











woodardcurran.com
commitment & integrity drive results

## Monthly Operating Report

April 2016

0217327.00 So. Sangamon May 17, 2016





SEC	CTION		PAGE NO.
Exe	ecutive S	Summary	ES-1
1.	SAFET	ΓΥ	1-1
	1.1 1.2 1.3 1.4	Safety Training Lost time Accidents Safety Audit Miscellaneous Safety	1-1 1-1
2.	COMP	LIANCE, FLOWS AND LOADINGS	2-2
	2.1 2.2 2.3 2.4	COMPLIANCE Influent flows and loadings Effluent Concentrations Lagoon Discharge Concentrations	2-1 2-2
3.	OPER	ATIONS	3-1
	3.1 3.2 3.2.1 3.3	Events impacting operations  Emergency & Service calls  Emergency Call-outs  Customer Inquiries	3-1 3-2
4.	MAINT	ENANCE AND REPAIR	4-3
	4.1 4.2	Preventative and predictive maintenance Corrective repairs	
5.	PROJE	ECT MANAGEMENT & SUPPORT	5-1
	5.1 5.2 5.3	Staffing & Training Corporate Support Budget	5-1
6.	CAPIT	AL PLANNING	6-1
	6.1 6.2	Approved CIP Projects Current status  Draft Capital Improvement Plan	



## **LIST OF TABLES**

TABLE	PAGE NO.
Table 2.2 Influent Concentrations and Flow	2-1
Table 2.3 Finished Water Quality	2-2
Table 2.4 Weekly Grab Sample Analysis Results	2-3
Table 4.1 Budget Table	5-2



## **EXECUTIVE SUMMARY**

Safety is the number one priority at Woodard and Curran. We continue to provide monthly training for employees at the plant, provide weekly safety updates and safety videos are assigned to all employees. There were no lost time accidents in the month of April. Laura Bonk, Joanna Wallace's successor, continues to monitor the progress of the Safety Audit from Portland, Maine. Approximately 80 percent of the items identified in the safety audit performed in May 2015 have been completed.

The finished water quality was within regulatory limits and all reporting and sampling requirements were met for April.

We continue to experience a slight exceedance of the maximum allowable Chlorine residual allowed by the NPDES discharge permit. The construction permit for this project was received from the Illinois EPA on April 27, 2016. Total cost of the project is estimated to be \$43,000.

The plant produced 29.4 million gallons of finished water for the month of April.

For the month of April 2016, there were 3 inspections, 8 preventative and 1 corrective maintenance activities completed. There were two alarms that required personnel at the plant after normal operating hours. There were no customer inquiries for the month.

After 12 months, financial summaries indicate costs are \$28,628 under budget for the year to date.

On March 28, 2016, work began on the Comprehensive Performance Evaluation (CPE). Mike and Andy Curry from Curran and Associates along with John Bartolomucci from the Illinois EPA and Shane Hill from the village of Chatham make-up the committee performing the CPE. The CPE Committee made preliminary results of their findings available to the water plant on March 30, 2016. The committee will make formal recommendations to the Illinois EPA at a later date. Once received, the Illinois EPA will formally contact the SSWC with their required and recommendations changes. It is anticipated the formal letter from the Illinois EPA will arrive in the near future.

Woodard and Curran is working with Meco Engineering to update and prioritize the 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.



## 1. SAFETY

## 1.1 SAFETY TRAINING

Woodard and Curran continues to provide safety training for personnel at the plant. This is accomplished by requiring daily safety meetings, weekly safety updates are emailed to the plant and safety videos are assigned to all employees and are required to be completed.

## 1.2 LOST TIME ACCIDENTS

There were no lost time accidents in the month of April, 2016.

## 1.3 SAFETY AUDIT

The next conference call regarding the Safety Audit has not been scheduled as of this date. Ms. Laura Bonk was on-site in early April to evaluate the remaining safety audit items. To date, approximately 80 percent of the items identified have been addressed.

## 1.4 MISCELLANEOUS SAFETY

There were no miscellaneous safety items for the month of April 2016.



## 2. COMPLIANCE, FLOWS AND LOADINGS

## 2.1 COMPLIANCE

The finished water quality was within regulatory limits and all reporting and sampling requirements were met for April.

Water Solutions Unlimited completed corrosion control testing. According to Troy Mott with Water Solutions Unlimited, the corrosion rates for steel were very low and the copper results were pretty low as well. To put the SSWC results in perspective, corrosion rates of around 1 mil per year are normal. A copy of this report is included at the end of this document as Attachment A.

We continue to experience a slight exceedance of the maximum allowable Chlorine residual allowed by the NPDES discharge permit. The construction permit for this project was received on April 27, 2016. The estimated cost for the project is \$43,000.

On February 22, 2016, the Illinois Environmental Protection Agency sent a letter to the South Sangamon Water Commission directing them to conduct a Composite Correction Program (CCP). The CCP is requested in light of ongoing consumer concerns expressed by residents within the Chatham community water supply distribution system. The CCP will be performed by a third-party contractor, Curry and Associates, on behalf of the commission. A CCP consists of two elements, a Comprehensive Performance Evaluation (CPE) and a Comprehensive Technical Assistance (CTA):

- The CPE is a thorough review and analysis of the Commission's plant, specifically as to the plant's performance-based capabilities and associated administrative, operation and maintenance practices.
- The CTA is the performance improvement phase that will be implemented if the CPE results indicate improved performance potential.

The CPE is anticipated to take 30 days to complete. On March 28, 2016, work began on the CPE. Mike and Andy Curry from Curran and Associates along with John Bartolomucci from the Illinois EPA and Shane Hill from the village of Chatham make-up the committee performing the CPE. The CPE Committee made preliminary results of their findings for the water plant available on March 30, 2016.

