGB - RECREATION POND LEVEL



# FIGURE 3 - INFLUENT AND EFFLUENT PFOS PFOA CHARTS

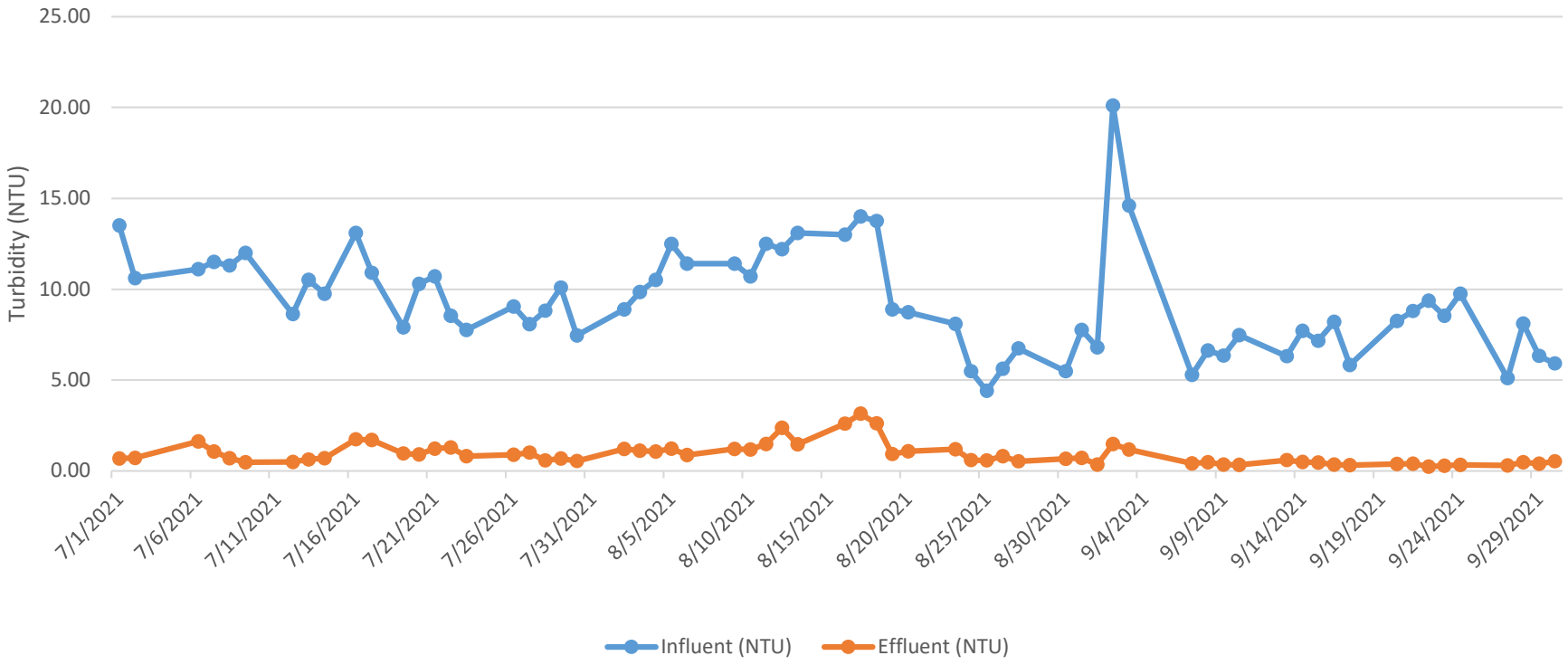


# FIGURE - 4 - INFLUENT AND EFFLUENT TURBIDITY CHART

## July to September 2021

## Influent and Effluent Turbidity



# TABLES

**RESULTS OF ANALYSES OF WATER** **VALIDATED DATA**

| BV Labs ID | | PZL638 | PZL643 | PZL644 | PZL642 | PZL641 | PZL640 | PZL639 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | | 2021/07/01 08:00 | 2021/07/01 08:40 | 2021/07/01 08:40 | 2021/07/01 08:30 | 2021/07/01 08:22 | 2021/07/01 08:15 | 2021/07/01 08:07 | | | |
| COC Number | | n/a | n/a | n/a | n/a | n/a | n/a | n/a | | | |
| | UNITS | SANG-FB-07012021 | SANG-INF-07012021 | SANG-INF-07012021D | SANG-PCG1-07012021 | SANG-PCG2-07012021 | SANG-PCR1-07012021 | SANG-EFF-07012021 | DL | LOD | LOQ |
| **Perfluorinated Compounds** | | | | | | | | | | | |
| Perfluorobutanoic acid (PFBA) | ng/L | 1.4 U | 24 | 25 | 19 | 5.8 | 21 | 21 | 0.70 | 1.5 | 2.1 |
| Perfluoropentanoic acid (PFPeA) | ng/L | 1.2 U | 68 | 71 | 16 | 1.4 J | **28 J-** | 16 | 0.55 | 1.3 | 2.1 |
| Perfluorohexanoic acid (PFHxA) | ng/L | 1.4 U | 54 | 57 | 4.5 | 1.4 U | **3.6 J-** | **1.0 U** | 0.74 | 1.5 | 2.1 |
| Perfluoroheptanoic acid (PFHpA) | ng/L | 1.2 U | 23 | 25 | 1.1 J | 1.2 U | **0.88 J-** | 0.65 J | 0.54 | 1.3 | 2.1 |
| Perfluorooctanoic acid (PFOA) | ng/L | 1.2 U | 25 | 24 | 0.88 J | 1.2 U | 0.72 J | 1.2 U | 0.51 | 1.3 | 2.1 |
| Perfluorononanoic acid (PFNA) | ng/L | 1.6 U | 6.8 | 6.9 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.84 | 1.7 | 2.1 |
| Perfluorodecanoic acid (PFDA) | ng/L | 1.4 U | 5.4 | 5.4 | 1.4 U | 1.4 U | 0.65 J | 1.4 U | 0.67 | 1.5 | 2.1 |
| Perfluoroundecanoic acid (PFUnA) | ng/L | 1.6 U | 1.2 J | 1.4 J | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.81 | 1.7 | 2.1 |
| Perfluorododecanoic acid (PFDoA) | ng/L | 0.72 J | **1.4 U** | **1.4 U** | 1.2 U | **1.2 U** | **1.2 U** | 1.2 U | 0.62 | 1.3 | 2.1 |
| Perfluorotridecanoic acid (PFTRDA) | ng/L | 0.62 J | **1.3 U** | 1.3 U | **1.2 UJ** | 1.2 U | 1.2 U | **1.2 UJ** | 0.50 | 1.3 | 2.1 |
| Perfluorotetradecanoic acid(PFTEDA) | ng/L | 0.61 J | **1.3 U** | **1.3 U** | **1.2 UJ** | 1.2 U | **1.2 U** | **1.2 UJ** | 0.39 | 1.3 | 2.1 |
| Perfluorobutanesulfonic acid (PFBS) | ng/L | 1.2 U | 9.9 | 10 | 0.99 J | 1.2 U | 1.2 U | 1.2 U | 0.49 | 1.3 | 2.1 |
| Perfluoropentanesulfonic acid PFPes | ng/L | 1.6 U | 11 | 11 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.77 | 1.7 | 2.1 |
| Perfluorohexanesulfonic acid(PFHxS) | ng/L | 1.2 U | 65 | 67 | 0.92 J | 1.2 U | 1.2 U | 1.2 U | 0.56 | 1.3 | 2.1 |
| Perfluoroheptanesulfonic acid PFHpS | ng/L | 1.2 U | 3.6 | 3.7 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.60 | 1.3 | 2.1 |
| Perfluorooctanesulfonic acid (PFOS) | ng/L | 1.2 U | 210 (1) | 210 (1) | 1.5 J | 1.2 U | **0.88 J-** | 1.2 U | 4.3 | 12 | 21 |
| Perfluorononanesulfonic acid (PFNS) | ng/L | 1.4 U | 1.5 U | 1.5 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.67 | 1.5 | 2.1 |
| Perfluorodecanesulfonic acid (PFDS) | ng/L | 1.2 U | 1.3 U | 1.3 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.56 | 1.3 | 2.1 |
| Perfluorooctane Sulfonamide (PFOSA) | ng/L | 2.0 U | **2.1 UJ** | **2.1 UJ** | **2.0 UJ** | **2.0 UJ** | **2.0 UJ** | **1.2 UJ** | 0.85 | 2.1 | 4.2 |
| MeFOSAA | ng/L | 3.0 U | 3.2 U | 3.2 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 1.3 | 3.2 | 4.2 |
| EtFOSAA | ng/L | 3.0 U | 3.2 U | 3.2 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 1.5 | 3.2 | 4.2 |
| 4:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 1.4 J | 1.4 J | 1.6 U | 1.6 U | 0.78 J | 0.72 J | 0.72 | 1.7 | 4.2 |
| 6:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 57 | 56 | 0.66 J | 1.6 U | **0.94 J-** | 1.6 U | 0.62 | 1.7 | 4.2 |
| 8:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 11 | 11 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.79 | 1.7 | 4.2 |
| Hexafluoropropyleneoxide dimer acid | ng/L | 2.0 U | 2.1 U | 2.1 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.89 | 2.1 | 4.2 |
| 4,8-Dioxa-3H-perfluorononanoic acid | ng/L | 1.2 U | 1.3 U | 1.3 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.33 | 1.3 | 4.2 |
| 9Cl-PF3ONS (F-53B Major) | ng/L | 2.0 U | 2.1 U | 2.1 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.59 | 2.1 | 4.2 |
| 11Cl-PF3OUdS (F-53B Minor) | ng/L | 2.0 U | 2.1 U | 2.1 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.55 | 2.1 | 4.2 |

Notes:
Sample SANG-FB-07012021 is a field blank.
Sample SANG-INF-07012021D is a field duplicate of SANG-INF-07012021.
Compounds highlighted in gray are the UCMR3 PFAS analytes.
Results bolded in **red** text are qualified based on validation.
A variance to the extracted internal standard (EIS) recovery criteria has been granted allowing for results to be accepted with recoveries outside of tolerance limits for this parameter.

DL = Detection Limit
J- = Estimated result. Associated value is considered to have a low bias.
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.
U = Undetected. Compound was analyzed for but not detected.
UJ = Not detected at an estimated reporting limit.

**RESULTS OF ANALYSES OF WATER** **VALIDATED DATA**

| BV Labs ID | | QAZ523 | QAZ528 | QAZ529 | QAZ527 | QAZ526 | QAZ525 | QAZ524 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | | 2021/07/08 08:10 | 2021/07/08 08:40 | 2021/07/08 08:40 | 2021/07/08 08:35 | 2021/07/08 08:30 | 2021/07/08 08:22 | 2021/07/08 08:15 | | | |
| COC Number | | na | na | na | na | na | na | na | | | |
| | UNITS | SANG-FB-07082021 | SANG-INF-07082021 | SANG-INF-07082021D | SANG-PAG1-07082021 | SANG-PAG2-07082021 | SANG-PAR1-07082021 | SANG-EFF-07082021 | DL | LOD | LOQ |
| **Perfluorinated Compounds** | | | | | | | | | | | |
| Perfluorobutanoic acid (PFBA) | ng/L | 1.4 U | 21 | 20 | 30 | 23 | 31 | 30 | 0.67 | 1.4 | 2.0 |
| Perfluoropentanoic acid (PFPeA) | ng/L | 1.2 U | 57 | 54 | 40 | 10 | 42 | 25 | 0.52 | 1.2 | 2.0 |
| Perfluorohexanoic acid (PFHxA) | ng/L | 1.4 U | 45 | 43 | 17 | 1.8 J | 4.9 | 0.84 J | 0.70 | 1.4 | 2.0 |
| Perfluoroheptanoic acid (PFHpA) | ng/L | 1.2 U | 23 | 21 | 5.1 | 1.2 U | 0.68 J | 1.2 U | 0.51 | 1.2 | 2.0 |
| Perfluorooctanoic acid (PFOA) | ng/L | 1.2 U | 22 | 20 | 4.3 | 1.2 U | 1.2 U | 1.2 U | 0.49 | 1.2 | 2.0 |
| Perfluorononanoic acid (PFNA) | ng/L | 1.6 U | 5.9 | 5.3 | 1.1 J | 1.6 U | 1.6 U | 1.6 U | 0.80 | 1.6 | 2.0 |
| Perfluorodecanoic acid (PFDA) | ng/L | 1.4 U | 5.2 | 4.7 | 1.0 J | 1.4 U | 1.4 U | 1.4 U | 0.64 | 1.4 | 2.0 |
| Perfluoroundecanoic acid (PFUnA) | ng/L | 1.6 U | 1.8 U | 1.8 U | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.77 | 1.6 | 2.0 |
| Perfluorododecanoic acid (PFDoA) | ng/L | 1.2 U | 1.3 U | 1.4 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.59 | 1.2 | 2.0 |
| Perfluorotridecanoic acid (PFTRDA) | ng/L | 1.2 U | 1.3 U | 1.4 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.48 | 1.2 | 2.0 |
| Perfluorotetradecanoic acid(PFTEDA) | ng/L | 1.2 U | 1.3 U | 1.4 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.37 | 1.2 | 2.0 |
| Perfluorobutanesulfonic acid (PFBS) | ng/L | 1.2 U | 7.8 | 7.1 | 2.6 | 1.2 U | 1.2 U | 1.2 U | 0.47 | 1.2 | 2.0 |
| Perfluoropentanesulfonic acid PFPes | ng/L | 1.6 U | 8.1 | 7.5 | 1.0 J | 1.6 U | 1.6 U | 1.6 U | 0.73 | 1.6 | 2.0 |
| Perfluorohexanesulfonic acid(PFHxS) | ng/L | 1.2 U | 51 | 48 | 8.0 | 0.78 J | 1.2 U | 1.2 U | 0.53 | 1.2 | 2.0 |
| Perfluoroheptanesulfonic acid PFHpS | ng/L | 1.2 U | 2.3 | 2.0 J | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.57 | 1.2 | 2.0 |
| Perfluorooctanesulfonic acid (PFOS) | ng/L | 1.2 U | 180 (1) | 240 (1) | 24 | 0.60 J | 0.48 J | 1.2 U | 0.43 | 1.2 | 2.0 |
| Perfluorononanesulfonic acid (PFNS) | ng/L | 1.4 U | 1.5 U | 1.6 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.64 | 1.4 | 2.0 |
| Perfluorodecanesulfonic acid (PFDS) | ng/L | 1.2 U | 1.3 U | 1.4 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.53 | 1.2 | 2.0 |
| Perfluorooctane Sulfonamide (PFOSA) | ng/L | **2.0 UJ** | **2.0 UJ** | **2.0 UJ** | **2.0 UJ** | **2.0 UJ** | **2.0 UJ** | **2.0 UJ** | 0.81 | 2.0 | 4.0 |
| MeFOSAA | ng/L | 3.0 U | 3.3 U | 3.5 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 1.2 | 3.0 | 4.0 |
| EtFOSAA | ng/L | 3.0 U | 3.3 U | 3.5 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 1.4 | 3.0 | 4.0 |
| 4:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 1.8 U | 1.8 U | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.69 | 1.6 | 4.0 |
| 6:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 60 | 56 | 8.1 | 1.6 U | 1.7 J | 1.6 U | 0.59 | 1.6 | 4.0 |
| 8:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 13 | 12 | 3.9 J | 1.6 U | 1.6 U | 1.6 U | 0.75 | 1.6 | 4.0 |
| Hexafluoropropyleneoxide dimer acid | ng/L | 2.0 U | 2.2 U | 2.3 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.85 | 2.0 | 4.0 |
| 4,8-Dioxa-3H-perfluorononanoic acid | ng/L | 1.2 U | 1.3 U | 1.4 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.31 | 1.2 | 4.0 |
| 9Cl-PF3ONS (F-53B Major) | ng/L | 2.0 U | 2.2 U | 2.3 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.56 | 2.0 | 4.0 |
| 11Cl-PF3OUdS (F-53B Minor) | ng/L | 2.0 U | 2.2 U | 2.3 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.52 | 2.0 | 4.0 |

