

**MONTHLY OPERATION REPORT  
OF  
WATER TREATMENT PLANT**

**For Month of October 2018**

Flint Water Plant  
NAME OF WATER SYSTEM

2310  
WSSN

Genesee  
COUNTY

Robert Jones  
CERTIFIED OPERATOR

D-1  
CLASSIFICATION

  
SIGNATURE OF APPROPRIATE OFFICIAL

**TREATMENT RATE AND FILTER DATA**

1. Treatment Rate, Maximum 10.45 Million Gallons Per Day
2. Treatment Rate, Approved Rated Plant Capacity 36 Million Gallons per Day
3. Average Filter Run N/A Hours, Average Head Loss N/A Feet
4. Average Filtration Rate N/A Gallons per Square Ft. per Minute
5. Maximum Filtration Rate N/A Gallons per Square Ft. per Minute
6. Average Wash Water Use N/A percent of Treated Water

**CHEMICAL DATA**

7. Sodium Hypochlorite on hand at CS2 2555 gal.: Estimated supply 41 days
8. Sodium Hypochlorite on hand at outstations 110 gal: Estimated supply 15 days
9. Phosphoric Acid on hand 931 gal.: Estimated supply 42 days
9. Sodium Hydroxide on hand 880 gal.: Estimated supply 15 days

**Remarks:**

Submit to: MDEQ - Office of Drinking Water & Municipal Assistance  
LANSING DISTRICT OFFICE  
525 West Allegan Street, 1st Floor South  
(Constitution Hall)  
PO Box 30242  
Lansing, MI 48909-7742





**Fluoridation & Chlorination**

**WSSN 2310**

**Oct-18**

DATE	Fluoride Applied F mg/l	Fluoride Analyses mg/l			Chlorine App. Mg/l		Chlorine Residual mg/l					
		Raw	Tap	Dist	Chlorine App. Mg/l	Chlorine (prior to filtration) mg/L OCl <sub>2</sub>	Post Chlorine mg/L	Sta II	Dort	3MG Well	Tap	
								Free	Free	Free	Free	
1	0.66	0.70			1.32			0.9				1.7
2	0.71	0.71			1.17			0.9				1.7
3	0.68	0.69			1.12			0.9				1.7
4	0.68	0.68			1.11			0.9				1.6
5	0.68	0.71			1.09			0.9				1.6
6	0.68	0.71			1.10			0.9				1.7
7	0.66	0.71			1.17			0.8				1.7
8	0.66	0.67			1.20			0.9				1.7
9	0.70	0.71			1.22			0.9				1.6
10	0.66	0.70			1.28			0.9				1.6
11	0.67	0.70			1.31			0.8				1.7
12	0.68	0.70			1.38			0.9				1.7
13	0.61	0.61			1.20			0.9				1.6
14	0.70	0.65			1.20			0.9				1.7
15	0.70	0.72			1.14			0.9				1.6
16	0.71	0.72			1.16			0.9				1.6
17	0.70	0.72			1.13			0.9				1.7
18	0.75	0.75			1.21			0.9				1.7
19	0.72	0.76			1.18			0.9				1.6
20	0.64	0.73			1.06			1.0				1.7
21	0.77	0.75			1.12			0.9				1.5
22	0.75	0.76			1.27			0.9				1.6
23	0.73	0.71			1.21			0.9				1.6
24	0.73	0.75			1.06			1.0				1.6
25	0.75	0.77			1.15			0.9				1.6
26	0.67	0.72			1.18			0.9				1.6
27	0.82	0.81			1.11			0.9				1.7
28	0.75	0.76			1.06			0.9				1.7
29	0.73	0.76			1.00			0.9				1.7
30	0.85	0.85			1.07			1.0				1.6
31	0.77	0.81			1.00			1.0				1.6
AVG	0.72	0.73			1.16			0.9				1.6
MAX	0.85	0.85			1.38			1.0				1.7
MIN	0.61	0.61			1.00			0.8				1.5



