Monthly Operating Report

August: 2020

So. Sangamon Water Commission

September 21st, 2020

SSWC

9199 Buckhart Rd Rochester IL 62563

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EXECUTIVE SUMMARY

Safety. Safety is the number one priority at South Sangamon. We have instituted a monthly safety meeting for operations staff at the plant. There were no lost time accidents in the month of August 2020.

Compliance. The finished water quality was within regulatory limits and all reporting and sampling requirements were met for the month. A copy of the Operations Report submitted to the Illinois Environmental Protection Agency is available at **www.sswc.us**.

During the month of August 2020, the plant pumped 53.262 million gallons from the well field and 43.152 million gallons of finished water. This is 14.619 million gallons more than August of 2019.

The SSWC plant has been placed on Critical Review status. Systems on Critical Review will be evaluated for sufficient capacity before issuance of water main extension permits. The Critical Review is currently under review.

Operations. There were no emergency call-outs for the month. There was 1 customer inquiry for the month.

Maintenance and Repair. For the month of August 2020, there were 31 inspections, 3 preventative and 3 corrective maintenance activity completed.

Budget. Passed at May 18th 2020 meeting.

Capital Planning.

BOP CPU replacement

Chloramines Project

New Berlin Meter relocation.

Chatham emergency interconnect

1. SAFETY

1.1 SAFETY TRAINING

At South Sangamon we strive to provide a safe working environment for all employees. This is accomplished with daily safety meetings and open communication.

1.2 LOST TIME ACCIDENTS

There were 0 lost time accidents in the month of August 2020.

1.3 SAFETY AUDIT

No safety audits to date.

1.4 MISCELLANEOUS SAFETY

No usable Fall Arrestors for aerator on premises

2. COMPLIANCE, FLOWS AND LOADINGS

2.1 COMPLIANCE

The finished water quality was within regulatory limits and all Bacteriological testing was completed for the month of August. A copy of the Operations Report to the Illinois Environmental Protection Agency (IEPA) is available on the SSWC website.

2.2 INFLUENT FLOWS AND LOADINGS

The total gallons pumped from the well field were 53.262 MG. The influent parameters were all within the normal range.

The influent flow and loadings are summarized below in Table 2.2

Table 2.2 Influent Concentrations and Flow

	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Well Flow Gals (MGD).
Max.	8.2	17.8	1.79	.326	-	370	300	1.994
Min.	7.8	15.4	.45	.174	-	330	270	1.204
Avg.	7.99	16.6	.88	.238	-	352	276	1.718
Total	-	-	-	-	-	-	-	53.26

2.3 EFFLUENT CONCENTRATIONS

The facility filtered 48.337 MG during the month with a daily average of 1.559 MG and a min/max 1.296/ 1.862 MG.

Table 2.3 Finished Water Quality

	Free CL2	Total CL2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
Max.	2.23	2.41	8.6		0.09	0.890	.87	300	300	2.03
Min.	1.54	1.66	8.3		0.01	0.003	0.59	98	210	1.54
Avg.	1.87	1.99	8.4		0.03	0.089	0.75	137	273	1.
MCL	-	-	-	-	1.00	-	4.00	-	-	-
SMCL	-	-	-	-	0.30	0.050	2.00	-	-	-

Finished Water Flow Comparison for FY 2019-20

Time Period	2019-2020	2018-2019	2017-2018
Sept 2019-Aug 2020	382,301,885	359,872,774	386,031,132
Increase for the same period last year		22.43 MG	-3.73 MG

FINISHED WATER PUMPING HISTORY						
	2019-20	2018-19	2017-18	2016-17	2015-16	2014-15
Sept	34,234,782	34,754,000	39,896,986	36,325,215	36,546,171	29,763,075
Oct	30,769,238	30,353,482	33,506,605	34,374,820	34,783,455	28,803,052
Nov	30,877,400	30,464,000	28,617,333	30,478,309	27,217,293	28,426,579
Dec	29,703,954	31,930,000	28,808,037	32,525,530	27,788,637	28,656,869
Jan	30,073,516	28,823,375	30,556,824	30,449,215	28,510,121	30,346,721
Feb	28,797,693	28,625,431	25,617,914	27,373,232	26,095,228	26,336,077
Mar	30,339,298	31,237,000	28,217,699	30,068,363	27,851,811	28,729,919
Apr	31,542,650	28,418,249	27,110,578	29,625,797	29,292,618	29,270,184
May	34,673,848	33,045,927	33,304,196	32,120,873	33,349,391	33,371,016
June	17,414,377	33,460,303	34,040,000	39,931,402	41,541,321	31,092,539
July	44,237,066	23,742,374	41,178,722	42,164,927	35,378,396	33,123,375
Aug	39,638,063	25,018,633	35,176,238	38,760,634	35,401,490	38,109,133
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Totals	382,301,885	359,872,774	386,031,132	404,198,317	383,755,932	366,028,539
Avg	1.04 MGD	.986 MGD	1.06 MGD	1.1 MGD	1.05 MGD	1.0 MGD

