6 September 2022

Mr. Scott Sokolowski
Remedial Project Manager
Naval Facilities Engineering Systems Command, Mid-Atlantic
9324 Virginia Avenue, Building Z-144
Norfolk, VA 23511-3095

Subject: **August 2022 Monthly Operating Report**
Full Scale Liquid-Phase Granular Activated Carbon Treatment System
Liberty New York Water, Seamans Neck Road Water Plant
NWIRP Bethpage, New York
Contract No. N40085-16-D-2288, Task Order N4008518F5125

Dear Mr. Sokolowski,

The Full Scale Liquid-Phase Granulated Activated Carbon (GAC) Treatment System is located at the Liberty New York Water (LNYW) Seamans Neck Road Water Plant in Levittown, NY. The GAC System was installed at the effluent of the potable water plant and consists of six GAC vessels operating in parallel to remove low levels of trichloroethene (TCE) from Well No. 3S and Well No. 4S. After processing through the GAC units, the water is treated with sodium hypochlorite and sodium tripolyphosphate before distribution. Startup of the GAC Treatment System occurred on 8 January 2015 by CH2MHill. KOMAN Government Solutions, LLC (KGS) began operation and maintenance (O&M) activities in March 2015.

In May 2018, production Well No. 3S was decommissioned and has been replaced with a new production well designated as Well No. 3A. Well No. 4S is normally in operation during the entire month, while well No. 3A is operated infrequently, typically during the periods of higher water demand.

This report documents the routine operation and maintenance of the GAC System performed during the month of August 2022. **Attachment 1** presents the field logs detailing system operating data as recorded during the month. These readings include flow rate and total flows of the overall GAC System and each GAC unit, pressures across the GAC System, effluent chlorine residual and pH values, chemical usage levels of sodium hypochlorite and sodium tripolyphosphate for each chemical tank, and chemical metering pump settings and pressures.

Electricity use is no longer monitored and recorded using the Leviton Series 2000 Multiple Meter Unit. Summary energy consumption reports will be provided separately to the Navy representative.

A summary of the system operating data recorded in August 2022 is presented below in **Table 1**.

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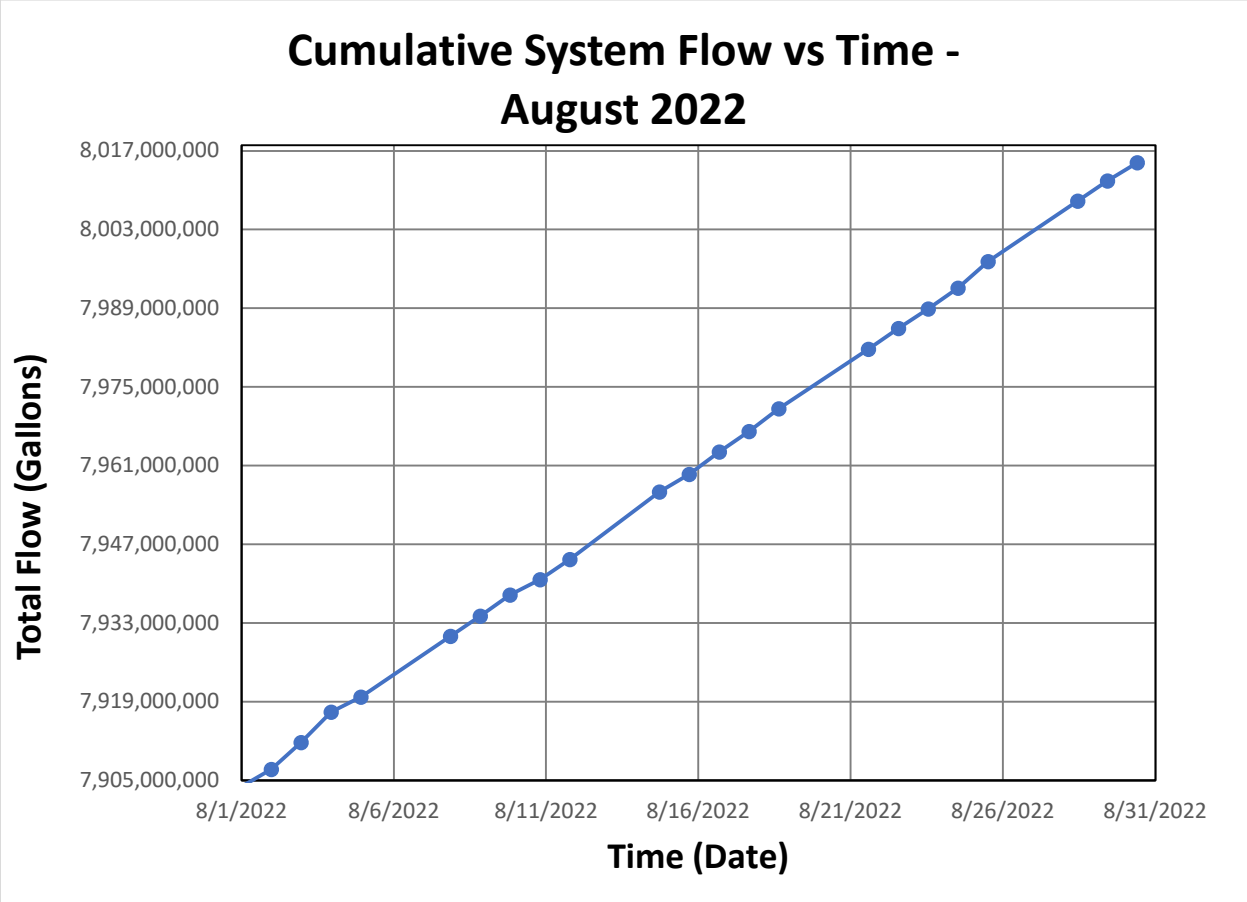
Table 1 - *System Operating Data for August 2022*