Notes:

Sample SANG-FB-07082021 is a field blank.

Sample SANG-INF-07082021D is a field duplicate of SANG-INF-07082021.

(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).

Compounds highlighted in gray are the UCMR3 PFAS analytes.

Results bolded in **red** text are qualified based on validation.

DL = Detection Limit

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.

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

UJ = Not detected at an estimated LOD.

**RESULTS OF ANALYSES OF WATER** **VALIDATED DATA**

| BV Labs ID | | QBS978 | QBS983 | QBS984 | QBS982 | QBS981 | QBS980 | QBS979 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | | 2021/07/12 07:50 | 2021/07/12 08:30 | 2021/07/12 08:30 | 2021/07/12 08:22 | 2021/07/12 08:15 | 2021/07/12 08:07 | 2021/07/12 08:00 | | | |
| | UNITS | SANG-FB-07122021 | SANG-INF-07122021 | SANG-INF-07122021D | SANG-PBG1-07122021 | SANG-PBG2-07122021 | SANG-PBR1-07122021 | SANG-EFF-07122021 | DL | LOD | LOQ |
| **Perfluorinated Compounds** | | | | | | | | | | | |
| Perfluorobutanoic acid (PFBA) | ng/L | 1.4 U | 25 | 26 | 28 | 15 | 36 | 34 | 0.67 | 1.4 | 2.0 |
| Perfluoropentanoic acid (PFPeA) | ng/L | 1.2 U | 70 | 74 | 22 | 3.2 | 62 | 31 | 0.52 | 1.2 | 2.0 |
| Perfluorohexanoic acid (PFHxA) | ng/L | 1.4 U | 55 | 58 | 5.3 | 0.85 J | 14 | 1.4 J | 0.70 | 1.4 | 2.0 |
| Perfluoroheptanoic acid (PFHpA) | ng/L | 1.2 U | 30 | 31 | 1.2 J | 1.2 U | 2.3 | 1.2 U | 0.51 | 1.2 | 2.0 |
| Perfluorooctanoic acid (PFOA) | ng/L | 1.2 U | 26 | 27 | 0.60 J | 1.2 U | 0.96 J | 1.2 U | 0.49 | 1.2 | 2.0 |
| Perfluorononanoic acid (PFNA) | ng/L | 1.6 U | 6.7 | 6.9 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.80 | 1.6 | 2.0 |
| Perfluorodecanoic acid (PFDA) | ng/L | 1.4 U | 6.8 | 6.9 | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.64 | 1.4 | 2.0 |
| Perfluoroundecanoic acid (PFUnA) | ng/L | 1.6 U | 0.95 J | 1.0 J | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.77 | 1.6 | 2.0 |
| Perfluorododecanoic acid (PFDoA) | ng/L | 1.2 U | 1.4 J | 1.5 J | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.59 | 1.2 | 2.0 |
| Perfluorotridecanoic acid (PFTRDA) | ng/L | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.48 | 1.2 | 2.0 |
| Perfluorotetradecanoic acid(PFTEDA) | ng/L | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.37 | 1.2 | 2.0 |
| Perfluorobutanesulfonic acid (PFBS) | ng/L | 1.2 U | 9.8 | 10 | 0.75 J | 1.2 U | 1.2 U | 1.2 U | 0.47 | 1.2 | 2.0 |
| Perfluoropentanesulfonic acid PFPes | ng/L | 1.6 U | 12 | 13 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.73 | 1.6 | 2.0 |
| Perfluorohexanesulfonic acid(PFHxS) | ng/L | 1.2 U | 65 | 69 | 1.1 J | 0.59 J | 1.2 U | 1.2 U | 0.53 | 1.2 | 2.0 |
| Perfluoroheptanesulfonic acid PFHpS | ng/L | 1.2 U | 3.5 | 3.6 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.57 | 1.2 | 2.0 |
| Perfluorooctanesulfonic acid (PFOS) | ng/L | 1.2 U | 260 (1) | 260 (1) | 1.7 J | 0.63 J | 0.57 J | 1.2 U | 4.3 | 12 | 20 |
| Perfluorononanesulfonic acid (PFNS) | 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 | 2.0 |
| Perfluorodecanesulfonic acid (PFDS) | ng/L | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.53 | 1.2 | 2.0 |
| Perfluorooctane Sulfonamide (PFOSA) | ng/L | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.81 | 2.0 | 4.0 |
| MeFOSAA | ng/L | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 1.2 | 3.0 | 4.0 |
| EtFOSAA | ng/L | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 1.4 | 3.0 | 4.0 |
| 4:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 1.1 J | 1.2 J | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.69 | 1.6 | 4.0 |
| 6:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 73 | 76 | 0.85 J | 1.6 U | 4.4 | 1.6 U | 0.59 | 1.6 | 4.0 |
| 8:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 23 | 23 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.75 | 1.6 | 4.0 |
| Hexafluoropropyleneoxide dimer acid | ng/L | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.85 | 2.0 | 4.0 |
| 4,8-Dioxa-3H-perfluorononanoic acid | ng/L | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.31 | 1.2 | 4.0 |
| 9Cl-PF3ONS (F-53B Major) | ng/L | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.56 | 2.0 | 4.0 |
| 11Cl-PF3OUdS (F-53B Minor) | ng/L | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.52 | 2.0 | 4.0 |

Notes:
Sample SANG-FB-07122021 is a field blank.
Sample SANG-INF-07122021D is a field duplicate of SANG-INF-07122021.
(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).
Compounds highlighted in gray are the UCMR3 PFAS analytes.

DL = Detection Limit
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.
QC Batch = Quality Control Batch
U = Undetected. Compound was analyzed for but not detected.

**RESULTS OF ANALYSES OF WATER** **VALIDATED DATA**

| BV Labs ID | | QCS435 | QCS437 | QCS436 | | | |
|---|---|---|---|---|---|---|---|
| Sampling Date | | 2021/07/15 08:00 | 2021/07/15 08:10 | 2021/07/15 08:05 | | | |
| COC Number | | n/a | n/a | n/a | | | |
| | UNITS | SANG-FB-07152021 | SANG-INF-07152021 | SANG-EFF-07152021 | DL | LOD | LOQ |
| **Perfluorinated Compounds** | | | | | | | |
| Perfluorobutanoic acid (PFBA) | ng/L | **1.4 UJ** | **28 J** | **32 J** | 0.74 | 1.5 | 2.2 |
| Perfluoropentanoic acid (PFPeA) | ng/L | **1.2 UJ** | **77 J** | **30 J** | 0.57 | 1.3 | 2.2 |
| Perfluorohexanoic acid (PFHxA) | ng/L | **1.4 UJ** | **62 J** | **1.5 J** | 0.77 | 1.5 | 2.2 |
| Perfluoroheptanoic acid (PFHpA) | ng/L | **1.2 UJ** | **32 J** | **1.3 UJ** | 0.56 | 1.3 | 2.2 |
| Perfluorooctanoic acid (PFOA) | ng/L | **1.2 UJ** | **27 J** | **1.3 UJ** | 0.54 | 1.3 | 2.2 |
| Perfluorononanoic acid (PFNA) | ng/L | **1.6 UJ** | **6.9 J** | **1.8 UJ** | 0.88 | 1.8 | 2.2 |
| Perfluorodecanoic acid (PFDA) | ng/L | **1.4 UJ** | **6.6 J** | **1.5 UJ** | 0.7 | 1.5 | 2.2 |
| Perfluoroundecanoic acid (PFUnA) | ng/L | **1.6 UJ** | **0.85 J** | **1.8 UJ** | 0.85 | 1.8 | 2.2 |
| Perfluorododecanoic acid (PFDoA) | ng/L | **1.2 UJ** | **0.77 J** | **1.3 UJ** | 0.65 | 1.3 | 2.2 |
| Perfluorotridecanoic acid (PFTRDA) | ng/L | **1.2 UJ** | **1.3 UJ** | **1.3 UJ** | 0.53 | 1.3 | 2.2 |
| Perfluorotetradecanoic acid(PFTEDA) | ng/L | **1.2 UJ** | **1.3 UJ** | **1.3 UJ** | 0.41 | 1.3 | 2.2 |
| Perfluorobutanesulfonic acid (PFBS) | ng/L | **1.2 UJ** | **11 J** | **1.3 UJ** | 0.52 | 1.3 | 2.2 |
| Perfluoropentanesulfonic acid PFPes | ng/L | **1.6 UJ** | **14 J** | **1.8 UJ** | 0.8 | 1.8 | 2.2 |
| Perfluorohexanesulfonic acid(PFHxS) | ng/L | **1.2 UJ** | **75 J** | **1.3 UJ** | 0.58 | 1.3 | 2.2 |
| Perfluoroheptanesulfonic acid PFHpS | ng/L | **1.2 UJ** | **4.1 J** | **1.3 UJ** | 0.63 | 1.3 | 2.2 |
| Perfluorooctanesulfonic acid (PFOS) | ng/L | **1.2 UJ** | **240 J (1)** | **1.3 UJ** | 4.3 | 12 | 20 |
| Perfluorononanesulfonic acid (PFNS) | ng/L | **1.4 UJ** | **1.5 UJ** | **1.5 UJ** | 0.7 | 1.5 | 2.2 |
| Perfluorodecanesulfonic acid (PFDS) | ng/L | **1.2 UJ** | **1.3 UJ** | **1.3 UJ** | 0.58 | 1.3 | 2.2 |
| Perfluorooctane Sulfonamide (PFOSA) | ng/L | **2.0 UJ** | **2.2 UJ** | **2.2 UJ** | 0.89 | 2.2 | 4.4 |
| MeFOSAA | ng/L | **3.0 UJ** | **3.3 UJ** | **3.3 UJ** | 1.3 | 3.3 | 4.4 |
| EtFOSAA | ng/L | **3.0 UJ** | **3.3 UJ** | **3.3 UJ** | 1.5 | 3.3 | 4.4 |
| 4:2 Fluorotelomer sulfonic acid | ng/L | **1.6 UJ** | **1.4 J** | **1.8 UJ** | 0.76 | 1.8 | 4.4 |
| 6:2 Fluorotelomer sulfonic acid | ng/L | **1.6 UJ** | **85 J** | **1.8 UJ** | 0.65 | 1.8 | 4.4 |
| 8:2 Fluorotelomer sulfonic acid | ng/L | **1.6 UJ** | **18 J** | **1.8 UJ** | 0.83 | 1.8 | 4.4 |
| Hexafluoropropyleneoxide dimer acid | ng/L | **2.0 UJ** | **2.2 UJ** | **2.2 UJ** | 0.94 | 2.2 | 4.4 |
| 4,8-Dioxa-3H-perfluorononanoic acid | ng/L | **1.2 UJ** | **1.3 UJ** | **1.3 UJ** | 0.34 | 1.3 | 4.4 |
| 9Cl-PF3ONS (F-53B Major) | ng/L | **2.0 UJ** | **2.2 UJ** | **2.2 UJ** | 0.62 | 2.2 | 4.4 |
| 11Cl-PF3OUdS (F-53B Minor) | ng/L | **2.0 UJ** | **2.2 UJ** | **2.2 UJ** | 0.57 | 2.2 | 4.4 |

Notes:

Sample SANG-FB-07152021 is a field blank.

Analytes highlighted in gray are the UCMR3 compounds.

(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).

Results bolded in **red** text are qualified based on validation.

DL = Detection Limit
J = Estimated result. Associated value may not be accurate or precise.
J+/- = Estimated result with a positive or negative bias.
LOD = Limit of Detection
LOQ = Limit of Quantitation
ng/L = nanograms per Liter or parts per trillion.
U = Undetected. Compound was analyzed for, but not detected.
UJ = Non-detects estimated results.