2.4 LAGOON DISCHARGE CONCENTRATIONS

The results for the NPDES lagoon discharge permit are summarized below.

Table 2.4 Weekly Grab Sample Analysis Results

Lagoon Effluent Results						
Date	**Fe (mg/l)**	**Mn (mg/l)**	**Chloride (mg/l)**	**Cl^2 (mg/l)**	**pH (S.U.)**	**TSS (mg/l)**
August 24th 2020	.08	.193	270	0.04	8.4	9.6
Minimum	.08	.193	270	0.04	8.4	9.6
Maximum	.08	.193	270	0.04	8.4	9.6
Average	.08	.193	270	0.04	8.4	9.6
Monthly Avg Limit	***2.000***	***1.000***				***15***
Daily Limit	***4.000***	***2.000***	***500***	***0.05***	***6.0-9.0***	***30***

The Chloride sample for the month, performed by the Springfield Metropolitan Sanitary District, was below 30,000 mg/l for the month of August 2020. The limit for chloride discharge to the sanitary district is 30,000 mg/L.

3. OPERATIONS

3.1 EVENTS IMPACTING OPERATIONS

There was 0 incident that impacted the operation of the plant.

3.2 EMERGENCY & SERVICE CALLS

Service Calls:

- There was 0 emergency call out for the month.

3.3 EMERGENCY CALL-OUTS

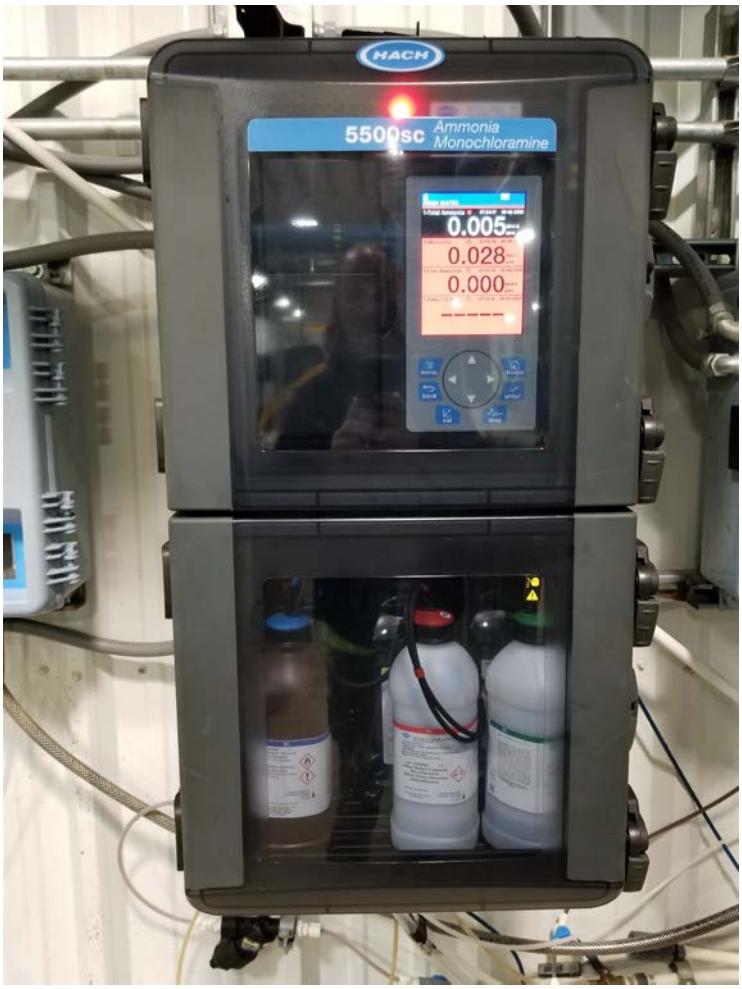
There were no emergency call outs for the month of August

3.4 CUSTOMER INQUIRIE

There was 1 customer inquiry.