Date	Total Flow	Flow Rate	Influent Pressure	Effluent Pressure	Differential Pressure	Effluent Chlorine Residual	Effluent pH
	(Gallons)	(GPM)	(PSI)	(PSI)	(PSI)	(mg/L)[1]	(SU)[1]
8/1/2022	7,903,909,000	3,250	76	65	10.7	1.67 read 1.64 manual	6.90 read
8/2/2022	7,906,972,000	3,100	83	73	10.4	1.70 read 1.64 manual	7.00 read
8/3/2022	7,911,739,000	3,250	85	75	10.4	1.83 read 1.80 manual	7.00 read
8/4/2022	7,917,139,000	3,150	82	72	10.7	2.01 read 1.97 manual	6.95 read
8/5/2022	7,919,842,000	2,000	65	53	11.2	1.72 read 1.68 manual	6.95 read
8/8/2022	7,930,639,000	3,200	85	75	10.1	1.83 read 1.80 manual	6.95 read
8/9/2022	7,934,235,000	3,350	76	68	9.8	1.91 read 1.90 manual	6.95 read
8/10/2022	7,937,980,000	2,025	70	63	8.7	1.67 read 1.65 manual	6.95 read
8/11/2022	7,940,732,000	2,100	60	52	8.1	1.66 read 1.65 manual	7.20 read
8/12/2022	7,944,303,000	3,350	75	66	9.1	1.82 read 1.79 manual	7.10 read
8/15/2022	7,956,338,000	3,150	85	76	8.6	1.17 read 1.14 manual	6.80 read
8/16/2022	7,959,445,000	3,300	73	65	9.7	1.64 read 1.85 manual	7.00 read
8/17/2022	7,963,419,000	3,050	84	76	9.3	1.56 read 1.48 manual	7.00 read
8/18/2022	7,967,085,000	3,050	88	79	9.6	1.55 read 1.61 manual	6.90 read
8/19/2022	7,971,129,000	2,050	67	63	4.1	1.77 read 1.59 manual	7.00 read
8/22/2022	7,981,725,000	2,050	66	62	4.2	1.79 read 1.67 manual	6.90 read
8/23/2022	7,985,442,000	3,150	82	74	9.1	1.79 read 1.85 manual	6.90 read
8/24/2022	7,988,887,000	3,300	70	60	10.4	1.73 read 1.89 manual	6.90 read
8/25/2022	7,992,617,000	3,400	73	62	10.6	1.87 read 1.99 manual	6.90 read
8/26/2022	7,997,298,000	3,400	78	67	10.5	1.76 read 1.88 manual	6.90 read
8/29/2022	8,008,082,000	2,050	57	57	4.4	1.70 read 1.83 manual	7.00 read
8/30/2022	8,011,679,000	2,000	79	75	4.2	1.81 read 1.89 manual	7.00 read
8/31/2022	8,014,932,000	2,000	59	55	4.5	1.58 read 1.69 manual	6.90 read

(1) Effluent pH and chlorine residual readings are recorded by the in-line pH meter and chlorine analyzer. Chlorine is also checked with a manual chlorine residual meter for comparison, while manual pH is only checked occasionally. Both in-line and manual readings are presented, if collected, as noted above.

