









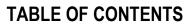


woodardcurran.com
commitment & integrity drive results

Monthly Operating Report

December 2016

0217327.00 So. Sangamon January 17, 2017





SE	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	2-2 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	TENANCE 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	2-2
Table 2.3 Finished Water Quality	2-2
Table 2.4 Weekly Grab Sample Analysis Results	2-4
Table 4.1 Budget Table	5-2



EXECUTIVE SUMMARY

Safety. 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. The safety topic for this month was "Lock Out Tag Out". There were no lost time accidents in the month of December 2016. Approximately 80 percent of the items identified in the safety audit performed in May 2015 have been completed.

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

On December 21, 2016, the village of Chatham, Crawford Murphy and Tilly, the SSWC, Meco Engineering and Woodard and Curran met at the water treatment plant regarding water quality and operational concerns. Topics discussed were Water Quality Improvements, Conversion of Chlorine feed to Chloramines, Modifications to the Chatham Altitude Valve (at the Ground Reservoir) and Future Growth and SSWC Rate Study. The recommendation of the group was to request a higher Phosphate feed rate to see if it will improve on Lead and Copper results at a cost of \$10,000 to \$15,000 annually, determine the cost to restore the plant's ability to feed Chloramines and the annual cost to do so, determine the cost for improvement or replacement of the Chatham altitude valve including wiring and computer controls and communications, and infrastructure necessary to keep pace with Chatham's growth. Chatham has recently flushed the majority of the distribution system and exercised several valves, which should have a positive impact on Lead and Copper results as well. The group intends to meet at least quarterly or as needed.

The plant filtered 36.1 million gallons of finished water for the month.

We reported last month that because the plant has been in operation for almost five (5) years, we dropped the level in the East Lagoon to determine if cleaning would be needed next summer. Since that time, we have been exceeding the monthly limit for Manganese but not daily limit. All other parameters are within permit limits.

Operations. Wells 1, 8 and 9 failed the first Bac-T sample taken on December 5, 2016. When this happens, a second sample is required to be taken. If the second sample fails, the Well must pass two consecutive Bac-T tests that are more stringent. The tests must be 24 hours apart. Wells 1 passed the second test on December 7, 2016. Well 8 passed the second test on December 27, 2016. Well 9 failed its second test on December 12, 2016 and was immediately taken off line.

There we no emergency call outs for the month. Repair of the leak on Bank #1 Backwash line was completed on December 1, 2016. There were two customer inquiries.

Maintenance and Repair. For the month of December 2016, there were 0 inspections, 11 preventative and 0 corrective maintenance activities completed. There were no alarms that required personnel at the plant after normal operating hours. There were 2 customer inquiries for the month.

Budget. After 12 months, financial summaries indicate costs are \$61,273 over budget through December 30, 2016.

Capital Planning. 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 available to the plant, and safety videos are assigned to all employees and are required to be completed. The December 2016 safety training topic was "Lock Out Tag Out".

1.2 LOST TIME ACCIDENTS

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

1.3 SAFETY AUDIT

To date, approximately 86 percent of the items identified in the May 2015 Safety Audit have been addressed. On November 7, 2016, Laura Bonk, Health and Safety Manager for Woodard and Curran, was on-site to inspect the plant and grounds. Only a few minor issues were noted.

1.4 MISCELLANEOUS SAFETY

There were no miscellaneous safety items for the month.



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 December. A copy of the Operations Report to the Illinois Environmental Protection Agency (IEPA) is included in Attachment A of this report

2.2 INFLUENT FLOWS AND LOADINGS

The total gallons pumped from the well field was 40.2 MG. The influent parameters were all within the normal range.

The influent flow and loadings are summarized below in Table 2.2

		Tab	le 2.2 Infl	uent Conce	entrations a	and Flow		
Day	рН	Temp	FE	Mn	Fluoride	Hardness	Alkalinity	Well Flow Gals (k)
Max.	7.54	15.2	1.36	0.255	_	378	292	1,573
Min.	7.25	12.9	0.57	0.201	-	356	280	0.985
Avg.	7.35	13.7	0.88	0.226	-	369	287	1.298
Total	-	-	-	-	-	-	1	40.223

2.3 EFFLUENT CONCENTRATIONS

The facility filtered 36.1 MG during the month with a daily average of 1.16 MG and a min/max of 0.9/1.4 MG.