OTHER WORK PERFORMED
Trouble shooting of new train
Trouble shooting of CIP skid and CIP procedure
Inspected distribution mains
Consulted with new customers.
Flushed raw water line
Created invitation to Bid
Inspected booster station

Eric from hach programming and performing start up procedure on the Hach sc5500 monochloramine analyzer



The programmed and operating sc5500 analyzer.

4. MAINTENANCE AND REPAIR

4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of August 2020, there were 31 inspections, 12 preventative and 3 corrective maintenance activity completed.

4.2 CORRECTIVE REPAIR

Pulling and cleaning pre filters on all 3 filter trains on weekly basis

CIP train 1,2 and 3

Cleaned lagoon vegetation

5. PROJECT MANAGEMENT & SUPPORT

5.1 STAFFING & TRAINING

- With the addition of a new staff member training has been continuous and ongoing.
- Operator and Asst. Operator have been studying for EPA licensing test.

5.2 OPERATIONAL SUPPORT

The following individuals, either on-site or remotely, provided assistance in operation and/or maintenance of the plant during the month of August 2020.

- Kevin Canham
- Stephen Bivin
- Katie Krall
- Eric Rasmussen (Hach)
- Chris Usinger (Kirby Risk)

5.3 BUDGET

Table 5.3 Operating Budget

Table 5.3 Budget Table

Budget Category	Month Budget	Month Actual	YTD Budget	YTD Actual	Annual Budget
Labor (D.L. + OH)	$14,120.14	?	$28,633	$32,751	$171,795
Utilities	$8,038.36		$16,300	$16.546	$97,800
Chemicals	$21,698.30		$44,000	$26,292	$264,000
Maintenance & Repair	$13,227.70		$19,400.62	$55,819	$160,937
Chloride	$12,979.73		$26,320	$19,720	$157,920
Lab Supplies and Equipment	$1,856.22		$3,764	$2,372	$22,584
Office Supplies	$213.04		$432	$155	$2,592
Miscellaneous Expenses*	$		$	?	$500
Other Operating Costs	$	?	$	$6107	$
Engineering Fees	$2,465.75		**$5000**	**$234**	$30,000
Office Equipment rental	$65		$130	$217	$780
Locates	$372.82	0	$756	$1,415	$4536
Truck	$3,287.67	0	$6,667	$131	$40,000
Total	**$78,324.73**	**$**	**$125,108.94**	**$161,759**	**$953,444**

*as of June 30th 2020

6. CAPITAL PLANNING

6.1 APPROVED CIP PROJECTS CURRENT STATUS

Chloramine conversion project- SSWC has received repaired Chloramine analyzer from Hach. The Hach rep arrived on site August 7th and performed the startup procedure on the sc5500

New Berlin Meter master meter relocation project is commencing. Engineering and relocation plans have been finalized. Awaiting ground breaking.

Pigging project construction complete. Awaiting first pigging before completely releasing contractor.

BOP CPU replace is in the planning phase

Benton and Assoc has initiated the planning phase of the Chatham Emergency interconnect.

6.2 DRAFT CAPITAL IMPROVEMENT PLAN

The CIP is a planning document that includes all projects anticipated to exceed $5,000 in cost over the next five years. The CIP is an ongoing process and will be refined from time to time as projects are completed and new issues are identified.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF PUBLIC WATER SUPPLIES