Figure 1, below, illustrates the volume of water treated by the GAC System since system startup, with the increment for the month of August 2022. Over 111 million gallons of water were treated in August 2022, bringing the total cumulative volume of water treated since startup to over 8.01 billion gallons.

Figure 1 - ***Volume of Water Treated through Full Scale GAC System (August 2022)***



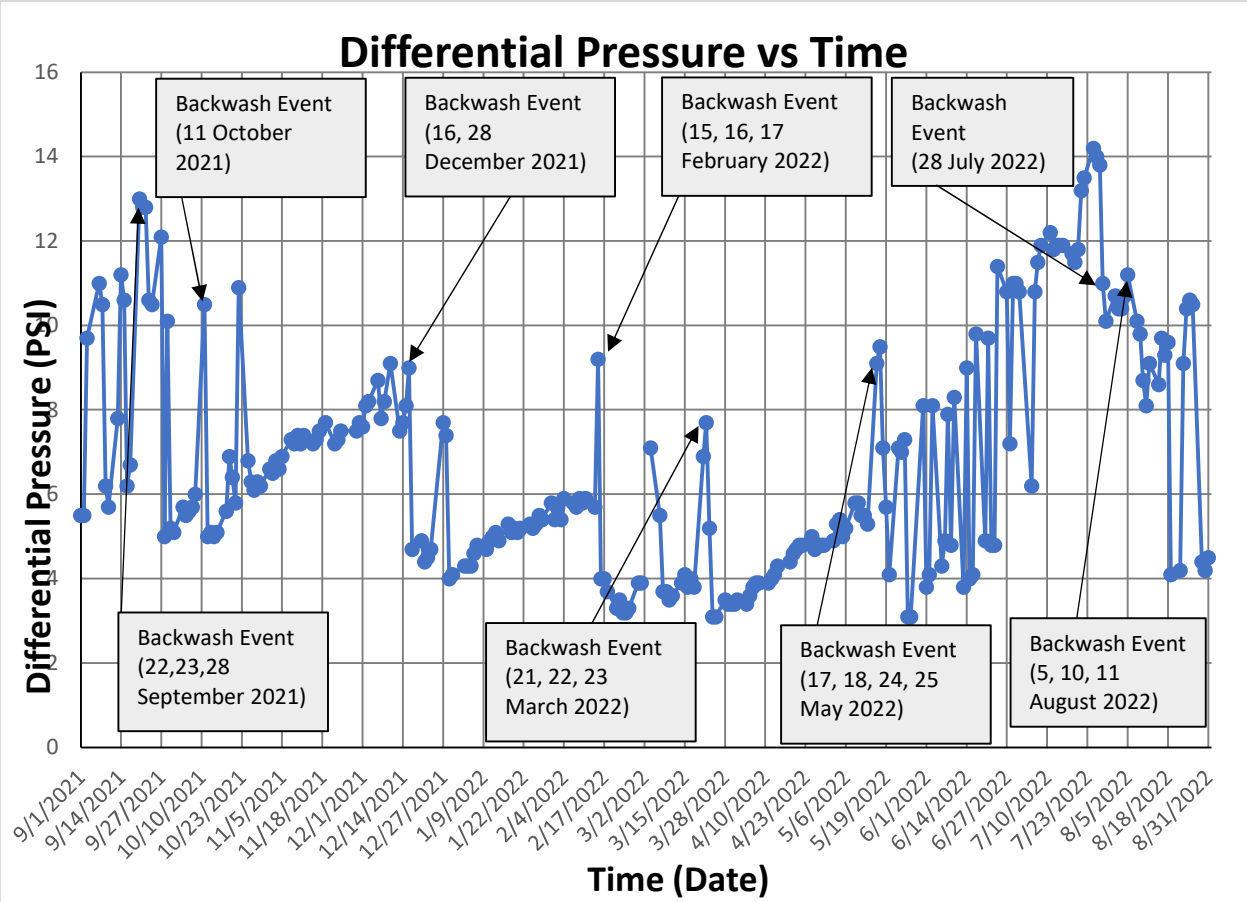
In general, differential pressure increases as the system continues to operate, and decreases after a backwashing event. The increasing trend then continues until the next backwashing event is performed. Also, lower differential pressures are observed during times of low water demand (e.g., typically over the winter months). **Figure 2,** below, depicts the pressure loss across the GAC System and subsequent backwashing dates, from September 2021 through the current reporting period.