The committee has made formal recommendations to the Illinois EPA. It is anticipated that the formal letter from the Illinois EPA will arrive in the near future. The SSWC is reserving the right to comment once they've heard from the Illinois EPA.

The Consumer Confidence Report for 2015 has been completed and is ready to be disbursed to the satellite water facilities and the general public. The report will be posted the website for those who would like a copy.



## 2.2 INFLUENT FLOWS AND LOADINGS

The total water produced for the month of April, 2016 was 34.7 MG and the influent parameters were all within the normal range. Please note that at the request of the Illinois EPA, as of February 2016 these numbers now reflect water characteristics prior to Aeration.

The influent flow and loadings are summarized below in Table 2.2

		Tak	ole 2.2 Influ	uent Conce	ntrations a	nd Flow		
Day	-11	T		M.	Fluorido	Handrasa	Allealimitee	Well Flow Gals (k)
1	<b>рН</b> 7.45	<b>Temp</b> 13.3	<b>FE</b> 0.73	Mn 0.406	Fluoride 0.16	Hardness 360	Alkalinity 280	1.151
2	7.45	12.7	0.73	0.400	0.10	360	280	0.985
3	7.45	13.4	0.02	0.432	0.23	360	280	1.210
4	7.43	13.4	1.89	0.432	0.15	360	280	1.122
5	7.43	13.5	1.23	0.397	0.13	362	290	1.122
6	7.47	13.2	0.84	0.413	0.20	362	284	1.539
7	7.43	12.9	0.87	0.415	0.17	366	282	1.054
8	7.39	12.8	3.09	0.352	0.17	362	280	0.998
9	7.46	12.7	0.84	0.411	0.19	366	280	1.154
10	7.41	12.9	0.58	0.424	0.20	364	282	1.146
11	7.42	12.8	0.61	0.412	0.20	360	280	1.238
12	7.42	13.3	0.56	0.399	0.23	364	280	1.118
13	7.49	13.6	0.76	0.389	0.27	362	284	1.140
14	7.46	13.3	0.88	0.446	0.20	364	286	1.141
15	7.38	13.5	0.88	0.388	0.21	364	284	1.162
16	7.45	13.5	0.96	0.392	0.22	364	270	1.097
17	7.62	14.1	0.75	0.388	0.16	368	290	1.279
18	7.47	14.1	0.75	0.396	0.19	360	280	1.458
19	7.36	13.6	0.71	0.399	0.22	364	280	1.113
20	7.46	13.7	0.97	0.431	0.21	362	284	1.023
21	7.49	13.7	0.83	0.405	0.22	364	284	1.075
22	7.38	13.7	0.92	0.419	0.19	364	284	1.148
23	7.48	14.5	0.84	0.422	0.11	364	286	1.064
24	7.51	13.8	0.75	0.413	0.18	360	284	1.253
25	7.58	13.9	0.83	0.411	0.30	366	286	1.356
26	7.39	13.4	0.84	0.425	0.20	364	284	1.176
27	7.43	13.5	0.98	0.409	0.18	364	284	1.092
28	7.51	13.5	1.03	0.436	0.19	360	280	1.109
29	7.38	13.4	0.88	0.407	0.19	364	286	1.008
30	7.47	13.4	0.86	0.416	0.20	360	282	1.112
31	-	-	-	-	-	-	-	-
Max.	7.62	14.5	3.09	0.446	0.30	368	290	1,539
Min.	7.36	12.7	0.56	0.352	0.11	360	270	0.985
Avg.	7.45	13.4	0.93	0.407	0.20	363	283	1.159
Total	-	-	-	-	-	-	-	34.783



## 2.3 EFFLUENT CONCENTRATIONS

The facility produced 29.4 MG during the month with a daily average of 0.98 MG and a min/max of 0.83/1.27 MG.

	Table 2.3 Finished Water Quality									
Date	Free Cl2	Total Cl2	рН	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
1	1.3	1.3	7.91	13.2	0.01	0.007	0.70	128	264	0.88
2	1.3	1.3	8.00	12.5	0.01	0.010	0.36	124	266	0.88
3	1.3	1.4	7.96	13.5	0.01	0.023	0.26	140	266	0.82
4	1.3	1.3	7.95	13.3	0.01	0.014	0.86	130	270	0.51
5	1.0	1.2	7.87	13.0	0.01	0.016	0.79	120	266	0.80
6	1.3	1.4	7.88	12.9	0.01	0.016	0.92	124	264	0.86
7	1.4	1.6	7.89	12.7	0.01	0.016	0.86	120	264	0.81
8	1.5	1.5	7.82	12.9	0.01	0.012	0.72	124	270	0.85
9	1.4	1.5	7.92	13.6	0.01	0.018	0.68	120	270	0.74
10	1.4	1.5	7.82	12.5	0.01	0.017	0.83	120	260	0.95
11	1.4	1.5	7.84	13.7	0.01	0.009	0.73	120	266	0.83
12	1.4	1.4	7.92	13.7	0.01	0.011	0.70	118	260	0.75
13	1.4	1.5	7.86	13.3	0.01	0.010	0.79	110	266	0.83
14	1.4	1.4	8.01	13.2	0.01	0.021	0.36	122	272	0.80
15	1.4	1.5	7.85	13.9	0.01	0.012	0.83	120	270	0.83
16	1.4	1.6	7.96	13.6	0.01	0.012	0.54	120	260	0.83
17	1.4	1.4	7.91	14.0	0.01	0.010	0.76	120	262	0.83
18	1.4	1.5	7.65	13.3	0.01	0.013	0.72	130	264	0.80
19	1.4	1.5	7.87	14.0	0.01	0.014	0.62	124	262	0.82
20	1.4	1.5	7.85	13.7	0.01	0.014	0.74	120	264	0.57
21	1.4	1.5	7.99	13.6	0.01	0.014	0.30	122	274	0.49
22	1.4	1.5	7.81	13.8	0.01	0.012	0.80	134	264	0.79
23	1.4	1.5	7.83	13.7	0.01	0.013	0.94	120	260	0.81
24	1.4	1.5	7.79	13.8	0.01	0.014	0.68	122	280	0.77
25	1.2	1.4	7.79	14.0	0.01	0.007	1.00	118	268	1.01
26	1.4	1.5	7.86	13.7	0.01	0.014	0.69	118	260	0.71
27	1.4	1.5	7.84	13.4	0.01	0.016	0.88	120	268	0.79
28	1.4	1.5	7.88	13.8	0.01	0.016	0.83	120	266	0.81
29	1.4	1.5	7.88	13.5	0.01	0.016	0.71	118	270	0.81
30	1.4	1.5	7.83	13.3	0.01	0.012	0.93	124	280	0.90
31			-	-	-	_	-	-		
Max	1.5	1.6	8.01	14.0	0.01	0.023	1.00	140	280	1.01
Min	1.0	1.2	7.65	12.5	0.01	0.007	0.26	110	260	0.49
Avg	1.4	1.5	7.87	13.4	0.01	0.014	0.72	122	267	0.80



