Monthly Operating Report

JUNE: 2019

So. Sangamon

Water Commission

July 15, 2019

SSWC

9199 Buckhart Rd Ochester 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 June 2019.

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 June 2019, the plant pumped 45.090 million gallons from the well field and 34.523 million gallons of finished water. This is .483million gallons more than June of 2018.

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.

Operations. There were 4 emergency call-outs for the month. There were 3 customer inquiries for the month.

Maintenance and Repair. For the month of June 2019, there were 30 inspections, 12 preventative and 2 corrective maintenance activity completed.

Budget. Passed at May 20th meeting.

Capital Planning. Chloramines Project

Toray filter Project

New Berlin Meter relocation.

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 June 2019.

1.3 SAFETY AUDIT

No safety audits to date.

1.4 MISCELLANEOUS SAFETY

No usable Fall Arrestors 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 April. 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 45.090 MGs. 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.	7.72	19.4	1.45	.243	-	378	300	1.729
Min.	7.03	12.4	.34	.209	-	340	260	1.236
Avg.	7.42	16.4	.84	.222	-	350	285	1.503
Total	-	-	-	-	-	-	-	45.090

2.3 EFFLUENT CONCENTRATIONS

The facility filtered 38.825 MG during the month with a daily average of 1.228 MG and a min/max .412/ 1.467 MG.

Table 2.3 Finished Water Quality

	Free CL2	Total CL2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
Max.	2.3	2.36	8.02		0.02	0.06	1.64	180	310	2.20
Min.	.91	1.40	7.23		0.01	0.007	0.1	100	250	.73
Avg.	1.5	1.70	7.77		0.02	0.018	0.92	122	279	1.62
MCL	-	-	-	-	1.00	-	4.00	-	-	-
SMCL	-	-	-	-	0.30	0.050	2.00	-	-	-

Finished Water Flow Comparison for FY 2018

Time Period	2018-2019	2017-2018	2016-2017
July-June	387,466,730	390,601,733	394,052,642
Increase for the same period last year		-3.135 MG	

FINISHED WATER PUMPING HISTORY						
	2018-19	2017-18	2016-17	2015-16	2014-15	2013-14
July	41,178,722	42,164,927	35,378,396	33,123,375	38,674,894	40,908,704
Aug	35,176,238	38,760,634	35,401,490	38,109,133	33,748,543	42,999,243
Sept	34,754,000	39,896,986	36,325,215	36,546,171	29,763,075	37,597,085
Oct	30,353,482	33,506,605	34,374,820	34,783,455	28,803,052	33,916,594
Nov	30,464,000	28,617,333	30,478,309	27,217,293	28,426,579	31,615,459
Dec	31,930,000	28,808,037	32,525,530	27,788,637	28,656,869	32,697,551
Jan	28,823,375	30,556,824	30,449,215	28,510,121	30,346,721	32,499,427
Feb	28,625,431	25,617,914	27,373,232	26,095,228	26,336,077	28,745,378
March	31,237,000	28,217,699	30,068,363	27,851,811	28,729,919	31,217,486
April	28,418,249	27,110,578	29,625,797	29,292,618	29,270,184	31,690,073
May	33,045,927	33,304,196	32,120,873	33,349,391	33,371,016	31,157,411
June	33,460,303	34,040,000	39,931,402	41,541,321	31,092,539	38,462,951
	---	---	---	---	---	---
Totals	387,466,730	390,601,733	394,052,642	384,208,554	367,219,468	413,507,362
Avg	1.06 MGD	1.07 MGD	1.08 MGD	1.05 MGD	1.01 MGD	1.13 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)**	**Cl² (mg/l)**	**pH (S.U.)**	**TSS (mg/l)**
June 13th 2019	.27	..463	240	.04	7.65	U
Minimum	.27	.463	240	.04	7.65	U
Maximum	.27	.463	240	.04	7.65	U
Average	.27	.463	240	.04	7.65	U
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 of June 2019, performed by the Springfield Metropolitan Sanitary District, was 10,000mg/l as of June 2019. The limit for chloride discharge to the sanitary district is 30,000 mg/L.

