

# Bay Area WTP

## Monthly Operations Report



May, 2018

Water Systems Serial Number: 0465

  
\_\_\_\_\_  
Ryan Goebel

Operations Supervisor  
\_\_\_\_\_  
Title

F1  
\_\_\_\_\_  
Classification

  
\_\_\_\_\_  
Mark Moers

Water Superintendent  
\_\_\_\_\_  
Title

F1  
\_\_\_\_\_  
Classification

# Bay Area Water Treatment Plant

## Monthly Operations Report

Supply Name: Bay Area Water System  
 WSSN: 0465

Mark Moers  
 Operator-in-charge

F1  
 Certification of Operator-in-charge

May, 2018  
 Month, Year

F1  
 Water Plant Classification

Bay  
 County

### Treatment Rate and Membrane Data

Treatment Rate, Approved Rated Plant Capacity	17.4	Millions of Gallons per Day
Treatment Rate, Maximum	9.9	Millions of Gallons per Day
Maximum Approved Transmembrane Pressure	22	PSI
Maximum Operating Transmembrane Pressure	22	PSI

### Chemical Data

Sodium Hypochlorite on hand:	4,165	Gallons	Estimated Supply:	53.9	days
Caustic Soda on hand:	381	Gallons	Estimated Supply:	107.0	days
Corrosion Inhibitor on hand:	1,074	Gallons	Estimated Supply:	46.1	days
Hydrofluosilicic Acid on hand:	495	Gallons	Estimated Supply:	22.8	days
Aluminum Chlorohydrate on hand:	1,232	Gallons	Estimated Supply:	150.0	days
Sulfuric Acid on hand:	647	Gallons	Estimated Supply:	207.2	days
Sodium Bisulfite on hand:	869	Gallons	Estimated Supply:	128.5	days
Citric Acid on hand:	3,377	Gallons	Estimated Supply:	360.0	days
Cost of All Chemicals per Million Gallons:	62.11	Dollars			
Estimated Electrical Cost per Million Gallons:	99.85	Dollars			

### Remarks

Number of periods of filter confluence turbidity samples > 0.3 NTU 0  
 Percent of membrane period confluence samples > 0.3 NTU: 0.00%

#### Did any individual membrane skid exceed:

1.0 NTU in two consecutive measurements taken 15 minutes apart?  
 If yes, attach specific filter(s) information and indicate required follow-up status. No

0.5 NTU in two consecutive measurements taken 15 minutes apart after 4 hours of operation?  
 If yes, attach specific filter(s) information and indicate required follow-up status. No

1.0 NTU in two consecutive measurements taken 15 minutes apart for 3 consecutive months?  
 If yes, attach specific filter(s) information and indicate required follow-up status. No

2.0 NTU in two consecutive measurements taken 15 minutes apart for 2 consecutive months?  
 If yes, attach specific filter(s) information and indicate required follow-up status. No

Was continuous (every 15 minutes) filter monitoring equipment off-line during the month?  
 If yes, indicate date(s), duration, and individual filter grab sampling frequency on a separate sheet. No

Did POE disinfectant residual fall below 0.2 ppm during the month?  
 If yes, indicate date(s) and duration on a separate sheet. No

Was minimum C\*T credit achieved for the entire month?  
 If no, indicate on a separate sheet the date(s) not achieved. Yes

Was continuous POE chlorine residual monitoring equipment off-line during the month?  
 If yes, date(s) and duration will be indicated on the rule page. No

### Notes



# Bay Area WTP Monthly Operating Report

Date	Flows														
	Raw Water (MG)				Clarified (MG)		Wasted (MG)		Sludge (MG)		Treated (MG)		Finished Water Pumped (MG)		
	North	South	Total	Total	Total	Total	Total	Total	Total	Total	N. Euclid	Lauria Road	Total		
	FIT-1000-1	FIT-1000-2	Calculated	FIT-5520-1	FIT-5520-2	FIT-5180	FIT-4000-1	FIT-4040-1	FIT-4040-2	Calculated					
5/1/2018	0.00	7.71	7.71	0.26	0.00	0.05	7.45	3.70	3.57	7.26					
5/2/2018	0.00	7.71	7.71	0.26	0.00	0.05	8.02	3.91	3.80	7.71					
5/3/2018	0.00	7.76	7.76	0.24	0.00	0.05	6.93	3.46	3.30	6.76					
5/4/2018	0.00	7.45	7.45	0.27	0.00	0.05	7.15	3.51	3.33	6.84					
5/5/2018	0.00	7.57	7.57	0.23	0.00	0.05	6.82	3.41	3.26	6.67					
5/6/2018	0.00	7.27	7.27	0.27	0.00	0.04	7.30	3.69	3.55	7.24					
5/7/2018	0.00	7.23	7.23	0.22	0.00	0.06	7.55	3.63	3.50	7.13					
5/8/2018	0.00	8.01	8.01	0.28	0.00	0.05	7.64	3.84	3.64	7.48					
5/9/2018	0.00	7.17	7.17	0.29	0.00	0.08	8.43	4.21	3.99	8.21					
5/10/2018	0.00	8.04	8.04	0.24	0.00	0.06	7.03	3.53	3.36	6.88					
5/11/2018	0.00	7.67	7.67	0.25	0.00	0.07	7.46	3.62	3.45	7.07					
5/12/2018	0.00	6.16	6.16	0.25	0.00	0.06	6.47	3.22	3.10	6.32					
5/13/2018	0.00	6.07	6.07	0.25	0.00	0.06	7.21	3.49	3.45	6.95					
5/14/2018	0.00	7.38	7.38	0.25	0.00	0.06	7.89	3.94	3.79	7.73					
5/15/2018	0.00	8.42	8.42	0.24	0.00	0.05	7.18	3.63	3.45	7.08					
5/16/2018	0.00	7.88	7.88	0.27	0.00	0.05	7.96	3.97	3.78	7.75					
5/17/2018	0.00	7.48	7.48	0.29	0.00	0.05	7.62	3.81	3.58	7.39					
5/18/2018	0.00	7.54	7.54	0.24	0.00	0.05	7.41	3.70	3.48	7.17					
5/19/2018	0.00	7.64	7.64	0.26	0.00	0.06	7.19	3.55	3.39	6.94					
5/20/2018	0.00	7.26	7.26	0.24	0.00	0.06	7.28	3.60	3.47	7.07					
5/21/2018	0.00	7.96	7.96	0.27	0.00	0.06	7.73	3.82	3.66	7.47					
5/22/2018	0.00	8.35	8.35	0.27	0.00	0.05	7.38	3.58	3.43	7.01					
5/23/2018	0.17	5.70	5.87	0.26	0.00	0.04	7.40	3.98	3.80	7.77					
5/24/2018	0.52	7.60	8.12	0.34	0.00	0.05	9.63	4.55	4.37	8.93					
5/25/2018	1.41	7.62	9.03	0.34	0.00	0.05	9.11	4.51	4.35	8.85					
5/26/2018	2.16	8.08	10.23	0.32	0.00	0.05	8.89	4.46	4.31	8.77					
5/27/2018	2.56	7.08	9.64	0.29	0.00	0.05	8.25	4.10	3.92	8.02					
5/28/2018	2.80	5.78	8.58	0.34	0.00	0.05	9.94	5.00	4.83	9.84					
5/29/2018	2.88	7.17	10.05	0.34	0.00	0.05	9.55	4.71	4.58	9.29					
5/30/2018	2.87	6.88	9.75	0.34	0.00	0.05	8.79	4.46	4.32	8.78					
5/31/2018	2.34	6.08	8.42	0.30	0.00	0.05	8.38	4.19	4.04	8.23					
<b>Total</b>	<b>17.70</b>	<b>227.70</b>	<b>245.41</b>	<b>8.48</b>	<b>0.00</b>	<b>1.64</b>	<b>243.04</b>	<b>120.77</b>	<b>115.85</b>	<b>236.62</b>					
<b>Avg</b>	<b>0.57</b>	<b>7.35</b>	<b>7.92</b>	<b>0.27</b>	<b>0.00</b>	<b>0.05</b>	<b>7.84</b>	<b>3.90</b>	<b>3.74</b>	<b>7.63</b>					
<b>Min</b>	<b>0.00</b>	<b>5.70</b>	<b>5.87</b>	<b>0.22</b>	<b>0.00</b>	<b>0.04</b>	<b>6.47</b>	<b>3.22</b>	<b>3.10</b>	<b>6.32</b>					
<b>Max</b>	<b>2.88</b>	<b>8.42</b>	<b>10.23</b>	<b>0.34</b>	<b>0.00</b>	<b>0.08</b>	<b>9.94</b>	<b>5.00</b>	<b>4.83</b>	<b>9.84</b>					