## 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 <sup>2</sup> (mg/l)	pH (S.U.)	TSS (mg/l)					
04/04/2016	0.144	0.086	245	0.267	7.95	0.00					
04/12/2016	0.123	0.048	245	0.188	8.11	0.00					
04/18/2016	0.628	0.395	236	0.141	7.76	0.00					
04/25/2016	0.456	0.232	280	0.235	7.99	0.00					
N/A	-	-	-	-	-	-					
Minimum	0.123	0.048	236	0.141	7.76	0.00					
Maximum	0.628	0.395	280	0.267	8.11	0.00					
Average	0.338	0.190	252	0.208	7.95	0.00					
Monthly Avg Limit	2.0	1.0	-	-	-	15					
Daily Limit	4.0	2.0	500	0.05	6.0-9.0	30					

The Chloride sample for the month of April 2016, performed by the Springfield Metropolitan Sanitary District, was 15,300 mg/L. The limit for chloride discharge to the sanitary district is 30,000 mg/L.



## 3. OPERATIONS

## 3.1 EVENTS IMPACTING OPERATIONS

Mr. Pete Ross came to the plant on April 28, 2016 to complain about the water eroding the soil in his pasture. Mr. Ross indicated that if SSWC was willing to buy the rock, he would use his tractor to put it in place.



## 3.2 EMERGENCY & SERVICE CALLS

## **Service Calls:**

• Anderson Electric was on-site April 14 and April 15 to repair wires that have been chewed on by mice. The cost of repair was \$494.03.







Flushing on the transmission mail to the Chatham Reservoir is scheduled to take place from May 23, 2016 through May 27, 2016 between the hours of 8:00 am and 4:00 pm. A notice has been prepared and forwarded to Laura VanProyen for disbursement and the notice will be added to the SSWC web page.

## 3.2.1 Emergency Call-outs

• There were no emergency call-outs for the month of April 2016.

## 3.3 CUSTOMER INQUIRIES

There were no customer inquiries for the month of April 2016

Justin King's new service was installed on April 13, 2016.



## 4. MAINTENANCE AND REPAIR

## 4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of April 2016, there were 3 inspections, 8 preventative and 1 corrective maintenance activities completed.

Brotcke Well and Pump completed well tests for all ten wells. The High Velocity Injection treatments were successful and raising the capacity of the wells, and the wells have maintained their capacity since the treatments. In addition, where the treatments were performed through the injection port, the pumps have also increased in capacity. Based on the results, Brotcke Well and Pump recommends treating Wells One Two. If funds are available, work should also be done on Well 6. Brotcke will begin treating Well Two on May 16, 2017. Because the % loss of specific capacity, we have shut Well Two down so as not to cause damage to the pump and motor.

Well No	Present	New	% Loss	Last Test	% Loss
1	13	18	28%	17	24%
2	13	25	48%	33	61%
3	21	16	-%	9	-
4	10	9	-%	8	-
5	13	11	-%	13	-
6	12	9	-%	12	-
7	26	18	-%	30	13%
8	31	23	13%	20	-
9	24	18	-%	24	-
10	32	11	-%	31	-

A complete copy of this report can be found at the end of this report as Attachment B.

## 4.2 CORRECTIVE REPAIRS

Emerson has been to the plant and calibrated all but four of the Rosemont Flow Meters. The four meters no calibrated are located approximately 20-fee in the air and will require a lift to be done. A complete copy of the calibration report can be found at the end of the report at Attachment C.

On April 28, 2016, Keith Sommers replaced all the leaking check valves on Bank #1. Additional check valves have been ordered and will be replaced when possible.

.



## 5. PROJECT MANAGEMENT & SUPPORT

## 5.1 STAFFING & TRAINING

- Woodard and Curran continues to train and provide staffing to the plant as needed.
- Dan Held attended the Midwest Manager's Meeting in St. Charles, Missouri.