				Table	2.3 Fir	nished Wat	er Qualit	y		
Date	Free CL2	Total CL2	рН	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
Max	1.5	1.7	7.82	14.5	0.01	0.020	1.36	126	290	1.41
Min	1.1	1.2	7.56	12.7	0.00	0.000	0.54	104	262	0.30
Avg	1.3	1.4	7.66	13.6	0.01	0.013	0.83	120	273	0.87
MCL	-	-	-	-	1.00	-	4.00	-	-	-
SMCL	-	-	-	-	0.30	0.050	2.00	-	-	-



On December 21, 2016, the village of Chatham, Crawford Murphy and Tilly, the SSWC, Meco Engineering and Woodard and Curran met at the water treatment plant regarding water quality and operational concerns.

Water Quality Improvements. Results of the RTW model show the average Langelier Index for the water at the Chatham Reservoir to be -0.2. The target range for the Langelier Index is 1.0 to -1.0. Therefore, the water is only slightly corrosive leaving the plant. CMT representatives noted Copper rates, although still well below the 1.3 mg/L threshold, are higher than previous years when water was received from CWLP. This was also noted in the MCPE with a recommendation to raise the phosphate residual in the distribution system. CMT suggested raising the phosphate feed rate to achieve a 1.4 mg/L residual in the distribution system. The group concurred with this recommendation as well as Water Solutions Inc. However, budget impacts require approval of the SSWC board. The estimated total cost to maintain a 1.4 mg/L residual in the distribution system is approximately \$20,000 to \$25,000 annually. This is a \$10,000 to \$15,000 increase annually.

Conversion of Chlorine feed to Chloramines. The village of Chatham would like SSWC to resume using Chloramines for disinfection rather than free Chlorine. The reason for this request is Chatham is using Springfield as a back-up water supply and they use Chloramines. When CWLP water is utilized, Chlorine residuals drop. However, Chatham residents who routinely attend SSWC monthly meetings have voiced opposition to the use of Chloramines. As part of the Chemical Feed Pump project, a portion of the plant's infrastructure for feeding Ammonia was removed in order to store and pump Sodium Permanganate safely. The recommendation of the group was to develop a cost estimate for the installation of an Ammonia feed system and the annual operating cost impact for the SSWC board to review. Another option considered during the meeting was the installation of the ammonia feed system in Chatham. It should be noted that New Berlin uses Curran Gardner as a back-up water supply. Curran Gardner feeds Free Chlorine.

Modifications of Chatham's Altitude Valve. A number of options have been explored to aid in preventing future boil orders, provide automation to make more timely adjustments to flows and pressures. CMT is suggesting a new valve be installed versus using the existing Ross Valve. Revised proposals including a new valve and rebuilding the existing valve and the appropriate communications for the necessary controls and wiring. Once the proposal addresses the teams concerns, the proposal will be forwarded to the SSWC board and Pat McCarthy for consideration.

Future Growth and the SSWC Rate Study. Pat McCarthy gave a brief overview of the 750 to 1,000 homes and apartments proposed and under way in the village of Chatham. In addition to this information, EJ Water plans to increase the number of users on its systems as well. This information will be forwarded to the SSWC and Curry and Associates so it can be included in the rate study currently underway. The Capital Improvement Program for SSWC will be updated as well.

Future meetings are tentatively planned on a quarterly basis or as need.



2.4 LAGOON DISCHARGE CONCENTRATIONS

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

Table 2.4 Weekly Grab Sample Analysis Results

	ı	₋agoon Eff	luent Results	i		
Date	Fe (mg/l)	Mn (mg/l)	Chloride (mg/l)	Cl ² (mg/l)	pH (S.U.)	TSS (mg/l)
12/05/2016	-	-	265	0.00	7.73	0.00
12/12/2016	1.18	1.07	-	-	-	-
Minimum	-	-	-	-	-	-
Maximum	-	-	-	-	-	-
Average	-	-	-	-	-	-
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 December 2016, performed by the Springfield Metropolitan Sanitary District, was 24,200 mg/L. The limit for chloride discharge to the sanitary district is 30,000 mg/L

Note: Because the plant has been in operation for almost five (5) years, we dropped the level in the East Lagoon to determine if cleaning would be needed next summer. Since that time, we have been exceeding the monthly limit for Manganese but not daily limit as illustrated in the table above. All other parameters fall within permit limits.