**Raw Water Analysis**

Date	Temp		pH	Turbidity		F <sup>-</sup>	Free Cl (Mem. Feed)		Bacti	
	Average	°C		Average	NTU		Grab	Average	Positive/Negative	Total Coliform
	TIT-1000	AIT-1000-2	AIT-1000-1	AIT-1035-2	Lab	Lab	Lab	Lab	Lab	Lab
5/1/2018	5.27	7.75	3.60	5.55	0.09	0.44	Negative	Negative		
5/2/2018	5.40	7.79	6.46	15.04	0.09	0.40	Negative	Negative		
5/3/2018	5.78	7.77	8.49	13.35	0.11	0.34	Negative	Negative		
5/4/2018	6.11	7.80	7.53	12.93	0.10	0.39	Negative	Negative		
5/5/2018	6.43	7.79	7.31	19.41	0.10	0.31	Negative	Negative		
5/6/2018	6.84	7.78	6.08	8.97	0.10	0.31	Negative	Negative		
5/7/2018	7.12	7.77	4.57	7.48	0.10	0.32	Negative	Negative		
5/8/2018	7.50	7.80	4.12	6.55	0.10	0.26	Negative	Negative		
5/9/2018	7.62	7.78	3.44	6.74	0.10	0.22	Negative	Negative		
5/10/2018	7.69	7.77	3.18	4.10	0.09	0.25	Negative	Negative		
5/11/2018	7.81	7.77	3.07	3.59	0.08	0.26	Negative	Negative		
5/12/2018	8.03	7.75	3.22	3.94	0.08	0.33	Negative	Negative		
5/13/2018	8.29	7.78	2.91	3.84	0.08	0.34	Negative	Negative		
5/14/2018	8.50	7.84	2.50	3.48	0.08	0.29	Negative	Negative		
5/15/2018	8.53	7.84	2.11	2.64	0.08	0.40	Negative	Negative		
5/16/2018	8.55	7.84	2.55	12.08	0.08	0.47	Negative	Negative		
5/17/2018	8.72	7.85	2.26	6.17	0.07	0.48	Negative	Negative		
5/18/2018	9.01	7.85	2.10	3.83	0.08	0.46	Negative	Negative		
5/19/2018	9.53	7.88	8.50	14.15	0.08	0.36	Negative	Negative		
5/20/2018	9.90	7.85	4.45	12.99	0.07	0.39	Negative	Negative		
5/21/2018	9.84	7.85	2.48	5.79	0.05	0.45	Negative	Negative		
5/22/2018	9.77	7.88	1.69	2.79	0.05	0.47	Negative	Negative		
5/23/2018	9.77	7.90	1.30	2.11	0.05	0.42	Negative	Negative		
5/24/2018	9.93	7.90	1.13	1.32	0.07	0.38	Negative	Negative		
5/25/2018	10.00	7.90	1.06	1.64	0.07	0.38	Negative	Negative		
5/26/2018	9.93	7.88	1.34	2.03	0.07	0.44	Negative	Negative		
5/27/2018	9.95	7.92	1.13	2.29	0.07	0.37	Negative	Negative		
5/28/2018	10.20	7.94	0.97	1.96	0.07	0.26	Negative	Negative		
5/29/2018	10.30	7.94	0.84	1.28	0.07	0.22	Negative	Negative		
5/30/2018	10.39	7.93	0.78	0.95	0.07	0.20	Negative	Negative		
5/31/2018	11.38	8.04	0.78	0.96	0.10	0.14	Negative	Negative		
Avg	8.5	7.84	3.29	6.13	0.08	0.35	NA	NA		
Min	5.3	7.75	0.78	0.95	0.05	0.14	NA	NA		
Max	11.4	8.04	8.50	19.41	0.11	0.48	NA	NA		



