




MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
MONTHLY OPERATION REPORT - CLASS D WATER TREATMENT PLANT

Issued under authority of 1976 PA 399 and the Administrative Rules, as amended. Administrative Rule R 325.11512 says in part, "A supplier of water where treatment is employed shall prepare an operation report on a form provided by the department for each month of operation." Failure to submit this form is a violation of the Act and may subject the water supply to enforcement penalties.

Water Supply Information		
City of Morenci		004490
Supply Name		WSSN
Kipp Scott	D-3, S-3	Nov
Operator In Charge (OIC)	System Classification	Month
F-2, S-3	Lenawee	2020
Certification Level of OIC	County	Year

Distribution Chlorine Residual Monitoring (Sampling Conducted per DBPR Monitoring Plan)	
Number of chlorine residual measurements taken during the month:	30 - Various Distribution Sites
Number of chlorine residual measurements that exceeded 4 mg/L:	0
Monthly average "free" chlorine residual:	0.89

Comments
Plant tap (which is N/A) residuals are take at the first hydrant downstream from the iron removal water treatment plant (approximately 300' downstream of the IRP filters).

Certification	
Kipp Scott - OIC	
Name and Title of Authorized Agent	
	12/9/2020
Signature	Date Submitted

Send Completed Report To:	Staff and Contact Information	
Department of Environmental Quality (DEQ)	Taryn Simon, EQA	517-257-7465
Office of Drinking Water and Municipal Assistance	Caitlin Bates, District Engineer;	517-262-6795
301 East Louis Glick Highway	Pat Brennan, District Sup'r;	517-581-2769
Jackson, Michigan, 49201	Fax;	517-780-7855
Or submit via email to	PEAS Hotline;	1-800-292-4706
EGLE-DWEH-Jackson@michigan.gov		

City of Morenci
Name of Supply

4490
WSSN

Nov 2020

Day of the month	Raw Pumpage in Million of Gallons per Day (MGD)		Raw Pumpage Daily Total MGD	Raw Water To Iron Removal Plant MG	Raw Water To Iron Removal Plant MLbs	Comments
	Well 1	Well 2				
1	0.095	0.043	0.138	0.138	1.151	
2	0.093	0.034	0.127	0.127	1.059	
3	0.100	0.049	0.149	0.149	1.243	
4	0.086	0.022	0.108	0.108	0.901	
5	0.037	0.056	0.093	0.093	0.776	
6	0.092	0.002	0.094	0.094	0.784	
7	0.114	0.037	0.151	0.151	1.259	
8	0.100	0.044	0.144	0.144	1.201	
9	0.093	0.036	0.129	0.129	1.076	
10	0.091	0.064	0.155	0.155	1.293	
11	0.079	0.064	0.143	0.143	1.193	
12	0.092	0.065	0.157	0.157	1.309	
13	0.095	0.086	0.181	0.181	1.510	
14	0.097	0.087	0.184	0.184	1.535	
15	0.098	0.089	0.187	0.187	1.560	
16	0.092	0.088	0.180	0.180	1.501	
17	0.093	0.087	0.180	0.180	1.501	
18	0.115	0.088	0.203	0.203	1.693	
19	0.094	0.089	0.183	0.183	1.526	
20	0.119	0.084	0.203	0.203	1.693	
21	0.093	0.071	0.164	0.164	1.368	
22	0.100	0.090	0.190	0.190	1.585	
23	0.096	0.087	0.183	0.183	1.526	
24	0.098	0.119	0.217	0.217	1.810	
25	0.110	0.073	0.183	0.183	1.526	
26	0.097	0.094	0.191	0.191	1.593	
27	0.094	0.092	0.186	0.186	1.551	
28	0.095	0.092	0.187	0.187	1.560	
29	0.096	0.109	0.205	0.205	1.710	
30	0.092	0.089	0.181	0.181	1.510	
Total	2.846	2.130	4.976	4.976	41.500	
Avg	0.095	0.071	0.166	0.166	1.383	
Max	0.119	0.119	0.238	0.238	1.985	