## 5.2 CORPORATE SUPPORT

- Dan Held participated in a conference call between Max Middendorf from Meco Engineering, Joe Pisula and Larry Krause from Donahue Engineering on April 1, 2016.
- Dan Held met with Ray Giguere from Woodard and Curran's SCADA group and Max Middendorf regarding.
- Ray Giguere was on-site April 5, 2016 to make SCADA modifications.
- Marc Thomas was on-site April 6, 2016 to make prepare 2016-2017 budget.
- Laura Bonk was on-site April 11, 2016 to review the remaining Safety Audit items that are still open.
- Paul Roux and Kara Hanson were on-site April 12, 2016.
- Dan Held and Marc Thomas participated in a conference call on April 25, 2016 to discuss possible implications to the MCPE report



## 5.3 BUDGET

The eleventh month financial summary is provided below in Table 4.1 showing the costs are \$28,628 under budget for the year to date.

Table 5.3 Budget Table

Budget Category	Month Budget	Month Actual	YTD Budget	YTD Actual	Annual Budget	Over ( <mark>under</mark> )	% of budget
Labor (D.L. + OH)	\$19,187	\$34,921	\$230,244	\$262,070	\$230,244	\$31,826	114%
Utilities	\$8,320	\$5,818	\$99,840	\$85,408	\$99,840	(\$14,432)	86%
Chemicals	\$16,388	\$7,244	\$196,655	\$160,962	\$196,655	(\$35,693)	82%
Maintenance & Repair	\$8,299	\$8,681	\$99,585	\$108,312	\$99,585	\$8,727	109%
Chloride	\$13,813	\$11,276	\$165,760	\$126,104	\$165,760	(\$39,656)	76%
Lab Supplies and Equipment	\$1,530	\$1,015	\$18,355	\$21,465	\$18,355	\$3,110	117%
Office Supplies	\$188	\$217	\$2,250	\$4,343	\$2,250	\$2,093	193%
Miscellaneous Expenses	\$1,213	\$1,412	\$14,550	\$17,774	\$14,550	\$3,224	122%
Other Operating Costs	\$278	\$13,194	\$3,339	\$15,515	\$3,339	\$12,176	465%
Subtotal of Costs for Contract Year 2	\$69,215	\$83,778	\$830,578	\$801,953	\$830,578	(\$28,625)	97%
Fixed Fee for Contract Year 2	\$6,922	\$6,922	\$83,059	\$83,059	\$83,059	\$0	100%
Year One Transition	\$1,365	\$1,365	\$16,385	\$16,382	\$16,385	(\$3)	100%
Total	\$77,502	\$92,064	\$930,022	\$901,394	\$930,022	(\$28,628)	97%



## 6. CAPITAL PLANNING

## 6.1 APPROVED CIP PROJECTS CURRENT STATUS

Engineering for the removal of Chlorine of the Lagoon discharge water has been completed and submitted to the Illinois Environmental Protection Agency (EPA) for approval. EPA has a 45-day waiting period requirement before an inquiry can be made regarding the status of the project.

## 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, IL - Corrosion Coupon Record

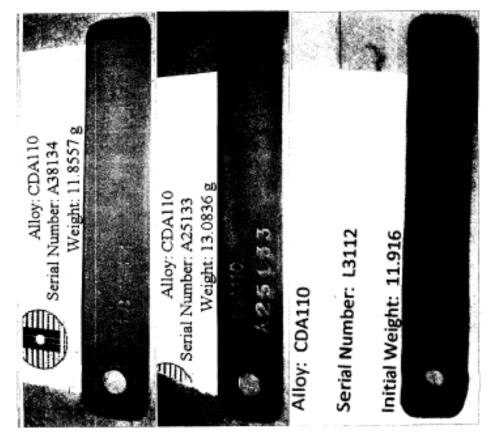
## Copper

									WATER PLANT	CHATHAM, IL
	120 days									
	90 days						3.65			
	60 days			2,69						
With per Year	45 days	4,06	3.57		4.79	4.09		4.78	4.63	3.43
Exposure	means	782	840	1632	1104	1080	2184	1080	1058	1066
Weight Loas Exposure	9	0.18	0.168	0.246	0.296	0.247	0.446	0.2886	0.2736	0.2027
Exposure		33 days	35 days	68 days	46 days	45 days	91 days	45 days	44 days	44 days
Final	Wordst (B)	11,797	12.107	11.67	11.801	11,669	11,468	12.795	11.656	11,653
Original	weight tgo	11.977	12.275	11,916	12.097	11.916	11,914	13,0836	11.9296	11,8557
Date	Merrowed	25-Feb-13	1-Apr-13	1-Apr-13	6-Apr-15	21-May-15	21-May-15	24-Sep-15	20-Apr-16	20-Apr-16
Date	Designation of the last	23-Jan-13	25-Feb-13	23-Jan-13	19-Feb-15	6-Apr-15	19-Feb-15	10-Aug-15	7-Mar-16	7-Mar-16
Coupen		L 3013	12980	L3012	L3110	L3112	L3111	A25133	A38143	A38134