South Sangamon Water Commission - IL1670080

August 2020

Physical and Chemical Tests

	Raw						Pre UF Membrane				Post UF Membrane			Post IEX				Finished														Membrane Integrity		
																												Chlorine				Post Filter		
Date	pH	Temp	Total Alk.	Total Hard.	Total Fe	Total Mn	Turbidity	Total Fe	Total Mn	Soluble Mn	Total Fe	Total Mn	Turbidity	Chloride				pH	Turbidity	Total Alk.	Total Hard.	Total Fe	Total Mn	Fluoride F	Ortho Phosphate	Free Ammonia	Mono- Chloramine	Chlorine F	Chlorine T	Distribution F	Distribution T			
		deg. C	mg/L	mg/L	mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	NTU	1 mg/L	2 mg/L	3 mg/L	4 mg/L		NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/l	mg/L	mg/l	mg/L	mg/l	mg/L	Bank 1	Bank 2	Bank 3
			as CaCO3																	as CaCO3													
1	7.90	16.9	270	340	0.58	0.212			0.412	0.110	0.71	0.129	0.22					8.30	0.25	272	150	0.02	0.046	0.62	1.84	0.00	0.00	2.08	2.20					
2	7.90	16.8	280	356	0.45	0.220			0.403	0.092	0.63	0.116	0.22					8.40	0.28	280	165	0.09	0.055	0.79	1.82	0.00	0.00	1.90	1.91					
3	8.10	16.3	275	370	0.69	0.207			0.414	0.074	0.71	0.118	0.26					8.30	0.32	265	300	0.09	0.074	0.77	1.60	0.01	0.00	1.82	1.83					
4	8.00	15.6	270	370	1.19	0.247			0.460	0.120	0.61	0.152	0.28					8.40	0.30	260	270	0.01	0.068	0.84	1.76	0.03	0.00	1.64	1.90			pass	pass	pass
5	7.90	15.4	270	360	0.77	0.229			0.449	0.094	0.68	0.116	0.30					8.40	0.42	270	200	0.02	0.043	0.76	2.03	0.02	0.00	1.78	1.84					
6	8.00	15.4	270	352	1.66	0.236			0.418	0.070	0.65	0.145	0.24					8.50	0.40	275	180	0.02	0.041	0.66	2.00	0.02	0.00	1.85	1.93					
7	8.10	16.6	270	360	1.22	0.245			0.406	0.071	0.65	0.166	0.27					8.40	0.41	275	120	0.02	0.029	0.80	1.72	0.01	0.00	1.75	1.84					
8	8.20	17.4	276	330	0.75	0.204			0.368	0.106	0.01	0.091	0.24					8.30	0.33	300	140	0.01	0.067	0.76	1.74	0.01	0.00	1.97	2.12					
9	7.90	16.1	272	350	1.79	0.215			0.374	0.100	0.02	0.078	0.28					8.50	0.38	290	100	0.01	0.060	0.76	1.78	0.02	0.00	2.20	2.31					
10	8.00	15.8	280	360	0.83	0.223			0.368	0.091	0.75	0.120	0.30					8.40	0.38	270	120	0.03	0.125	0.68	1.62	0.01	0.00	1.74	1.85			pass		
11	8.00	16.3	270	358	1.11	0.189			0.197	0.289	0.76	0.116	0.30					8.50	0.36	275	110	0.02	0.038	0.77	1.73	0.01	0.00	1.82	2.09					
12	8.00	16.8	270	360	0.87	0.197			0.262	0.103	0.65	0.020	0.22					8.40	0.32	270	140	0.02	0.046	0.70	1.62	0.01	0.00	1.89	1.92				pass	pass
13	8.00	17.0	270	355	0.70	0.174			0.260	0.070	0.70	0.017	0.20					8.40	0.25	270	100	0.02	0.011	0.85	1.83	0.00	0.00	1.60	1.77					
14	8.10	17.1	270	362	0.76	0.190			0.265	0.051	0.73	0.018	0.20					8.40	0.32	265	100	0.02	0.008	0.86	1.76	0.01	0.00	1.80	1.83					
15	8.00	17.0	270	360	0.83	0.219			0.252	0.064	0.60	0.020	0.22					8.40	0.30	270	100	0.01	0.009	0.67	1.66	0.00	0.00	2.06	2.08					