Backwashing events during the summer and fall are performed more often because of the higher demand during that time of year. The exchange of carbon in each of the six GAC vessels with virgin coconut shell carbon was completed in August 2020 and the Seamans Neck Road facility

is able to operate at full capacity. In support of the 2020 Fourth Quarter bacteria sampling conducted in December 2020, it was identified that each vessel required additional backwashing and/or flushing prior to returning to service to address a colored water issue attributable to the remobilization of iron-impacted materials released when flow through the vessels was stopped for a mandatory 12-hour period prior to bacteria sampling, per NCDOH requirements. The additional backwashing/flushing events have been incorporated into the standard process for bacteria sampling.

The facility is operating at full design capacity and pressure loss across the overall GAC System is monitored regularly, and it is expected that backwashing events will occur on a periodic basis as needed. In addition, it is expected that backwashing of each vessel will be conducted following each quarterly bacteria sampling event to address potential colored water issues and to ensure the timely return to service for each vessel.

Figure 2 - *System Differential Pressure vs. Time*



System Maintenance

Routine maintenance of the GAC System during this reporting period consisted of:

- General monitoring of the system flow rates, totalized flows, influent and effluent pressures, differential pressure, chlorine residual, and pH readings.
- Changing paper for the chlorine/pH chart recorder and flow/differential pressure chart recorder on a weekly basis.
- Calibration of the pH meter on a weekly basis.
- Periodic running of Well 3A in place of or concurrently with Well 4S had previously been initiated; Well 3A ran concurrently with Well 4S on 1 through 4 August, 8 through 9 August, 12 through 18 August, and 23 through 26 August.

In addition, the following non-routine activities or operation issues occurred during the August 2022 reporting period:

- On 5 August, GACs #500 and #600 were backwashed as the result of higher than typical build-up of particulate material in the carbon matrix.
- On 10 through 11 August, GACs #300 and #400 were backwashed as the result of higher than typical build-up of particulate material in the carbon matrix.

Please contact me at 610-400-0636 or rgregory@komangs.com with any questions or concerns regarding this report.

Sincerely,

KOMAN Government Solutions, LLC

Robert G. Gregory
Project Manager

Cc: C. Shukis - NAVFAC
V. Varricchio - NWIRP Bethpage Facilities Management
R. Kern - LNYW
N. Niola – LNYW
J. Palmer - LNYW
P. Schauble - KGS
R. Hoffmaster – KGS
D. Brayack - Tetra Tech
J. Pelton – NYSDEC
K. Granzen – NYSDEC
M. Travis – NYSDEC

ATTACHMENT 1

O&M LOGS – AUGUST 2022

Daily Readings
Granular Activated Carbon Treatment System

Description	Date	7.26.2022	7.27.2022	7.28.2022	7.29.2022	8.1.2022	8.2.2022
System Flow Rate	GPM	3250	3250	1900	3550	3250	3100
Total System Flow	Gallons	7965596	7969163	7973012	7975939	7987781	7990844
Well 3 Status	ON OR OFF	ON	ON	OFF	ON	ON	ON
Well 4 Status	ON OR OFF	ON	ON	ON	ON	ON	ON
Tank 100 Flow Rate	GPM	500	500	o/c	650	600	550
Tank 200 Flow Rate	GPM	500	450	o/c	650	600	500
Tank 300 Flow Rate	GPM	600	600	500	600	600	600
Tank 400 Flow Rate	GPM	650	600	500	600	650	550
Tank 500 Flow Rate	GPM	650	650	550	650	650	600
Tank 600 Flow Rate	GPM	500	550	500	550	500	450
Tank 100 Total Flow	Gallons	93,750,000	94,266,000	94,823,000	95,050,000	97,196,000	97,748,000
Tank 200 Total Flow	Gallons	33,492,000	33,988,000	34,516,000	34,758,000	36,729,000	37,247,000
Tank 300 Total Flow	Gallons	24,579,000	25,212,000	25,859,000	26,511,000	28,430,000	28,981,000
Tank 400 Total Flow	Gallons	11,114,000	11,714,000	12,324,000	12,920,000	14,301,000	15,208,000
Tank 500 Total Flow	Gallons	40,741,000	41,421,000	42,158,000	42,813,000	44,876,000	45,404,000
Tank 600 Total Flow	Gallons	01,240,000	01,769,000	02,318,000	02,852,000	04,454,000	04,868,000
System Influent Pressure	PSI	81	76	75	67	76	83
System Effluent Pressure	PSI	67	64	64	57	65	73
System Differential Pressure	PSI	14.0	13.8	11.0	10.1	10.7	10.4
Chlorine Analyzer: Free Chlorine Residual - Inline	PPM	1.94	1.13	1.86	1.75	1.67	1.70
Effluent Water pH - Inline	Units	6.9	6.9	6.9	7.0	6.9	7.0
Manual Chlorine Reading (ex: Hach Kit)	PPM	1.92	1.09	1.71	1.69	1.64	1.64
Manual pH check (ex: Hanna)	Units						