**Chemical Analyses**

**WSSN 2310**

**Oct-18**

DATE	pH		Total Hardness as CaCO <sub>3</sub> mg/l		Total Alkalinity as CaCO <sub>3</sub> mg/l		NonCarbonate Hardness as CaCO <sub>3</sub> mg/l		Iron mg/L	Calcium Ca <sup>2+</sup> mg/l		Magnesium as Mg <sup>2+</sup> mg/l		Chloride as Cl <sup>-</sup> mg/l	
	CSII	Tap	Raw	Tap	Raw	Tap	Raw	Tap		Raw	Tap	Raw	Tap	Raw	Tap
1	7.51	7.55		106	86		36	0.00	0.01	28.1		8.7		13	
2	7.51	7.53	106	106	80	36	36	0.00	0.01	28.1	28.1	8.7	8.7	13.0	13
3	7.52	7.54		104	80		34	0.02	0.01		28.1		8.3		13
4	7.51	7.53		104	80		36	0.00	0.01		27.3		8.7		13
5	7.53	7.55		104	80		34	0.00	0.00		28.1		8.3		14
6	7.52	7.54		104	80		34	0.01	0.01		28.1		8.3		12
7	7.53	7.55		102	82		32	0.01	0.01		28.1		7.8		13
8	7.49	7.52		104	82		34	0.02	0.01		28.1		8.3		14
9	7.51	7.53	102	104	84	32	32	0.00	0.00	28.1	28.9	7.8	7.8	12	13
10	7.48	7.53		106	80		36	0.00	0.00		28.1		8.7		13
11	7.47	7.56		106	84		34	0.00	0.01		28.9		8.3		14
12	7.50	7.57		104	82		32	0.00	0.01		28.9		7.8		13
13	7.48	7.50		98	80		26	0.01	0.01		28.9		6.3		13
14	7.46	7.50		104	84		30	0.01	0.01		29.7		7.3		14
15	7.50	7.57		106	80		36	0.02	0.00		28.1		8.7		13
16	7.59	7.56	100	104	80	30	32	0.02	0.01	28.1	28.9	7.3	7.8	13	13
17	7.48	7.55		106	82		36	0.01	0.01		28.1		8.7		14
18	7.50	7.57		106	80		34	0.01	0.00		28.9		8.3		14
19	7.47	7.56		106	82		34	0.01	0.01		28.9		8.3		13
20	7.46	7.55		106	82		36	0.00	0.01		28.1		8.7		14
21	7.52	7.63		108	82		38	0.03	0.02		28.1		9.2		15
22	7.47	7.56		104	80		34	0.01	0.02		28.1		8.3		14
23	7.46	7.50	104	106	82	34	34	0.02	0.00	28.1	28.9	8.3	8.3	12	13
24	7.45	7.51		106	82		36	0.01	0.00		28.1		8.7		14
25	7.47	7.49		104	80		34	0.01	0.01		28.1		8.3		13
26	7.43	7.51		106	82		36	0.01	0.02		28.1		8.7		14
27	7.39	7.47		108	80		36	0.01	0.01		28.9		8.7		14
28	7.39	7.50		106	82		36	0.01	0.01		28.1		8.7		14
29	7.43	7.54		106	82		34	0.00	0.00		28.9		8.3		14
30	7.43	7.52	102	106	80	32	36	0.00	0.01	28.1	28.1	7.8	8.7	12	13
31	7.47	7.54		106	82		38	0.00	0.01		27.3		9.2		13
AVG	7.48	7.54		105	81		34		0.01		28.4		8.4		13
MAX	7.59	7.63		108	86		38		0.02		29.7		9.2		15.0
MIN	7.39	7.47		98	80		26		0.00		27.3		6.3		12.0



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Oct-18

DATE	Total Coliform					Standard Plate Count	Conductivity (ms)	Temp deg C	Color		Odor				
	Plant Tap								Raw Tap	Raw Tap	Raw Tap	Raw Tap			
	60	61	62	63	64								65	66	67
1						2/0	0.22	17.2							
2						2/0	0.22	16.9							
3						2/0	0.22	16.9							
4						2/0	0.22	16.6							
5						2/0	0.22	16.0							
6						2/0	0.22	16.7							
7						2/0	0.22	16.7							
8						2/0	0.22	16.8							
9						2/0	0.22	16.9							
10						2/0	0.22	17.0							
11						20/	0.22	16.8							
12						2/0	0.22	16.5							
13						2/0	0.21	17.5							
14						2/0	0.22	17.5							
15						2/0	0.22	16.2							
16						2/0	0.22	15.8							
17						2/0	0.22	16.6							
18						2/0	0.22	16.6							
19						2/0	0.22	16.7							
20						2/0	0.22	16.9							
21						2/0	0.22	16.6							
22						2/0	0.22	16.6							
23						2/0	0.22	16.5							
24						2/0	0.22	15.8							
25						2/0	0.22	15.8							
26						2/0	0.22	16.0							
27						2/0	0.22	16.0							
28						2/0	0.22	15.5							
29						2/0	0.22	15.2							
30						2/0	0.22	15.4							
31						2/0	0.22	14.6							
AVG							0.22	16.4							
MAX							0.22	17.5							
MIN							0.21	14.6							