3. OPERATIONS

3.1 EVENTS IMPACTING OPERATIONS

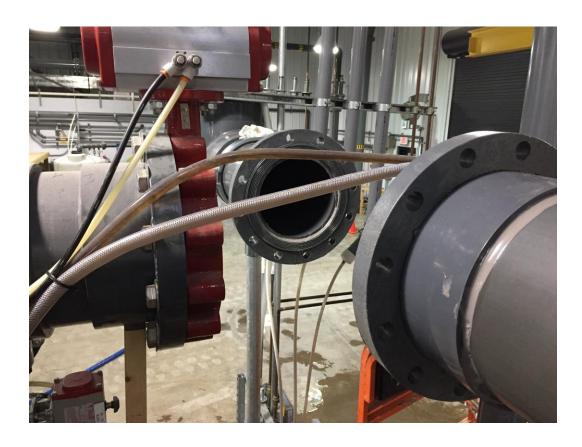
Wells 1, 8 and 9 failed the first Bac-T sample taken on December 5, 2016. When this happens, a second sample is required to be taken. If the second sample fails, the Well must pass two consecutive Bac-T tests that are more stringent. The tests must be 24 hours apart. Wells 1 passed the second test on December 7, 2016. Well 8 passed the second test on December 27, 2016. Well 9 failed its second test on December 12, 2016 and was immediately taken off line.

We chlorinated the sample station and let it sit over the week end and tested it again on December 27, 2016. We will pull another sample in early January and check it again. There may be a hole in the piping that connects the sample station to the well. Further investigation will be required to determine if this is the case.

3.2 EMERGENCY & SERVICE CALLS

Service Calls:

• Henson Robinson was on site December 1, 2016 to repair the leak on Bank 1 of the WesTech Filters. The plant was off-line for approximately 3 hours while the repairs were made.





3.2.1 Emergency Call-outs

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

3.3 CUSTOMER INQUIRIES

There were two customer inquiries for the month of December:

- Dustin Patterson called on December 12, 2016 to ask if we had made any changes at the plant. We informed him the chlorine concentration was slightly lowered. The village of Chatham has requested a 1.0 mg/L chlorine residual at the Chatham Reservoir.
- Laura VanProyen emailed a request for a copy of the July and August 2015 IEPA monthly Operations Report to comply with a FOIA request.



4. MAINTENANCE AND REPAIR

4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of December 2016, there were 0 inspections, 11 preventative and 0 predictive maintenance activities completed.

4.2 CORRECTIVE REPAIRS

Two air expellers on New City Road were repaired by Henson Robinson.



5. PROJECT MANAGEMENT & SUPPORT

5.1 STAFFING & TRAINING

- Woodard and Curran continues to train and provide staffing to the plant as needed.
- Woodard and Curran IT staff are working with plant personnel on Hach Wims. Hach Wims is the
 programmed utilized by Woodard and Curran for developing IEPA Monthly Operating Reports
 and storage of test data. We are working through the issues discovered with the reporting earlier
 in the year as time allows.

5.2 CORPORATE SUPPORT

The following individuals, either on-site or remotely, provided assistance in operation and/or maintenance of the plant in December 2016.

- Marc Thomas
- Joe Hurley
- Ray Giguere

- Laura Bonk
- Shannon Eyler



5.3 BUDGET

Table 5.3 below is a breakdown of the current budget as of December 30, 2016.

Table 5.3 Budget Table

Budget Category	Month Budget	Month Actual	YTD Budget	YTD Actual	Annual Budget	Over (under)	% of budget
Labor (D.L. + OH)	\$22,926	\$23,338	\$183,410	\$199,106	\$275,115	\$15,696	72%
Utilities	\$8,113	\$11,382	\$64,900	\$65,138	\$97,350	\$238	67%
Chemicals	\$14,875	\$32,013	\$119,000	\$122,253	\$178,500	\$3,253	68%
Maintenance & Repair	\$7,925	\$23,395	\$63,400	\$87,939	\$95,100	\$24,539	92%
Chloride	\$11,688	\$15,726	\$93,507	\$102,086	\$140,260	\$8,579	73%
Lab Supplies and Equipment	\$1,946	\$2,207	\$15,570	\$15,259	\$23,355	(\$311)	65%
Office Supplies	\$267	\$301	\$2,133	\$2,407	\$3,200	\$274	75%
Miscellaneous Expenses	\$1,243	\$766	\$9,943	\$11,247	\$14,914	\$1,304	75%
Other Operating Costs	\$339	\$1,372	\$2,715	\$10,416	\$4,072	\$7,701	256%
Subtotal of Costs for Contract Year 2	\$69,322	\$110,500	\$554,577	\$615,850	\$831,866	\$61,273	74%
Fixed Fee for Contract Year 2	\$6,932	\$6,932	\$55,458	\$55,458	\$83,187	\$0	67%
Year One Transition	\$1,366	\$1,366	\$10,926	\$10,926	\$16,389	\$0	67%
Total	\$77,620	\$118,798	\$620,961	\$682,234	\$931,442	\$61,273	73%