**RESULTS OF ANALYSES OF WATER** **VALIDATED DATA**

| BV Labs ID | | QDL566 | QDL568 | QDL567 | | | |
|---|---|---|---|---|---|---|---|
| Sampling Date | | 2021/07/19 08:00 | 2021/07/19 08:10 | 2021/07/19 08:05 | | | |
| COC Number | | n/a | n/a | n/a | | | |
| | UNITS | SANG-FB-07192021 | SANG-INF-07192021 | SANG-EFF-07192021 | DL | LOD | LOQ |
| **Perfluorinated Compounds** | | | | | | | |
| Perfluorobutanoic acid (PFBA) | ng/L | 1.4 U | 20 | 1.6 U | 0.77 | 1.6 | 2.3 |
| Perfluoropentanoic acid (PFPeA) | ng/L | 1.2 U | 54 | 1.4 U | 0.6 | 1.4 | 2.3 |
| Perfluorohexanoic acid (PFHxA) | ng/L | 1.4 U | 40 | 1.6 U | 0.81 | 1.6 | 2.3 |
| Perfluoroheptanoic acid (PFHpA) | ng/L | 1.2 U | 23 | 1.4 U | 0.59 | 1.4 | 2.3 |
| Perfluorooctanoic acid (PFOA) | ng/L | 1.2 U | 20 | 1.4 U | 0.56 | 1.4 | 2.3 |
| Perfluorononanoic acid (PFNA) | ng/L | 1.6 U | 5.8 | 1.8 U | 0.92 | 1.8 | 2.3 |
| Perfluorodecanoic acid (PFDA) | ng/L | 1.4 U | 4.1 | 1.6 U | 0.74 | 1.6 | 2.3 |
| Perfluoroundecanoic acid (PFUnA) | ng/L | 1.6 U | 1.8 U | 1.8 U | 0.89 | 1.8 | 2.3 |
| Perfluorododecanoic acid (PFDoA) | ng/L | 1.2 U | 1.4 U | 1.4 U | 0.68 | 1.4 | 2.3 |
| Perfluorotridecanoic acid (PFTRDA) | ng/L | 1.2 U | 1.4 U | 1.4 U | 0.55 | 1.4 | 2.3 |
| Perfluorotetradecanoic acid(PFTEDA) | ng/L | 1.2 U | 1.4 U | 1.4 U | 0.43 | 1.4 | 2.3 |
| Perfluorobutanesulfonic acid (PFBS) | ng/L | 1.2 U | 7.7 | 1.4 U | 0.54 | 1.4 | 2.3 |
| Perfluoropentanesulfonic acid PFPes | ng/L | 1.6 U | 9 | 1.8 U | 0.84 | 1.8 | 2.3 |
| Perfluorohexanesulfonic acid(PFHxS) | ng/L | 1.2 U | 58 | 1.4 U | 0.61 | 1.4 | 2.3 |
| Perfluoroheptanesulfonic acid PFHpS | ng/L | 1.2 U | 2.1 J | 1.4 U | 0.66 | 1.4 | 2.3 |
| Perfluorooctanesulfonic acid (PFOS) | ng/L | 1.2 U | 190 (1) | 1.4 U | 4.3 | 12 | 20 |
| Perfluorononanesulfonic acid (PFNS) | ng/L | 1.4 U | 1.6 U | 1.6 U | 0.74 | 1.6 | 2.3 |
| Perfluorodecanesulfonic acid (PFDS) | ng/L | 1.2 U | 1.4 U | 1.4 U | 0.61 | 1.4 | 2.3 |
| Perfluorooctane Sulfonamide (PFOSA) | ng/L | 2.0 U | 2.3 U | **2.3 UJ** | 0.93 | 2.3 | 4.6 |
| MeFOSAA | ng/L | 3.0 U | 3.5 U | 3.5 U | 1.4 | 3.5 | 4.6 |
| EtFOSAA | ng/L | 3.0 U | 3.5 U | 3.5 U | 1.6 | 3.5 | 4.6 |
| 4:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 1.8 U | 1.8 U | 0.79 | 1.8 | 4.6 |
| 6:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 51 | 1.8 U | 0.68 | 1.8 | 4.6 |
| 8:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 11 | 1.8 U | 0.86 | 1.8 | 4.6 |
| Hexafluoropropyleneoxide dimer acid | ng/L | 2.0 U | 2.3 U | 2.3 U | 0.98 | 2.3 | 4.6 |
| 4,8-Dioxa-3H-perfluorononanoic acid | ng/L | 1.2 U | 1.4 U | 1.4 U | 0.36 | 1.4 | 4.6 |
| 9Cl-PF3ONS (F-53B Major) | ng/L | 2.0 U | 2.3 U | 2.3 U | 0.64 | 2.3 | 4.6 |
| 11Cl-PF3OUdS (F-53B Minor) | ng/L | 2.0 U | 2.3 U | 2.3 U | 0.6 | 2.3 | 4.6 |

Notes:
Sample SANG-FB-07192021 is a field blank.
Analytes highlighted in gray are the UCMR3 compounds.
(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).
Results bolded in **red** text are qualified based on validation.

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation

ng/L = nanograms per Liter or parts per trillion.
U = Undetected. Compound was analyzed for, but not detected.
UJ = Non-detects estimated results.

**RESULTS OF ANALYSES OF WATER** **VALIDATED DATA**

| BV Labs ID | | QEK120 | QEK125 | QEK126 | QEK124 | QEK123 | QEK122 | QEK121 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | | 2021/07/22 08:00 | 2021/07/22 08:35 | 2021/07/22 08:35 | 2021/07/22 08:27 | 2021/07/22 08:20 | 2021/07/22 08:13 | 2021/07/22 08:05 | | | |
| | UNITS | SANG-FB-07222021 | SANG-INF-07222021 | SANG-INF-07222021D | SANG-PCG1-07222021 | SANG-PCG2-07222021 | SANG-PCR1-07222021 | SANG-EFF-07222021 | DL | LOD | LOQ |
| **Perfluorinated Compounds** | | | | | | | | | | | |
| Perfluorobutanoic acid (PFBA) | ng/L | 1.4 U | 26 | 26 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.77 | 1.6 | 2.3 |
| Perfluoropentanoic acid (PFPeA) | ng/L | 1.2 U | 80 | 81 | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.60 | 1.4 | 2.3 |
| Perfluorohexanoic acid (PFHxA) | ng/L | 1.4 U | 56 | 57 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.81 | 1.6 | 2.3 |
| Perfluoroheptanoic acid (PFHpA) | ng/L | 1.2 U | 32 | 33 | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.59 | 1.4 | 2.3 |
| Perfluorooctanoic acid (PFOA) | ng/L | 1.2 U | 29 | 29 | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.56 | 1.4 | 2.3 |
| Perfluorononanoic acid (PFNA) | ng/L | 1.6 U | 7.3 | 7.4 | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 0.92 | 1.8 | 2.3 |
| Perfluorodecanoic acid (PFDA) | ng/L | 1.4 U | 4.9 | 4.1 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.74 | 1.6 | 2.3 |
| Perfluoroundecanoic acid (PFUnA) | ng/L | 1.6 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 0.89 | 1.8 | 2.3 |
| Perfluorododecanoic acid (PFDoA) | ng/L | 1.2 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.68 | 1.4 | 2.3 |
| Perfluorotridecanoic acid (PFTRDA) | ng/L | 1.2 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.55 | 1.4 | 2.3 |
| Perfluorotetradecanoic acid(PFTEDA) | ng/L | 1.2 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.43 | 1.4 | 2.3 |
| Perfluorobutanesulfonic acid (PFBS) | ng/L | 1.2 U | 12 | 12 | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.54 | 1.4 | 2.3 |
| Perfluoropentanesulfonic acid PFPes | ng/L | 1.6 U | 13 | 13 | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 0.84 | 1.8 | 2.3 |
| Perfluorohexanesulfonic acid(PFHxS) | ng/L | 1.2 U | 85 | 83 | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.61 | 1.4 | 2.3 |
| Perfluoroheptanesulfonic acid PFHpS | ng/L | 1.2 U | 4.0 | 3.6 | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.66 | 1.4 | 2.3 |
| Perfluorooctanesulfonic acid (PFOS) | ng/L | 1.2 U | 290 (1) | 270 (1) | 0.99 J | 0.79 J | 1.3 J | 1.2 J | 4.3 | 12 | 20 |
| Perfluorononanesulfonic acid (PFNS) | ng/L | 1.4 U | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.74 | 1.6 | 2.3 |
| Perfluorodecanesulfonic acid (PFDS) | ng/L | 1.2 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.61 | 1.4 | 2.3 |
| Perfluorooctane Sulfonamide (PFOSA) | ng/L | 2.0 U | **2.3 UJ** | 2.3 U | 2.3 U | 2.3 U | 2.3 U | 2.3 U | 0.93 | 2.3 | 4.5 |
| MeFOSAA | ng/L | 3.0 U | 3.5 U | 3.5 U | 3.5 U | 3.5 U | 3.5 U | 3.5 U | 1.4 | 3.5 | 4.5 |
| EtFOSAA | ng/L | 3.0 U | 3.5 U | 3.5 U | 3.5 U | 3.5 U | 3.5 U | 3.5 U | 1.6 | 3.5 | 4.5 |
| 4:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 1.1 J | 0.93 J | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 0.79 | 1.8 | 4.5 |
| 6:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 80 | 79 | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 0.68 | 1.8 | 4.5 |
| 8:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 11 | 8.6 | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 0.86 | 1.8 | 4.5 |
| Hexafluoropropyleneoxide dimer acid | ng/L | 2.0 U | 2.3 U | 2.3 U | 2.3 U | 2.3 U | 2.3 U | 2.3 U | 0.98 | 2.3 | 4.5 |
| 4,8-Dioxa-3H-perfluorononanoic acid | ng/L | 1.2 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.36 | 1.4 | 4.5 |
| 9Cl-PF3ONS (F-53B Major) | ng/L | 2.0 U | 2.3 U | 2.3 U | 2.3 U | 2.3 U | 2.3 U | 2.3 U | 0.64 | 2.3 | 4.5 |
| 11Cl-PF3OUdS (F-53B Minor) | ng/L | 2.0 U | 2.3 U | 2.3 U | 2.3 U | 2.3 U | 2.3 U | 2.3 U | 0.60 | 2.3 | 4.5 |

Notes:

Sample SANG-FB-07222021 is a field blank.

Sample SANG-INF-07222021D is a field duplicate of SANG-INF-07222021.

(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).

Results bolded in **red** text are qualified based on validation.

A variance to the extracted internal standard (EIS) recovery criteria has been granted allowing for results to be accepted with recoveries outside of tolerance limits for this parameter.

Compounds highlighted in gray are the UCMR3 PFAS analytes.

DL = Detection Limit

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.

QC Batch = Quality Control Batch

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

**RESULTS OF ANALYSES OF WATER** **VALIDATED DATA**

| BV Labs ID | | QFL180 | QFL185 | QFL186 | QFL184 | QFL183 | QFL182 | QFL181 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | | 2021/07/27 07:30 | 2021/07/27 08:00 | 2021/07/27 08:00 | 2021/07/27 07:55 | 2021/07/27 07:48 | 2021/07/27 07:42 | 2021/07/27 07:35 | | | |
| | UNITS | SANG-FB-07272021 | SANG-INF-07272021 | SANG-INF-07272021D | SANG-PDG1-07272021 | SANG-PDG2-07272021 | SANG-PDR1-07272021 | SANG-EFF-07272021 | DL | LOD | LOQ |
| **Perfluorinated Compounds** | | | | | | | | | | | |
| Perfluorobutanoic acid (PFBA) | ng/L | 1.4 U | 23 | 23 | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.67 | 1.4 | 2 |
| Perfluoropentanoic acid (PFPeA) | ng/L | 1.2 U | 74 | 74 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.52 | 1.2 | 2 |
| Perfluorohexanoic acid (PFHxA) | ng/L | 1.4 U | 54 | 54 | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.7 | 1.4 | 2 |
| Perfluoroheptanoic acid (PFHpA) | ng/L | 1.2 U | 29 | 28 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.51 | 1.2 | 2 |
| Perfluorooctanoic acid (PFOA) | ng/L | 1.2 U | 26 | 25 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.49 | 1.2 | 2 |
| Perfluorononanoic acid (PFNA) | ng/L | 1.6 U | 6.9 | 6.9 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.8 | 1.6 | 2 |
| Perfluorodecanoic acid (PFDA) | ng/L | 1.4 U | 4.9 | 4.4 | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.64 | 1.4 | 2 |
| Perfluoroundecanoic acid (PFUnA) | ng/L | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.77 | 1.6 | 2 |
| Perfluorododecanoic acid (PFDoA) | ng/L | 1.2 U | 0.88 J | 0.83 J | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.59 | 1.2 | 2 |
| Perfluorotridecanoic acid (PFTRDA) | ng/L | 1.2 U | **1.2 UJ** | 1.2 U | **1.2 UJ** | **1.2 UJ** | 1.2 U | 1.2 U | 0.48 | 1.2 | 2 |
| Perfluorotetradecanoic acid(PFTEDA) | ng/L | 1.2 U | **1.2 UJ** | 1.2 U | **1.2 UJ** | **1.2 UJ** | 1.2 U | 1.2 U | 0.37 | 1.2 | 2 |
| Perfluorobutanesulfonic acid (PFBS) | ng/L | 1.2 U | 13 | 12 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.47 | 1.2 | 2 |
| Perfluoropentanesulfonic acid PFPes | ng/L | 1.6 U | 13 | 13 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.73 | 1.6 | 2 |
| Perfluorohexanesulfonic acid(PFHxS) | ng/L | 1.2 U | 75 | 71 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.53 | 1.2 | 2 |
| Perfluoroheptanesulfonic acid PFHpS | ng/L | 1.2 U | 3.7 | 3.6 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.57 | 1.2 | 2 |
| Perfluorooctanesulfonic acid (PFOS) | ng/L | 1.2 U | 200 (1) | 210 (1) | 1.2 U | 1.2 U | 0.67 J | 1.2 U | 0.43 | 1.2 | 2 |
| Perfluorononanesulfonic acid (PFNS) | 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) | ng/L | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.53 | 1.2 | 2 |
| Perfluorooctane Sulfonamide (PFOSA) | ng/L | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | **2.0 UJ** | 2.0 U | 0.81 | 2 | 4 |
| MeFOSAA | ng/L | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 1.2 | 3 | 4 |
| EtFOSAA | ng/L | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 1.4 | 3 | 4 |
| 4:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 1.1 J | 1.2 J | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.69 | 1.6 | 4 |
| 6:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 67 | 67 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.59 | 1.6 | 4 |
| 8:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 13 | 12 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.75 | 1.6 | 4 |
| Hexafluoropropyleneoxide dimer acid | ng/L | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.85 | 2 | 4 |
| 4,8-Dioxa-3H-perfluorononanoic acid | ng/L | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.31 | 1.2 | 4 |
| 9Cl-PF3ONS (F-53B Major) | ng/L | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.56 | 2 | 4 |
| 11Cl-PF3OUdS (F-53B Minor) | ng/L | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.52 | 2 | 4 |

Notes:
Sample SANG-FB-07272021 is a field blank.
Sample SANG-INF-07272021D is a field duplicate of SANG-INF-07272021.
(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).
Results bolded in **red** text are qualified based on validation
Compounds highlighted in gray are the UCMR3 PFAS analytes.