Daily Readings
Granular Activated Carbon Treatment System

Description	Date	7-26-2022	7-27-2022	7-28-2022	7-29-2022	8-1-2022	8-2-2022
Tank 900A Hypochlorite Level	Gallons	132	121	150	140	147	112
Tank 900B Hypochlorite Level	Gallons	105	65	145	105	145	130
Tank 900C Hypochlorite Level	Gallons	141	141	141	141	140	140
Tank 900A Polyphosphate Level	Gallons	139	120	102	140	80	68
Tank 900B Polyphosphate Level	Gallons	149	141	141	141	121	117
Metering Pump 900A: Hypochlorite Output Pressure	PSI						
Metering Pump 900B: Hypochlorite Output Pressure	PSI						
Metering Pump 900A: Phosphate Output Pressure	PSI						
Metering Pump 900B: Phosphate Output Pressure	PSI						
Metering Pump 900A: Stroke/Speed	Units						
Metering Pump 900B: Stroke/Speed	Units						
Metering Pump 900A: Stroke/Speed	Units						
Metering Pump 900B: Stroke/Speed	Units						
Generator Operating Hours	Hours						
Main Facility Electric Meter Reading							
Comments (additional tasks performed, maintenance needed, contractors on site, etc.)		Replaced Smoke Senson South End of building Replaced outside lights (3) Phos. Delv.		Backwash GAC 1 & 2 Cl Delv.	Put GAC 1 & 2 Back In Service 10:25 p.m Phos. Delv.	Cl Delv.	

Daily Readings
Granular Activated Carbon Treatment System

Description	Date	8.3.2022	8.4.2022	8.5.2022	8.8.2022	8.9.2022	8.10.2022
System Flow Rate	GPM	3250	3150	2000	3200	3350	2025
Total System Flow	Gallons	799,561	800,101	800,371	801,451	801,810	802,185
Well 3 Status	ON OR OFF	ON	ON	OFF	ON	ON	OFF
Well 4 Status	ON OR OFF	ON	ON	ON	ON	ON	ON
Tank 100 Flow Rate	GPM	600	550	500	500	550	500
Tank 200 Flow Rate	GPM	600	550	500	500	550	500
Tank 300 Flow Rate	GPM	650	600	550	500	600	o/c
Tank 400 Flow Rate	GPM	600	600	500	550	650	o/c
Tank 500 Flow Rate	GPM	650	600	o/c	650	650	550
Tank 600 Flow Rate	GPM	500	500	o/c	500	500	450
Tank 100 Total Flow	Gallons	98,487,000	99,037,000	99,535,000	01,741,000	02,209,000	02,835,000
Tank 200 Total Flow	Gallons	37,801,000	38,493,000	39,002,000	41,004,000	41,687,000	42,058,000
Tank 300 Total Flow	Gallons	29,511,000	30,205,000	30,887,000	32,798,000	33,328,000	33,800,000
Tank 400 Total Flow	Gallons	15,979,000	16,404,000	17,293,000	18,781,000	19,301,000	19,728,000
Tank 500 Total Flow	Gallons	46,071,000	46,725,000	47,440,000	49,826,000	50,427,000	51,507,000
Tank 600 Total Flow	Gallons	05,237,000	05,871,000	06,372,000	08,241,000	08,628,000	09,505,000
System Influent Pressure	PSI	85	82	65	85	76	70
System Effluent Pressure	PSI	75	72	53	75	68	63
System Differential Pressure	PSI	10.4	10.7	11.2	10.1	9.8	8.7
Chlorine Analyzer: Free Chlorine Residual - Inline	PPM	1.83	2.01	1.72	1.83	1.91	1.67
Effluent Water pH - Inline	Units	7.0	6.95	6.95	6.95	6.95	6.95
Manual Chlorine Reading (ex: Hach Kit)	PPM	1.80	1.97	1.68	1.80	1.90	1.65
Manual pH check (ex: Henna)	Units						