Budget Notes

Labor

Additional work required as part of the Modified Comprehensive Plant Evaluation, the additional testing required in the Special Exemption Permit, pinning of the membrane filters, overtime due to SCADA system conflicts and corresponding upgrades, numerous FOIA requests, distribution system taps and maintenance, implementation of the both the permanent and temporary hydro-pneumatic storage tanks projects and implementation of the new chemical feed pump projects had generated and will continue to generate significant amounts of overtime.

Maintenance & Repair

As of 12/30/2016, nearly \$20,000 in work has taken place in the distribution system. This includes new taps at the Justin King residence, repair of the service on New City Road, and a new tap on Cardinal Hill Road. Hydrants have been repaired at Cardinal Hill Road and St. Hilaire, and Old Illinois 54 and Bates Loami Road. No funding was included in the budget for expenses in the distribution system.

As of 12/30/2016, over \$22,000 in repairs have taken place on the Ultra Filtration system. They include new check valves for all 66 canisters, repairs to the air lines on all three banks and updated programming, repair of leaks on all three trains, a new stainless steel screen on the backwash line, parts for the leak on the backwash line next to Bank #1, and parts for the upper header on Bank #3. We are waiting for the bill for the labor to repair the leak on the backwash line adjacent to Bank #1 from Henson Robinson and we placed an order today for a new lower header for Bank #2 at an estimated cost of \$1,500.

Chloride Waste Removal

More trips to Chatham with High Chloride Waste is causing the budgeted dollar amount for this fiscal year to be exceeded. More trips equate to more gallons dumped, which increases the discharge fees to the Sangamon County Water Reclamation District as well. This could be the result of more water pumped in the fall with Chatham's new Uni-directional flushing program.



6. CAPITAL PLANNING

6.1 APPROVED CIP PROJECTS CURRENT STATUS

Construction for the Hydro-Pneumatic Storage Tank is under way with completion anticipated near the end of January 2017. The temporary Hydro-Pneumatic Storage Tank is currently on-line. EJ Water is now setting meters and putting customers on-line.

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.