DL = Detection Limit
J = Estimated result. Assocaited value may not be accurate or precise.
LOD = Limit of Detection
LOQ = Limit of Quantitation

ng/L = nanograms per liter or parts per trillion.
U = Undetected. Compound was analyzed for but not detected.
UJ = Not detected at an estimated limit of detection.

**RESULTS OF ANALYSES OF WATER** **VALIDATED DATA**

| BV Labs ID | | QGX506 | QGX511 | QGX512 | QGX510 | QGX509 | QGX508 | QGX507 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | | 2021/08/03 09:45 | 2021/08/03 10:15 | 2021/08/03 10:15 | 2021/08/03 10:12 | 2021/08/03 10:05 | 2021/08/03 09:58 | 2021/08/03 09:50 | | | |
| COC Number | | n/a | n/a | n/a | n/a | n/a | n/a | n/a | | | |
| | UNITS | SANG-FB-08032021 | SANG-INF-08032021 | SANG-INF-08032021D | SANG-PAG1-08032021 | SANG-PAG2-08032021 | SANG-PAR1-08032021 | SANG-EFF-08032021 | DL | LOD | LOQ |
| **Perfluorinated Compounds** | | | | | | | | | | | |
| Perfluorobutanoic acid (PFBA) | ng/L | 1.4 U | 24 | 22 | 1.5 U | 1.5 U | 1.5 U | 1.5 U | 0.74 | 1.5 | 2.2 |
| Perfluoropentanoic acid (PFPeA) | ng/L | 1.2 U | 73 | 75 | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 0.57 | 1.3 | 2.2 |
| Perfluorohexanoic acid (PFHxA) | ng/L | 1.4 U | 58 | 56 | 1.5 U | 1.5 U | 1.5 U | 1.5 U | 0.77 | 1.5 | 2.2 |
| Perfluoroheptanoic acid (PFHpA) | ng/L | 1.2 U | 28 | 28 | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 0.56 | 1.3 | 2.2 |
| Perfluorooctanoic acid (PFOA) | ng/L | 1.2 U | 26 | 26 | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 0.54 | 1.3 | 2.2 |
| Perfluorononanoic acid (PFNA) | ng/L | 1.6 U | 6.1 | 6.1 | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 0.88 | 1.8 | 2.2 |
| Perfluorodecanoic acid (PFDA) | ng/L | 1.4 U | 4.8 | 4.6 | 1.5 U | 1.5 U | 1.5 U | 1.5 U | 0.7 | 1.5 | 2.2 |
| Perfluoroundecanoic acid (PFUnA) | ng/L | 1.6 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 0.85 | 1.8 | 2.2 |
| Perfluorododecanoic acid (PFDoA) | ng/L | 1.2 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 0.65 | 1.3 | 2.2 |
| Perfluorotridecanoic acid (PFTRDA) | ng/L | 1.2 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 0.53 | 1.3 | 2.2 |
| Perfluorotetradecanoic acid(PFTEDA) | ng/L | 1.2 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 0.41 | 1.3 | 2.2 |
| Perfluorobutanesulfonic acid (PFBS) | ng/L | 1.2 U | 12 | 12 | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 0.52 | 1.3 | 2.2 |
| Perfluoropentanesulfonic acid PFPes | ng/L | 1.6 U | 14 | 14 | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 0.8 | 1.8 | 2.2 |
| Perfluorohexanesulfonic acid(PFHxS) | ng/L | 1.2 U | 75 | 78 | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 0.58 | 1.3 | 2.2 |
| Perfluoroheptanesulfonic acid PFHpS | ng/L | 1.2 U | 3.5 | 3.3 | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 0.63 | 1.3 | 2.2 |
| Perfluorooctanesulfonic acid (PFOS) | ng/L | 1.2 U | 230 (1) | 210 (1) | 1.6 J | 0.94 J | 1.1 J | 1.3 U | 0.47 | 1.3 | 2.2 |
| Perfluorononanesulfonic acid (PFNS) | 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) | ng/L | 1.2 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 0.58 | 1.3 | 2.2 |
| Perfluorooctane Sulfonamide (PFOSA) | ng/L | 2.0 U | 2.2 U | 2.2 U | **2.2 UJ** | **2.2 UJ** | **2.2 UJ** | **2.2 UJ** | 0.89 | 2.2 | 4.4 |
| MeFOSAA | ng/L | 3.0 U | 3.3 U | 3.3 U | 3.3 U | 3.3 U | 3.3 U | 3.3 U | 1.3 | 3.3 | 4.4 |
| EtFOSAA | ng/L | 3.0 U | 3.3 U | 3.3 U | 3.3 U | 3.3 U | 3.3 U | 3.3 U | 1.5 | 3.3 | 4.4 |
| 4:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 1.8 U | 0.77 J | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 0.76 | 1.8 | 4.4 |
| 6:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 72 | 68 | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 0.65 | 1.8 | 4.4 |
| 8:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 18 | 17 | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 0.83 | 1.8 | 4.4 |
| Hexafluoropropyleneoxide dimer acid | ng/L | 2.0 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 0.94 | 2.2 | 4.4 |
| 4,8-Dioxa-3H-perfluorononanoic acid | ng/L | 1.2 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 0.34 | 1.3 | 4.4 |
| 9Cl-PF3ONS (F-53B Major) | ng/L | 2.0 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 0.62 | 2.2 | 4.4 |
| 11Cl-PF3OUdS (F-53B Minor) | ng/L | 2.0 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 0.57 | 2.2 | 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).
Compounds highlighted in gray are the UCMR3 analytes.
Results bolded in **red** text are qualified based on validation.

DL = Detection Limit
J = Estimated result. Associated value may not be acurate of precise.
LOD = Limit of Detection
LOQ = Limit of Quantitation
N/A = Not Applicable
ng/L = Nanograms per Liter or parts per trillion
QC Batch = Quality Control Batch
U = Undetected. Compound was analyzed for, but not detected.
UJ = Not detected at an estimated LOD.

**RESULTS OF ANALYSES OF WATER** **VALIDATED DATA**

| BV Labs ID | | QIR701 | QIR706 | QIR707 | QIR705 | QIR704 | QIR703 | QIR702 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | | 2021/08/10 08:15 | 2021/08/10 08:50 | 2021/08/10 08:50 | 2021/08/10 08:43 | 2021/08/10 08:35 | 2021/08/10 08:27 | 2021/08/10 08:20 | | | |
| COC Number | | na | na | na | na | na | na | na | | | |
| | UNITS | SANG-FB-08102021 | SANG-INF-08102021 | SANG-INF-08102021D | SANG-PBG1-08102021 | SANG-PBG2-08102021 | SANG-PBR1-08102021 | SANG-EFF-08102021 | DL | LOD | LOQ |
| **Perfluorinated Compounds** | | | | | | | | | | | |
| Perfluorobutanoic acid (PFBA) | ng/L | 1.4 U | 38 | 37 | 1.5 U | 1.5 U | 1.5 U | 1.5 U | 0.74 | 1.5 | 2.2 |
| Perfluoropentanoic acid (PFPeA) | ng/L | 1.2 U | 110 (1) | 110 (1) | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 0.57 | 1.3 | 2.2 |
| Perfluorohexanoic acid (PFHxA) | ng/L | 1.4 U | 95 | 94 | 1.5 U | 1.5 U | 1.5 U | 1.5 U | 0.77 | 1.5 | 2.2 |
| Perfluoroheptanoic acid (PFHpA) | ng/L | 1.2 U | 40 | 40 | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 0.56 | 1.3 | 2.2 |
| Perfluorooctanoic acid (PFOA) | ng/L | 1.2 U | 37 | 36 | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 0.54 | 1.3 | 2.2 |
| Perfluorononanoic acid (PFNA) | ng/L | 1.6 U | 9.1 | 9.3 | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 0.88 | 1.8 | 2.2 |
| Perfluorodecanoic acid (PFDA) | ng/L | 1.4 U | 6.1 | 5.7 | 1.5 U | 1.5 U | 1.5 U | 1.5 U | 0.7 | 1.5 | 2.2 |
| Perfluoroundecanoic acid (PFUnA) | ng/L | 1.6 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 0.85 | 1.8 | 2.2 |
| Perfluorododecanoic acid (PFDoA) | ng/L | 1.2 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 0.65 | 1.3 | 2.2 |
| Perfluorotridecanoic acid (PFTRDA) | ng/L | 1.2 U | 1.3 U | 1.3 U | **1.3 UJ** | 1.3 U | 1.3 U | 1.3 U | 0.53 | 1.3 | 2.2 |
| Perfluorotetradecanoic acid(PFTEDA) | ng/L | 1.2 U | 1.3 U | 1.3 U | **1.3 UJ** | 1.3 U | 1.3 U | 1.3 U | 0.41 | 1.3 | 2.2 |
| Perfluorobutanesulfonic acid (PFBS) | ng/L | 1.2 U | 23 | 22 | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 0.52 | 1.3 | 2.2 |
| Perfluoropentanesulfonic acid PFPes | ng/L | 1.6 U | 26 | 25 | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 0.8 | 1.8 | 2.2 |
| Perfluorohexanesulfonic acid(PFHxS) | ng/L | 1.2 U | 130 (1) | 130 (1) | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 0.58 | 1.3 | 2.2 |
| Perfluoroheptanesulfonic acid PFHpS | ng/L | 1.2 U | 5.8 | 5.5 | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 0.63 | 1.3 | 2.2 |
| Perfluorooctanesulfonic acid (PFOS) | ng/L | 1.2 U | 320 (1) | 310 (1) | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 0.47 | 1.3 | 2.2 |
| Perfluorononanesulfonic acid (PFNS) | 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) | ng/L | 1.2 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 0.58 | 1.3 | 2.2 |
| Perfluorooctane Sulfonamide (PFOSA) | ng/L | 2.0 U | 2.2 U | 2.2 U | 2.2 U | **2.2 UJ** | 2.2 U | **2.2 UJ** | 0.89 | 2.2 | 4.4 |
| MeFOSAA | ng/L | 3.0 U | 3.3 U | 3.3 U | 3.3 U | 3.3 U | 3.3 U | 3.3 U | 1.3 | 3.3 | 4.4 |
| EtFOSAA | ng/L | 3.0 U | 3.3 U | 3.3 U | 3.3 U | 3.3 U | 3.3 U | 3.3 U | 1.5 | 3.3 | 4.4 |
| 4:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 1.4 J | 1.3 J | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 0.76 | 1.8 | 4.4 |
| 6:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 100 | 100 | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 0.65 | 1.8 | 4.4 |
| 8:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 15 | 14 | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 0.83 | 1.8 | 4.4 |
| Hexafluoropropyleneoxide dimer acid | ng/L | 2.0 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 0.94 | 2.2 | 4.4 |
| 4,8-Dioxa-3H-perfluorononanoic acid | ng/L | 1.2 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 0.34 | 1.3 | 4.4 |
| 9Cl-PF3ONS (F-53B Major) | ng/L | 2.0 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 0.62 | 2.2 | 4.4 |
| 11Cl-PF3OUdS (F-53B Minor) | ng/L | 2.0 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 0.57 | 2.2 | 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).

Compounds highlighted in gray are the UCMR3 analytes.

Results bolded in **red** text are qualified based on validation.

DL = Detection Limit

J = Estimated result. Associated value may not be acurate of precise.

LOD = Limit of Detection

LOQ = Limit of Quantitation

N/A = Not Applicable

ng/L = Nanograms per Liter or parts per trillion

QC Batch = Quality Control Batch

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

UJ = Not detected at an estimated LOD.