3. OPERATIONS

3.1 EVENTS IMPACTING OPERATIONS

On June 15th SSWC experienced a power outage. The outage caused SSWC employees have to reset all the equipment and stay later than normal.

3.2 EMERGENCY & SERVICE CALLS

Service Calls:

- There were no emergency call outs for the month.

3.3 EMERGENCY CALL-OUTS

There was 4 emergency call-out for the month requiring operational personnel at the plant after normal business hours

3.4 CUSTOMER INQUIRIES

There was 1 customer inquiry about water usage.

OTHER WORK PERFORMED

Prairie Analytical is closed on the weekends, took sample to PDC labs in Peoria IL to remain in compliance.

June 3rd new rack for Toray filters arrived

June 4th Toray filters arrived

During the month of June South Sangamon Water Commission purchased a new plant vehicle.

4. MAINTENANCE AND REPAIR

4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of June 2019, there were 30 inspections, 12 preventative and 2 corrective maintenance activity completed.

4.2 CORRECTIVE REPAIR

On June 17th Joe lee came out and "repaired" the transducers on the Lagoon effluent and the detention tank. The control panels on each transducer was damaged due to power surges. Mr. lee removed the control boxes and installed surge suppressors due to the fact that the surges also damaged nodes on the PLC card. We are currently using the floats for level control instead of the transducer.

5. PROJECT MANAGEMENT & SUPPORT

5.1 STAFFING & TRAINING

- South Sangamon Water Commission hired an Assistant Operator in Training

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 June 2019.

- Kevin Canham
- Stephen Bivin
- Paul Hedstrom(AAC)
- Joe Lee (electrician)
- Katie Krall

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)	$13,909.06				$163,768
Utilities	$8,306.30	$2919.72			$97,800
Chemicals	$22,421	$9560.68			$264,000
Maintenance & Repair	$13,668.62	$11280.91			$160,937
Chloride	$13,421.38	$11385.00			$157,920
Lab Supplies and Equipment	$1,918.09	$723.01			$22,584
Office Supplies	$220.14				$2,592
Miscellaneous Expenses	$41	$127.37			$500
Other Operating Costs		$10000			$2500
Engineering Fees	$2,500	$1,239.30			$30,000
Office Equipment rental	$65	$63.62			$780
Locates	$378	$446.88			$4536
Truck		$40,050			$40,000
Total	**$62939.53**	**$87796.49**			

6. CAPITAL PLANNING

6.1 APPROVED CIP PROJECTS CURRENT STATUS

Toray filter project is underway. Tentative completion date of July.

Chlormine conversion project is underway. Tentative completion date of mid July.

New Berlin Meter relocation project. We have received construction permit. We have received bids. SSWC is awaiting ground breaking.

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.