Daily Readings
Granular Activated Carbon Treatment System

Description	Date	8.3.2022	8.4.2022	8.5.2022	8.8.2022	8.9.2022	8.10.2022
Tank 500A Hypochlorite Level	Gallons	80	145	130	150	130	119
Tank 500B Hypochlorite Level	Gallons	105	143	135	147	127	70
Tank 500C Hypochlorite Level	Gallons	140	145	145	143	143	130
Tank 500A Polyphosphate Level	Gallons	45	33	130	140	123	115
Tank 500B Polyphosphate Level	Gallons	110	105	131	139	137	130
Metering Pump 500A: Hypochlorite Output Pressure	PSI						
Metering Pump 500B: Hypochlorite Output Pressure	PSI						
Metering Pump 500A: Phosphate Output Pressure	PSI						
Metering Pump 500B: Phosphate Output Pressure	PSI						
Metering Pump 500A: Stroke/Speed	Units						
Metering Pump 500B: Stroke/Speed	Units						
Metering Pump 500A: Stroke/Speed	Units						
Metering Pump 500B: Stroke/Speed	Units						
Generator Operating Hours	Hours						
Main Facility Electric Meter Reading							
Comments (additional tasks performed, maintenance needed, contractors on site, etc.)			CL Delv. Fe Sample Backwashing GAC 506	Phos. Delv.	CL Delv. Phos.		Backwashing GAC 304

Daily Readings
Granular Activated Carbon Treatment System

Description	Date	8.11.2022	8.12.2022	8.15.2022	8.16.2022	8.17.2022	8.18.2022
System Flow Rate	GPM	2100	3350	3150	3300	3050	3050
Total System Flow	Gallons	8024604	8028175	8040210	8043317	8047291	8050957
Well 3 Status	ON OR OFF	OFF	ON	ON	ON	ON	ON
Well 4 Status	ON OR OFF	ON	ON	ON	ON	ON	ON
Tank 100 Flow Rate	GPM	500	500	400	500	500	450
Tank 200 Flow Rate	GPM	500	500	400	500	500	500
Tank 300 Flow Rate	GPM	o/c	650	600	650	500	550
Tank 400 Flow Rate	GPM	o/c	600	550	600	600	550
Tank 500 Flow Rate	GPM	600	650	600	700	550	600
Tank 600 Flow Rate	GPM	500	500	500	500	500	500
Tank 100 Total Flow	Gallons	03,360,000	03,795,000	05,369,000	05,755,000	06,261,000	07,721,000
Tank 200 Total Flow	Gallons	42,540,000	42,984,000	44,535,000	44,928,000	45,433,000	46,005,000
Tank 300 Total Flow	Gallons	33,874,000	33,965,000	36,295,000	36,880,000	37,636,000	38,330,000
Tank 400 Total Flow	Gallons	19,764,000	20,230,000	22,415,000	22,959,000	23,651,000	24,297,000
Tank 500 Total Flow	Gallons	52,281,000	52,971,000	55,420,000	56,030,000	56,804,000	57,647,000
Tank 600 Total Flow	Gallons	10,074,000	10,604,000	12,448,000	12,911,000	13,574,000	14,090,000
System Influent Pressure	PSI	60	75	85	73	64	68
System Effluent Pressure	PSI	52	66	76	65	76	79
System Differential Pressure	PSI	8.1	9.1	8.6	9.7	9.3	9.6
Chlorine Analyzer: Free Chlorine Residual - Inline	PPM	1.66	1.82	1.17	1.64	1.56	1.55
Effluent Water pH - Inline	Units	7.20	7.10	6.8	7.0	7.0	6.9
Manual Chlorine Reading (ex: Hach Kit)	PPM	1.65	1.79	1.14	1.85	1.48	1.61
Manual pH check (ex: Henna)	Units						