**RESULTS OF ANALYSES OF WATER** **VALIDATED DATA**

| BV Labs ID | | QKH432 | QKH437 | QKH438 | QKH436 | QKH435 | QKH434 | QKH433 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | | 2021/08/17 07:10 | 2021/08/17 07:40 | 2021/08/17 07:40 | 2021/08/17 07:34 | 2021/08/17 07:28 | 2021/08/17 07:22 | 2021/08/17 07:15 | | | |
| | UNITS | SANG-FB-08172021 | SANG-INF-08172021 | SANG-INF-08172021D | SANG-PCG1-08172021 | SANG-PCG2-08172021 | SANG-PCR1-08172021 | SANG-EFF-08172021 | DL | LOD | LOQ |
| **Perfluorinated Compounds** | | | | | | | | | | | |
| Perfluorobutanoic acid (PFBA) | ng/L | 1.4 UJ | 25 J | 25 J | 1.4 UJ | 1.4 UJ | 1.4 UJ | 1.4 UJ | 0.67 | 1.4 | 2.0 |
| Perfluoropentanoic acid (PFPeA) | ng/L | 1.2 UJ | 80 J | 79 J | 0.61 J | 1.2 UJ | 1.2 UJ | 1.2 UJ | 0.52 | 1.2 | 2.0 |
| Perfluorohexanoic acid (PFHxA) | ng/L | 1.4 UJ | 66 J | 66 J | 1.4 UJ | 1.4 UJ | 1.4 UJ | 1.4 UJ | 0.70 | 1.4 | 2.0 |
| Perfluoroheptanoic acid (PFHpA) | ng/L | 1.2 UJ | 30 J | 29 J | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 0.51 | 1.2 | 2.0 |
| Perfluorooctanoic acid (PFOA) | ng/L | 1.2 UJ | 27 J | 27 J | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 0.49 | 1.2 | 2.0 |
| Perfluorononanoic acid (PFNA) | ng/L | 1.6 UJ | 6.9 J | 6.9 J | 1.6 UJ | 1.6 UJ | 1.6 UJ | 1.6 UJ | 0.80 | 1.6 | 2.0 |
| Perfluorodecanoic acid (PFDA) | ng/L | 1.4 UJ | 5.6 J | 5.2 J | 0.76 J | 1.4 UJ | 1.4 UJ | 1.4 UJ | 0.64 | 1.4 | 2.0 |
| Perfluoroundecanoic acid (PFUnA) | ng/L | 1.6 UJ | 1.1 J | 1.0 J | 1.6 UJ | 1.6 UJ | 1.6 UJ | 1.6 UJ | 0.77 | 1.6 | 2.0 |
| Perfluorododecanoic acid (PFDoA) | ng/L | 1.2 UJ | 1.1 J | 1.1 J | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 0.59 | 1.2 | 2.0 |
| Perfluorotridecanoic acid (PFTRDA) | ng/L | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 0.48 | 1.2 | 2.0 |
| Perfluorotetradecanoic acid(PFTEDA) | ng/L | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 0.37 | 1.2 | 2.0 |
| Perfluorobutanesulfonic acid (PFBS) | ng/L | 1.2 UJ | 15 J | 15 J | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 0.47 | 1.2 | 2.0 |
| Perfluoropentanesulfonic acid PFPes | ng/L | 1.6 UJ | 15 J | 16 J | 1.6 UJ | 1.6 UJ | 1.6 UJ | 1.6 UJ | 0.73 | 1.6 | 2.0 |
| Perfluorohexanesulfonic acid(PFHxS) | ng/L | 1.2 UJ | 84 J | 86 J | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 0.53 | 1.2 | 2.0 |
| Perfluoroheptanesulfonic acid PFHpS | ng/L | 1.2 UJ | 4.0 J | 4.2 J | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 0.57 | 1.2 | 2.0 |
| Perfluorooctanesulfonic acid (PFOS) | ng/L | 1.2 UJ | 230 (1) J | 240 (1) J | 2.1 J | 1.1 J | 1.3 J | 1.2 J | 0.43 | 1.2 | 2.0 |
| Perfluorononanesulfonic acid (PFNS) | ng/L | 1.4 UJ | 1.4 UJ | 1.4 UJ | 1.4 UJ | 1.4 UJ | 1.4 UJ | 1.4 UJ | 0.64 | 1.4 | 2.0 |
| Perfluorodecanesulfonic acid (PFDS) | ng/L | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 0.53 | 1.2 | 2.0 |
| Perfluorooctane Sulfonamide (PFOSA) | ng/L | 2.0 UJ | 2.0 UJ | 0.83 J | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 0.81 | 2.0 | 4.0 |
| MeFOSAA | ng/L | 3.0 UJ | 3.0 UJ | 3.0 UJ | 3.0 UJ | 3.0 UJ | 3.0 UJ | 3.0 UJ | 1.2 | 3.0 | 4.0 |
| EtFOSAA | ng/L | 3.0 UJ | 3.0 UJ | 3.0 UJ | 3.0 UJ | 3.0 UJ | 3.0 UJ | 3.0 UJ | 1.4 | 3.0 | 4.0 |
| 4:2 Fluorotelomer sulfonic acid | ng/L | 1.6 UJ | 1.6 J | 1.5 J | 1.6 UJ | 1.6 UJ | 1.6 UJ | 1.6 UJ | 0.69 | 1.6 | 4.0 |
| 6:2 Fluorotelomer sulfonic acid | ng/L | 1.6 UJ | 79 J | 79 J | 1.6 UJ | 1.6 UJ | 1.6 UJ | 1.6 UJ | 0.59 | 1.6 | 4.0 |
| 8:2 Fluorotelomer sulfonic acid | ng/L | 1.6 UJ | 12 J | 11 J | 0.89 J | 1.6 UJ | 1.6 UJ | 1.6 UJ | 0.75 | 1.6 | 4.0 |
| Hexafluoropropyleneoxide dimer acid | ng/L | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 0.85 | 2.0 | 4.0 |
| 4,8-Dioxa-3H-perfluorononanoic acid | ng/L | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 0.31 | 1.2 | 4.0 |
| 9Cl-PF3ONS (F-53B Major) | ng/L | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 0.56 | 2.0 | 4.0 |
| 11Cl-PF3OUdS (F-53B Minor) | ng/L | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 0.52 | 2.0 | 4.0 |

Notes:

Sample SANG-FB-08172021 is a field blank.

Sample SANG-INF-08172021D is a field duplicate of SANG-INF-08172021.

(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).

Compounds highlighted in gray are the UCMR3 PFAS analytes.

Results bolded in **red** text are qualified based on validation. (temperature elevated upon receipt by laboratory)

DL = Detection Limit
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.
U = Undetected. Compound was analyzed for but not detected.
UJ = Not detected at an estimated LOD.

**RESULTS OF ANALYSES OF WATER** **VALIDATED DATA**

| BV Labs ID | | QLX740 | QLX745 | QLX746 | QLX744 | QLX743 | QLX742 | QLX741 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | | 2021/08/24 08:00 | 2021/08/24 08:30 | 2021/08/24 08:30 | 2021/08/24 08:25 | 2021/08/24 08:17 | 2021/08/24 08:11 | 2021/08/24 08:05 | | | |
| | UNITS | SANG-FB-08242021 | SANG-INF-08242021 | SANG-INF-08242021D | SANG-PDG1-08242021 | SANG-PDG2-08242021 | SANG-PDR1-08242021 | SANG-EFF-08242021 | DL | LOD | LOQ |
| **Perfluorinated Compounds** | | | | | | | | | | | |
| Perfluorobutanoic acid (PFBA) | ng/L | 1.4 U | 14 | 14 | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.67 | 1.4 | 2 |
| Perfluoropentanoic acid (PFPeA) | ng/L | 1.2 U | 37 | 37 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.52 | 1.2 | 2 |
| Perfluorohexanoic acid (PFHxA) | ng/L | 1.4 U | 29 | 30 | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.7 | 1.4 | 2 |
| Perfluoroheptanoic acid (PFHpA) | ng/L | 1.2 U | 20 | 20 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.51 | 1.2 | 2 |
| Perfluorooctanoic acid (PFOA) | ng/L | 1.2 U | 17 | 17 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.49 | 1.2 | 2 |
| Perfluorononanoic acid (PFNA) | ng/L | 1.6 U | 4.6 | 4.6 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.8 | 1.6 | 2 |
| Perfluorodecanoic acid (PFDA) | ng/L | 1.4 U | 2.8 | 2.7 | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.64 | 1.4 | 2 |
| Perfluoroundecanoic acid (PFUnA) | ng/L | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.77 | 1.6 | 2 |
| Perfluorododecanoic acid (PFDoA) | ng/L | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.59 | 1.2 | 2 |
| Perfluorotridecanoic acid (PFTRDA) | ng/L | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.48 | 1.2 | 2 |
| Perfluorotetradecanoic acid(PFTEDA) | ng/L | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.37 | 1.2 | 2 |
| Perfluorobutanesulfonic acid (PFBS) | ng/L | 1.2 U | 7.2 | 7.1 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.47 | 1.2 | 2 |
| Perfluoropentanesulfonic acid PFPes | ng/L | 1.6 U | 7.1 | 7.1 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.73 | 1.6 | 2 |
| Perfluorohexanesulfonic acid(PFHxS) | ng/L | 1.2 U | 58 | 56 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.53 | 1.2 | 2 |
| Perfluoroheptanesulfonic acid PFHpS | ng/L | 1.2 U | 2 | 2.1 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.57 | 1.2 | 2 |
| Perfluorooctanesulfonic acid (PFOS) | ng/L | 1.2 U | 170 (1) | 160 (1) | 0.82 J | 0.72 J | 1.2 U | 0.66 J | 4.3 | 12 | 20 |
| Perfluorononanesulfonic acid (PFNS) | 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) | ng/L | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.53 | 1.2 | 2 |
| Perfluorooctane Sulfonamide (PFOSA) | ng/L | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.81 | 2 | 4 |
| MeFOSAA | ng/L | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 1.2 | 3 | 4 |
| EtFOSAA | ng/L | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 1.4 | 3 | 4 |
| 4:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 1.6 U | 0.78 J | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.69 | 1.6 | 4 |
| 6:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 40 | 39 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.59 | 1.6 | 4 |
| 8:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 15 | 15 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.75 | 1.6 | 4 |
| Hexafluoropropyleneoxide dimer acid | ng/L | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.85 | 2 | 4 |
| 4,8-Dioxa-3H-perfluorononanoic acid | ng/L | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.31 | 1.2 | 4 |
| 9Cl-PF3ONS (F-53B Major) | ng/L | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.56 | 2 | 4 |
| 11Cl-PF3OUdS (F-53B Minor) | ng/L | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.52 | 2 | 4 |

Sample SANG-FB-08242021 is a field blank.
Sample SANG-INF-08242021D is a field duplicate of SANG-INF-08242021.
Analytes highlighted in gray are the UCMR3 compounds.
(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).
Results bolded in **red** text are qualified based on validation.

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

**RESULTS OF ANALYSES OF WATER** **VALIDATED DATA**

| BV Labs ID | | QNN834 | QNN839 | QNN840 | QNN838 | QNN837 | QNN836 | QNN835 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | | 2021/08/31 08:30 | 2021/08/31 08:55 | 2021/08/31 08:55 | 2021/08/31 08:50 | 2021/08/31 08:46 | 2021/08/31 08:41 | 2021/08/31 08:35 | | | |
| COC Number | | n/a | n/a | n/a | n/a | n/a | n/a | n/a | | | |
| | **UNITS** | **SANG-FB-08312021** | **SANG-INF-08312021** | **SANG-INF-08312021D** | **SANG-PAG1-08312021** | **SANG-PAG2-08312021** | **SANG-PAR1-08312021** | **SANG-EFF-08312021** | **DL** | **LOD** | **LOQ** |
| **Perfluorinated Compounds** | | | | | | | | | | | |
| Perfluorobutanoic acid (PFBA) | ng/L | 1.5 U | **10 J** | **14 J** | 0.88 J | 1.4 U | 1.4 U | 1.4 U | 0.67 | 1.4 | 2.0 |
| Perfluoropentanoic acid (PFPeA) | ng/L | 1.3 U | 56 | 55 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.52 | 1.2 | 2.0 |
| Perfluorohexanoic acid (PFHxA) | ng/L | 1.5 U | 45 | 45 | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.70 | 1.4 | 2.0 |
| Perfluoroheptanoic acid (PFHpA) | ng/L | 1.3 U | 23 | 23 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.51 | 1.2 | 2.0 |
| Perfluorooctanoic acid (PFOA) | ng/L | 1.3 U | 22 | 22 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.49 | 1.2 | 2.0 |
| Perfluorononanoic acid (PFNA) | ng/L | 1.8 U | 5.6 | 5.9 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.80 | 1.6 | 2.0 |
| Perfluorodecanoic acid (PFDA) | ng/L | 1.5 U | 3.6 | 3.8 | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.64 | 1.4 | 2.0 |
| Perfluoroundecanoic acid (PFUnA) | ng/L | 1.8 U | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.77 | 1.6 | 2.0 |
| Perfluorododecanoic acid (PFDoA) | ng/L | 1.3 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.59 | 1.2 | 2.0 |
| Perfluorotridecanoic acid (PFTRDA) | ng/L | 1.3 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.48 | 1.2 | 2.0 |
| Perfluorotetradecanoic acid(PFTEDA) | ng/L | 1.3 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.37 | 1.2 | 2.0 |
| Perfluorobutanesulfonic acid (PFBS) | ng/L | 1.3 U | 9.8 | 9.0 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.47 | 1.2 | 2.0 |
| Perfluoropentanesulfonic acid PFPes | ng/L | 1.8 U | 9.8 | 11 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.73 | 1.6 | 2.0 |
| Perfluorohexanesulfonic acid(PFHxS) | ng/L | 1.3 U | 69 | 65 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.53 | 1.2 | 2.0 |
| Perfluoroheptanesulfonic acid PFHpS | ng/L | 1.3 U | 2.3 | 2.7 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.57 | 1.2 | 2.0 |
| Perfluorooctanesulfonic acid (PFOS) | ng/L | 1.3 U | 190 (1) | 200 (1) | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.43 | 1.2 | 2.0 |
| Perfluorononanesulfonic acid (PFNS) | ng/L | 1.5 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.64 | 1.4 | 2.0 |
| Perfluorodecanesulfonic acid (PFDS) | ng/L | 1.3 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.53 | 1.2 | 2.0 |
| Perfluorooctane Sulfonamide (PFOSA) | ng/L | 2.2 U | **2.0 UJ** | **2.0 UJ** | **2.0 UJ** | **2.0 UJ** | **2.0 UJ** | **2.0 UJ** | 0.81 | 2.0 | 4.0 |
| MeFOSAA | ng/L | 3.3 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 1.2 | 3.0 | 4.0 |
| EtFOSAA | ng/L | 3.3 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 1.4 | 3.0 | 4.0 |
| 4:2 Fluorotelomer sulfonic acid | ng/L | 1.8 U | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.69 | 1.6 | 4.0 |
| 6:2 Fluorotelomer sulfonic acid | ng/L | 1.8 U | 60 | 51 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.59 | 1.6 | 4.0 |
| 8:2 Fluorotelomer sulfonic acid | ng/L | 1.8 U | 13 | 11 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.75 | 1.6 | 4.0 |
| Hexafluoropropyleneoxide dimer acid | ng/L | 2.2 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.85 | 2.0 | 4.0 |
| 4,8-Dioxa-3H-perfluorononanoic acid | ng/L | 1.3 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.31 | 1.2 | 4.0 |
| 9Cl-PF3ONS (F-53B Major) | ng/L | 2.2 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.56 | 2.0 | 4.0 |
| 11Cl-PF3OUdS (F-53B Minor) | ng/L | 2.2 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.52 | 2.0 | 4.0 |

Notes:
Sample SANG-FB-08312021 is a field blank.
Sample SANG-INF-08312021D is a field duplicate of SANG-INF-08312021.
(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).
Compounds highlighted in gray represent the UCMR3 PFAS analytes.
Results bolded in **red** text are qualified based on validation.