16	8.10	16.8	275	358	0.69	0.236			0.315	0.096	0.66	0.029	0.20					8.50	0.36	275	115	0.02	0.040	0.83	1.61	0.01	0.00	1.75	1.99					
17	8.00	16.9	275	352	1.05	0.204			0.272	0.069	0.83	0.005	0.26					8.40	0.32	275	105	0.03	0.008	0.68	1.73	0.00	0.00	1.67	1.78			pass		
18	7.90	16.1	280	345	0.64	0.207			0.279	0.063	0.66	0.009	0.22					8.30	0.36	210	180	0.01	0.006	0.72	1.66	0.01	0.00	1.64	1.70				pass	
19	8.00	17.1	272	350	1.00	0.241			0.170	0.194	1.98	0.121	0.22					8.40	0.35	270	120	0.02	0.030	0.80	1.77	0.01	0.00	1.54	1.66					pass
20	8.00	16.1	278	352	0.89	0.317			0.202	0.261	0.82	0.900	0.49					8.50	0.42	260	98	0.01	0.890	0.76	1.75	0.00	0.00	2.17	2.27					
21	8.00	16.2	275	350	0.95	0.322			0.343	0.107	1.29	0.052	0.38					8.40	0.40	275	100	0.02	0.700	0.59	1.76	0.00	0.00	1.85	1.94					
22	7.80	16.4	270	358	0.77	0.235			0.264	0.088	0.02	0.041	0.11					8.60	0.38	276	100	0.03	0.003	0.81	1.90	0.00	0.00	1.69	1.99					
23	7.80	16.5	270	354	0.53	0.238			0.227	0.139	0.02	0.064	0.33					8.40	0.33	272	106	0.03	0.075	0.76	1.64	0.00	0.00	1.74	1.96					
24	8.00	17.8	280	340	0.67	0.254			0.221	0.145	0.61	0.058	0.22					8.40	0.34	265	100	0.03	0.020	0.87	1.57	0.00	0.00	1.66	1.80					
25	8.00	17.4	280	345	0.64	0.245			0.258	0.067	0.58	0.040	0.20					8.40	0.30	280	180	0.02	0.039	0.77	1.74	0.00	0.00	1.89	1.90					
26	8.00	16.1	280	345	1.21	0.261			0.246	0.065	0.60	0.070	0.20					8.40	0.31	270	115	0.02	0.047	0.79	1.54	0.00	0.00	2.11	2.12			pass		pass
27	8.00	16.2	290	340	0.87	0.317			0.391	0.123	0.96	0.047	0.23					8.40	0.29	300	160	0.02	0.027	0.62	1.71	0.00	0.00	1.91	2.11				pass	
28	8.00	17.0	300	340	0.75	0.306			0.350	0.101	0.87	0.044	0.23					8.40	0.26	285	120	0.03	0.059	0.69	1.76	0.04	0.00	2.09	2.41					
29	8.00	17.0	280	348	1.20	0.326			0.354	0.094	0.97	0.035	0.22					8.40	0.25	280	100	0.03	0.054	0.81	1.77	0.01	0.00	2.01	2.05					
30	8.00	16.8	280	350	0.65	0.216			0.349	0.030	0.52	0.060	0.23					8.40	0.27	280	115	0.03	0.020	0.61	1.66	0.01	0.00	2.23	2.38					
31	8.00	16.8	280	345	0.64	0.255			0.328	0.010	0.57	0.040	0.22					8.40	0.35	270	140	0.03	0.033	0.72	1.75	0.03	0.00	2.10	2.20					
Ave.	7.99	16.6	276	352	0.88	0.238	#DIV/0!	#DIV/0!	0.319	0.102	0.67	0.098	0.25	#####	#####	#####	#####	8.41	0.33	273	137	0.03	0.089	0.75	1.74	0.01	0.00	1.87	1.99	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Max	8.20	17.8	300	370	1.79	0.326	0.00	0.00	0.460	0.289	1.98	0.900	0.49	0	0	0	0	8.60	0.42	300	300	0.09	0.890	0.87	2.03	0.04	0.00	2.23	2.41	0.00	0.00	0.00	0.00	0.00
Min	7.80	15.4	270	330	0.45	0.174	0.00	0.00	0.170	0.010	0.01	0.005	0.11	0	0	0	0	8.30	0.25	210	98	0.01	0.003	0.59	1.54	0.00	0.00	1.54	1.66	0.00	0.00	0.00	0.00	0.00