Distribution System Monitoring WSSN 2310

Oct-18

Free Chlorine Residual at Bacteriological Monitoring Stations mg/l

D A T E		Chlorine only sites mg/l																				Number of Samples					
1	1.11	1.25	1.25	1.88	1.32	1.18	1.62	1.47	1.55	0.60	0.83	1.55	0.93	1.45	1.45	1.12	1.11	0.99	0.69	0.86	1.04	1.20	1.39	1.14	1.40	7	
2																											8
3																											8
4	1.16	1.17	1.04	1.21	1.88									1.24												7	
5																										8	
6																										0	
7																										0	
8	1.29	1.14	1.35	1.33	1.82	1.34													0.94		1.45		1.20			8	
9							1.23	1.41	1.58	1.51	0.80	0.84	1.56	0.84	1.52	1.52	1.06	1.17		0.94			1.22	1.35	1.29	8	
10																			1.24							8	
11	1.17	1.16	1.40	1.35	1.89										1.47	1.55	1.03	1.23								7	
12																										0	
13																										0	
14																										0	
15	1.39	1.25	1.43	1.29	1.78	1.08	1.33	1.64	1.09	1.39	0.87	0.79	1.59	1.06	1.52	1.58	1.12	1.22	1.08		0.94		1.00	1.27	1.49	8	
16																										8	
17	1.17	1.26	1.36	1.43	1.78								1.59	1.06	1.52	1.58	1.12	1.22	1.08				1.27	1.49	1.27	8	
18																				1.24		1.70				7	
19										1.29					1.55	1.23	1.37	1.62								1.03	
20																										0	
21																					1.55					0	
22	1.21	1.27	1.30	1.30	2.00	1.38	1.37	1.59	1.48	1.51	0.93	0.89	1.62	0.99	1.56	1.52	1.24	1.02	1.16		1.19	0.96	1.44	1.29	1.23	8	
23																										8	
24																										8	
25	1.16	1.22	1.44	1.42	2.02										1.48	1.62	1.19	1.26	1.12		1.74					7	
26																										0	
27																										0	
28																										0	
29	1.45	1.72	1.45	1.42	1.96	1.49															1.60					8	
30							1.26	1.66	1.15	1.62	1.41	0.97	1.63	1.04	1.50	1.48	1.09	1.19	1.15		1.60					8	
31																										8	
Monthly Cl <sub>2</sub> Avg.		1.35																									
Total Samples		186																									



Distribution System Monitoring

WSSN 2310

Oct-18

Total Chlorine Residual at Bacteriological Monitoring Stations mg/l

DATE	Chlorine only sites mg/l																									Number of Samples																											
	1	2	3	4	CS	6	7	8	9	10	WR**	12	13	14	15	16	17	18	19	20	26	27	28	29	30		21	22	23	24	25																						
1	1.31		1.39	1.42	2.10	1.57																														1.27										7							
2								1.33	1.86	1.76	1.74			0.76	1.03																									1.32										8			
3																																																		8			
4	1.41	1.38	1.14	1.46	2.13																																												8				
5											1.41																																								7		
6																																																		0			
7																																																	0				
8	1.42	1.35	1.54	1.52	2.09	1.53																																												8			
9								1.32	1.67	1.82	1.66			1.00	1.01																																			8			
10																																																		8			
11	1.25	1.28	1.51	1.51	1.98																																													7			
12																																																		0			
13																																																			0		
14																																																		8			
15	1.43	1.41	1.55	1.47	1.86	1.23																																												8			
16								1.49	1.79	1.17	1.69			0.97	0.93																																				8		
17																																																				8	
18	1.46	1.45	1.55	1.53	2.10																																															7	
19																																																			0		
20																																																			0		
21																																																			8		
22	1.40	1.42	1.51	1.52	2.27	1.54																																												8			
23								1.49	1.76	1.66	1.76			1.18	1.01																																					8	
24																																																				8	
25	1.30	1.38	1.61	1.60	2.18																																														7		
26																																																			0		
27																																																				0	
28																																																			8		
29	1.61	1.93	1.59	1.58	2.09	1.63																																													8		
30								1.53	1.84	1.33	1.79			1.60	1.09																																				8		
31								1.74	1.84	1.33	1.79			1.60	1.09																																					8	
	Monthly Cl <sub>2</sub> Avg.																																																		1.52		8
	Total Samples																																																		156		8



**ROUTINE POSITIVE DISTRIBUTION SAMPLES**

**Oct-18**

Total number of positive routine samples:				Total Coliform: 0				E.coli Bacteria: 0		Chlorine Residual (mg/L)	
Date	Monitoring Station	Total Coliform	E.coli Bacteria	Date	Time	Reset of Station, Upstream & Downstream	Total Coliform	E.coli Bacteria	Free	Total	
Total number of routine distribution samples analyzed:				156							
Total number of routine distribution samples required:				100							