South Sangamon Water Commission

June 2019 Monthly Operating Report

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY — **MONTHLY IRON REMOVAL AND ION EXCHANGE SOFTENING REPORT**

DIVISION OF PUBLIC WATER SUPPLIES

South Sangamon Water Commission - IL 1670080

June 2019

		Pumping Totals						Chemicals Applied														UF Filters					Softeners							
			Raw				Lagoon	Sodium Permanganate		Sodium Bisulfite BW		Sodium Hypochlorite		Ammonium Sulfate		Fluorosilicic Acid		Phosphate		Sodium Bisulfite Pond		Hours since previous backwash				Wash	Water	Water	Each day indicate total number of				Regeneration	
	Time	Hours	Well	UF	Plant	HS	Effluent	Am't		Am't		Am't		Am't		Am't		Am't		Am't						Water	Softened	Bypassed	hours since previous regeneration.				Salt	Washed
Date	Meter	Filter	Prod.	Filtered	Water	Pumpage	Pumpage	Used	Calc	Used	Calc	Used	Calc	Used	Calc	Used	Calc	Used	Calc	Used	Calc						Gal.	Gal.	Gal	If regeneration at mid-day, indicate				Used	Water
	Read	Ran	(Mgal)	(Mgal)	(Mgal)	(Mgal)	(Mgal)	lbs.	mg/l as NaMnO4	lbs.	mg/l	lbs.	mg/l as Cl	lbs.	mg/l as NH3	lbs.	mg/l as F	lbs.	mg/l as PO4	lbs.	mg/l	Bank # 1	Bank # 2	Bank # 3		(Mgal)	(Mgal)	(Mgal)	hours previous/hours following. 1	2	3	4	lbs.	Gal.
1	7:00	19.3	1.495	1.307	0.013	1.094		25	0.40	0	0.00	213	2.44	0	0.00	42	0.87	13	0.47	0	#DIV/0!	0.66	0.66	0.66		0.140	0.854	0.453			33.0		2281	10350
2	7:00	18.8	1.445	1.319	0.004	1.090		26	0.43	0	0.00	227	2.58	0	0.00	46	0.96	20	0.73	0	#DIV/0!	0.66	0.66	0.66		0.146	0.862	0.457		38.0		32.0	4562	20700
3	7:00	20.7	1.583	1.449	0.007	1.221		24	0.36	0	0.00	211	2.18	0	0.00	42	0.78	24	0.78	4	#DIV/0!	0.66	0.66	0.66		0.156	0.947	0.502	95.0	35.0	32.0	30.0	9124	41400
4	7:00	21.2	1.707	1.492	0.016	1.319		26	0.37	0	0.00	224	2.25	0	0.00	38	0.66	27	0.81	1	#DIV/0!	0.66	0.66	0.66		0.162	0.956	0.536			37.0		2281	10350
5	7:00	19.2	1.499	1.411	0.004	1.133		34	0.54	0	0.00	214	2.27	0	0.00	40	0.80	38	1.33	4	#DIV/0!	0.66	0.66	0.66		0.152	0.922	0.489	45.0	39.0	32.0	40.0	9124	41400
6	7:00	19.8	1.515	1.377	0.016	1.151		15	0.24	0	0.00	212	2.31	0	0.00	39	0.77	51	1.75	14	#DIV/0!	0.66	0.66	0.66		0.143	0.900	0.477	25.0			31.0	4562	20700