Pumpage

Min	0.037	0.002	0.039	0.039	0.325	
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Name of Supply

WSSN

Iron Removal Plant

Day of the month	Water in Millions of Gallons				Head Loss Thru Filter ft/psi	Oxidant/Chlorine		Plant Tap/Hydrant Chlorine Residual		IRP Filter Chlorine Residual		Plant Tap Analysis	
	Raw Water To Plant	Filter Backwash To WWTP	Total Water To System	Total Million Pounds		Cl ₂ Applied Pounds	Cl ₂ Applied mg/L	Free	Total	Free	Total	Iron as Fe mg/L	Manganese as Mn mg/L
1	0.138		0.138	1.151		6.3	5.47						
2	0.127		0.127	1.059		6.4	6.04						
3	0.149	0.020	0.129	1.243		6.9	5.55						
4	0.108		0.108	0.901		5.5	6.11						
5	0.093		0.093	0.776		6.3	8.12						
6	0.094		0.094	0.784		6.6	8.42						
7	0.151	0.020	0.131	1.259		7.2	5.72						
8	0.144		0.144	1.201		6.7	5.58						
9	0.129		0.129	1.076		6.8	6.32						
10	0.155		0.155	1.293		6.2	4.80						
11	0.143	0.020	0.123	1.193		7.5	6.29						
12	0.157		0.157	1.309		6.5	4.96						
13	0.181		0.181	1.510		6.1	4.04						
14	0.184	0.020	0.164	1.535		6.9	4.50						
15	0.187		0.187	1.560		6.4	4.10						
16	0.180		0.180	1.501		6.3	4.20						
17	0.180		0.180	1.501		6.4	4.26						
18	0.203	0.020	0.183	1.693		6.7	3.96						
19	0.183		0.183	1.526		6.0	3.93						
20	0.203		0.203	1.693		7.6	4.49						
21	0.164		0.164	1.368		4.1	3.00						
22	0.190	0.020	0.170	1.585		5.9	3.72						
23	0.183		0.183	1.526		5.6	3.67						
24	0.217		0.217	1.810		7.4	4.09						
25	0.183	0.020	0.163	1.526		4.5	2.95						
26	0.191		0.191	1.593		5.6	3.52						
27	0.186		0.186	1.551		5.7	3.67						
28	0.187		0.187	1.560		5.6	3.59						
29	0.205	0.020	0.185	1.710		5.9	3.45						
30	0.181		0.181	1.510		5.4	3.58						
Total	4.976	0.160	4.816	41.500		187.0	142.10						
Avg	0.166	0.020	0.161	1.383		6.2	4.74						
Max	0.217	0.020	0.217	1.810		7.6	8.42						
Min	0.093	0.020	0.093	0.776		4.1	2.95						

Name of Supply

WSSN

Day of Month	Conductivity		Temperature		Total - Hardness mg/L		Total - Alkalinity mg/L		Chloride mg/l		Calcium mg/l		Iron mg/l		Manganese mg/L		Sulfate mg/l		pH Analysis		Phosphate mg/l	
	Raw Sample Tap	Plant Tap	Raw Temp°C	Tap Temp°C	Raw Sample Tap	Plant Tap	Raw Sample Tap	Plant Tap	Raw Sample Tap	Plant Tap	Raw Sample Tap	Plant Tap	Raw Sample Tap	Plant Tap	Raw Sample Tap	Plant Tap	Raw Sample Tap	Plant Tap	Raw Sample Tap	Plant Tap	Raw Sample Tap	Plant Tap
1																						
2																						
3																						
4		643		13		264		274		59.3		69.3					31.8		7.52			
5																						
6																						
7																						
8																						
9																						
10																						
11		655		14.3		290		280				81.4	0.69	0.13					7.46			
12																						
13																						
14																						
15																						
16																						
17																						
18		657		13.3		274		274		42.7		68.1	0.78	0.24			35.1		7.58			
19																						
20																						
21																						
22																						
23																						
24																						
25		650		14		280		280				70.1	0.74	0.20					7.62			
26																						
27																						
28																						
29																						
30																						
Total:																						
Average:		651.3		13.7		277.0		277.0		51.0		72.2					33.5		7.55			
Maximum:		657.0		14.3		290.0		280.0		59.3		81.4					35.1		7.62			
Minimum:		643.0		13.0		264.0		274.0		42.7		68.1					31.8		7.46			
Comments:																						