DL = Detection Limit
J = Estimated result. Associted value may not be accurate or precise.
LOD = Limit of Detection
LOQ = Limit of Quantitation

ng/L = Nanograms per liter or parts per trillion.
U = Undetected. Compound was analyzed for but not detected.
UJ = Not detected at an estimated limit of detection.

**RESULTS OF ANALYSES OF WATER** **VALIDATED DATA**

| BV Labs ID | | QPG761 | QPG766 | QPG767 | QPG765 | QPG764 | QPG763 | QPG762 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | | 2021/09/08 08:00 | 2021/09/08 08:37 | 2021/09/08 08:37 | 2021/09/08 08:30 | 2021/09/08 08:23 | 2021/09/08 08:15 | 2021/09/08 08:05 | | | |
| COC Number | | n/a | n/a | n/a | n/a | n/a | n/a | n/a | | | |
| | UNITS | SANG-FB-09082021 | SANG-INF-09082021 | SANG-INF-09082021D | SANG-PBG1-09082021 | SANG-PBG2-09082021 | SANG-PBR1-09082021 | SANG-EFF-09082021 | DL | LOD | LOQ |
| **Perfluorinated Compounds** | | | | | | | | | | | |
| Perfluorobutanoic acid (PFBA) | ng/L | 1.4 U | 46 | 45 | 6.5 | 1.4 U | 1.4 U | 1.4 U | 0.67 | 1.4 | 2 |
| Perfluoropentanoic acid (PFPeA) | ng/L | 1.2 U | 130 (1) | 130 (1) | 2.2 | 0.74 J | 1.2 U | 1.2 U | 0.52 | 1.2 | 2 |
| Perfluorohexanoic acid (PFHxA) | ng/L | 1.4 U | 100 (1) | 110 (1) | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.7 | 1.4 | 2 |
| Perfluoroheptanoic acid (PFHpA) | ng/L | 1.2 U | 57 | 59 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.51 | 1.2 | 2 |
| Perfluorooctanoic acid (PFOA) | ng/L | 1.2 U | 52 | 53 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.49 | 1.2 | 2 |
| Perfluorononanoic acid (PFNA) | ng/L | 1.6 U | 14 | 13 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.8 | 1.6 | 2 |
| Perfluorodecanoic acid (PFDA) | ng/L | 1.4 U | 7.8 | 8.2 | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 0.64 | 1.4 | 2 |
| Perfluoroundecanoic acid (PFUnA) | ng/L | 1.6 U | 0.80 J | 0.80 J | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.77 | 1.6 | 2 |
| Perfluorododecanoic acid (PFDoA) | ng/L | 1.2 U | 0.76 J | 0.66 J | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.59 | 1.2 | 2 |
| Perfluorotridecanoic acid (PFTRDA) | ng/L | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.48 | 1.2 | 2 |
| Perfluorotetradecanoic acid(PFTEDA) | ng/L | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.37 | 1.2 | 2 |
| Perfluorobutanesulfonic acid (PFBS) | ng/L | 1.2 U | 21 | 21 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.47 | 1.2 | 2 |
| Perfluoropentanesulfonic acid PFPes | ng/L | 1.6 U | 25 | 26 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.73 | 1.6 | 2 |
| Perfluorohexanesulfonic acid(PFHxS) | ng/L | 1.2 U | 160 (1) | 150 (1) | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.53 | 1.2 | 2 |
| Perfluoroheptanesulfonic acid PFHpS | ng/L | 1.2 U | 8.1 | 7.9 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.57 | 1.2 | 2 |
| Perfluorooctanesulfonic acid (PFOS) | ng/L | 1.2 U | 450 (1) | 460 (1) | 1.3 J | 1.2 U | 0.62 J | 1.2 U | 0.43 | 1.2 | 2 |
| Perfluorononanesulfonic acid (PFNS) | 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) | ng/L | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.53 | 1.2 | 2 |
| Perfluorooctane Sulfonamide (PFOSA) | ng/L | 2.0 U | 0.90 J | 0.94 J | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.81 | 2 | 4 |
| MeFOSAA | ng/L | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 1.2 | 3 | 4 |
| EtFOSAA | ng/L | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 1.4 | 3 | 4 |
| 4:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 1.8 J | 2.0 J | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.69 | 1.6 | 4 |
| 6:2 Fluorotelomer sulfonic acid | ng/L | 4.2 | 180 (1) | 170 (1) | 1.8 U | 1.6 U | **11 J+** | **5.4 J+** | 0.59 | 1.6 | 4 |
| 8:2 Fluorotelomer sulfonic acid | ng/L | 1.6 U | 48 | 56 | 1.6 U | 1.6 U | 1.6 U | 1.6 U | 0.75 | 1.6 | 4 |
| Hexafluoropropyleneoxide dimer acid | ng/L | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.85 | 2 | 4 |
| 4,8-Dioxa-3H-perfluorononanoic acid | ng/L | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 0.31 | 1.2 | 4 |
| 9Cl-PF3ONS (F-53B Major) | ng/L | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.56 | 2 | 4 |
| 11Cl-PF3OUdS (F-53B Minor) | ng/L | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.52 | 2 | 4 |

Notes:
Sample SANG-FB-09082021 is a field blank.
Sample SANG-INF-09082021D is a field duplicate of SANG-INF-09082021.
(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).
Compounds highlighted in gray are the UCMR3 PFAS analytes.
Results bolded in **red** text are qualified based on validation.

DL = Detection Limit
J = Estimated Result. Associated value may not be accurate or precise.
J+ = Estimated Result with a high bias. A more accurate result is expected to be lower.
LOD = Limit of Detection
LOQ = Limit of Quantitation
ng/L = nanograms per Liter or parts per trillion.
U = Undetected. Compound was analyzed for but not detected.

# TABLE 2 - OTHER WATER QUALITY MONITORING RESULTS

| Glycols | | | | |
|---|---|---|---|---|
| **Sample Parameter** | **Sampling Date** | **Influent (mg/L)** | **GAC2 Effluent (mg/L)** | **Effluent (mg/L)** |
| Diethylene glycol | 7/8/2021 | <52 | <52 | <52 |
| Ethylene glycol | | <10 | <10 | <10 |
| Propylene glycol | | <10 | <10 | <10 |
| Triethylene Glycol | | <54 | <54 | <54 |
| Diethylene glycol | 8/10/2021 | <52 | <52 | <52 |
| Ethylene glycol | | <10 | <10 | <10 |
| Propylene glycol | | <10 | <10 | <10 |
| Triethylene Glycol | | <54 | <54 | <54 |
| Diethylene glycol | 9/8/2021 | <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)** | **GAC2 Effluent (mg/L)** | **Effluent (mg/L)** |
| TOC | 7/8/2021 | 4.9 | 1.2 | 1.5 |
| TOC | 8/10/2021 | 1.9 | <0.90 | <0.90 |
| TOC | 9/8/2021 | 3.2 | 0.9 | 0.9 |

# 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 | Media Change Out | Resin Vessel Skimming |
|---|---|---|---|---|---|---|
| July 1, 2021 | | 10 Micron Regular | | Coarse Sand Filters 2A/2B | | |
| July 2, 2021 | 25 Micron Pleated | | Primary Carbon vessels A, B, C, & D | | | |
| July 6, 2021 | 25 Micron Pleated | 10 Micron Pleated | | Fine Sand Filters 3A/3B | | |
| July 7, 2021 | 25 Micron Regular | 10 Micron Regular | Primary Carbon vessels A, B, C, & D | | | |
| July 8, 2021 | | | | | | After skimming Resin vessels A (~4"), B (~4"), C (~5") & D (~4") |
| July 9, 2021 | 25 Micron Pleated | | Primary Carbon vessels A, B, C, & D | | | |
| July 12, 2021 | | | Primary Carbon vessels A, B, C, & D | | | |
| July 14, 2021 | 25 Micron Regular | | | Fine Sand Filters 4A/4B | Train B Media replaced. | |
| July 15 2021 | | | Train B GAC Primary and Secondary | | Train B placed on line. Train A media replaced | |
| July 16, 2021 | | | Train A GAC Primary and Secondary | Fine Sand Filters 5A/5B | Train A placed on line. Train C media replaced | |
| July 17, 2021 | 25 Micron Pleated | 10 Micron Regular | Train C GAC Primary and Secondary | | Train C placed on line. Train D media removed | |
| July 19, 2021 | | 10 Micron Regular | | | Train D Resin and GAC-2 vessels swapped becasuse of corrosion in former GAC-2 vessel. Train D Media replaced | |
| July 20, 2021 | | | Train D GAC Primary and Secondary | | Train D placed on line | |
| July 21, 2021 | | 10 Micron Pleated | | | | |
| July 22, 2021 | 25 Micron Regular | | | Coarse Sand Filters 1A/1B | | |
| July 23, 2021 | 25 Micron Pleated | | Primary Carbon vessels A, B, C, & D | | | |

## 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 | Media Change Out | Resin Vessel Skimming |
|---|---|---|---|---|---|---|
| July 26, 2021 | 25 Micron Regular | 10 Micron Regular | | | | |
| July 27, 2021 | 25 Micron Pleated | 10 Micron Pleated | | | | |
| July 28, 2021 | | | | Fine Sand Filters 5A/5B | | |
| July 29, 2021 | 25 Micron Regular | 10 Micron Regular | | Coarse Sand Filters 2A/2B<br>Fine Sand Filters 4A/4B | | |
| July 30, 2021 | 25 Micron Pleated | | Primary Carbon vessels A, B, C, & D | | | |
| August 2, 2021 | 25 Micron Pleated | | | | | |
| August 3, 2021 | 25 Micron Pleated | 10 Micron Pleated | | | | |
| August 4, 2021 | | | | Fine Sand Filters 3A/3B | | |
| August 5, 2021 | | 10 Micron Regular | | Fine Sand Filters 4A/4B | | |
| August 6, 2021 | 25 Micron Pleated | | Primary Carbon vessels A, B, C, & D | | | |
| August 9, 2021 | | 10 Micron Pleated | | | | |
| August 10, 2021 | 25 Micron Regular | 10 Micron Regular | | | | |
| August 11, 2021 | | 10 Micron Pleated | | Fine Sand Filters 5A/5B | | |
| August 12, 2021 | | | Primary Carbon vessels A, B, C, & D | Coarse Sand Filters 1A/1B | | |

## 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 | Media Change Out | Resin Vessel Skimming |
|---|---|---|---|---|---|---|
| August 13, 2021 | 25 Micron Pleated | | | | | |
| August 16, 2021 | | 10 Micron Pleated | | | Added 5 gallons of Perisan | |
| August 17, 2021 | 25 Micron Regular | | Primary Carbon vessels A, B, C, & D | | | |
| August 18, 2021 | | 10 Micron Regular | Secondary Carbon vessels A, B, C, & D | | | |
| August 19, 2021 | | 10 Micron Regular | Primary Carbon vessels A, B, C, & D | Coarse Sand Filters 2A/2B Fine Sand Filters 3A/3B | | |
| August 20, 2021 | 25 Micron Pleated | | | | | |
| August 23, 2021 | | 10 Micron Regular | | | | Inspect and Level only. No skimming |
| August 24, 2021 | | | Primary Carbon vessels A, B, C, & D | Fine Sand Filters 4A/4B | | |
| August 25, 2021 | | | | Fine Sand Filters 5A/5B | | |
| August 26, 2021 | 25 Micron Pleated | | | | | |
| August 27, 2021 | | | | | | |
| August 30, 2021 | 25 Micron Regular | 10 Micron Regular | Primary Carbon vessels A, B, C, & D | | | |
| August 31, 2021 | | | | Coarse Sand Filters 1A/1B | | |
| September 2, 2021 | | | Primary Carbon vessels A, B, C, & D | Coarse Sand Filters 2A/2B | | |
| September 3, 2021 | 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 | Media Change Out | Resin Vessel Skimming |
|---|---|---|---|---|---|---|
| September 7, 2021 | | 10 Micron Pleated | Secondary Carbon vessels A, B, C, & D | | | |
| September 8, 2021 | | | | Fine Sand Filters 3A/3B | | |
| September 9, 2021 | | | Primary Carbon vessels A, B, C, & D | Fine Sand Filters 4A/4B | | |
| September 10, 2021 | 25 Micron Pleated | | | | | |
| September 13, 2021 | | 10 Micron Pleated | | | | |
| September 14, 2021 | | | | Fine Sand Filters 5A/5B | | |
| September 15, 2021 | 25 Micron Regular | 10 Micron Regular | Primary Carbon vessels A, B, C, & D | | | |
| September 16, 2021 | | | | Coarse Sand Filters 1A/1B | | |
| September 17, 2021 | 25 Micron Pleated | | | | | |
| September 20, 2021 | 25 Micron Regular | 10 Micron Pleated | | Coarse Sand Filters 2A/2B | | |
| September 21, 2021 | 25 Micron Regular | | | | | |
| September 22, 2021 | | 10 Micron Regular | Primary Carbon vessels A, B, C, & D | | | |
| September 23, 2021 | | 10 Micron Regular | Secondary Carbon vessels A, B, C, & D | | | |
| September 24, 2021 | 25 Micron Pleated | | | | | |
| September 27, 2021 | | 10 Micron Pleated | Primary Carbon vessels A, B, C, & D | | | |
| September 28, 2021 | | | | Fine Sand Filters 3A/3B | | |
| September 30, 2021 | | | Primary Carbon vessels A, B, C, & D | | | |
| | | | | | | |
| | | | | | | |

# ATTACHMENT 1

# WASTE MANIFESTS & DISPOSAL CERTIFICATES

ONION EQUIPMENT COMPANY

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

July 28, 2021

Re: Stewart ANG July 2021 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 July 11, 2021.