Lagoon Effluent Tests		pH	Temp	TChlor
Monthly			°C	mg/l
Date	8/24/2020	8.4	21.3	0.04

	Mn	Fe	Chloiride	TSS
	mg/l	mg/l	mg/L	mg/L
	0.193	0.08	270	9.6

Distribution Stability Tests		pH	Temp	TDS	Alkalinity	Calcium	Chloiride	Sulfate
Monthly			°C	mg/L	mg/L as CaCO3		mg/L	mg/L
Date	8/4/2020	8.3	14.6	460	320		29	54
Date								
Date								

Remarks:

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF PUBLIC WATER SUPPLIES

MONTHLY IRON REMOVAL AND ION EXCHANGE SOFTENING REPORT

South Sangamon Water Commission - IL 1670080

August 2020

Pumping Totals / Chemicals Applied

Date	Time Meter Read	Hours Filter Ran	Raw Well Prod. (M gal)	UF Filtered (M gal)	Plant Water (M gal)	HS Pumpage (M gal)	Lagoon Effluent Pumpage (M gal)	Sodium Permanganate Am't Used lbs.	Sodium Permanganate Calc mg/l as NaMnO4	Sodium Bisulfite BW Am't Used lbs.	Sodium Bisulfite BW Calc mg/l	Sodium Hypochlorite Am't Used lbs.	Sodium Hypochlorite Calc mg/l as Cl	Ammonium Sulfate Am't Used lbs.	Ammonium Sulfate Calc mg/l as NH3	Fluorosilicic Acid Am't Used lbs.	Fluorosilicic Acid Calc mg/l as F	Phosphate Am't Used lbs.	Phosphate Calc mg/l as PO4	Sodium Bisulfite Pond Am't Used lbs.	Sodium Bisulfite Pond Calc mg/l
1	7:00	14.1	1.393	1.296	0.014	1.059	0.094	28	0.48	0	0.00	259	3.00	0	0.00	38	0.82	62	2.32	19	9.74
2	7:00	15.6	1.432	1.348	0.014	1.213	0.083	15	0.25	0	0.00	270	3.00	0	0.00	26	0.49	52	1.70	18	10.43
3	7:00	16.4	1.204	1.320	0.001	1.261	0.096	20	0.40	0	0.00	264	3.00	0	0.00	28	0.51	55	1.73	0	0.00
4	7:00	20.5	1.966	1.862	0.014	1.431	0.142	23	0.28	0	0.00	373	3.00	0	0.00	32	0.51	14	0.39	26	8.77
5	7:00	15.6	1.478	1.425	0.018	1.213	0.104	24	0.39	0	0.00	285	3.00	0	0.00	33	0.62	17	0.55	21	9.72
6	7:00	18.4	1.700	1.426	0.007	1.445	0.103	22	0.31	0	0.00	285	3.00	0	0.00	33	0.52	18	0.49	24	11.22
7	7:00	17.0	1.751	1.594	0.007	1.305	0.104	24	0.33	0	0.00	319	3.00	0	0.00	36	0.63	21	0.64	17	7.81
8	7:00	17.8	1.736	1.511	0.011	1.454	0.117	23	0.32	0	0.00	302	3.00	0	0.00	34	0.53	23	0.63	17	6.96
9	7:00	16.9	1.710	1.527	0.018	1.383	0.107	24	0.34	0	0.00	306	3.00	0	0.00	36	0.59	26	0.74	26	11.70
10	7:00	18.2	1.755	1.593	0.008	1.420	0.117	26	0.36	0	0.00	276	2.60	0	0.00	36	0.58	33	0.92	29	11.85
11	7:00	19.7	1.734	1.633	0.014	1.520	0.112	24	0.33	0	0.00	283	2.60	0	0.00	34	0.51	37	0.96	19	8.17
12	7:00	16.1	1.547	1.447	0.010	1.087	0.103	23	0.36	0	0.00	251	2.60	0	0.00	33	0.69	47	1.71	21	9.74