Attachment A

		3	INISION	2	BLAC W	DIVISION OF PUBLIC WATER SUPPLIES	JPPLE.	0					5	FOR MONTH Of December 2016	2000	STREET AND	0														
	_	Pum	Pumpling Totals	ş					Chem	Chemicals Applied							UF Filters	2					Softeners	Suers					Chic	Chloride	
	1				. 3	Chlorine	-	Fluoride		Phosphate		NaMnOs	80	BI-Suffite		ach day include took number of hours sind	of number.	of hours in		-	Water		Each-day indicate total mu	Si batel ma	200	Soft. Regen	uage				
Date Meter		Hours UF G Filter Filter	UF Gat, Water Plant Filtered Treated Water	of Wat	nt Am't or Used	nd Cale	Am't be Used	nt ed Cafe	ale Used	nti ed Cale	Amt lc Used	nt Cale	Amil	A Calc	1	son backersh. If backwarked at mich indicato hours provious" / "boun	bacherd printous	Pour	Water Gel.	Sirkely	Softened Bypersond Gal. Gal		haus skott prodess rigg	donden represede		Salt	Washed		Ē	In mg/L	
Read		Ran (M.o.	(Migal) (Migal) (Migal)	(b) (b)	al) lbs.	r mg/	lbs.	y mgg	lig Re	s, mg/	Z.	s. mg/	P P	lgm .	70	2 2	following*	4	(M gal)	(M gal)	(Mgal)	-	1 2 3 4	From title		gi Di	je je	- X	5 X	EX	E X S
1 7:00	+	15.1 1.124	1,164	4 0.018	198.0	2.84	8.0	0 0.27	-	20.0 0.68	8 17.13	13 1.83	120	-	0.75	5 0.75	0	0.75	0.108	0.742	0.382	42	-		1.4	2,281	10,350		4		+
-	_	-	_	2 0.00	8 217.0	-	5 10.0	1.0		0.92	2 19.99	-		-	0.75		0.75	0.75	-	-	0.418		41	6.	9		31,050	T			L
3 7:00		15.5 1.087	7 1,090	1,090 0,009	163.0	2.25	5 10.0	0.36	36 18.0	0.65	5 14.28	28 1.57	-		0.75	5 0.75	6 0.75	0.75	0.100	0.717	0.370	42	42	42	43	9,124	41,400			Sin	L
4 7:00		16.7 1.14	1.146 0.979 0.017 152.0	9 0.01	7 152	1.99	9 20.0	0.81	81 18.0	10 0.73	3 14.28	28 1.49	je	H	0.75	5 0.75	0.75	0.75	5 0.103	0.756	0,390					0	0				
5 7:00		17.8 1.221	1,06	3 0.00	1,063 0,000 210.0	0 2.58	8 38.0	141	41 28.0	1.04	4 17.13	13 1.68	-		0.75	5 0.75	0.75	0.75	6 0.115	906.0	0.415	42	42	45	14	9,124	41,400				_
6 7:00		19,4 1,31	1,317 1,128 0,017 146.0 1,86	8 0.01	7 146	0.1.6	9 3.0	0 0.11	11 220	0.77	7 19.89	1.82			0.75	5 0.75	0.75	0.75	0.139	0.869	0.448				-	0	0				L
7 7:00		14.7 1.021		1.201 0.002	154.0	0 228	6 7.0	0 023	0.11 62	0.36	6 14.28	28 1.68	_		0.75	5 0.75	0.75	0.75	960'0	0.674	0.347	37	37	39	14	9,124	41,400	T			L
8 7:00	_	13.8 0.93	0.938 0.937 0.015 138.0	10.01	5 138	221	1 6.0	0 025	25 8.0	0 0.34	4 11.42	42 1.46	-	-	0.75	5 0.75	0.75	_	0.005	0.619	0.319				-		0	T			L
9 7:00		16.7 1.160		0000	0 140	0.874 0.000 140.0 1.81	1 8.0	0.36	36	0.36	6 14.28	28 1.48	-		0.75	5 0.75	0.75	0.75	6 0.115	0.766	0.394	90	90	47	46	9,124	41,400	T			L
10 7:00		16.3 1.025		1.055 0.017	7 173	173.0 2.53	3 16.0	0900 0	60 16.0	09.0	0 17.13	13 2.00			0.75	5 0.75	0.75	0.75	0.105	779'0	0.349				-	0	0				
11 7:00		17.6 1.209		0.949 0.000		154.0 1.91	1 29.0	0 121	21 17.0	0.71	1 14.28	28 1.42		-	0.75	5 0.75	0.75	0.75	6 0.128	0.798	0.411	45	48	48	94	9,124	41,400				L
12 7:00		17.4 1.215		0.00	8 134	1,120 0,018 134.0 1,65	5 27.0	960 0	14.0	0.49	9 14.28	28 1.41			0.75	5 0.75	97.0	0.75	0.115	0.802	0.413	38	40	4	-	6,843	31,050				L
13 7:00		16.8 0.974		0.01	7 209	1.068 0.017 209.0 3.22	2 9.0	0 033	33 28.0	1.04	4 19.99	99 2.46			0.75	5 0.75	0.75	0.75	0.104	0.643	0.331				41 2	2,281	10,350	Г			
