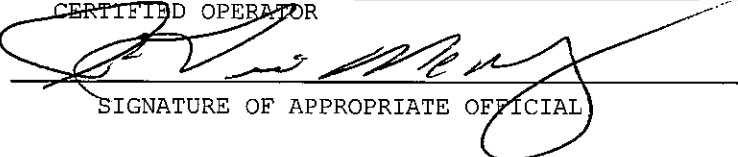


**MONTHLY OPERATION REPORT
OF
WATER TREATMENT PLANT**

For Month of March 2017

<u>Flint Water Plant</u> NAME OF WATER SYSTEM	<u>2310</u> WSSN	<u>Genesee</u> COUNTY
<u>JoLisa McDay</u> CERTIFIED OPERATOR	<u>F-1</u> CLASSIFICATION	
 SIGNATURE OF APPROPRIATE OFFICIAL		

TREATMENT RATE AND FILTER DATA

1. Treatment Rate, Maximum 12.13 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 1662 gal.: Estimated supply 21 days
8. Sodium Hypochlorite on hand at outstations 287 gal: Estimated supply 72 days
9. Phosphoric Acid on hand 1371 gal.: Estimated supply 53 days
9. Sodium Hydroxide on hand 1458 gal.: Estimated supply 21 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

Mar-17

DATE	Fluoride Applied F ⁻ mg/l	Fluoride Analyses mg/l			Chlorine App. Mg/l			Chlorine Residual mg/l								
					Chlorine App. Mg/l	Chlorine (prior to filtration) mg/L OCl ⁻	Post Chlorine mg/L	Sta II	Dort	3MG Well	Tap					
		Raw	Tap	Dist							Free	Free	Free	Free	Free	
		14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1			0.93		1.10				0.7						1.9	
2			0.94		1.04				0.9						1.7	
3			0.78		1.07				0.9						1.7	
4			0.87		1.11				0.8						1.7	
5			0.91		1.06				0.8						1.8	
6			0.90		1.06				0.9						1.7	
7			0.89		1.03				0.9						1.7	
8			0.92		1.05				0.8						1.8	
9			0.90		0.94				1.0						1.7	
10			0.79		0.72				1.4						1.8	
11			0.86		1.00				1.0						1.7	
12			0.89		1.15				0.9						1.9	
13			0.77		1.09				0.9						1.8	
14			0.87		1.09				0.9						1.8	
15			0.83		1.14				0.9						1.7	
16			0.99		1.15				0.8						1.8	
17			0.76		1.18				0.9						1.7	
18			0.76		1.04				0.9						1.7	
19			0.82		1.07				0.9						1.7	
20			0.72		1.06				0.8						1.8	
21			0.91		1.11				0.7						1.8	
22			0.94		1.10				0.8						1.8	
23			0.88		1.05				1.0						1.9	
24			0.75		1.05				1.0						1.8	
25			0.85		1.03				1.0						1.9	
26			0.92		1.04				1.0						1.8	
27			0.68		1.06				1.0						1.8	
28			0.85		1.05				1.0						1.8	
29			0.93		1.11				0.9						1.8	
30			0.97		1.05				0.9						1.9	
31			0.82		1.10				0.9						1.8	
AVG			0.86		1.06				0.9						1.8	
MAX			0.99		1.18				1.4						1.9	
MIN			0.68		0.72				0.7						1.7	