13	7:00	17.5	1.560	1.372	0.011	1.406	0.102	25	0.38	0	0.00	238	2.60	0	0.00	35	0.57	11	0.31	23	10.80
14	7:00	19.2	1.875	1.655	0.018	1.470	0.119	27	0.35	0	0.00	287	2.60	0	0.00	38	0.59	19	0.51	24	9.71
15	7:00	19.6	1.994	1.716	0.010	1.532	0.124	26	0.31	0	0.00	298	2.60	0	0.00	38	0.57	28	0.72	27	10.46
16	7:00	18.6	1.859	1.691	0.004	1.453	0.131	29	0.37	0	0.00	293	2.60	0	0.00	33	0.52	17	0.46	17	6.21
17	7:00	16.7	1.544	1.414	0.014	1.318	0.116	18	0.28	0	0.00	245	2.60	0	0.00	27	0.47	18	0.54	34	14.04
18	7:00	17.2	1.758	1.550	0.018	1.410	0.119	18	0.25	0	0.00	269	2.60	0	0.00	35	0.57	28	0.79	16	6.43
19	7:00	17.0	1.656	1.508	0.014	1.301	0.113	9	0.13	0	0.00	262	2.60	0	0.00	24	0.42	25	0.76	14	5.96
20	7:00	17.0	1.715	1.501	0.007	1.325	0.130	35	0.49	0	0.00	300	3.00	0	0.00	31	0.53	36	1.08	22	8.11
21	7:00	17.1	1.611	1.526	0.019	1.307	0.110	11	0.16	0	0.00	305	3.00	0	0.00	34	0.59	57	1.73	23	10.01
22	7:00	18.4	1.824	1.575	0.019	1.520	0.119	19	0.25	0	0.00	315	3.00	0	0.00	35	0.52	68	1.77	28	11.33
23	7:00	17.1	1.626	1.516	0.010	1.333	0.113	21	0.31	0	0.00	303	3.00	0	0.00	37	0.63	20	0.59	46	19.60
24	7:00	18.9	1.864	1.672	0.015	1.507	0.118	24	0.31	0	0.00	335	3.00	0	0.00	39	0.59	32	0.84	71	28.77
25	7:00	20.3	1.958	1.700	0.010	1.587	0.134	25	0.31	0	0.00	340	3.00	0	0.00	37	0.53	44	1.10	40	14.30
26	7:00	19.5	1.897	1.750	0.020	1.505	0.122	27	0.34	0	0.00	350	3.00	0	0.00	39	0.59	69	1.81	58	22.88
27	7:00	19.5	1.871	1.608	0.010	1.548	0.130	24	0.31	0	0.00	322	3.00	0	0.00	34	0.50	68	1.74	36	13.24
28	7:00	18.6	1.787	1.676	0.015	1.412	0.121	25	0.34	0	0.00	335	3.00	0	0.00	39	0.63	14	0.39	35	13.83
29	7:00	19.1	1.893	1.711	0.016	1.516	0.126	28	0.35	0	0.00	342	3.00	0	0.00	41	0.62	20	0.52	27	10.31
30	7:00	18.1	1.734	1.575	0.009	1.425	0.119	28	0.39	0	0.00	315	3.00	0	0.00	41	0.66	20	0.56	27	10.85
31	7:00	18.1	1.830	1.639	0.015	1.486	0.126	21	0.28	0	0.00	328	3.00	0	0.00	32	0.49	18	0.48	32	12.17
Total		553.8	53.262	48.337	0.390	43.152	3.573	716	10.04	0	0	9259.36	89.00	0	0.00	1068	17.57	1017	29.47	837	345.11
Ave.		17.9	1.718	1.559	0.013	1.392	0.115	23.1	0.32	0	0	299	2.87	0	0.00	34.5	0.57	32.8	0.95	27.0	11.13
Max		20.5	1.994	1.862	0.020	1.587	0.142	35.0	0.49	0	0	372.698	3.00	0	0	41	0.82	69	2.32	71	28.77
Min		14.1	1.204	1.296	0.001	1.059	0.083	9.0	0.13	0	0	238.004	2.60	0	0.00	24	0.42	11	0.31	0	0.00