South Sangarnon A. 050516Copper

## South Sangamon, IL - Corrosion Coupon Record



State American A celebrat

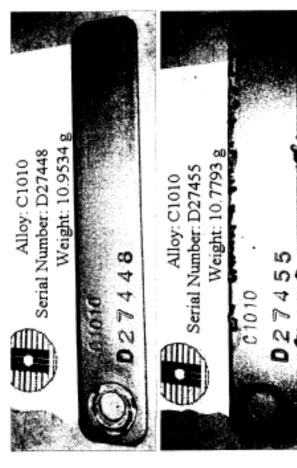




# South Sangamon, IL - Corrosion Coupon Record

Steel

Coupon Serial Data	Date	Original	1	Exposure	Maght	Espositus	Mile per Year				
		ill Hillian	Ti na		Free ill	(been)	45 days	80 days	90 days	120 days	
2	28-F89-13	11.034	10.994	33 days	0.04	785	1.02	L	L		
113	1-Apr-13	11,308	11.340	35 days	620.0	940	0.70				
Zer-13	1-Apr-13	11.090	11.045	68 days	0.045	1632		0.58			
9-Feb-15	6-Apri-15	10.917	10.833	46 days	0.0836	1104	1.52				
Apr-15	21-May-15	10.771	10.732	45 days	0.0394	1080	0.74				
P-66-15	21-May-15	10.642	10,601	91 days	0.041	2184			0.38		
Aug-15	24-Sap-15	11,114	10.963	45 days	0.1511	1080	2.82				
-Mar-16	20-Apr-16	10.953	10.926	44 days	0.0274	1056	0.52				WATER PLANT
-Mar-16	20-Apr-16	10,779	10,759	44 days	0.0203	1056	0.39				CHATHAM, IL.



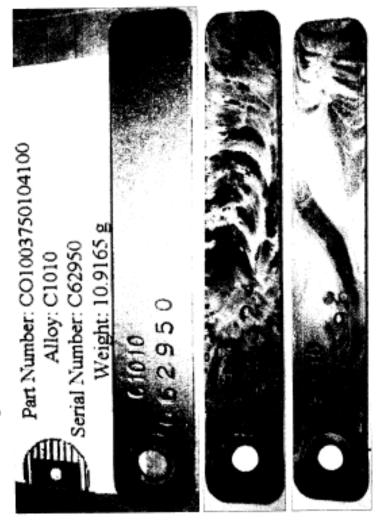


South Sangamon II, d605160herl

South Sangamon, IL - Corrosion Coupon Record



South Sangamon, IL - Corrosion Coupon Record



South Sangamon IL 050515Stepl





April 14, 2016

Mr. Dan Held South Sangamon Water Commission 9199 Buckhart Rd Rochester, IL 62563

RE:Pump Test Results

Dear Dan:

We have completed the Pump Test on Wells No. 1 - 10.

Presented below are the results.

## Specific Capacity (GPM/Foot)

Well No.	Present	New	% Loss	<u>Last</u> Test/Treatment	% Loss
1	13	18	28%	17	24%
2	13	25	48%	33	61%
3	21	16	-%	9	%
4	10	9	%	8	%
5	13	11	-%	13	%
6	12	9	-%	12	-%
7	26	18	-56	30	13%
8	31	23	13%	20	-%
9	24	18	-%	24	%
10	32	11	-96	31	%

PO Box 1168, 750 Merus Court, Fentan, Missouri 63026 ph 636-343-3029 • ph 800-969-3029 • fx 636-343-3773 Visit ux at www.brotoke.com



## South Sangamon April 14, 2016

Well No. 1	This well has never been treated since it was installed in 2012. The SC has dropped 28% from when it was new and 24% in the last year. This well should be treated.
Well No. 2	This well has never been treated since it was installed in 2012. The SC has dropped 48% from when it was new and 61% in the last year. This well should be treated.
Well No. 3	This well was treated since in 2015. The SC increased from 9 to 21 which is above its SC of 16 when it was new.
Well No. 4	This well was treated since in 2015. The SC increased from 8 to 10 which is above its SC of 9 when it was new.
Well No. 5	This well was treated in Nov of 2014. The treatment brought the SC up to a 13 which is greater than it was when it was new. The present SC has not dropped since the well was treated in Nov 2014.
Well No. 6	This well has never been treated since it was installed in 2012. The SC has not decreased since its start up.
Well No. 7	This well was treated in May of 2014. The SC was 16 and was raised to a 32. Since May of 2014 the well has dropped to a 26.
Well No. 8	This well was treated since in 2015. The SC increased from 20 to 31 which is above its SC of 23 when it was new.
Well No. 9	This well was treated in May of 2014. The SC was 16 and was raised to a 24. Since May of 2014 the well has held its SC.
Well No. 10	This well was treated in May of 2014. The SC was 7 and was raised to a 31. Since May of 2014 the well has held its SC.



South Sangamon April 14, 2016

## Pump Condition (GPM)

Well No.	Present	<u>Design</u>	% Loss
1	200	250	20%
2	200	250	20%
3	?	250	2%
4	200	250	20%
5	250	250	-%
6	120	250	52%
7		250	%
8	180	250	30%
9	200	250	20%
10	220	250	12%

- Well No. 1 The pump for well 1 has design points of 250 gpm at 148' tdh. The pump is operating at 200 gpm at its design head which is a 20% drop in pump capacity which is probably related to iron building up in the pump. The pump does not require any maintenance at this time. Maximum pumping rate was 260 gpm.
- Well No. 2 The pump for well 2 has design points of 250 gpm at 148' tdh. The pump is operating at 200 gpm at its design head which is a 20% drop in pump capacity which is probably related to iron building up in the pump. The pump should be monitored for performance. Maximum pumping rate was 260 gpm.
- Well No. 3 We could not get a reading on the pressure gauge. The gauge should be replaced when scheduled maintenance is performed.
- Well No. 4 The pump for well 4 has design points of 250 gpm at 148' tdh. The pump is operating at 2000 gpm at its design head which is a 20% drop in pump capacity which is probably related to iron building up in the pump. The pump does not require any maintenance at this time. Maximum pumping rate was 300.
- Well No. 5 The pump for well 5 has design points of 250 gpm at 148' tdh. The pump is operating at its design points. The injection treatment was effective at cleaning the iron from the pump and restoring its capacity. The pump does not require any maintenance at this time. Maximum pumping rate was 325.
- Well No. 6 The pump for well 6 has design points of 250 gpm at 148' tdh. The pump is operating at 155 gpm at its design head which is a 52% drop in pump capacity which is probably related to iron building up in the pump. The pump should be treated for performance. Maximum pumping rate to plant was 200 gpm.