**Finished Water Analysis**

Date	Temp Average °C	pH Average	Phosphate Average mg/L	Fluoride		Free Cl <sub>2</sub> Average mg/L	Alkalinity (as CaCO <sub>3</sub> )		Chloride mg/L	Sulfate mg/L	Calcium (as CaCO <sub>3</sub> ) mg/L	Dissolved Oxygen		Conductivity		Langelier Saturation Index	Chloride: Sulfate Mass Ratio	Larson- Skold Index	Bacti							
				Tap	Dist		Carbonate	Bicarbonate				Grab	Grab	Grab	Grab				Grab	Grab	Grab	Grab	Grab	Lab	Total Coliform	E. coli
5/1/2018	6.2	7.52	3.11	0.76		1.50	0	89	10	17	80	11.2	261	-0.93	0.59	0.44	Negative	Negative								
5/2/2018	6.6	7.52	3.19	0.73		1.50	0	90	9	19	86	10.7	260	-0.88	0.47	0.44	Negative	Negative								
5/3/2018	6.7	7.53	3.22	0.73		1.50	0	95	13	22	90	11.0	282	-0.83	0.59	0.53	Negative	Negative								
5/4/2018	7.0	7.53	3.21	0.72		1.51	0	88	12	20	86	11.1	266	-0.87	0.60	0.53	Negative	Negative								
5/5/2018	7.1	7.53	3.20	0.72		1.48	0	88	15	15	84	10.8	266	-0.88	1.00	0.51	Negative	Negative								
5/6/2018	7.4	7.54	3.20	0.72		1.51	0	86	15	21	84	11.0	264	-0.88	0.71	0.61	Negative	Negative								
5/7/2018	8.1	7.53	3.20	0.72	0.71	1.51	0	84	13	21	82	10.1	263	-0.89	0.62	0.59	Negative	Negative								
5/8/2018	8.8	7.52	3.21	0.70		1.49	0	90	9	21	82	10.7	273	-0.85	0.43	0.47	Negative	Negative								
5/9/2018	9.0	7.53	3.21	0.74		1.50	0	88	10	23	80	10.6	269	-0.86	0.43	0.53	Negative	Negative								
5/10/2018	8.7	7.53	3.21	0.72		1.49	0	90	10	21	80	11.3	262	-0.85	0.48	0.49	Negative	Negative								
5/11/2018	8.7	7.55	3.20	0.73		1.50	0	90	11	20	80	11.1	263	-0.83	0.55	0.50	Negative	Negative								
5/12/2018	8.7	7.53	3.20	0.73		1.51	0	89	11	20	78	10.9	258	-0.86	0.55	0.50	Negative	Negative								
5/13/2018	8.8	7.53	3.19	0.73		1.50	0	88	11	18	78	10.2	256	-0.87	0.61	0.48	Negative	Negative								
5/14/2018	9.3	7.58	3.20	0.75	0.76	1.50	0	88	11	19	76	10.9	259	-0.82	0.58	0.49	Negative	Negative								
5/15/2018	9.6	7.62	3.20	0.73		1.48	0	85	10	17	78	10.4	246	-0.78	0.59	0.46	Negative	Negative								
5/16/2018	9.6	7.58	3.19	0.76		1.14	0	82	10	22	72	10.4	237	-0.85	0.45	0.55	Negative	Negative								
5/17/2018	9.6	7.58	3.20	0.77		1.00	0	82	10	16	74	9.9	236	-0.85	0.63	0.46	Negative	Negative								
5/18/2018	9.7	7.60	3.19	0.79		0.99	0	84	10	17	74	10.0	238	-0.82	0.59	0.46	Negative	Negative								
5/19/2018	9.9	7.60	3.19	0.78		0.98	0	85	13	15	76	10.0	248	-0.80	0.87	0.49	Negative	Negative								
5/20/2018	10.4	7.59	3.19	0.78	0.74	1.02	0	85	12	15	76	10.0	237	-0.79	0.80	0.47	Negative	Negative								
5/21/2018	10.7	7.57	3.19	0.77		1.02	0	81	11	18	72	10.1	229	-0.84	0.61	0.52	Negative	Negative								
5/22/2018	10.7	7.56	3.19	0.76		1.01	0	79	10	15	70	10.2	225	-0.88	0.67	0.46	Negative	Negative								
5/23/2018	10.7	7.56	3.20	0.79		1.02	0	78	9	12	70	9.9	222	-0.88	0.75	0.40	Negative	Negative								
5/24/2018	10.9	7.57	3.21	0.78		1.02	0	78	10	11	70	9.8	222	-0.86	0.91	0.40	Negative	Negative								
5/25/2018	11.1	7.57	3.21	0.78		1.02	0	78	9	11	70	9.7	222	-0.86	0.82	0.38	Negative	Negative								
5/26/2018	11.0	7.57	3.20	0.78		1.02	0	76	10	13	70	10.3	218	-0.88	0.77	0.45	Negative	Negative								
5/27/2018	10.7	7.56	3.21	0.76		0.99	0	77	10	14	70	10.1	220	-0.88	0.71	0.45	Negative	Negative								
5/28/2018	10.7	7.57	3.22	0.76		1.00	0	78	9	13	70	10.4	228	-0.87	0.69	0.41	Negative	Negative								
5/29/2018	10.8	7.60	3.20	0.75	0.78	0.99	0	84	9	15	70	9.9	227	-0.81	0.60	0.41	Negative	Negative								
5/30/2018	10.7	7.60	3.19	0.79		0.99	0	82	8	15	74	10.5	229	-0.80	0.53	0.40	Negative	Negative								
5/31/2018	11.0	7.61	3.12	0.79		0.98	0	82	11	17	68	10.0	233	-0.82	0.65	0.50	Negative	Negative								
Avg	9.3	7.56	3.19	0.75	0.75	1.25	0	84	11	17	76	10.4	246	-0.85	0.64	0.48	NA	NA								
Min	6.2	7.52	3.11	0.70	0.71	0.98	0	76	8	11	68	9.7	218	-0.93	0.43	0.38	NA	NA								
Max	11.1	7.62	3.22	0.79	0.78	1.51	0	95	15	23	90	11.3	282	-0.78	1.00	0.61	NA	NA								