Our profile with Covanta required that the waste be manifested from Onion Equipment, therefore you will find the associated manifests and disposal certificates from OEC and the associated manifests from SANG.

Thank you,

Eric Patterson

**Non-Hazardous Waste Manifest** SO# 215312

## GENERATOR SECTION

| Non-Hazardous Waste Manifest | Generator ID Number | Waste Profile Number | Waste Tracking (Manifest) Number |
|---|---|---|---|
| | | 5001074 | PO-00340-10 |

| Customer Billing Name and Mailing | Generator's Site Address |
|---|---|
| Onion Equipment Company<br>5705 W 73rd Street - Indianapolis, IN 46278<br>Customer Billing Phone: (317) 694-7576 | Onion Equipment Company<br>5705 W 73rd Street, Indiana<br>Generator's Phone: |

| Transporter 1 Company Name | US EPA ID Number |
|---|---|
| Onion Equipment Company | |
| Transporter 2 Company Name | US EPA ID Number |
| | |

| Designated Facility Name and Site Address | US EPA ID Number |
|---|---|
| Covanta Environmental Solutions<br>2315 S Holt Road- Indianapolis, IN 46241<br>Facility's Phone: (317) 559-5694 | |

| | Waste Shipping Name and Description | Containers No. | Containers Type | Total Quantity | Unit Wt / Vol. | Disposal Method |
|---|---|---|---|---|---|---|
| 1 | non RCRA Spent Irrigation Mix; Non DOT Regulated | 6 | 1 CYD BAG | ~~10,000~~ 10,100 | LB | Fuel |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

| Special Handling Instructions and Additional Information | 24 Hour Emergency Response Phone |
|---|---|
| Profile 5001074; Consolidated load from 21-04A (line 1; 1 SS), 21-11A (line 1; 4 SS, line 2; 1 SS) | 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 | | July | 22 | 2021 |

## TRANSPORTER SECTION

Transporter's Acknowledgement of Receipt of Materials

| Transporter 1 Printed / Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| Steve McPhearson | | July | 22 | 2021 |
| 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 | Signature | Month | Day | Year |
|---|---|---|---|---|
| Peisie Long | | 7 | 22 | 21 |

SO# 25311

## Non-Hazardous Waste Manifest

### GENERATOR SECTION

| Non-Hazardous Waste Manifest | Generator ID Number | Waste Profile Number | Waste Tracking (Manifest) Number |
|---|---|---|---|
| | | 5001074 | PO-00340-11 |

| Customer Billing Name and Mailing | Generator's Site Address |
|---|---|
| Onion Equipment Company<br>5705 W 73rd Street - Indianapolis, IN 46278 | Onion Equipment Company<br>5705 W 73rd Street, Indiana |
| Customer Billing Phone: (317) 694-7576 | Generator's Phone: |

| | |
|---|---|
| Transporter 1 Company Name: Onion Equipment Company | US EPA ID Number |
| Transporter 2 Company Name | US EPA ID Number |
| Designated Facility Name and Site Address: Covanta Environmental Solutions<br>2315 S Holt Road- Indianapolis, IN 46241<br>Facility's Phone: (317) 559-5694 | US EPA ID Number |

| | Waste Shipping Name and Description | Containers No. | Containers Type | Total Quantity | Unit Wt / Vol. | Disposal Method |
|---|---|---|---|---|---|---|
| 1 | non RCRA Spent Irrigation Mix; Non DOT Regulated | 8 ~~12~~ | 1 CYD BAG | 13,600 ~~13,000~~ | LB | Fuel |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

| Special Handling Instructions and Additional Information | 24 Hour Emergency Response Phone |
|---|---|
| Profile 5001074: Consolidated load from 21-11B(line 1; 1 SS, line 2; 2 SS), 21-11A (line 2; 3 SS), 21-11C (line 1; 3SS line 2; 1 SS) | 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 | | July | 22 | 2021 |

### TRANSPORTER SECTION

Transporter's Acknowledgement of Receipt of Materials

| Transporter 1 Printed / Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| Steve McPhearson | | July | 22 | 2021 |
| 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 | Signature | Month | Day | Year |
|---|---|---|---|---|
| | | 7 | 22 | 21 |

## Non-Hazardous Waste Manifest

### GENERATOR SECTION

| Non-Hazardous Waste Manifest | Generator ID Number | Waste Profile Number | Waste Tracking (Manifest) Number |
|---|---|---|---|
| | | 5001074 | PO-00340-11 12 |

| Customer Billing Name and Mailing | Generator's Site Address |
|---|---|
| Onion Equipment Company<br>5705 W 73rd Street - Indianapolis, IN 46278<br>Customer Billing Phone: (317) 694-7576 | Onion Equipment Company<br>5705 W 73rd Street, Indiana<br>Generator's Phone: |

| Transporter 1 Company Name | US EPA ID Number |
|---|---|
| Onion Equipment Company | |
| Transporter 2 Company Name | US EPA ID Number |
| | |
| Designated Facility Name and Site Address<br>Covanta Environmental Solutions<br>2315 S Holt Road- Indianapolis, IN 46241<br>Facility's Phone: (317) 559-5694 | US EPA ID Number |

| Waste Shipping Name and Description | Containers | | Total Quantity | Unit Wt / Vol. | Disposal Method |
|---|---|---|---|---|---|
| | No. | Type | | | |
| 1 non RCRA Spent Irrigation Mix; Non DOT Regulated | 10 | 1 CYD BAG | ~~13,000~~ 17,000 | LB | Fuel |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |

| Special Handling Instructions and Additional Information | 24 Hour Emergency Response Phone |
|---|---|
| Profile 5001074; Consolidated load from 21-11D(line 1; 10 SS)<br>SO# 215310 | 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 | | July | 22 | 2021 |

### TRANSPORTER SECTION

Transporter's Acknowledgement of Receipt of Materials

| Transporter 1 Printed / Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| Steve McPhearson | | July | 22 | 2021 |
| 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 | Signature | Month | Day | Year |
|---|---|---|---|---|
| J Stumpf | | 7 | 22 | 21 |

# Certificate of Materials Management

**Generator**

Onion Equipment Company LLC

5705 W 73rd Street

Indianapolis Indiana 46278

**Shipping Document #** PO-00340-10

**SO #:** Sales Order #SO215312

**Service Date:** 7/22/2021

| Line # | Profile ID | Waste Description | Cont. No. | Container Type | Total Quantity | Unit Wt./Vol. | Management Method | Disposal Site |
|---|---|---|---|---|---|---|---|---|
| 1 | 5001074 | Spent Irrigation Mix Treatment Material | 6 | BA - Burlap, cloth, paper or plastic bags | 10,200 | Pounds | Energy-From-Waste | CES - Indianapolis \| 2515 Holt Rd, Indianapolis, IN |

This document hereby certifies that the above-described materials were managed in accordance with all required and applicable local, state and federal regulations.

COVANTA
Environmental
Solutions

# Certificate of Materials Management

**Generator**

Onion Equipment Company LLC

5705 W 73rd Street

Indianapolis Indiana 46278

**Shipping Document #** PO-00340-11

**SO #:** Sales Order #SO215311

**Service Date:** 7/22/2021

| Line # | Profile ID | Waste Description | Cont. No. | Container Type | Total Quantity | Unit Wt./Vol. | Management Method | Disposal Site |
|---|---|---|---|---|---|---|---|---|
| 1 | 5001074 | Spent Irrigation Mix Treatment Material | 8 | BA - Burlap, cloth, paper or plastic bags | 13,600 | Pounds | Energy-From-Waste | CES - Indianapolis \| 2515 Holt Rd, Indianapolis, IN |

This document hereby certifies that the above-described materials were managed in accordance with all required and applicable local, state and federal regulations.

COVANTA
Environmental
Solutions

# Certificate of Materials Management

**Generator**

Onion Equipment Company LLC

5705 W 73rd Street

Indianapolis Indiana 46278

**Shipping Document #** PO-00340-12

**SO #:** Sales Order #SO215310

**Service Date:** 7/22/2021

| Line # | Profile ID | Waste Description | Cont. No. | Container Type | Total Quantity | Unit Wt./Vol. | Management Method | Disposal Site |
|---|---|---|---|---|---|---|---|---|
| 1 | 5001074 | Spent Irrigation Mix Treatment Material | 10 | BA - Burlap, cloth, paper or plastic bags | 17,000 | Pounds | Energy-From-Waste | CES - Indianapolis \| 2515 Holt Rd, Indianapolis, IN |

This document hereby certifies that the above-described materials were managed in accordance with all required and applicable local, state and federal regulations.

COVANTA
Environmental
Solutions

# Certificate of Materials Management

**Generator**

Onion Equipment Company LLC

5705 W 73rd Street

Indianapolis Indiana 46278

**Shipping Document #** PO-00340-13

**SO #:** Sales Order #SO215487

**Service Date:** 7/23/2021

| Line # | Profile ID | Waste Description | Cont. No. | Container Type | Total Quantity | Unit Wt./Vol. | Management Method | Disposal Site |
|---|---|---|---|---|---|---|---|---|
| 1 | 5001074 | Spent Irrigation Mix Treatment Material | 10 | BA - Burlap, cloth, paper or plastic bags | 17,000 | Pounds | Energy-From-Waste | CES - Indianapolis \| 2515 Holt Rd, Indianapolis, IN |

This document hereby certifies that the above-described materials were managed in accordance with all required and applicable local, state and federal regulations.

## Non-Hazardous Waste Manifest

SO# 215487

### GENERATOR SECTION

| Non-Hazardous Waste Manifest | Generator ID Number | Waste Profile Number | Waste Tracking (Manifest) Number |
|---|---|---|---|
| | | 5001074 | PO-00340-13 |

| Customer Billing Name and Mailing | Generator's Site Address |
|---|---|
| Onion Equipment Company<br>5705 W 73rd Street - Indianapolis, IN 46278<br>Customer Billing Phone: (317) 694-7576 | Onion Equipment Company<br>5705 W 73rd Street, Indiana<br>Generator's Phone: |

| Transporter 1 Company Name | US EPA ID Number |
|---|---|
| Onion Equipment Company | |
| Transporter 2 Company Name | US EPA ID Number |
| | |
| Designated Facility Name and Site Address<br>Covanta Environmental Solutions<br>2315 S Holt Road- Indianapolis, IN 46241<br>Facility's Phone: (317) 559-5694 | US EPA ID Number |

| Waste Shipping Name and Description | Containers | | Total Quantity | Unit Wt / Vol. | Disposal Method |
|---|---|---|---|---|---|
| | No. | Type | | | |
| 1 non RCRA Spent Irrigation Mix; Non DOT Regulated | 10 | 1 CYD BAG | ~~13,000~~ 17000 | LB | Fuel |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |

| Special Handling Instructions and Additional Information | 24 Hour Emergency Response Phone |
|---|---|
| Profile 5001074; Consolidated load from 21-11D(line 1; 2 SS), 21-11B (line 2; 2 SS, line 3, 3 SS), 21-11E (line 1; 3 SS) | 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 | | July | 22 | 2021 |

### TRANSPORTER SECTION

Transporter's Acknowledgement of Receipt of Materials

| Transporter 1 Printed / Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| Steve McPhearson | | July | 22 | 2021 |
| 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 | Signature | Month | Day | Year |
|---|---|---|---|---|
| Brad Bjer | | 7 | 23 | 21 |

## Non-Hazardous Waste Manifest

SO # 2154164

### GENERATOR SECTION

| Non-Hazardous Waste Manifest | Generator ID Number | Waste Profile Number | Waste Tracking (Manifest) Number |
|---|---|---|---|
| | | 5001074 | PO-00340-14 |

| Customer Billing Name and Mailing | Generator's Site Address |
|---|---|
| Onion Equipment Company<br>5705 W 73rd Street - Indianapolis, IN 46278 | Onion Equipment Company<br>5705 W 73rd Street, Indiana |
| Customer Billing Phone: (317) 694-7576 | Generator's Phone: |

| Transporter 1 Company Name | US EPA ID Number |
|---|---|
| Onion Equipment Company | |
| Transporter 2 Company Name | US EPA ID Number |
| | |

| Designated Facility Name and Site Address | US EPA ID Number |
|---|---|
| Covanta Environmental Solutions<br>2315 S Holt Road- Indianapolis, IN 46241<br>Facility's Phone: (317) 559-5694 | |

| | Waste Shipping Name and Description | Containers No. | Containers Type | Total Quantity | Unit Wt / Vol. | Disposal Method |
|---|---|---|---|---|---|---|
| 1 | non RCRA Spent Irrigation Mix; Non DOT Regulated | 8 | 1 CYD BAG | ~~13,000~~ 13400 | LB | Fuel |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

| Special Handling Instructions and Additional Information | 24 Hour Emergency Response Phone |
|---|---|
| Profile 5001074; Consolidated load from 21-11E (line 1; 6 SS) | 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 | | July | 22 | 2021 |

### TRANSPORTER SECTION

Transporter's Acknowledgement of Receipt of Materials

| Transporter 1 Printed / Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| Steve McPhearson | | July | 22 | 2021 |
| 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 |
|---|---|
| 2:30 pm<br>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 | Signature | Month | Day | Year |
|---|---|---|---|---|
| Alia Trent Lam | | 7 | 23 | 21 |

COVANTA
Environmental
Solutions

# Certificate of Materials Management

**Generator**

Onion Equipment Company LLC

5705 W 73rd Street

Indianapolis Indiana 46278

**Shipping Document #** PO-00340-14

**SO #:** Sales Order #SO215464

**Service Date:** 7/23/2021

| Line # | Profile ID | Waste Description | Cont. No. | Container Type | Total Quantity | Unit Wt./Vol. | Management Method | Disposal Site |
|---|---|---|---|---|---|---|---|---|
| 1 | 5001074 | Spent Irrigation Mix Treatment Material | 8 | BA - Burlap, cloth, paper or plastic bags | 13,600 | Pounds | Energy-From-Waste | CES - Indianapolis \| 2515 Holt Rd, Indianapolis, IN |

This document hereby certifies that the above-described materials were managed in accordance with all required and applicable local, state and federal regulations.