South Sangamon April 14, 2016

Well No. 7 The pump for well 7 has design points of 250 gpm at 146' tdh. This pump appears to be way off the curve. Last year's report indicated that it should be monitored. We will retest when we come to treat your wells.

Well No. 8 The pump for well 8 has design points of 250 gpm at 148' tdh. The pump is operating at 180 gpm at its design head which is a 30% drop in pump capacity which is probably related to iron building up in the pump. The pump should be monitored for performance. Maximum pumping rate was 231 gpm.

Well No. 9 The pump for well 9 has design points of 250 gpm at 148' tdh. The pump is operating at 200 gpm at its design head which is a 20% drop in pump capacity which is probably related to iron building up in the pump. The pump does not require any maintenance at this time. Maximum pumping rate was 320 gpm.

Well No. 10 The pump for well 10 has design points of 250 gpm at 148" tdh. The pump is operating at 220 gpm at its design head which is a 12% drop in pump capacity which is probably related to iron building up in the pump. The pump does not require any maintenance at this time. Maximum pumping rate was 310 gpm.

In summary, the High Velocity Injection treatments what were performed on 3,4, and 8 were successful and raising the capacity of the wells, and the wells have maintained their capacity since the treatments. In addition, where the treatments were performed through and injection port, the pumps have also increased in capacity. I recommend treating wells 1 and 2. If funds are available, I would also treat well 6 to increase pump capacity. Pump test sheet and pump curves are attached for your files.

If you have any questions please feel free to contact me.

Sincerely,

BROTCKE WELL & PUMP INC.

Todd Thomas

G:DRCTodd/Letters 16 south sangamon/South Sanagmon-PTRaudt-4-14-16 for wells 1 through 10 doc





Instrument And Valve Services Company Chanhassen, MN 65317 Phone: 800-654-7768 Fac: 952-908-8844 http://www.emerooprocess.com/IVS/

## FIELD SERVICE REPORT

Request No:	1909490	Sales Person:	TERESA COWAR	DS.	
	4336 8500 0030 4360	Quote No.:			
Customer	SOUTH SANGAMON WATER COMMISSION	Contract No.:			
Address:	6199 BUCKHART RD	Timak Mo:	819409	Service Date:	6-Apr-2016
State	IL.	1			
C/br	ROCHESTER	Technicien:	GARY SOUTH		
Zip Code:	62563	Тиак Турк:	IVS Demand		
Contact Marie:	Dan Hold	Division:	IVS		
Cinal Address:	chebi@woodardoumin.com	Model No.:	3051		
Phone No.:	217-415-3541	Sental No.			
Fax No.:		I			

## Datalled Charges

Service		Desc	wipdian .		Price	Swc Date	Total
Customer	Flat Rate; Labo				\$1,818.00	8-Apr-2016	\$1,818.00
Labor							
Service	Labor there	Start	End	Curation	Svc Date	Frate	Total
Customer	TV Fixed OT	5:00 AM	7:00 AM	2.00	8-Apr-2016	Fixed	Fixed
Customer	TV Fixed ST	7:00 AM	7:30 AM	0.50	8-Apr-2016	Fixed	Floord
Customer	LB Fixed ST	7:30 AM	1:00 PM	5.50	8-Apr-2016	Fixed	Fixed
Customer	TV Fixed ST	1:00 PM	3:00 PM	2.00	8-Apr-2016	Fixed	Fixed
Customer	TV Fixed OT	3:00 PM	3:30 PM	0.50	8-Apr-2016	Fixed	Ploted
Mileage							
Service	Expens	e (Nevt)	Syc Date		se Note	Qty	Total
Customer	Mileage S	per Mile	8-Apr-2016	Rid	. Trip	318	N/C
Expenses							
Service	Expens	e theyto	Svc Date		Expense Note	,	Total
Customer	Meats Pe	r Diem	8-Apr-2016				N/C





Instrument And Valve Services Company Chanhassen, MN 95317 Phone: 800-654-7768 Fax: 952-906-8844 http://www.emersonprocess.com/IVS/

## FIELD SERVICE REPORT

EPORT http://www.emersonprocess.com/TVS

Request No: 1506460	Sales Person: TERESA EDINAROS
P.O. Mo.: 4008 8500 0030 4000	Queen Mo.:
Customer: SOUTH SANGAMON WATER COMMISSION	Contract No.:
Address: 9100 BUCKHART RD	Task No: 819409 Service Date: 8-Apri-2016
State: L	Technician: GARY SOUTH
City: ROCHESTER  Zip Code: 62563	Tesk Type: NS Demand
Contact Name: Don Held	Styleton: W8
Email Address: dhote@woodardouren.com	Model No.: 3051
Phone Mo.: 217-415-3541	Seriel No.
Fax No.:	
Detailed	Charges
roblem Text	
TE VISIT MAIL 3061, QTV IL PROE CALIERATION	
ummary	
oriunds on also at 7:30 AM and met with Keith, who directed	me to the instruments to be calibrated. I ogt my equipment
illing Notes Il to customer's Visa card.	
	Total Charges \$ 2,487.40 Total Charges Welved \$ 659.40 Clustomer Total \$ 1,818.00
Remit-to Address: Instrument A 22727 Netwo Chicago, IL d THIS IS NOT	rk Place
ervice Representative	Customer Representative
Page	2 of 2 FSR 150