Daily Readings
Granular Activated Carbon Treatment System

Description	Date	8.11.2022	8.12.2022	8.15.2022	8.16.2022	8.17.2022	8.17.2022
Tank 999A Hypochlorite Level	Gallons	78	85	140	150	120	105
Tank 999B Hypochlorite Level	Gallons	50	145	128	148	130	125
Tank 999C Hypochlorite Level	Gallons	110	150	15	145	145	145
Tank 999A Polyphosphate Level	Gallons	97	82	95	80	63	130
Tank 999B Polyphosphate Level	Gallons	140	137	119	117	115	105
Metering Pump 999A: Hypochlorite Output Pressure	PSI						
Metering Pump 999B: Hypochlorite Output Pressure	PSI						
Metering Pump 999A: Phosphate Output Pressure	PSI						
Metering Pump 999B: Phosphate Output Pressure	PSI						
Metering Pump 999A: Stroke/Speed	Units						
Metering Pump 999B: Stroke/Speed	Units						
Metering Pump 999A: Stroke/Speed	Units						
Metering Pump 999B: Stroke/Speed	Units						
Generator Operating Hours	Hours		181.7	181.7	181.7	181.7	181.7
Main Facility Electric Meter Reading							
Comments (additional tasks performed, maintenance needed, contractors on site, etc.)		Having trouble w/ Iron in GAC's 3 & 4 Still Backwashing CL2 line has leak	Put GAC's 3 & 4 In Service 2pm 8.11 Iron Iflo. 182 - .55 Eff 1.12. Eff 2.08 INF 3 & 4 .48 Eff 3 - 0.0 Eff 4 - .03		Cl Delv.		changed Chart Fe - Sampling GAC 1 & 2 Inf - .51 1 - Eff - .19 2 Eff - .14 GAC 3 & 4 Inf - .66 .00 .00

INF 5&6 - .48
Eff 5 - .07
6 - .16

GAC 5&6 Inf .38
5 - EFF - .16
6 - EFF - .06

Daily Readings
Granular Activated Carbon Treatment System

Description	Date	8.19.2022	8.22.22	8.23.2022	8.24.22	8.25.2022	8.26.2022
System Flow Rate	GPM	2050	2050	3150	3300	3400	3400
Total System Flow	Gallons	8055001	8065597	8069314	8072759	8076489	8081170
Well 3 Status	ON OR OFF	OFF	OFF	ON	ON	ON	ON
Well 4 Status	ON OR OFF	ON	ON	ON	ON	ON	ON
Tank 100 Flow Rate	GPM	250	250	400	500	500	500
Tank 200 Flow Rate	GPM	250	250	400	500	500	550
Tank 300 Flow Rate	GPM	400	400	550	650	650	650
Tank 400 Flow Rate	GPM	400	400	550	600	600	650
Tank 500 Flow Rate	GPM	450	400	650	700	700	650
Tank 600 Flow Rate	GPM	400	350	500	500	600	550
Tank 100 Total Flow	Gallons	08,233,000	09,581,000	09,997,000	10,504,000	10,987,000	11,400,000
Tank 200 Total Flow	Gallons	46,417,000	47,764,000	48,311,000	48,779,000	49,159,000	49,528,000
Tank 300 Total Flow	Gallons	39,045,000	41,096,000	41,796,000	42,448,000	43,150,000	43,525,000
Tank 400 Total Flow	Gallons	24,998,000	26,847,000	27,472,000	28,092,000	28,740,000	29,209,000
Tank 500 Total Flow	Gallons	58,348,000	60,441,000	61,189,000	61,873,000	62,616,000	63,114,000
Tank 600 Total Flow	Gallons	14,610,000	16,225,000	16,813,000	17,330,000	17,888,000	18,284,000
System Influent Pressure	PSI	67	66	82	70	73	78
System Effluent Pressure	PSI	63	62	74	60	62	67
System Differential Pressure	PSI	4.1	4.2	9.1	10.4	10.6	10.5
Chlorine Analyzer: Free Chlorine Residual - Inline	PPM	1.77	1.79	1.79	1.73	1.87	1.76
Effluent Water pH - Inline	Units	7.0	6.9	6.9	6.9	6.9	6.9
Manual Chlorine Reading (ex: Hach Kit)	PPM	1.59	1.67	1.85	1.89	1.99	1.88
Manual pH check (ex: Henna)	Units						