14 7:00		19.3 1.402	-	0.977 0.000	0 171.0	0 1.83	3 8.0	0 0.32	32 21.0	0.85	5 19.99	17.1			0.75	5 0.75	0.75	0.75	0.137	0.925	0.477	47	45	45	44	9,124	41,400				
15 7:00		16.6 1.135		1.241 0.022	2 148.0	1.96	6.0	0 0.19	13.0	0.57	7.113	13 1.81			0.75	5 0.75	0.75	0.75	0.124	0.749	0.388					0	0				
-	-			1.028 0.000	0 184.0	-	-		-	-		-			0.75		-	\neg	-	-	0.416	40	48	48	50	9,124	41,400				
17 7:00		14.7 1.006		0.0	1,111 0,017 147.0	.0 2.19	9 17.0	0.61	81 20.0	0,71	1 14.28	28 1.70		-	0.75	5 0.75	0.75	0.75	9800	0.664	0.342					0	0				
-	_			2 0.00	0.912 0.000 145.0		-	-	-	-	_	-			0.75	\neg	\rightarrow	\rightarrow	\rightarrow	-	0.396		46	盘	45 9		41,400	1			4
-	_		1.08	0.01			-		-	-		-	-	+	0.75	\neg	\rightarrow	\rightarrow	\rightarrow		0,409	88			-4		10,350	1			1
-	\rightarrow		1.112 1.003 0.004	3 0.00	4 172.0		-	-	-	-		\rightarrow		+	0,75		-	\neg	\rightarrow	-	0.378		43	8	-	-	31,050	1			4
-	\rightarrow		1.379 1.042 0.013 188.0	2 0.01	3 188	0.2.04	-	-	-	-	-	-		+	0.75	\neg	-	$\overline{}$	\rightarrow	-	0.469	43		×	32	6,843	31,050				4
-	_		1.24	1,245 0,013	3 155	155.0 2.24	-	-	-	-+	-	-		+	0.75	\neg	\rightarrow	$\overline{}$	\rightarrow	-	0.353		1000		-		10,350	7			4
	_		_	0.965 0.004		198.0 2.11	_	-	-	-	-	-		+	0.75		-	_	-	-	0.478		40	38	88	-	41,400	1			4
-	\rightarrow	_		0.01	187		-		-	-	-	-		+	0.75		\rightarrow	-	\rightarrow	-	0.367	36	-		-	-	10,350	1			4
ine de	+	-		1.015 0.004		1.77	-		-	+	-	-		+	0.75	_	-	\rightarrow	$^{-}$	-	0.442		40	37	-		31,050	1			4
26 700	_	-		1,188 0,013		0 2.25	-	1	-	-	-	-		+	0.75		-	-	\rightarrow	-	0.363	4	-	÷	9	+	31,050	1	1		4
27 7.00	+	19.5 1.351		6.340 0.043	3 165.0	1.83	3 33.0	1.34	3000	0 122	7 17.13	13 1.52		+	0.75		-	_	0.134	-	0.459		43	1	-	-	10,350	t		ı	1
-	+	-		0.000 0.000		2 4 20	+	+	+	+	-	-		+	200	_	-	-	-	-	0.010	ě	+	8	200		050,15				+
000 000	+			0.014		132.0 1.72		+	-	-	_	-		+	0.73	0 0	0.0	0 5	0.148	-	0.451	\pm	2	1	-	-	10,350	t			4
	+	-			-	408.0 456	+	+	+	+-	-	-	1	+	0.75		-	_	-	0.000	0.450	0	_	+	90	9,124	006/14	t	I		1
M	-	-			-		1	+	+	-		-				_	-	-		4		-			1						
Max			1.29	200	_																										
Asse			1.06		_																										
nter Fina	Read	*Enter Final Reading Last Month	onth	-										CHL	CHLORINATION	NO			Ĺ		FLUORIDATION	DATIO	7				1				
POINT OF APPLICATION	APPLK	CATION												Type	Type of Chlorine Used	he Used					Type of Fluoride Used	Fluorid	e Used								
51	CATIO	W.	-			N			20000	0.00	1				Chilox	Chlorine Gas						Hyd	Hydrofluosilicic Acid	Bicic Ac	_1	14					
1, 12.5		% Chlorine Solution Fed	olution Fe	P.	Coert	ify that th	no inform	angen i	this rep	Lostify that the information in this report is complete	uplate				Calcs	Calcium Hypochloribe	chlorite					Sod	Sodium Fluoride	soride	36						
1 9	6 %	% Fluoride Solution Fed % RicalitieSolution Fad	olution Fed	P	Burn	and accurate to the best of my knowledge Beroofed by:	to the b	est of m	ny knowli	Cart or Boor					Sodi	Sodium Hypochlorite 12.5	Morite	125 %	a ²			Other	T. July	of Section	The of Tool between 1 back						
	90,00	9 December Online East	Cotto	200	-	Donate of the Control			1	-				T			-		7			11	0 00 0	30 m 10	THOUSE OF	2000					
	- 18	PERSONAL PROPERTY.	- BURNING		CARCO	ATRIB DE								-													_				