UF Filters / Softeners

Date	Hours since previous backwash Bank # 1	2	3		Wash Water Gal. (M gal)	Water Softened Gal. (M gal)	Water Bypassed Gal (M gal)	Each day indicate total number of hours since previous regeneration. If regeneration at mid-day, indicate hours previous/hours following. 1	2	3	4	Regeneration Salt Used lbs.	Regeneration Washed Water Gal.
1	0.66	0.66	0.66		0.084	0.847	0.449		39.0	34.0		4562	21700
2	0.66	0.66	0.66		0.078	0.881	0.467				32.0	2281	10850
3	0.66	0.66	0.66		0.086	0.863	0.457		40.0		37.0	4562	21700
4	0.66	0.66	0.66		0.123	1.217	0.645	92.0	28.0	70.0	32.0	9124	43400
5	0.66	0.66	0.66		0.094	0.931	0.494	29.0	31.0			4562	21700
6	0.66	0.66	0.66		0.093	0.932	0.494			31.0	32.0	4562	21700
7	0.66	0.66	0.66		0.090	1.042	0.552		34.0	32.0	30.0	6843	32550
8	0.66	0.66	0.66		0.098	0.988	0.523	66.0	30.0	29.0	29.0	9124	43400
9	0.66	0.66	0.66		0.097	0.998	0.529		29.0	29.0		4562	21700
10	0.66	0.66	0.66		0.103	1.041	0.552	47.0	29.0		30.0	6843	32550
11	0.66	0.66	0.66		0.102	1.067	0.566	29.0		31.0		4562	21700
12	0.66	0.66	0.66		0.089	0.946	0.501		36.0	32.0	66.0	6843	32550
13	0.66	0.66	0.66		0.083	0.897	0.475	45.0	28.0	29.0	26.0	9124	43400
14	0.66	0.66	0.66		0.109	1.103	0.552		28.0	27.0		4562	21700
15	0.66	0.66	0.66		0.119	1.122	0.594				32.0	2281	10850
16	0.66	0.66	0.66		0.117	1.105	0.586	74.0	34.0	34.0		6843	32550
17	0.66	0.66	0.66		0.097	0.924	0.490	23.0	31.0	30.0	52.0	9124	43400
18	0.66	0.66	0.66		0.105	1.013	0.537		29.0	30.0	26.0	6843	32550
19	0.66	0.66	0.66		0.103	0.986	0.522	50.0			27.0	4562	21700
20	0.66	0.66	0.66		0.111	0.981	0.520	24.0	35.0	34.0	27.0	9124	43400
21	0.66	0.66	0.66		0.091	0.997	0.529	21.0	31.0	31.0	25.0	9124	43400
22	0.66	0.66	0.66		0.109	1.029	0.546		30.0	30.0		4562	21700
23	0.66	0.66	0.66		0.103	0.991	0.525	45.0			33.0	4562	21700
24	0.66	0.66	0.66		0.104	1.093	0.579		26.0	27.0	23.0	6843	32550
25	0.66	0.66	0.66		0.115	1.111	0.589	53.0	30.0	30.0	28.0	9124	43400
26	0.66	0.66	0.66		0.112	1.144	0.606		31.0	37.0		4562	21700
27	0.66	0.66	0.66		0.116	1.050	0.558	46.0	28.0		42.0	6843	32550
28	0.66	0.66	0.66		0.107	1.095	0.581		27.0	27.0	25.0	6843	32550
29	0.66	0.66	0.66		0.116	1.118	0.593			30.0	33.0	4562	21700
30	0.66	0.66	0.66		0.105	1.029	0.546		33.0	27.0	26.0	6843	32550
31	0.66	0.66	0.66		0.107	1.071	0.568	94.0	26.0	26.0	24.0	9124	43400
Total					3.166	31.612	16.725	738	743	737	737	193885	922250
Ave.	0.66	0.66	0.66	#DIV/0!	0.102	1.020	0.540	49.2	31.0	32.0	32.0	6254.35	29750
Max	0.66	0.66	0.66	0	0.123	1.217	0.645	94.0	40.0	70.0	66.0	9,124	43,400
Min	0.66	0.66	0.66	0	0.078	0.847	0.449	21.0	26.0	26.0	23.0	2281	10850

1	20	% Sodium Permanganate	Pre-aerator
2	40	% Bisulfite Solution	Membrane Backwash
3	12.5	% Sodium Hypochlorite Solution	Post Softener
4	20	% Ammonium Sulfate Solution	Post Softener
5	19	% Fluorosilicic Acid Solution	Post Clearwell
6	33	% Phosphate Solution	Post Clearwell
7	40	% Bisulfite Solution	Lagoon Effluent

CHLORINATION

Type of Chlorine Used: Sodium Hypochlorite 12.5 %

Chlorine Analyzers Used: Hach CL17 (2) & 5500sc

FLUORIDATION

Type of Fluoride Used: Hydrofluosilicic Acid 19% F

Fluoride Analyzer Used: Hach 2200, SPADNS method

I certify that the information in this report is complete and accurate to the best of my knowledge.

Reported by: ____________ Illinois Operator Certification ID 253419999

Date: ____________

Date Bacterials Ser ____________