South Sangamon Water Commission April 2016 Monthly Operation Report





Instrument And Valve Services Company Chanhassen, MN 55317 Phone: 800-854-7768 Fax: 952-906-8844 http://www.emersonprocess.com/IVS/

## FIELD SERVICE REPORT

Request No:	1509490	Sales Person:	Teresa Edwards	
P.O. No.:	Visa Auth	Quote No.:		
	SOUTH SANGAMON WATER COMMISSION	Contract No.:		
Address:	9199 BUCKHART RD	Task No:	019700	Service Date: 13-Apr-2016
Statu	L	l		
City:	ROCHESTER	Technicien:	GARY SOUTH	
Zip Code:	62563-8090	Task Type:	IVS Demand	
Contact Name:	DANHELD	Division:	RMD	
Ernall Address:	dheid@wooderdcurren.com	Model No.:	3051	
Phone No.:	217-415-3541	Serial No.		
Fax No.:		l		

		L'OCERTOR L	A STATE OF THE PARTY OF THE PAR			
	Desc	noton		Ptice	Svc Date	Total
Flat Rate; Labo	r Only			\$1,818.00	13-Apr-2016	\$1,818.00
Labor Item	Stort	End	Duration	Svc Date	Rate	Total
TV Fixed OT	4:30 AM	7:00 AM	2.50	13-Apr-2016	Fixed	Fixed
LB Fixed ST	7:00 AM	3:00 PM	8.00	13-Apr-2016	Fixed	Fixed
TV Fixed OT	3:00 PM	5:30 PM	2.50	13-Apr-2016	\$271.20	\$ 678.00
Expens	o Mone	Svc Date	Expen	se Note	Qty	Total
Mileage \$	per Mile	13-Apr-2016	Re	Trip	388	N/C
Expens	o Mone	Svc Date		Expense Note		Total
Meals Po	r Diem	13-Apr-2016				N/C
	Flat Rate; Labo  Labor Item TV Floed OT LB Floed ST TV Floed OT Expense Mileage \$	Flat Rate; Labor Only  Labor Rem Stert TV Flood OT 4:30 AM LB Flood ST 7:00 AM	Description	Description	Description	Plat Rate; Labor Only





Instrument And Valve Services Company Chanhassen, MN 55317 Phone: 800-854-7768 Fax: 952-906-8844

http://www.emersonprocess.com/fVS/

## FIELD SERVICE REPORT

Request No: 1509490 Teresa Edwards Sales Person: P.O. No.: Visa Auth Quote No.: Customer: SOUTH SANGAMON WATER COMMISSION struct No.: Address: 9199 BUCHHART RD Task No: 019700 Service Date: 13-Apr-2016 State: L. City: ROCHESTER Technician: GARY SOUTH Zip Code: 62563-8090 Task Type: IVS Demand me: DANHELD Division: RMD Email Address: dheid@woodardcuman.com Phone No.: 217-415-3541 Model No.: 3051 Sorial No. Fax No.:

Detailed Charges Problem Text SITE VISIT: MN#3001; GTYS; PROS-CALISPATION (RETURN VISIT ON 41316) Summary ARRIVED AT 7:00 AM. I had to wait for Keith to arrive at about 7:15 before I got started. I scanned all the devices into AMS and then started doing the calibrations. After I finished up the remainder of the calibrations we went back out to the far sump and I injected a 4-20 Ma signal into the 3490 and adjusted the output to 0 to 16.4 feet. Since the 3490 showed the correct values when I injected the Ma signal I'm certain that the level transmitter is not working correctly. I left about 12 PM and started home but Keith called and said that the flow transmitter that I had changed to square root from linear wasn't working correctly. So I turned around and went back I changed the transmitter back to linear and then we went back out to the sump pit and I got it sending data back to the Scada unit. I removed the offset so that it read the correct values for the 4-20 input. I then got ready and left about 3PM. Billing Notes Total Charges \$ Total Charges Walved \$ Customer Total \$ Remit-to Address: Instrument And Valve Services Company 22737 Network Place Chicago, IL 60673-1227 THIS IS NOT AN INVOICE ---

Customer Representative Service Representative

> Page 2 of 2 FSR 1509490







## SOUTH SANGAMON WATER COMMISSION

(Public Water Supply ID# IL1670080)

The South Sangamon Water Commission is committed to ensuring the quality of your water and want you to be informed about the water and services delivered to you in 2015. This Annual Water Quality Report is for the period of January 1 to December 31, 2015. This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water. The source of drinking water used by South Sangamon Water Commission is Ground Water. For more information regarding this report, please contact Mr. Daniel L. Held, Project Manager for Woodard and Curran at (217) 381-2206.

Este informe continene información muy importante sobre el aqua que usted bebe. Tradúzcalo ó con alguien quo lo entieda bien.

## What are the contaminants in my drinking water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPAs Safe Drinking Water Hotline at (800) 428-4791.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrials or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water then the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water

Page 1 of 6







from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800) 428-4791.

## Additional Information regarding Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <a href="http://www.epa.gov/safewater/lead">http://www.epa.gov/safewater/lead</a>.

## Source Water Information

Source Water Name	Type of Water	Report Status	Location
Well 1	GW	Active	
Well 10	GW	Active	
Well 2	GW	Active	
Well 3	GW	Active	
Well 4	GW	Active	
Well 5	GW	Active	
Well 6	GW	Active	
Well 7	GW	Active	
Well 8	GW	Active	
Well 9	GW	Active	

## Source Water Assessment

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled meetings on the third Tuesday of the month at the water plant. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please contact Daniel L. Held, Project Manager for Woodard and Curran, at (217) 381-2208 or dheld@woodardcurran.com. To view a summary version of the completed Source Water Assessments, including; Importance of Source Water, Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at <a href="http://www.epa.state.il.us/ogi-bin/wp/swap-fact-sheets.pl">http://www.epa.state.il.us/ogi-bin/wp/swap-fact-sheets.pl</a>.