Attachment A

Membrane Integrity Test	per		0	Bank 1 Bank 2 Bank 3	S PASS	-									S PASS								S PASS	_	DASS :			I												
ane Intr	Post Filter		-	Barra	2249		L		L		L				PASS				_	1		L	PASS	_	PASS		1	L	L											
Membr			1	Bamk	PASS										PA 55								PASS		PASS															
			P043-	0.51	080	0.84	0.80	0.86	1.05	0870	0.72	0.88	0.71	0.61	0.88	0.91	96 G	06.00	0.87	0.94	0.13	D 93	D.85	1.04	0.85	0.98	0.30	141	79'U	0.92	D:30	1.03						1		Donet
		Dist. Clres		1 mg/L	1.6	1.6	1.5	1,4	1.4	1.2	1.3	1.3	1.3	1.3	4	1,3	1.5	17	7	13	4.4	1.4	1.4	1.4	1,5	1.3	1.4	1.4	ri,	1.4	1.4	1.4						CO 23		Promont
		Dist. 0	F = Free	1.5 1.7	1.4	1.4	43	7	77	17	7	12	1.2	12	12	12	6	13	12	27	1.2	1.2	1.2	1.2	1,3	1.2	2, 0	13	13	1.3	1,3	1.3					Used	Rydrostobstack Add Sodium Electricia		Type of Test Instrument Used
	_		T Age	0.96	0.79	0.81	0.76	0.86	1.36	0.76	0.87	0.91	0.87	0.62	0.54	0.79	0.90	0.83	0.84	0.89	0.80	0.87	0.81	0.77	20.02	0.83	0.77	0.84	0.84	0.83	0.82	0.88	4			FLUORIDATION	Type of Fluoride Used	Sodiam	Other	Type of
	Finished	Total	Mn mg/L	0.013	0.017	0.015	0.011	0.006	0.018	0.016	0.016	0.017	0.013	0.008	0.016	0.020	0.012	0.010	0.014	0.014	0.017	0.018	0.009	0.016	0.013	0.013	0.012	0.007	0.016	0.013	0.014	0.009 0.88	.02			FLUOR	Type of			
	-	Total	75 Fe	0.01	0.01	0.01	00.0	10.0	10.0	00.00	0.01	00'0	0.01	0.00	0.01	0.01		0.01	0.01	0.01	0.01	100	10.0	0.01	0.01	100	000	-		10.0	0.01	10.0	ATE.							
		Total	Hard. mg/L	120	120	120	104	122	124	122	122	124	124	120	126	120	120	124	126	124	148	122	118	120	114	120	116	120	118	110	122	114	5 LL FATE					¥	20	
		Total	≥k.	270	284	262	272	276	270	278	270	276	268	274	270	270	270	270	268	280	272	270	278	280	280	270	280	270	264	290	280	264						forming	Sodium Hypochiorite 12.5	Used
December 2016			Ŧ	7.64	7.66	7.69	7.66	7.60	7.63	7.82	7.58	7.78	7.63	7.71	7.77	7.60	7.69	7.80	7.57	7.61	7.63	7.66	7.62	7.67	7.62	7.59	7.73	7.68	7.74	7.86	7.73	7.60						Calcium Humochlorito	Hypochi	Tost Kit
Decem	Post IEX	Total	Min																														4	66.2	47.0		1	Calcium Hyry	Sodium	Chlorine Test Kit Used:
d Test	500	Total	2 8																														785 :		5		e Used			
FOR MONTH OF Chemical Test	er	Mem	Turb.	0.16	-	0.12	0.28	0.41	0.10	0.23	0.09	0.43	0.14	0.08	0.16	0.14	0.13	0,12	0.12	0.12	0 10	0.16	0.14	0.10	0.13	0.17	0.13		0.14	0.10	0.11	0.037 0.08		NES.		CHLORINATION	Type of Chlorine Used			
NO.	Post Filter	Total	M P	0.049	0900	0.046	0.043	0.028	0.062	0.032	0.040	0.065	0.033	0.034	0.047	0.049	0.044	0.036	0.043	0.044	0.039	0.041	0.026	0.037	0.036	0.040	0.043	0.037	0.037	0.030	0.038	0.037	TTY	CALCOURT HARBNESS:	96	CHLO	Type o	_		
		Total	2 10			-	-		-		_	_	-	100												21				10			ALKALENETY	Cruek	CHLORIDE			ı		
	Rer	Sol		0.030		0.433 0.042	0.415 0.048	0.419 0.044	0.430 0.053	0.410 0.029	0.391 0.044	0.433 0.061	0.426 0.034	0.433 0.036	0.419 0.047	0.420 0.050	0.430 0.043	0.404 0.044	0.411 0.040	0.413 0.049	0.412 0.090	0.402 0.043	6 0.037	0.363 0.035	0.411 0.033	0.409 0.032	0.927 0.032	0.401 0.024	0.379 0.040	0.303 0.035	0.375 0.039	0.390 0.031	ALA	750	E					