Turbidity												
Date	Raw Water		Clarified Water	Membrane Feed Water	Combined Membrane Filtrate				Finished Average			
	Avg	Max	Avg	Avg	Avg	Max	# Samples	# > 0.3	% Exceeded	Avg		
	NTU											
	AIT-1000-1		AIT-5030-1	AIT-1035-3	AIT-4000-1				Calculated			
5/1/2018	3.60	5.55	1.24	7.24	0.014	0.015	96	0	0.0	0.011		
5/2/2018	6.46	15.04	1.24	6.02	0.014	0.015	96	0	0.0	0.011		
5/3/2018	8.49	13.35	1.46	6.22	0.014	0.015	91	0	0.0	0.011		
5/4/2018	7.53	12.93	1.18	8.25	0.014	0.015	96	0	0.0	0.011		
5/5/2018	7.31	19.41	1.11	7.50	0.014	0.014	96	0	0.0	0.011		
5/6/2018	6.08	8.97	1.11	6.98	0.014	0.014	96	0	0.0	0.011		
5/7/2018	4.57	7.48	1.15	5.84	0.014	0.014	96	0	0.0	0.011		
5/8/2018	4.12	6.55	1.17	5.08	0.014	0.014	96	0	0.0	0.011		
5/9/2018	3.44	6.74	1.32	4.20	0.014	0.015	96	0	0.0	0.011		
5/10/2018	3.18	4.10	1.18	3.85	0.014	0.015	96	0	0.0	0.011		
5/11/2018	3.07	3.59	1.44	3.43	0.015	0.015	96	0	0.0	0.011		
5/12/2018	3.22	3.94	1.03	3.37	0.014	0.015	96	0	0.0	0.011		
5/13/2018	2.91	3.84	1.44	3.34	0.014	0.015	96	0	0.0	0.011		
5/14/2018	2.50	3.48	1.54	3.01	0.014	0.015	96	0	0.0	0.011		
5/15/2018	2.11	2.64	1.12	2.57	0.014	0.015	96	0	0.0	0.011		
5/16/2018	2.55	12.08	1.10	2.53	0.014	0.015	96	0	0.0	0.011		
5/17/2018	2.26	6.17	0.92	2.56	0.014	0.015	96	0	0.0	0.011		
5/18/2018	2.10	3.83	0.89	2.39	0.014	0.015	96	0	0.0	0.011		
5/19/2018	8.50	14.15	1.09	4.53	0.015	0.015	96	0	0.0	0.011		
5/20/2018	4.45	12.99	1.30	6.15	0.015	0.015	96	0	0.0	0.011		
5/21/2018	2.48	5.79	0.95	4.38	0.014	0.015	91	0	0.0	0.011		
5/22/2018	1.69	2.79	0.94	2.92	0.014	0.015	95	0	0.0	0.011		
5/23/2018	1.30	2.11	2.09	2.22	0.015	0.017	73	0	0.0	0.011		
5/24/2018	1.13	1.32	1.48	1.65	0.014	0.015	96	0	0.0	0.010		
5/25/2018	1.06	1.64	1.21	1.39	0.014	0.015	96	0	0.0	0.010		
5/26/2018	1.34	2.03	1.10	1.41	0.014	0.015	96	0	0.0	0.010		
5/27/2018	1.13	2.29	0.97	1.38	0.014	0.015	96	0	0.0	0.010		
5/28/2018	0.97	1.96	1.23	1.24	0.014	0.015	96	0	0.0	0.010		
5/29/2018	0.84	1.28	1.12	1.04	0.014	0.015	96	0	0.0	0.010		
5/30/2018	0.78	0.95	1.21	0.94	0.014	0.015	94	0	0.0	0.010		
5/31/2018	0.78	0.96	1.31	0.89	0.015	0.015	96	0	0.0	0.010		
Avg	3.29	6.13	1.21	3.69	0.014	0.015	95	0	0.0	0.011		
Min	0.78	0.95	0.89	0.89	0.014	0.014	73	0	0.0	0.010		
Max	8.50	19.41	2.09	8.25	0.015	0.017	96	0	0.0	0.011		

Note: % Exceeded are 4 hr compliance periods where 50% of the samples are greater than 0.3 NTU