7	7:00	18.3	1.410	1.281	0.011	1.107		26	0.44	0	0.00	218	2.55	0	0.00	39	0.80	59	2.11	31	#DIV/0!	0.66	0.66	0.66		0.141	0.837	0.444		40.0	39.0	31.0	6843	31050
8	7:00	19.2	1.480	1.342	0.012	1.129		25	0.41	0	0.00	216	2.41	0	0.00	40	0.81	6	0.21	29	#DIV/0!	0.66	0.66	0.66		0.148	0.877	0.465		40.0			2281	10350
9	7:00	19.9	1.521	1.384	0.004	1.149		25	0.39	0	0.00	218	2.36	0	0.00	41	0.81	21	0.72	16	#DIV/0!	0.66	0.66	0.66		0.152	0.892	0.492	72.0		41.0	35.0	6843	31050
10	7:00	19.8	1.524	1.397	0.012	1.178		28	0.44	0	0.00	237	2.54	0	0.00	46	0.89	26	0.87	13	#DIV/0!	0.66	0.66	0.66		0.145	0.913	0.484		36.0	32.0	29.0	6843	31050
11	7:00	21.3	1.660	1.485	0.012	1.318		29	0.42	0	0.00	241	2.43	0	0.00	45	0.78	33	0.99	12	#DIV/0!	0.66	0.66	0.66		0.160	0.971	0.514	50.0	31.0	28.0	28.0	9124	41400
12	7:00	21.2	1.729	1.522	0.016	1.329		28	0.39	0	0.00	246	2.42	0	0.00	41	0.70	43	1.28	19	#DIV/0!	0.66	0.66	0.66		0.166	0.995	0.527					0	0
13	7:00	19.6	1.523	1.435	0.000	1.162		23	0.36	0	0.00	202	2.11	0	0.00	37	0.73	53	1.80	20	#DIV/0!	0.66	0.66	0.66		0.154	0.938	0.497	48.0	39.0	43.0	31.0	9124	41400
14	7:00	18.1	1.390	1.246	0.016	1.058		25	0.43	0	0.00	213	2.56	0	0.00	38	0.82	59	2.21	22	#DIV/0!	0.66	0.66	0.66		0.161	0.814	0.432		37.0		35.0	4562	20700
15	7:00	20.6	1.549	1.409	0.009	1.191		27	0.42	0	0.00	259	2.76	0	0.00	49	0.94	8	0.27	67	#DIV/0!	0.66	0.66	0.66		0.161	0.921	0.488			33.0	32.0	4562	20700
16	7:00	19.5	1.497	1.421	0.007	1.153		4	0.06	0	0.00	263	2.77	0	0.00	26	0.51	6	0.21	48	#DIV/0!	0.66	0.66	0.66		0.151	0.929	0.492		39.0	43.0		4562	20700
17	7:00	19.5	1.557	1.368	0.008	1.126		32	0.49	0	0.00	236	2.59	0	0.00	43	0.87	7	0.25	57	#DIV/0!	0.66	0.66	0.66		0.149	0.894	0.474	97.0	34.0		29.0	6843	31050
18	7:00	20.9	1.634	1.478	0.012	1.310		33	0.48	0	0.00	296	3.00	0	0.00	36	0.63	8	0.24	23	#DIV/0!	0.66	0.66	0.66		0.150	0.966	0.512			34.0	32.0	4562	20700
19	7:00	18.0	1.339	1.302	0.008	1.062		27	0.48	0	0.00	210	2.42	0	0.00	38	0.82	7	0.26	0	#DIV/0!	0.66	0.66	0.66		0.144	0.851	0.451	46.0	41.0	39.0		6843	31050
20	7:00	18.5	1.446	1.283	0.016	1.087		29	0.48	0	0.00	186	2.17	0	0.00	32	0.67	4	0.15	18	#DIV/0!	0.66	0.66	0.66		0.145	0.839	0.444				36.0	2281	10350
21	7:00	17.0	1.236	1.118	0.000	0.964		25	0.49	0	0.00	231	3.10	0	0.00	41	0.97	7	0.29	29	#DIV/0!	0.66	0.66	0.66		0.122	0.731	0.387		40.0	39.0	39.0	6843	31050