Source of Water: SOUTH SANGAMON WATER COMMISSION Based on the information located in the Wellhead Protection Planning Map no potential sources are located within the source water protection area of the wells. Information provided by the Leaking Underground Storage Tank and Sit Remediation Program Sections of Illinois EPA did not indicate any additional sites with on-going remediation(s).

Page 2 of 6







The Illinois EPA has determined that the SSWC's Community Water Supply's source water has a high susceptibility to IOC, SOC, and bacteriological contamination. This determination is based on a number of criteria including: land use near the wells, location within a floodplain, well depth, and the available hydrogeological data. In accordance with the U.S. EPA's Groundwater Rule, SSWC has received two (2) Non-Compliance Advisory letters (NCA) in 2013 for bacteriological detections in wells #5 and #6. The facility addressed the NCA;s in a variety of ways such as chlorinating the well, secured well fittings, a new sample tap(s), use of outside environmental consultants and reviewing the sampling protocol. While the NCA(s) have now been resolved, monitoring data is continually being tracked in regards to all active potable wells at SSWC. It should be noted, while the community's wells are properly constructed with sound integrity, the location of the wells is within a floodplain and well depth leaves the potential for bacteriological contamination. However, to date, all potential routes and sanitary defects have been mitigated such that the source water is adequately protected, monitoring data has not indicated a history of disease outbreak and the sanitary survey of the water supple did not indicate a bacteriological contamination threat within 1,000 ft of the source water.

## 2015 REGULATED CONTAMINANTS DETECTED

Lead and Copper

Definitions:

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety.

Action Level: The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	# Sites over AL	Units	Violation	Likely Source of Contaminant
Copper	2015	1.3	1.3	0.803	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; corrosion of household plumbing systems.
Lead	2015	0	15	4.04	0	ppb	N	Corrosion of household pumping systems; Erosion of natural deposits

Water Quality Test Results

Maximum Contaminant Level Goal or MCGL

The level of a contaminant in drinking water below which there in no known or expected risk of health. MCLGs allow for a margin of error.

Page 3 of 6







The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLGs as feasible using the best available treatment technology. Maximum Contaminant Level or MCL:

Maxiumum residual disinfectant level

goal or MRDLG

The level of drinking water disinfectant below which there is no known or expected risk of health. MRDLGs do reflect the benefits of the use of disinfectants to control microbial

Maximum residual disinfectant level or MRDL: The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Definitions: The following tables contain scientific terms and measures, some of which may require

ppb: micrograms per liter or parts per billion - or one once in 7,350,000 gallons of water.

nac not applicable.

Regulatory compliance with some MCLs are based on running annual average of monthly Avg:

samples.

milligrams per liter or parts per million – or one once in 7,350 gallons of water. ppm

pCi/L pCi/L; picocuries per liter (a measure of radioactivity)

ND Not detected.

## Disinfection and Disinfection By-Products

	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12/31/15	1	0.5 - 1.01	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes
Halocetic Acids (HAA5)	2015	21.8	21.8 - 21.8	No goal for this total	60	ppb	N	By-products of drinking water disinfection.
Total Trihalomethanes (TTHM)	2015	19.64	19.64 – 19.64	No goal for this total	80	ppb	N	By-products of drinking water disinfection.

Page 4 of 6







## Inorganic Contaminants

	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2015	0.019	0.019 - 0.019	2	2	ppm	N	Discharge of drilling wastes; discharge from metal refineries; erosion from natural deposits
Fluoride	2015	0.886	0.886 - 0.886	4	4.0	ppm	N	Erosion of natural deposits; water additives which promote strong teeth; discharge from fertilizer and aluminum factories.
Iron	2015	ND	ND	None	1.0	ppm	N	This contaminant is not currently regulated by USEPA. However, the state regulates. Erosion of natural deposits.
Manganese	2015	22.7	11.4 – 22.7	150	150	ppb	N	This contaminant is not currently regulated by USEPA. However, the state regulates. Erosion of natural deposits.
Nitrate (measured as nitrogen)	2015	0.343	0.343 - 0.343	10	10	ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	2015	122	122 - 122	None	None	ppm	N	Erosion from naturally occurring deposits: used in water softening regeneration.

Page 5 of 6







## Radioactive Contaminants

	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	2015	1	0.91 – 1.53	0	5	pCi/L	N	Erosion of natural deposits
Gross alpha excluding radon and uranium	2015	2	1.12 - 1.58	0	15	pCi/L	N	Erosion of natural deposits

Any and all contaminants not found in this report are not detected in the finished drinking water.

## Violation Table

The Consumer Confidence Rule requires community water systems to prepare and provide to their customers annual consumer confidence reports on the quality of the water delivered by the system.

Violation Type	Violation Begin	Violation End	Violation Explanation	Corrective Action
CCR Report	07/01/2015	07/15/2015	We failed to provide to you, our drinking water customers, an annual report that informs you about the quality of our drinking water and characterizes the risks from exposure to the contaminants detected in our drinking water.	Last year the annual Consumer Confidence Report was provided to the water customers on July 10, 2015 which is after the required date of July 1, 2015. For 2016, SSWC is issuing the report in early May so it is delivered on time.

Page 6 of 6