Chemical Analyses

WSSN 2310

Mar-17

D A T E	pH		Total Hardness as CaCO ₃ mg/l		Total Alkalinity as CaCO ₃ mg/l		NonCarbonate Hardness as CaCO ₃ mg/l		Iron mg/L		Calcium Ca ²⁺ mg/l		Magnesium as Mg ²⁺ mg/l		Chloride as Cl ⁻ mg/l	
	CSII	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap
	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
1	7.34	7.22		98		74		24		0.01		30.5		5.3		13
2	7.28	7.19		100		70		30		0.01		32.9		4.4		12
3	7.39	7.31		98		72		26		0.02		31.3		4.9		13
4	7.32	7.29		98		70		28		0.02		32.1		4.4		12
5	7.45	7.35		98		68		30		0.01		31.3		4.9		12
6	7.47	7.34		98		68		30		0.01		31.3		4.9		13
7	7.43	7.24		98		70		28		0.02		31.3		4.9		12
8	7.46	7.34		98		68		30		0.01		32.1		4.4		12
9	7.32	7.29		98		68		30		0.01		30.5		5.3		13
10	7.30	7.36		98		72		26		0.02		30.5		5.3		13
11	7.39	7.22		96		68		28		0.01		30.5		4.9		13
12	7.42	7.34		98		70		28		0.01		31.3		4.9		13
13	7.32	7.38		98		72		26		0.01		28.9		6.3		13
14	7.36	7.37		98		68		30		0.02		30.5		5.3		13
15	7.37	7.31		98		66		32		0.02		32.1		4.4		12
16	7.33	7.31		96		66		30		0.01		32.1		3.9		12
17	7.42	7.32		102		72		30		0.02		29.7		6.8		13
18	7.43	7.33		98		70		28		0.02		32.1		4.4		12
19	7.31	7.27		98		68		30		0.02		31.3		4.9		13
20	7.33	7.34		102		72		30		0		31.3		5.8		13
21	7.33	7.27		102		74		28		0.02		31.3		5.9		13
22	7.29	7.32		98		72		26		0.02		31.3		4.9		13
23	7.31	7.38		102		70		32		0.02		31.3		5.9		12
24	7.31	7.32		98		70		28		0.02		30.5		5.3		13
25	7.43	7.27		100		74		26		0		30.5		5.8		13
26	7.38	7.30		102		70		32		0		31.3		5.8		12
27	7.38	7.25		98		68		30		0		28.1		6.8		13
28	7.39	7.34		98		72		26		0.01		31.3		4.9		13
29	7.35	7.35		98		72		26		0.01		31.3		4.9		13
30	7.30	7.28		98		72		26		0.02		31.3		4.9		13
31	7.35	7.37		100		70		30		0.02		31.3		5.3		13
AVG	7.36	7.31		99		70		29		0.01		31.1		5.2		13
MAX	7.47	7.38		102		74		32		0.02		32.9		6.8		13.0
MIN	7.28	7.19		96		66		24		0.00		28.1		3.9		12.0



WSSN 2310

Mar-17

D A T E	Total Coliform						66	Standard Plate Count		Conductivity (mS)	Temp deg.C	Color		Odor	
	Plant Tap							Raw	Tap			71	72	73	74
			Dort	3MG Well	Sta II	Lab Tap									
	60	61	62	63	64	65									
1					2/0	2/0			0.21	7.3					
2					2/0	2/0			0.21	6.3					
3					2/0	2/0		<2	0.21	6.1					
4					2/0	2/0			0.21	6.4					
5					2/0	2/0			0.21	7.1					
6					2/0	2/0			0.21	7.8					
7					2/0	2/0		<2	0.21	7.4					
8					2/0	2/0			0.21	6.8					
9					2/0	2/0			0.21	6.3					
10					2/0	2/0			0.21	6.2					
11					2/0	2/0			0.20	6.0					
12					2/0	2/0			0.21	5.2					
13					2/0	2/0			0.21	6.8					
14					2/0	2/0		<2	0.21	6.5					
15					2/0	2/0			0.21	5.9					
16					2/0	2/0			0.21	6.1					
17					2/0	2/0			0.21	6.2					
18					2/0	2/0			0.21	6.6					
19					2/0	2/0			0.21	7.3					
20					2/0	2/0			0.20	6.2					
21					2/0	2/0		6	0.21	6.0					
22					2/0	2/0			0.21	5.4					
23					2/0	2/0			0.21	5.7					
24					2/0	2/0			0.21	5.9					
25					2/0	2/0			0.21	6.4					
26					2/0	2/0			0.21	5.5					
27					2/0	2/0			0.21	6.0					
28					2/0	2/0		<2	0.21	5.9					
29					2/0	2/0			0.21	5.0					
30					2/0	2/0			0.21	5.1					
31					2/0	2/0			0.21	5.2					
AVG									0.21	6.2					
MAX									0.21	7.8					
MIN									0.20	5.0					