22	7:00	19.6	1.575	1.507	0.012	1.123		32	0.49	0	0.00	200	1.99	0	0.00	34	0.69	6	0.21	28	#DIV/0!	0.66	0.66	0.66		0.170	0.985	0.522		37.0			2281	10350
23	7:00	17.7	1.409	1.187	0.005	1.108		29	0.49	0	0.00	201	2.54	0	0.00	37	0.76	16	0.57	42	#DIV/0!	0.66	0.66	0.66		0.116	0.776	0.411	92.0		36.0	40.0	6843	31050
24	7:00	17.9	1.427	1.247	0.011	1.087		29	0.49	0	0.00	227	2.73	0	0.00	41	0.86	24	0.87	20	#DIV/0!	0.66	0.66	0.66		0.136	0.815	0.432		39.0	37.0	33.0	6843	31050
25	7:00	19.9	1.534	1.384	0.013	1.221		31	0.48	0	0.00	223	2.41	0	0.00	41	0.76	30	0.97	30	#DIV/0!	0.66	0.66	0.66		0.163	0.905	0.479	53				2281	20700
26	7:00	18.9	1.436	1.308	0.004	1.104		29	0.48	0	0.00	216	2.48	0	0.00	37	0.76	39	1.40	27	#DIV/0!	0.66	0.66	0.66		0.150	0.855	0.453		40	33	38	6843	41400
27	7:00	19.9	1.574	1.447	0.012	1.108		32	0.49	0	0.00	212	2.20	0	0.00	36	0.74	48	1.71	22	#DIV/0!	0.66	0.66	0.66		0.148	0.946	0.501	41		34	33	6843	31050
28	7:00	17.7	1.387	1.248	0.014	1.111		28	0.48	0	0.00	237	2.85	0	0.00	42	0.86	59	2.10	37	#DIV/0!	0.66	0.66	0.66		0.137	0.816	0.432	29	41	31	29	9124	41400
29	7:00	20.2	1.587	1.424	0.013	1.200		32	0.48	0	0.00	226	2.38	0	0.00	40	0.76	10	0.33	27	#DIV/0!	0.66	0.66	0.66		0.159	0.931	0.493		37			2281	20700
30	7:00	19.0	1.422	1.354	0.004	1.130		30	0.51	0	0.00	239	2.65	0	0.00	45	0.91	18	0.63	27	#DIV/0!	0.66	0.66	0.66		0.145	0.885	0.469			35	33	4562	31050
31									#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!	0.66	0.66	0.66				0.000						
Total		581.2	45.090	40.932	0.291	34.523	0.000	808	#DIV/0!	0	#DIV/0!	6754	#DIV/0!	0	#DIV/0!	1192	#DIV/0!	770	#DIV/0!	687	#DIV/0!					4.472	26.723	14.209	575	570	584	569	161951	776250
Ave.		19.4	1.503	1.364	0.010	1.151	#DIV/0!	26.9	#DIV/0!	0	#DIV/0!	225	#DIV/0!	0	#DIV/0!	39.7	#DIV/0!	25.7	#DIV/0!	22.9	#DIV/0!	0.66	0.66	0.66	#DIV/0!	0.149	0.891	0.458	47.9	31.7	29.2	27.1	5398.37	25875
Max		21.3	1.729	1.522	0.016	1.329	0.000	34.0	#DIV/0!	0	#DIV/0!	296	#DIV/0!	0	#DIV/0!	49	#DIV/0!	59	#DIV/0!	67	#DIV/0!	0.66	0.66	0.66	0	0.170	0.995	0.536	97.0	41.0	43.0	40.0	9,124	41,400
Min		17	1.236	1.118	0.000	0.964	0.000	4.0	#DIV/0!	0	#DIV/0!	186	#DIV/0!	0	#DIV/0!	26	#DIV/0!	4	#DIV/0!	0	#DIV/0!	0.66	0.66	0.66	0	0.116	0.731	0.000	1.2	1.6	1.3	1.2	0	0