Date	Membrane Integrity																										
	Membrane 1			Membrane 2			Membrane 3			Membrane 4			Membrane 5			Membrane 6			Membrane 7			Membrane 8					
	Air Hold Start Pressure (PSI)	Air Hold Stop Pressure (PSI)	Pass / Fail	Air Hold Start Pressure (PSI)	Air Hold Stop Pressure (PSI)	Pass / Fail	Air Hold Start Pressure (PSI)	Air Hold Stop Pressure (PSI)	Pass / Fail	Air Hold Start Pressure (PSI)	Air Hold Stop Pressure (PSI)	Pass / Fail	Air Hold Start Pressure (PSI)	Air Hold Stop Pressure (PSI)	Pass / Fail	Air Hold Start Pressure (PSI)	Air Hold Stop Pressure (PSI)	Pass / Fail	Air Hold Start Pressure (PSI)	Air Hold Stop Pressure (PSI)	Pass / Fail	Air Hold Start Pressure (PSI)	Air Hold Stop Pressure (PSI)	Pass / Fail			
5/1/2018	14.3	13.9	PASS	14.5	14.1	PASS	14.6	14.6	PASS	14.5	14.1	PASS	14.8	14.4	PASS	14.4	14.1	PASS	14.4	14.1	PASS	15.2	14.9	PASS	14.4	14.0	PASS
5/2/2018	15.2	14.9	PASS	14.4	14.0	PASS	15.0	14.7	PASS	14.6	14.3	PASS	15.3	15.1	PASS	14.4	14.2	PASS	14.4	14.2	PASS	15.3	15.2	PASS	14.4	14.0	PASS
5/3/2018	15.1	14.8	PASS	14.5	14.1	PASS	15.2	14.8	PASS	14.6	14.2	PASS	15.2	14.8	PASS	14.5	14.2	PASS	14.5	14.2	PASS	15.1	14.8	PASS	14.5	14.1	PASS
5/4/2018	15.1	14.8	PASS	14.6	14.3	PASS	15.2	14.9	PASS	14.4	14.1	PASS	15.6	15.4	PASS	14.4	14.1	PASS	14.4	14.1	PASS	14.7	14.4	PASS	14.5	14.2	PASS
5/5/2018	15.2	14.8	PASS	14.5	14.1	PASS	14.9	14.5	PASS	14.5	14.1	PASS	15.2	14.8	PASS	14.4	14.1	PASS	14.4	14.1	PASS	15.0	14.7	PASS	14.4	14.0	PASS
5/6/2018	15.2	14.9	PASS	14.5	14.1	PASS	15.1	14.8	PASS	14.9	14.7	PASS	15.3	15.1	PASS	14.4	14.1	PASS	14.4	14.1	PASS	15.2	14.9	PASS	14.4	14.0	PASS
5/7/2018	15.0	14.6	PASS	14.5	14.1	PASS	15.2	14.9	PASS	14.5	14.1	PASS	15.2	14.9	PASS	14.4	14.1	PASS	14.4	14.1	PASS	15.0	14.7	PASS	14.8	14.5	PASS
5/8/2018	15.1	14.7	PASS	14.6	14.2	PASS	15.1	14.7	PASS	14.6	14.2	PASS	15.1	14.7	PASS	14.4	14.2	PASS	14.4	14.2	PASS	15.1	14.8	PASS	14.5	14.2	PASS
5/9/2018	15.2	14.8	PASS	14.6	14.3	PASS	14.9	14.6	PASS	14.5	14.1	PASS	15.4	15.2	PASS	14.4	14.1	PASS	14.4	14.1	PASS	15.4	14.8	PASS	14.4	14.0	PASS
5/10/2018	15.0	14.6	PASS	14.6	14.3	PASS	14.9	14.5	PASS	14.5	14.1	PASS	15.0	14.6	PASS	14.4	14.0	PASS	14.4	14.0	PASS	15.1	14.8	PASS	14.5	14.2	PASS
5/11/2018	14.9	14.4	PASS	14.6	14.2	PASS	15.1	14.7	PASS	14.5	14.5	PASS	14.9	14.4	PASS	14.4	14.1	PASS	14.4	14.1	PASS	14.8	14.4	PASS	14.5	14.0	PASS
5/12/2018	15.0	14.6	PASS	14.5	14.2	PASS	14.9	14.5	PASS	14.6	14.2	PASS	14.9	14.4	PASS	14.4	14.1	PASS	14.4	14.1	PASS	15.4	15.0	PASS	14.5	14.0	PASS
5/13/2018	15.3	15.0	PASS	14.5	14.0	PASS	15.0	14.6	PASS	14.5	14.1	PASS	15.6	15.4	PASS	14.4	14.2	PASS	14.4	14.2	PASS	15.0	14.7	PASS	14.3	13.9	PASS
5/14/2018	15.3	15.0	PASS	14.5	14.1	PASS	15.6	15.4	PASS	14.5	14.2	PASS	15.6	15.4	PASS	14.4	14.2	PASS	14.4	14.2	PASS	15.0	14.7	PASS	14.3	13.9	PASS
5/15/2018	14.9	14.5	PASS	14.5	14.1	PASS	15.5	15.3	PASS	14.5	14.1	PASS	15.6	15.4	PASS	14.5	14.1	PASS	14.4	14.1	PASS	14.9	14.7	PASS	14.3	14.0	PASS
5/16/2018	15.1	14.8	PASS	14.6	14.2	PASS	14.6	14.2	PASS	14.4	14.0	PASS	14.6	14.1	PASS	14.4	14.0	PASS	14.4	14.0	PASS	14.6	14.1	PASS	14.3	14.0	PASS
5/18/2018	15.1	14.7	PASS	14.4	14.0	PASS	15.3	15.1	PASS	14.4	14.1	PASS	14.6	14.1	PASS	14.4	14.0	PASS	14.4	14.0	PASS	15.0	14.6	PASS	14.3	13.9	PASS
5/19/2018	15.0	14.6	PASS	14.5	14.0	PASS	15.3	15.1	PASS	14.4	14.0	PASS	15.3	15.0	PASS	14.5	14.1	PASS	14.4	14.0	PASS	15.0	14.7	PASS	14.4	14.0	PASS
5/20/2018	15.1	14.8	PASS	14.5	14.1	PASS	15.0	14.6	PASS	14.4	14.0	PASS	15.5	15.4	PASS	14.5	14.1	PASS	14.4	14.0	PASS	14.6	14.1	PASS	14.4	14.0	PASS
5/21/2018	15.0	14.6	PASS	14.4	14.0	PASS	15.3	15.1	PASS	14.4	14.1	PASS	15.5	15.4	PASS	14.4	14.0	PASS	14.4	14.0	PASS	14.9	14.6	PASS	14.4	14.1	PASS
5/22/2018	15.0	14.7	PASS	14.5	14.1	PASS	15.3	15.0	PASS	14.4	14.0	PASS	15.5	15.4	PASS	14.4	14.0	PASS	14.4	14.0	PASS	14.9	14.6	PASS	14.7	14.6	PASS
5/23/2018	15.0	14.5	PASS	14.7	14.4	PASS	15.4	15.2	PASS	14.6	14.3	PASS	14.9	14.5	PASS	14.6	14.3	PASS	14.4	14.2	PASS	15.4	15.2	PASS	14.4	13.9	PASS
5/24/2018	15.1	14.7	PASS	14.7	14.4	PASS	15.0	14.6	PASS	14.5	14.2	PASS	15.5	15.4	PASS	14.5	14.2	PASS	14.4	14.2	PASS	14.8	14.4	PASS	14.4	13.9	PASS
5/25/2018	15.0	14.6	PASS	14.4	14.0	PASS	15.4	15.2	PASS	14.4	14.0	PASS	15.5	15.3	PASS	14.5	14.3	PASS	14.4	14.2	PASS	14.4	14.1	PASS	14.4	13.9	PASS
5/26/2018	15.0	14.7	PASS	14.6	14.3	PASS	14.7	14.3	PASS	14.5	14.1	PASS	14.7	14.2	PASS	14.5	14.2	PASS	14.4	14.2	PASS	14.5	14.2	PASS	14.6	14.2	PASS
5/27/2018	15.3	15.1	PASS	14.6	14.3	PASS	15.5	15.3	PASS	14.5	14.1	PASS	15.4	15.1	PASS	14.5	14.2	PASS	14.4	14.2	PASS	14.5	14.2	PASS	14.3	13.9	PASS
5/28/2018	15.1	14.7	PASS	14.5	14.2	PASS	15.2	15.0	PASS	14.4	14.1	PASS	15.5	15.3	PASS	14.4	14.1	PASS	14.4	14.2	PASS	14.5	14.2	PASS	14.6	14.2	PASS
5/29/2018	15.1	14.8	PASS	14.5	14.0	PASS	15.5	15.3	PASS	14.5	14.2	PASS	15.6	15.4	PASS	14.5	14.3	PASS	14.4	14.2	PASS	14.4	14.1	PASS	14.3	13.9	PASS
5/30/2018	15.1	14.8	PASS	14.4	14.0	PASS	14.8	14.4	PASS	14.5	14.2	PASS	15.4	15.1	PASS	14.5	14.2	PASS	14.5	14.2	PASS	15.4	15.2	PASS	14.3	13.9	PASS
5/31/2018	15.0	14.6	PASS	14.3	13.8	PASS	15.1	14.8	PASS	14.4	14.1	PASS	15.4	15.1	PASS	14.4	14.1	PASS	14.6	14.4	PASS	15.1	14.8	PASS	14.6	14.3	PASS