Distribution System Monitoring WSSN 2310

Mar-17

DATE	Free Chlorine Residual at Bacteriological Monitoring Stations 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	21	22	23	24	25					
1													1.42	1.71	1.04	1.59	1.58	1.10					1.73				7			
2							1.37	1.66	1.54	1.61									0.91	1.35				1.46			7			
3	1.25	1.22	1.54	1.54															0.96						1.56		6			
4																											0			
5																											0			
6	1.30	1.35	1.53	1.53	1.35	1.31															1.08						7			
7							1.39	1.63	1.64	1.66		1.56										1.23					6			
8											1.61		1.52	1.71	1.36	1.61	1.59	1.18					1.64				8			
9					1.67	1.33						1.37							0.73	1.28				1.40			6			
10													1.40	1.63	1.21	1.65	1.69	1.18							1.28		7			
11																											0			
12																											0			
13	1.38	1.26	1.53	1.59	1.65	1.38																1.23					7			
14							1.44	1.71	1.72	1.73		1.39											1.40				6			
15													1.47	1.71	1.25	1.66	1.62	1.04						1.61			7			
16							1.42	1.55	1.65	1.67										0.76	1.42				1.49		7			
17	1.36	1.25	1.41	1.50																0.81						1.46	6			
18																											0			
19																											0			
20	1.38	1.28	1.53	1.43	1.64	1.28																1.38					7			
21							1.46	1.72	1.49	1.63		1.76											1.36				6			
22													1.47	1.65	1.32	1.69	1.60	1.19						1.65			7			
23					1.51	1.30						1.46								0.70	1.23				1.50		6			
24													1.43	1.64	1.02	1.62	1.61	1.14								1.55	7			
25																											0			
26																											0			
27	1.36	1.68	1.58	1.56	1.56	1.30																1.19					7			
28							1.41	1.58	1.67	1.71		1.39											1.31				6			
29													1.48	1.58	1.07	1.63	1.63	1.16						1.57			7			
30							1.43	1.64	1.49	1.67										0.74	1.30				1.52		7			
31	1.33	1.59	1.55	1.44																0.85	1.45					1.31	7			
Monthly Cl₂ Avg.				1.43																										
Total Samples				154																										



Distribution System Monitoring

WSSN 2310

Mar-17

DATE	Total Chlorine Residual at Bacteriological Monitoring Stations 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	21	22	23	24	25						
1													1.59	1.82	1.22	1.72	1.72	1.32					1.87				7				
2							1.49	1.77	1.66	1.77										1.01	1.49				1.62		7				
3	1.48	1.32	1.64	1.65																1.09						1.70	6				
4																											0				
5																											0				
6	1.45	1.49	1.68	1.64	1.60	1.45																1.20					7				
7							1.51	1.76	1.82	1.77		1.73											1.32				6				
8											1.75		1.62	1.79	1.46	1.70	1.70	1.33					1.73				8				
9					1.76	1.53						1.73								0.92	1.43				1.59		6				
10													1.67	1.80	1.43	1.82	1.87	1.36								1.39	7				
11																											0				
12																											0				
13	1.53	1.41	1.80	1.76	1.82	1.53																1.37					7				
14							1.60	1.82	1.85	1.83		1.56											1.52				6				
15													1.68	1.82	1.47	1.75	1.74	1.19						1.88			7				
16							1.64	1.77	1.80	1.80										0.89	1.54				1.61		7				
17	1.50	1.38	1.70	1.70																0.97						1.58	6				
18																											0				
19																											0				
20	1.50	1.41	1.68	1.65	1.77	1.53																1.52					7				
21							1.62	1.88	1.64	1.85		1.99											1.48				6				
22													1.65	1.85	1.50	1.83	1.73	1.37						1.91			7				
23					1.79	1.47						1.62								0.93	1.50				1.66		6				
24													1.57	1.77	1.23	1.76	1.76	1.28								1.68	7				
25																											0				
26																											0				
27	1.48	1.82	1.73	1.67	1.69	1.44																1.37					7				
28							1.57	1.81	1.85	1.82		1.57											1.41				6				
29													1.65	1.81	1.22	1.78	1.72	1.28						1.70			7				
30							1.57	1.77	1.59	1.82										0.84	1.43				1.62		7				
31	1.44	1.81	1.72	1.66																1.06	1.60					1.57	7				
Monthly Cl₂ Avg.					1.59																										
Total Samples					154																										



ROUTINE POSITIVE DISTRIBUTION SAMPLES

Mar-17

Total number of positive routine samples:				Total Coliform: <u>0</u>			E.coli Bacteria: <u>0</u>		Chlorine Residual (mg/L)	
Date	Monitoring Station	Total Coliform	E.coli Bacteria	Date	Time	Retest of Station, Upstream & Downstream	Total Coliform	E.coli Bacteria	Free	Total
Total number of routine distribution samples analyzed:				154						
Total number of routine distribution samples required:				100						