1	20	% Sodium Permanganate	Pre-aerator	**CHLORINATION**		**FLUORIDATION**	
2	40	% BisulfiteSolution	Membrane Backwash				
3	12.5	% Sodium Hypochlorite Solution	Post Softener	Type of Chlorine Used	Sodium Hypochlorite 12.5 %	Type of Fluoride Used	Hydrofluosilicic Acid 19% F
4	20	% Ammonium Sulfate Solution	Post Softener				
5	19	% Fluorosilicic Acid Solution	Post Clearwell	Chlorine Analyzers Used: Hach CL17 (2) & 5500sc		Fluoride Analyzer Used: Hach 2200, SPADNS method	
6	33	% Phosphate Solution	Post Clearwell				
7	40	% BisulfiteSolution	Lagoon Effluent				

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

Reported by: _____ Illinois Operator Certification ID: _____

Date: _____

Date Bacterials Sent: _____

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF PUBLIC WATER SUPPLIES

South Sangamon Water Commission - IL1670080

June 2019

Physical and Chemical Tests | **Membrane Integrity**

	Raw						Pre UF Membrane				Post UF Membrane			Post IEX				Finished														Post Filter		
			Total	Total	Total	Total	Turbidity	Total	Total	Soluble	Total	Total	Turbidity	1	2	3	4		Turbidity	Total	Total	Total	Total	Fluoride	Ortho	Free	Mono-	Chlorine						
Date	pH	Temp	Alk.	Hard.	Fe	Mn		Fe	Mn	Mn	Fe	Mn		Chloride				pH		Alk.	Hard.	Fe	Mn	F	Phosphate	Ammonia	Chloramine	F	T	Distribution		Bank 1	Bank 2	Bank 3
		deg.C	mg/L	mg/L	mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L		NTU	mg/L	mg/L	mg/L	mg/L	mg/l	mg/L	mg/l	mg/l	mg/l	mg/L	F mg/l	T mg/L	psi	psi	psi
			as CaCO3																	as CaCO3													
1	7.72	17.1	284	340	0.76	0.243			0.402	0.026		0.033	0.28					7.74	0.33	284	120	0.02	0.013	0.93	2.11			1.32	1.53					
2	7.35	14.9	280	360	0.73	0.236			0.371	0.024		0.078	0.29					7.37	0.27	290	180	0.02	0.019	0.89	2.00			1.73	1.83					
3	7.56	13.5	288	350	0.80	0.221			0.364	0.031		0.039	0.36					7.73	0.34	272	120	0.01	0.019	0.85	1.98			1.60	1.71					
4	7.17	14.1	290	354	0.64	0.212			0.360	0.021		0.032	0.58					7.54	0.45	280	100	0.02	0.010	0.82	1.96			1.49	1.67					
5	7.33	14.5	284	352	0.60	0.214			0.339	0.034		0.030	0.36					7.40	0.28	274	110	0.02	0.014	0.84	1.97			1.18	1.40					
6	7.41	13.9	282	350	1.09	0.227			0.334	0.032		0.035	0.47					7.38	0.32	250	122	0.01	0.014	0.87	1.96			1.46	1.73					
7	7.38	13.9	282	348	0.65	0.215			0.339	0.030		0.025	0.53					7.66	0.42	310	110	0.01	0.007	0.86	2.20			1.53	1.82					
8	7.30	13.5	284	354	0.71	0.220			0.334	0.022		0.033	0.32					7.51	0.50	290	110	0.02	0.010	0.79	1.91			1.38	1.56					
9	7.33	13.6	282	358	0.66	0.215			0.338	0.032		0.052	0.33					7.48	0.34	280	130	0.01	0.018	1.17	1.94			1.50	1.69					
10	7.15	13.3	300	350	0.82	0.213			0.345	0.026		0.028	0.30					7.09*	0.29	310	104	0.02	0.013	1.23	1.76			1.51	1.70					
11	7.03	12.4	280	358	0.55	0.223			0.358	0.025		0.035	0.29					7.23	0.30	280	110	0.01	0.013	0.65	1.82			1.50	1.81					
12	7.30	13.0	290	350	0.58	0.217			0.350	0.029		0.036	0.44					7.68	0.44	290	100	0.02	0.012	0.92	1.90			1.66	1.74					
13	7.40	19.4	290	360	0.64	0.223			0.351	0.031		0.046	0.30					7.78	0.36	270	120	0.02	0.016	0.72	1.73			1.57	1.63					