Integrity test performed every 24-hours



**Chlorination**

Date	Treated Water	RW Tank	Membrane Feed Water	Added pre-FW Tanks	Treated Water	Post FW Tanks	Added Post FW Tank
	Volume	OCCL	Free Cl <sub>2</sub>	OCCL	Free Cl <sub>2</sub>	Free Cl <sub>2</sub>	OCCL
	MG	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
	Daily	Average	Average	Average	Average	Average	Average
	FIT-4000-1		AIT-1035-2		AIT-4030-1	AIT-4050-1	
	Added	Added	Added	Added	Added	Added	Added
5/1/2018	7.4	0.00	0.44	1.45	1.65	1.50	0.00
5/2/2018	8.0	0.00	0.40	1.46	1.62	1.50	0.00
5/3/2018	6.9	0.00	0.34	1.51	1.58	1.50	0.00
5/4/2018	7.1	0.00	0.39	1.43	1.54	1.51	0.00
5/5/2018	6.8	0.00	0.31	1.55	1.65	1.48	0.00
5/6/2018	7.3	0.00	0.31	1.52	1.67	1.51	0.00
5/7/2018	7.6	0.00	0.32	1.52	1.65	1.51	0.00
5/8/2018	7.6	0.00	0.26	1.61	1.64	1.49	0.00
5/9/2018	8.4	0.00	0.22	1.62	1.66	1.50	0.00
5/10/2018	7.0	0.00	0.25	1.60	1.65	1.49	0.00
5/11/2018	7.5	0.00	0.26	1.62	1.66	1.50	0.00
5/12/2018	6.5	0.00	0.33	1.50	1.67	1.51	0.00
5/13/2018	7.2	0.00	0.34	1.50	1.63	1.50	0.00
5/14/2018	7.9	0.00	0.29	1.56	1.66	1.50	0.00
5/15/2018	7.2	0.00	0.40	1.05	1.55	1.48	0.00
5/16/2018	8.0	0.00	0.47	0.75	1.16	1.14	0.00
5/17/2018	7.6	0.00	0.48	0.78	1.07	1.00	0.00
5/18/2018	7.4	0.00	0.46	0.79	1.08	0.99	0.00
5/19/2018	7.2	0.00	0.36	1.02	1.08	0.98	0.00
5/20/2018	7.3	0.00	0.39	0.87	1.15	1.02	0.00
5/21/2018	7.7	0.00	0.45	0.75	1.16	1.02	0.00
5/22/2018	7.4	0.00	0.47	0.80	1.11	1.01	0.00
5/23/2018	7.4	0.00	0.42	0.80	1.15	1.02	0.00
5/24/2018	9.6	0.00	0.38	0.83	1.11	1.02	0.00
5/25/2018	9.1	0.00	0.38	0.72	1.12	1.02	0.00
5/26/2018	8.9	0.00	0.44	0.63	1.12	1.02	0.00
5/27/2018	8.2	0.00	0.37	0.78	1.09	0.99	0.00
5/28/2018	9.9	0.00	0.26	0.86	1.11	1.00	0.00
5/29/2018	9.5	0.00	0.22	0.87	1.10	0.99	0.00
5/30/2018	8.8	0.00	0.20	0.92	1.13	0.99	0.00
5/31/2018	8.4	0.00	0.14	1.05	1.11	0.98	0.00
Avg	7.8	0.00	0.35	1.15	1.37	1.25	0.00
Min	6.5	0.00	0.14	0.63	1.07	0.98	0.00
Max	9.9	0.00	0.48	1.62	1.67	1.51	0.00





Disinfection CT														
Pipeline CT					FW Tank CT									
Date	Whitestone Flow MGD	Travel Time Min	Residual RW mg/L	CT Achieved mg-min/L	FW Tank 1 Min Level ft	FW Tank 2 Min Level ft	Plant Flow MGD	Contact Time Min	Free Cl <sub>2</sub> mg/L	CT		Temp Avg °C	Compliance	
										Calculated	Achieved		Calculated	Achieved
5/1/2018	45.1	2,775	0.44	1228	23.9	23.6	7.3	449	1.46	656.37	1,884.02	5.3	8.00	Y
5/2/2018	44.1	2,834	0.40	1142	24.0	23.7	7.7	425	1.37	580.54	1,722.21	5.4	8.00	Y
5/3/2018	46.5	2,689	0.34	902	23.0	22.7	6.8	464	1.45	672.86	1,574.49	5.8	8.00	Y
5/4/2018	46.7	2,679	0.39	1056	24.2	23.9	6.8	482	1.42	684.98	1,741.29	6.1	8.00	Y
5/5/2018	55.8	2,240	0.31	700	24.6	24.6	6.7	502	1.44	720.56	1,420.56	6.4	8.00	Y
5/6/2018	56.4	2,218	0.31	678	22.6	22.3	7.2	424	1.49	632.94	1,310.69	6.8	8.00	Y
5/7/2018	56.6	2,210	0.32	698	23.6	23.3	7.1	450	1.48	668.33	1,366.53	7.1	8.00	Y
5/8/2018	48.7	2,571	0.26	668	23.7	23.4	7.5	432	1.48	637.62	1,305.43	7.5	8.00	Y
5/9/2018	44.8	2,790	0.22	617	24.5	24.3	8.2	407	1.45	590.85	1,207.76	7.6	8.00	Y
5/10/2018	46.9	2,668	0.25	673	24.6	24.3	6.9	488	1.46	713.78	1,386.82	7.7	8.00	Y
5/11/2018	48.3	2,590	0.26	681	24.1	23.8	7.1	465	1.46	680.20	1,360.74	7.8	8.00	Y
5/12/2018	58.1	2,154	0.33	713	25.1	24.8	6.3	541	1.50	809.92	1,522.60	8.0	8.00	Y
5/13/2018	58.3	2,145	0.34	740	21.6	21.3	6.9	423	1.46	619.63	1,359.36	8.3	8.00	Y
5/14/2018	55.1	2,269	0.29	654	25.9	25.6	7.7	456	1.44	655.36	1,309.57	8.5	8.00	Y
5/15/2018	49.1	2,546	0.40	1017	24.8	24.5	7.1	476	1.31	622.01	1,639.36	8.5	8.00	Y
5/16/2018	45.6	2,746	0.47	1301	24.5	24.2	7.7	431	1.04	450.35	1,751.10	8.6	8.00	Y
5/17/2018	43.5	2,877	0.48	1390	24.5	24.2	7.4	452	0.97	437.77	1,828.00	8.7	8.00	Y
5/18/2018	51.0	2,452	0.46	1131	24.7	24.4	7.2	468	0.97	453.63	1,584.18	9.0	8.00	Y
5/19/2018	67.2	1,860	0.36	669	24.2	23.9	6.9	474	0.94	446.37	1,115.55	9.5	8.00	Y
5/20/2018	67.5	1,854	0.39	730	24.9	24.6	7.1	480	0.97	464.51	1,194.94	9.9	8.00	Y
5/21/2018	55.3	2,260	0.45	1027	20.6	20.3	7.5	374	0.95	354.84	1,381.81	9.8	8.00	Y
5/22/2018	46.3	2,700	0.47	1277	24.4	24.2	7.0	475	0.99	469.80	1,746.97	9.8	8.00	Y
5/23/2018	41.2	3,039	0.42	1287	16.8	16.6	7.8	294	0.94	276.94	1,563.55	9.8	8.00	Y
5/24/2018	44.3	2,826	0.38	1077	21.1	20.8	8.9	321	0.99	317.85	1,395.31	9.9	8.00	Y
5/25/2018	50.1	2,497	0.38	953	24.1	23.7	8.9	370	0.98	363.38	1,316.40	10.0	6.00	Y
5/26/2018	66.5	1,881	0.44	826	24.1	23.8	8.8	373	0.99	369.39	1,195.45	9.9	8.00	Y
5/27/2018	66.8	1,873	0.37	689	24.4	24.1	8.0	415	0.96	399.07	1,087.99	10.0	8.00	Y
5/28/2018	64.6	1,938	0.26	499	24.7	24.4	9.8	341	0.97	330.61	829.31	10.2	6.00	Y
5/29/2018	59.1	2,117	0.22	472	24.3	24.0	9.3	357	0.92	328.19	800.24	10.3	6.00	Y
5/30/2018	68.9	1,815	0.20	363	22.7	22.4	8.8	352	0.87	304.28	666.83	10.4	6.00	Y
5/31/2018	69.1	1,811	0.14	253	23.1	22.8	8.2	383	0.92	352.30	605.54	11.4	6.00	Y
Avg	53.8	2,385	0.35	842	23.7	23.4	7.6	427	1.19	518.23	1,360.47	8.5	7.68	NA
Min	41.2	1,811	0.14	253	16.8	16.6	6.3	294	0.87	276.94	605.54	5.3	6.00	NA
Max	69.1	3,039	0.48	1,390	25.9	25.6	9.8	541	1.50	809.92	1,884.02	11.4	8.00	NA