	Pre Filter	Tot Tot		0.435	0.41	0.45	0.4	0.4	0.48	0.4	0.36	0.45	0.45	0.43	0.4	0.45	0.45	0.46	0.4	0.4	0.4	0.40	0.396	0.36	0.41	0.40	0.40	0.40	0.37	0.38	0.37	0.36								
	-	Total Te	Man F	0.240	0.250	0.245	0.232	0.228	0.237	0.228	0.236	0.239	0.243	0.225	0.233	0.255	0.216	0.214	0.211	0.224	34	72	80	21	24	2 2	10	90	91.	91.	23	16	h	9	1	-	+			
		Total To	Fe N	0.78 0.3	0.80 0.2	1.36 0.2	1.00 0.2	1.10 0.2	0.92 0.2	1.06 0.2	0.93 0.2	0.83 0.2		$\overline{}$	$\overline{}$	\rightarrow	_	-	_	0.63 0.2	-	0.84 0.227	0.74 0.208		$\overline{}$	1.10 0.223		_	0.80 0.216	0.96 0.216	0.57 0.223	0,67 0,216	TEMP: 14.5	: 508	: 7.87			omniete		ted
e e		Total To	Hard. F	368 0	356	384	376 1	888	370 0.	378 1	364 0	376 0.						-	_	374 0	+	368 0.	368 0.			370 1.	_	1	364 0.	364 0.	368 0.	372 0,	TEM	T03:	P H	-	+	sport is	обрем	Cert or Req.
K SUP	Raw	Fotal T	AR. H	288	282 3	286	286 3	282	284 3	-					-		-	-	+	284	+	-	200	280		280		+	292 3	280	292 3	284 3	SAMPLE:					a skill of a	my kno	
CWATE		-	Temp deg. C	13.7	13.00	14.2	14.1	14.0	13.9	13.8	13.4	14.0			-					151		13.4	13.7	200		13.7		100	13.8	13.7	77.77	13.9				H	+	omtetion	best of	
NABO.		r	F	7.30	-	7.34	7.40	7.33	7.32		-	-	-		-	-	-	-	-	8 2	-	7.29	7.25	-	-	7.27	-	-	7.38	7.28	7.31	7.34	RTW					at the in	ate to th	260
DIVISION OF PUBLIC WATER SUPPLIES		Hant	Water M gal)	0.018		0000	7100	0000	7100	0.002	0.015	0000	2100	0000	-	2100					0.000		0.013	0.013	_		0.004	_			0.007	0.014						Contify that the information in this report is complete	and accurate to the best of my knowledge	Reported by:
otals		Water	Treated Water (M gal) (M gal)	1.164		1.090	0.979	1.063	1,128	1,201	0.937	0.874 0	1.065 0	0.949	-	1.068				1.111			1.042	1.245 0	-	_	1 188		1.240	0.848	1.202	0.822	32.94	080	1.06			-	4	£
Pumping Totals	- H	Gallons	Filtered Tr (M gal) (N	1,124	_	1,087	1.146 0	1221	1.317	1,0021	0.938 0	1,160 0	1.025	1,209 0		0.974	_	$\overline{}$	_	1.006	_	-	1.379	1.038 1	1,405 0		1.299	_	0.925	-	0.875 1	1.341						po	pe-	pe.
Par	Ĺ	Total Ga	Well Fill (Mgal) (M	1,412 1,	1.248 1.	1.386 1,	1.194	1.278 1.	1.378 1.	1.462 1	-	-	-	-		-	-	-	-	-	-	1,343	-	-	-		-		1.505 0.1		1.473 0.1	-				Month		12.5 % Charine Solution Fed	% Fluoride Solution Fed	oh doon f
	-	Hours Tor		-	_	-		+		-	-	_	-	-	\rightarrow	$\overline{}$		-	_			-	1.244	1,534	-	\rightarrow			-	1.061	-	4 0.985				ing Last	CATION	horine S	Noride S	% Bisuffite Solution Fed.
		Time Hou	Meter Filter Read Ran	7:00 15.1		7:00 15.5	7:00 16.7	7:00 17.6	7:00 19.4	7:00 14.7	7:00 13.8	7:00 16.7	7:00 16.3	7:00 17.6	7:00 17.4	7:00 16.8	_	_		7.00 14.7	_	-	7.00 19.6	7.00 15.1		winde	25 7:00 18.7		28 7.00 13.3	29 7:00 19.5	30 7:00 12.6	31 7:00 19.4				*Enter Final Reading Last Month	POINT OF APPLICATION	5 % C	S	
		Ē	Date Me	N	K	1	1	15	1	N	h	1	1	-	N	1	1		16	_	0 0	1	1-	1	K	N .	1 8	- 1	1	1	1	1				F	0	2 2	23	ŧ,