**Non-Hazardous Waste Manifest**

## GENERATOR SECTION

| Non-Hazardous Waste Manifest | Generator ID Number | Waste Profile Number | Waste Tracking (Manifest) Number |
|---|---|---|---|
| | | 5001074 | 21-11A |

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

| Transporter 1 Company Name | US EPA ID Number |
|---|---|
| Onion Equipment Company | |
| **Transporter 2 Company Name** | **US EPA ID Number** |
| | |
| **Designated Facility Name and Site Address** | **US EPA ID Number** |
| Covanta Environmental Solutions<br>2330 South Harding Street - Indianapolis, IN 46221<br>Facility's Phone: (317) 559-5694 | |

| Waste Shipping Name and Description | Containers | | Total Quantity | Unit Wt / Vol. | Disposal Method |
|---|---|---|---|---|---|
| | No. | Type | | | |
| 1 non RCRA Spent Irrigation Mix; Non DOT Regulated | 4 | 1 CYD BAG | 10,000 | LB | Fuel |
| 2 non RCRA Spent Irrigation Mix; Non DOT Regulated | 4 | 1 CYD BAG | 2,000 | LB | Fuel |
| 3 | | | | | |
| 4 | | | | | |

| Special Handling Instructions and Additional Information | 24 Hour Emergency Response Phone |
|---|---|
| Profile 5001074; Item 1 - Prefiltration Media; Item 2 - Prefiltration Bags<br>Consolidated line 1 (all)<br>line 2 (1ss) PO-00340-10<br>Manifest number changed from PO-00340-10<br>line 2 (3ss) PO-00340-11 | 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 |
|---|---|---|---|---|
| Michael Oettinger | OETTINGER.MICHAEL.J.1470725288 Digitally signed by OETTINGER.MICHAEL.J.1470725288 Date: 2021.07.07 10:59:16 -04'00' | July | 7 | 2021 |

## TRANSPORTER SECTION

Transporter's Acknowledgement of Receipt of Materials

| Transporter 1 Printed / Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| Steve McPhearson | | July | 7 | 2021 |
| 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 |
|---|---|
| Onion Equipment Co<br>Facility's Phone: (received and reshipped on cover manifest) | |
| 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 |
|---|---|---|---|---|
| Eric Patterson | | 7 | 22 | 21 |

**Non-Hazardous Waste Manifest**

## GENERATOR SECTION

| Non-Hazardous Waste Manifest | Generator ID Number | Waste Profile Number | Waste Tracking (Manifest) Number |
|---|---|---|---|
| | | 5001074 | 21-11B |

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

| Transporter 1 Company Name | US EPA ID Number |
|---|---|
| Onion Equipment Company | |
| **Transporter 2 Company Name** | **US EPA ID Number** |
| | |
| **Designated Facility Name and Site Address** | **US EPA ID Number** |
| Covanta Environmental Solutions<br>2330 South Harding Street - Indianapolis, IN 46221<br>Facility's Phone: (317) 559-5694 | |

| Waste Shipping Name and Description | Containers | | Total Quantity | Unit Wt / Vol. | Disposal Method |
|---|---|---|---|---|---|
| | No. | Type | | | |
| 1 non RCRA Spent Irrigation Mix; Non DOT Regulated | 1 | 1 CYD BAG | 2,500 | LB | Fuel |
| 2 non RCRA Spent Irrigation Mix; Non DOT Regulated | 2 | 1 CYD BAG | 4,000 | LB | Fuel |
| 3 non RCRA Spent Irrigation Mix; Non DOT Regulated | 3 | 1 CYD BAG | 1,500 | LB | Fuel |
| 4 | | | | | |

| Special Handling Instructions and Additional Information | 24 Hour Emergency Response Phone |
|---|---|
| Profile 5001074; Item 1 - Prefiltration Media, Item 2 - Resin, Item 3 - Prefiltration Bags<br>Manifest number changed from PO-00340-11<br>Consolidated line 1 ~~#~~ to PO-00340-11<br>Consol line 2,3 to PO-00340-13 | 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 |
|---|---|---|---|---|
| Michael Oettinger | OETTINGER.MICHAEL.J.1470725288 Digitally signed by OETTINGER.MICHAEL.J.1470725288 Date: 2021.07.09 13:00:36 -04'00' | July | 9 | 2021 |

## TRANSPORTER SECTION

Transporter's Acknowledgement of Receipt of Materials

| Transporter 1 Printed / Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| Steve McPhearson | | July | 9 | 2021 |
| 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 | Signature | Month | Day | Year |
|---|---|---|---|---|
| Eric Patterson | | 7 | 22 | 21 |

## Non-Hazardous Waste Manifest

### GENERATOR SECTION

| Non-Hazardous Waste Manifest | Generator ID Number | Waste Profile Number | Waste Tracking (Manifest) Number |
|---|---|---|---|
| | | 5001074 | 21-11C |

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

| Transporter 1 Company Name | US EPA ID Number |
|---|---|
| Onion Equipment Company | |
| Transporter 2 Company Name | US EPA ID Number |
| | |
| Designated Facility Name and Site Address<br>Covanta Environmental Solutions<br>2330 South Harding Street - Indianapolis, IN 46221<br>Facility's Phone: (317) 559-5694 | US EPA ID Number |

| | Waste Shipping Name and Description | Containers No. | Containers Type | Total Quantity | Unit Wt / Vol. | Disposal Method |
|---|---|---|---|---|---|---|
| 1 | non RCRA Spent Irrigation Mix; Non DOT Regulated | 3 | 1 CYD BAG | 3,000 | LB | Fuel |
| 2 | non RCRA Spent Irrigation Mix; Non DOT Regulated | 1 | 1 CYD BAG | 4,000 | LB | Fuel |
| 3 | | | | | | |
| 4 | | | | | | |

| Special Handling Instructions and Additional Information | 24 Hour Emergency Response Phone |
|---|---|
| Profile 5001074<br>Manifest number changed from PO-00340-12<br>Consolidated Inc 1 and 2<br>PO-00340-11 | 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 |
|---|---|---|---|---|
| Michael Oettinger | OETTINGER.MICHAEL.J.1470725288 Digitally signed by OETTINGER.MICHAEL.J.1470725288 Date: 2021.07.14 12:26:27 -04'00' | July | 14 | 2021 |

### TRANSPORTER SECTION

Transporter's Acknowledgement of Receipt of Materials

| Transporter 1 Printed / Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| Steve McPhearson | | July | 14 | 2021 |
| 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 | Signature | Month | Day | Year |
|---|---|---|---|---|
| Eric Patterson | | 7 | 22 | 21 |

## Non-Hazardous Waste Manifest

### GENERATOR SECTION

| Non-Hazardous Waste Manifest | Generator ID Number | Waste Profile Number | Waste Tracking (Manifest) Number |
|---|---|---|---|
| | | 5001074 | 21-11C |

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

| Transporter 1 Company Name | US EPA ID Number |
|---|---|
| Onion Equipment Company | |
| **Transporter 2 Company Name** | **US EPA ID Number** |
| | |
| **Designated Facility Name and Site Address** | **US EPA ID Number** |
| Covanta Environmental Solutions<br>2330 South Harding Street - Indianapolis, IN 46221<br>Facility's Phone: (317) 559-5694 | |

| Waste Shipping Name and Description | Containers | | Total Quantity | Unit Wt / Vol. | Disposal Method |
|---|---|---|---|---|---|
| | No. | Type | | | |
| 1 non RCRA Spent Irrigation Mix; Non DOT Regulated | 3 | 1 CYD BAG | 3,000 | LB | Fuel |
| 2 non RCRA Spent Irrigation Mix; Non DOT Regulated | 1 | 1 CYD BAG | 4,000 | LB | Fuel |
| 3 | | | | | |
| 4 | | | | | |

| Special Handling Instructions and Additional Information | 24 Hour Emergency Response Phone |
|---|---|
| Profile 5001074<br>Manifest number changed from PO-00340-12<br>Consolidated Inc 1 and 2<br>PO-00340-11 | 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 |
|---|---|---|---|---|
| Michael Oettinger | OETTINGER.MICHAEL.J.1470725288 Digitally signed by OETTINGER.MICHAEL.J.1470725288 Date: 2021.07.14 12:26:27 -04'00' | July | 14 | 2021 |

### TRANSPORTER SECTION

Transporter's Acknowledgement of Receipt of Materials

| Transporter 1 Printed / Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| Steve McPhearson | | July | 14 | 2021 |
| 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 | Signature | Month | Day | Year |
|---|---|---|---|---|
| Eric Patterson | | 7 | 22 | 21 |

**Non-Hazardous Waste Manifest**

## GENERATOR SECTION

| Non-Hazardous Waste Manifest | Generator ID Number | Waste Profile Number | Waste Tracking (Manifest) Number |
|---|---|---|---|
| | | 5001074 | 21-11D |

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

| Transporter 1 Company Name | US EPA ID Number |
|---|---|
| Onion Equipment Company | |
| Transporter 2 Company Name | US EPA ID Number |
| | |
| Designated Facility Name and Site Address<br>Covanta Environmental Solutions<br>2330 South Harding Street - Indianapolis, IN 46221<br>Facility's Phone: (317) 559-5694 | US EPA ID Number |

| | Waste Shipping Name and Description | Containers No. | Containers Type | Total Quantity | Unit Wt / Vol. | Disposal Method |
|---|---|---|---|---|---|---|
| 1 | non RCRA Spent Irrigation Mix; Non DOT Regulated | 12 | 1 CYD BAG | 12,000 | LB | Fuel |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

| Special Handling Instructions and Additional Information | 24 Hour Emergency Response Phone |
|---|---|
| Profile 5001074<br>Carbon<br>Manifest number changed from PO-00340-13<br>Consol - line 1, 10 bags PO-00340-12<br>Consol - line 1, 2 bags PO-00340-13 | 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 |
|---|---|---|---|---|
| Michael Oettinger | OETTINGER.MICHAEL.J.1470725288 Digitally signed by OETTINGER.MICHAEL.J.1470725288 Date: 2021.07.20 07:51:06 -04'00' | July | 20 | 2021 |

## TRANSPORTER SECTION

Transporter's Acknowledgement of Receipt of Materials

| | | | | |
|---|---|---|---|---|
| Transporter 1 Printed / Typed Name<br>Zach Patterson | Signature | Month<br>July | Day<br>20 | Year<br>2021 |
| 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 | Signature | Month | Day | Year |
|---|---|---|---|---|
| Eric Patterson | | 7 | 22 | 21 |

**Non-Hazardous Waste Manifest**

## GENERATOR SECTION

| Non-Hazardous Waste Manifest | Generator ID Number | Waste Profile Number | Waste Tracking (Manifest) Number |
|---|---|---|---|
| | | 5001074 | 21-11E |

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

| Transporter 1 Company Name | US EPA ID Number |
|---|---|
| Onion Equipment Company | |
| **Transporter 2 Company Name** | **US EPA ID Number** |
| | |
| **Designated Facility Name and Site Address** | **US EPA ID Number** |
| Covanta Environmental Solutions<br>2330 South Harding Street - Indianapolis, IN 46221<br>Facility's Phone: (317) 559-5694 | |

| Waste Shipping Name and Description | Containers | | Total Quantity | Unit Wt / Vol. | Disposal Method |
|---|---|---|---|---|---|
| | No. | Type | | | |
| 1 non RCRA Spent Irrigation Mix; Non DOT Regulated | 9 | 1 CYD BAG | 15,876 | LB | Fuel |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |

| Special Handling Instructions and Additional Information | 24 Hour Emergency Response Phone |
|---|---|
| Profile 5001074<br>Resin<br>Manifest number changed from PO-00340-14<br>Consolidated line 1 (355) PO-00340-13<br>line 1 (655) PO-00340-14 | 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 |
|---|---|---|---|---|
| Michael Oettinger | OETTINGER.MICHAEL.J.1470725288 Digitally signed by OETTINGER.MICHAEL.J.1470725288 Date: 2021.07.20 07:50:19 -04'00' | July | 20 | 2021 |

## TRANSPORTER SECTION

Transporter's Acknowledgement of Receipt of Materials

| Transporter 1 Printed / Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| Zach Patterson | | July | 20 | 2021 |
| 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 |
|---|---|
| Onion Equipment (reed and reship on cover manifest)<br>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 | Signature | Month | Day | Year |
|---|---|---|---|---|
| Eric Patterson | | 7 | 22 | 21 |