Notes: Pipeline volume factor in SMMWSC to RW tank: 125,090 MG-min/day

**Distribution System Monitoring**  
**Akron (0072), Bangor Township (0390), Bangor Monitor Dist. (0400), Bay City (0470), Bay County (0485)**  
 Chlorine Residual at Bacteriological Monitoring Stations (mg/L Free Cl<sub>2</sub>)

Date	Akron			Bangor Township			Bangor Monitor Dist.			Bay City						Bay County (Frankenlust, Monitor, Portsmouth)										
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
5/1/2018	0.54		1.36	0.74	1.03	1.46					1.06	0.63	0.85	0.81	0.65	1.11	0.85	0.82	1.00							
5/2/2018							1.35	1.29			1.06	0.63	0.85	0.81	0.65	1.11	0.85									
5/3/2018											0.77	0.60	0.82	0.98	0.52	1.14	0.76									
5/4/2018											0.77	0.60	0.82	0.98	0.52	1.14	0.76									
5/5/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/6/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/7/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/8/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/9/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/10/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/11/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/12/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/13/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/14/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/15/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/16/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/17/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/18/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/19/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/20/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/21/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/22/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/23/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/24/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/25/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/26/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/27/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/28/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/29/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/30/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
5/31/2018											1.06	0.84	0.85	0.83	0.86	1.15	1.09									
Average	0.54		1.02				1.32	1.29			0.65	0.50	0.48	0.69	0.35	0.56	0.64									
Min	0.54		0.74				1.29	1.29			0.51	0.36	0.49	0.62	0.20	0.83	0.53									
Max	0.54		1.46				1.35	1.35			0.90	0.71	0.69	0.75	0.66	1.03	0.84									



**MONITORING STATION ADDRESSES**

- |   |  |  |
|---|--|--|
| <ul style="list-style-type: none"> <li>1. William Sanders, 6116 Slocum Dr</li> <li>2. TBD</li> <li>3. Bangor Twp Hall, 3921 Wheeler</li> <li>4. BCDWS Admin. Bldg. 3933 Patterson Rd.</li> <li>5. 7-11, 3543 S. Old Kawkawlin Rd.</li> <li>6. Admiral Petroleum, 314 S Euclid Ave.</li> <li>7. Sequin Lumber, 3881 Euclid Ave</li> <li>8. Euclid Auto, 823 N Euclid Ave</li> <li>9. Monitor Pharmacy, 2981 Midland Rd</li> <li>10. Little Caesars, 3475 E North Union Rd</li> </ul> | <ul style="list-style-type: none"> <li>11. Number 1 Fire Station, 1401 Center Ave</li> <li>12. Number 2 Fire Station, 1000 Fremont Ave</li> <li>13. Skizak's Sport Shop, 807 Salzburg Ave</li> <li>14. Number 4 Fire Station, 212 S. Dean St</li> <li>15. Number 5 Fire Station, 1209 Smith St</li> <li>16. Bay City Hall, 301 Washington Ave</li> <li>17. Skipper Buds Marina, 1809 S Water St</li> </ul> | <ul style="list-style-type: none"> <li>18. Bay Valley Animal Hospital 6015 WS Saginaw Rd</li> <li>19. Dore's Mobile Mart, 6183 WS Saginaw Rd</li> <li>20. Pump Station #13, 6000 WS Saginaw Rd</li> <li>21. TBD</li> <li>22. The Char House, 432 N. Tuscola Rd</li> <li>23. Krzyziak's Market, 1605 Michigan Ave</li> <li>24. Little Learners Daycare, 1694 Cass Ave.</li> <li>25. J&amp;T Tool &amp; Die, 354 S Tuscola Rd</li> </ul> |
|---|--|--|

**Distribution System Monitoring**  
**Beaver Rd. Area (0517), Beaver Twp (0518), Essexville (2180), Fraser Twp (2465), Hampton (2960), Kawkawlin Twp (3565), Kawkawlin Metro (3570), Merritt Twp (4280)**  
 Chlorine Residual at Bacteriological Monitoring Stations (mg/L Free Cl2)

Date	Beaver Rd. Area			Beaver Township			Essexville			Fraser Township			Hampton Township			Kawkawlin Twp.			Kawkawlin Metro			Merritt Township		
	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	
5/1/2018				0.88			1.37																	
5/2/2018										1.11	1.15				1.10	1.16	0.92							
5/3/2018													1.02	0.83	0.90						0.87			
5/4/2018																								
5/5/2018																								
5/6/2018																								
5/7/2018																								
5/8/2018				0.85																				
5/9/2018																								
5/10/2018	1.25						1.20									1.15	0.96							
5/11/2018																								
5/12/2018																								
5/13/2018																								
5/14/2018																								
5/15/2018													0.91	0.69	0.87									
5/16/2018																								
5/17/2018																								
5/18/2018																								
5/19/2018																								
5/20/2018																								
5/21/2018							0.80						0.63	0.52	0.51									
5/22/2018																								
5/23/2018																								
5/24/2018																								
5/25/2018																								
5/26/2018																								
5/27/2018																								
5/28/2018																								
5/29/2018																								
5/30/2018																								
5/31/2018													0.79											
Average	1.25			0.87			1.15			1.13			0.77			1.14	0.94				0.84			
Min	1.25			0.85			0.80			1.11			0.51			1.10	0.92				0.80			
Max	1.25			0.88			1.37			1.15			1.02			1.16	0.96				0.87			