Daily Readings
Granular Activated Carbon Treatment System

Description	Date	8.19.2022	8.22.22	8.23.22	8.24.22	8.25.2022	8.26.2022
Tank 999A Hypochlorite Level	Gallons	134	145	120	120	150	123
Tank 999B Hypochlorite Level	Gallons	101	146	133	77	151	146
Tank 999C Hypochlorite Level	Gallons	90	143	143	143	153	153
Tank 999A Polyphosphate Level	Gallons	109	59	40	25	158	136
Tank 999B Polyphosphate Level	Gallons	101	88	84	79	163	160
Metering Pump 999A: Hypochlorite Output Pressure	PSI						
Metering Pump 999B: Hypochlorite Output Pressure	PSI						
Metering Pump 999A: Phosphate Output Pressure	PSI						
Metering Pump 999B: Phosphate Output Pressure	PSI						
Metering Pump 999A: Stroke/Speed	Units						
Metering Pump 999B: Stroke/Speed	Units						
Metering Pump 999A: Stroke/Speed	Units						
Metering Pump 999B: Stroke/Speed	Units						
Generator Operating Hours	Hours	182.1	182.1	182.1	182.1	182.5	182.5
Main Facility Electric Meter Reading		/					
Comments (additional tasks performed, maintenance needed, contractors on site, etc.)						Cl Delv. Phos Delv	

Daily Readings
Granular Activated Carbon Treatment System

Description	Date	8.29.2022	8.30.2022	8.31.2022			
System Flow Rate	GPM	2050	2000	2000			
Total System Flow	Gallons	8091954	8095551	8098804			
Well 3 Status	ON OR OFF	OFF	OFF	OFF			
Well 4 Status	ON OR OFF	ON	ON	ON			
Tank 100 Flow Rate	GPM	250	250	250			
Tank 200 Flow Rate	GPM	250	250	250			
Tank 300 Flow Rate	GPM	350	350	350			
Tank 400 Flow Rate	GPM	400	350	350			
Tank 500 Flow Rate	GPM	400	400	400			
Tank 600 Flow Rate	GPM	300	300	300			
Tank 100 Total Flow	Gallons	12,574,000	13,318,000	13571,000			
Tank 200 Total Flow	Gallons	50,982,000	51,610,000	52,026,000			
Tank 300 Total Flow	Gallons	45,981,000	46,725,000	47,288,000			
Tank 400 Total Flow	Gallons	31,009,000	32,005,000	32,641,000			
Tank 500 Total Flow	Gallons	65,111,000	66,328,000	67,065,000			
Tank 600 Total Flow	Gallons	19,962,000	20,750,000	21,198,000			
System Influent Pressure	PSI	57	79	59			
System Effluent Pressure	PSI	54	75	55			
System Differential Pressure	PSI	4.4	4.2	4.5			
Chlorine Analyzer: Free Chlorine Residual - Inline	PPM	1.70	1.81	1.58			
Effluent Water pH - Inline	Units	7.0	7.0	6.9			
Manual Chlorine Reading (ex: Hach Kit)	PPM	1.83	1.89	1.69			
Manual pH check (ex: Henna)	Units						

Daily Readings
Granular Activated Carbon Treatment System

Description	Date	8.29.2022	8.30.2022	8-31-2022			
Tank 900A Hypochlorite Level	Gallons	150	138	121			
Tank 900B Hypochlorite Level	Gallons	151	142	80			
Tank 900C Hypochlorite Level	Gallons	153	106	100			
Tank 900A Polyphosphate Level	Gallons	141	41	131			
Tank 900B Polyphosphate Level	Gallons	141	141	141			
Metering Pump 900A: Hypochlorite Output Pressure	PSI						
Metering Pump 900B: Hypochlorite Output Pressure	PSI						
Metering Pump 900A: Phosphate Output Pressure	PSI						
Metering Pump 900B: Phosphate Output Pressure	PSI						
Metering Pump 900A: Stroke/Speed	Units						
Metering Pump 900B: Stroke/Speed	Units						
Metering Pump 900A: Stroke/Speed	Units						
Metering Pump 900B: Stroke/Speed	Units						
Generator Operating Hours	Hours	182.5	182.5	182.5			
Main Facility Electric Meter Reading							
Comments (additional tasks performed, maintenance needed, contractors on site, etc.)		Cl Delv.		Phos. Delv			