14	7.50	19.1	280	350	0.57	0.214			0.368	0.024		0.034	0.36					7.86	0.35	260	120	0.02	0.011	0.65	1.80			1.59	1.84					
15	7.50	18.6	290	370	0.42	0.215			0.448	0.037		0.024	0.35					7.91	0.49	276	160	0.02	0.013	0.88	2.10			0.91	1.58					
16	7.51	16.3	290	378	1.32	0.242			0.225	0.207		0.149	0.23					8.02	0.48	280	160	0.02	0.060	0.87	1.09			2.34	2.36					
17	7.50	16.9	290	350	1.31	0.221			0.380	0.026		0.029	0.01					7.90	0.32	270	170	0.01	0.032	1.05	1.04			1.72	1.77					
18	7.50	16.8	285	350	1.45	0.218			0.374	0.028		0.035	0.18					8.00	0.28	265	115	0.02	0.011	1.12	0.84			1.60	1.78					
19	7.50	18.3	280	340	0.93	0.226			0.390	0.030		0.030	0.22					7.90	0.24	270	100	0.01	0.016	0.81	0.82			1.47	1.58					
20	7.50	16.9	275	350	1.43	0.233			0.383	0.030		0.074	0.41					8.00	0.47	280	105	0.02	0.026	1.11	0.82			1.60	1.75					
21	7.40	17.9	280	350	0.98	0.212			0.405	0.025		0.013	0.44					7.90	0.23	275	110	0.02	0.014	1.03	0.73			1.57	1.57					
22	7.36	18.8	280	360	1.04	0.219			0.381	0.003		0.028	0.29					8.00	0.54	300	160	0.01	0.024	0.83	0.88			1.54	1.67					
23	7.50	16.8	300	340	0.83	0.209			0.323	0.023		0.022	0.25					7.90	0.34	288	150	0.02	0.017	0.96	0.81			1.72	1.82					
24	7.50	17.4	270	350	0.86	0.225			0.377	0.030		0.027	0.24					7.90	0.28	270	110	0.02	0.008	0.09	1.85			1.55	1.62					
25	7.50	17.2	280	340	0.95	0.219			0.374	0.039		0.033	0.24					7.90	0.29	270	120	0.01	0.014	1.64	1.64			1.33	1.55			pass	pass	pass
26	7.50	17.5	280	340	0.63	0.231			0.390	0.038		0.036	0.24					7.90	0.27	280	115	0.01	0.018	0.91	1.74			1.52	1.66					
27	7.50	18.4	270	340	0.72	0.231			0.384	0.031		0.018	0.24					7.90	0.23	280	110	0.01	0.031	0.76	1.81			1.46	1.67					
28	7.40	18.6	280	340	0.81	0.223			0.366	0.030		0.032	0.30					7.90	0.24	270	100	0.02	0.030	0.83	1.74			1.52	1.70					
29	7.50	17.7	280	340	0.73	0.214			0.379	0.022		0.035	0.23					7.90	0.24	270	110	0.02	0.013	1.45	1.86			1.53	1.68					
30	7.50	18.5	260	340	0.99	0.225			0.453	0.044		0.037	0.26					7.90	0.17	280	100	0.02	0.016	0.94	1.68			1.49	1.63					
31																																		
Ave.	7.42	16.4	285	350	0.84	0.222	#DIV/0!	#DIV/0!	0.366	0.034	#DIV/0!	0.039	0.31	###	####	####	####	7.77	0.34	279	122	0.02	0.018	0.92	1.62	#DIV/0!	#DIV/0!	1.53	1.70	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Max	7.72	19.4	300	378	1.45	0.243	0.00	0.00	0.453	0.207	0.00	0.149	0.58	0	0	0	0	8.02	0.54	310	180	0.02	0.060	1.64	2.20	0.00	0.00	2.34	2.36	0.00	0.00	0.00	0.00	0.00
Min	7.03	12.4	260	340	0.42	0.209	0.00	0.00	0.225	0.003	0.00	0.013	0.01	0	0	0	0	7.23	0.17	250	100	0.01	0.007	0.09	0.73	0.00	0.00	0.91	1.40	0.00	0.00	0.00	0.00	0.00

Lagoon Effluent Tests		pH	Temp	T Chlor	Mn	Fe	Chloride	TSS
Monthly			°C	mg/l	mg/l	mg/l	mg/L	mg/L
Date	June 13 2019	7.65	21.2	0.04	0.463	0.27	240	<4

Distribution Stability Tests		pH	Temp	TDS	Alkalinity	Calcium	Chloride	Sulfate	Remarks:
			°C	mg/L	mg/L as CaCO3	mg/L	mg/L	mg/L	
Date	June 13 2019	7.78	17.2	404	260		30	64	
Date									
Date									