**MONITORING STATION ADDRESSES**

- 26. Wieland Contracting, 2443 S Mackinaw Rd
- 27. St. Bartholomew School, 1033 E Beaver Rd
- 28. Dore's Party Store, 825 E Beaver Rd
- 29. Karmen Roberts, 2515 S 11 Mile Rd
- 30. Parkview Country Store, 3 W Beaver Rd
- 31. TBD
- 32. Essexville City Hall, 1107 Woodside Ave
- 33. TBD
- 34. Fraser Elevated Tank, N. Huron Rd
- 35. Lloyd's Cabinet, 1947 N Huron Rd
- 36. TBD
- 37. Hampton DPW, 950 Wagner Rd.
- 38. Bay County Golf Course, 584 W Hampton Rd.
- 39. Sewer Lift Station, 902 Nebobish Rd.
- 40. Bay Co. Road Commission, 2600 E Beaver Rd
- 41. Parish Rd. Elevated Tank, West of S Huron Rd
- 42. Linwood Tile, 205 S Huron Rd
- 43. Kawkawlin Party Store, 105 Grove St
- 44. Days of Discovery Preschool, 3473 S Huron Rd
- 45. Kawkawlin Restaurant, 103 S Huron Rd
- 46. John's Bar, 1476 S Tuscola Rd
- 47. Crop Production Services, 107 S Farley Rd
- 48. Tool Shed Bar, 12 W Munger Rd

**Distribution System Monitoring**  
**Monitor Twp (4440), City of Pinconning (5330), Pinconning Twp (5335), Portsmouth Twp (5540), Williams Twp (7125), Wisner (7134)**

Chlorine Residual at Bacteriological Monitoring Stations (mg/L Free Cl<sub>2</sub>)

Date	Monitor Township					City of Pinconning					Pinconning Township					Portsmouth Twp					Williams Township					Wisner		
	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73			
5/1/2018	1.33	1.21	0.91	1.07					0.76				1.12		0.97		0.52											
5/2/2018																												
5/3/2018																												
5/4/2018																												
5/5/2018																												
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5/26/2018																												
5/27/2018																												
5/28/2018																												
5/29/2018																												
5/30/2018																												
5/31/2018																												
Average																												
Min																												
Max																												



MONITORING STATION ADDRESSES

- 49. Traxler's Party Store, 2951 E Wilder Rd
- 50. Monitor Township Hall, 2483 E Midland Rd
- 51. Pump Station #14, 2000 E Midland Rd
- 52. Midland Rd Elevated Tank, East of Mackinaw
- 53. Dale Ramseyer, 2186 E Wheeler Rd
- 54. Michigan Sugar, 1459 S Valley Center Dr
- 55. Auburn Fertilizer, 4640 S 7 Mile Rd
- 56. Trinity Lutheran School, 20 E Salzbürg Rd
- 57. H&H Bakery, 200 S Mable Rd
- 58. Pinconning City Hall, 208 S Manitou St
- 59. Marathon Gas Station, 511 S Mabel St
- 60. TBD
- 61. Pinconning Meter Pit, 3005 N Huron Rd
- 62. Keith Pickvett, 4732 Maloney Rd
- 63. Master Meter Pit, Pinconning @ Maloney Rd
- 64. TBD
- 65. Ike's Welding, 50 N Finn Rd
- 66. TBD
- 67. Fruitland Market, 1646 W Midland Rd
- 68. Williams Township Hall, 1080 W Midland Rd
- 69. Salzbürg Rd Pump Station, 9 Mile @ Salzbürg
- 70. 11 Mile Elevated Tank, 11 Mile @ US-10
- 71. Mieske's Market, 2509 W Midland Rd
- 72. Lindy's Sales, 9051 M-25
- 73. TBD

**Distribution System Bacteriological**

Water Supplier Bacteriological Analysis Report

Name of Water Supply  
**Bay Area Water Treatment Plant**

MICHIGAN DEPARTMENT OF PUBLIC HEALTH  
Bureau of Environmental Health  
Water Supplier Bacteriological Analysis Report

May, 2018

COUNTY	COMMUNITY	WSSN NUMBER	DISTRIBUTION SYSTEM SAMPLES				
			avg free cl2 mg/L	NUMBER REQUIRED	NUMBER COLLECTED	NUMBER POSITIVE	NUMBER REPEAT SAMPLES
Tuscola	Akron	0072	0.54	1	1	0	0
BAY	Bangor Township	0390	1.02	10	10	0	0
BAY	Bangor-Monitor Dist.	0400	1.32	3	3	0	0
BAY	Bay City	0470	0.73	40	55	0	0
BAY	Bay County (Frankl./Monitor/Portsm.)	0485	1.00	10	10	0	0
BAY	Beaver Road Area	0517	1.25	1	1	0	0
BAY	Beaver Township	0518	0.87	2	2	0	0
BAY	Essexville	2180	1.15	4	4	0	0
BAY	Fraser Township	2465	1.13	2	2	0	0
BAY	Hampton Township	2960	0.77	10	10	0	0
BAY	Kawkawlin Township	3565	1.14	3	3	0	0
BAY	Kawkawlin Metro Dist.	3570	0.94	2	2	0	0
BAY	Merritt Township	4280	0.84	2	2	0	0
BAY	Monitor Township	4440	1.12	6	6	0	0
BAY	City of Pinconning	5330	0.87	2	2	0	0
BAY	Pinconning Township	5335	1.05	2	2	0	0
BAY	Portsmouth Township	5540	0.52	1	1	0	0
BAY	Williams Township	7125	0.92	6	6	0	0
Tuscola	Wisner	7134	0.97	1	1	0	0

Average Free Cl2 Residual of All Distribution Sites

0.95 mg/L

1. Total distribution samples
2. Total distribution samples with detectable free cl2 residual
3. Total distribution samples with no detectable free cl2 residual
4. Total distribution samples with no detectable free cl2 residual and HPC was <500
5. Total distribution samples with no detectable free cl2 residual and HPC was >500
6. Percent of distribution samples with no detectable free cl2 residual
7. Percent shown line #6 in previous monthly report

123  
123  
0  
NA  
NA  
0.00%  
0.00%