Day of the month	Treated Water Metered		Oxidant / Chlorine		Chlorine Residual mg/L						Comments	
	Million Gallons	Million lbs	Avail 99.8% Cl ₂ Gas in lbs	Cl ₂ Applied mg/L	Distribution (DPW)		Distribution System		Distribution System Location	Applied IRP Filters		
					Free	Total	Free	Total		Free		Total
1	0.138	1.151	6.3	5.47	1.24	1.34			597 W. Chestnut	0.11	0.35	
2	0.127	1.059	6.4	6.04	1.08	1.35			597 W. Chestnut	no	test	
3	0.149	1.243	6.9	5.55	1.03	1.30			597 W. Chestnut	0.10	0.71	
4	0.108	0.901	5.5	6.11	0.77	.86			597 W. Chestnut	0.17	0.43	
5	0.093	0.776	6.3	8.12	0.94	1.17			597 W. Chestnut	0.05	0.30	
6	0.094	0.784	6.6	8.42	1.02	1.29			597 W. Chestnut	0.12	0.32	
7	0.151	1.259	7.2	5.72	0.99	1.28			597 W. Chestnut	0.07	0.35	
8	0.144	1.201	6.7	5.58	0.66	0.92			597 W. Chestnut	0.13	0.37	
9	0.129	1.076	6.8	6.32	1.10	1.21			597 W. Chestnut	0.12	0.38	
10	0.155	1.293	6.2	4.80	1.02	1.33			597 W. Chestnut	0.16	0.38	
11	0.143	1.193	7.5	6.29	1.04	1.30			597 W. Chestnut	0.12	0.38	
12	0.157	1.309	6.5	4.96	1.32	1.41			597 W. Chestnut	0.07	0.41	
13	0.181	1.510	6.1	4.04	1.28	1.42			597 W. Chestnut	0.09	0.23	
14	0.184	1.535	6.9	4.50	1.07	1.33			597 W. Chestnut	0.07	0.25	
15	0.187	1.560	6.4	4.10	1.08	1.42			597 W. Chestnut	0.05	0.29	
16	0.180	1.501	6.3	4.20	1.02	1.33			597 W. Chestnut	0.13	0.22	
17	0.180	1.501	6.4	4.26	1.17	1.40			597 W. Chestnut	0.15	0.38	
18	0.203	1.693	6.7	3.96	0.78	0.99			597 W. Chestnut	0.11	0.38	
19	0.183	1.526	6.0	3.93	0.85	1.06			597 W. Chestnut	0.17	0.39	
20	0.203	1.693	7.6	4.49	0.72	0.91			597 W. Chestnut	0.21	0.42	
21	0.164	1.368	4.1	3.00	0.66	0.88			597 W. Chestnut	0.35	0.57	
22	0.190	1.585	5.9	3.72	0.77	0.88			597 W. Chestnut	0.12	0.29	
23	0.183	1.526	5.6	3.67	0.66	0.95			597 W. Chestnut	0.07	0.33	
24	0.217	1.810	7.4	4.09	0.71	0.92			597 W. Chestnut	0.05	0.34	
25	0.183	1.526	4.5	2.95	0.71	0.97			597 W. Chestnut	0.07	0.57	
26	0.191	1.593	5.6	3.52	0.57	0.76			597 W. Chestnut	0.14	0.44	
27	0.186	1.551	5.7	3.67	0.61	0.85			597 W. Chestnut	0.04	0.28	
28	0.187	1.560	5.6	3.59	0.61	0.82			597 W. Chestnut	0.07	0.28	
29	0.205	1.710	5.9	3.45	0.60	0.83			597 W. Chestnut	0.16	0.27	
30	0.181	1.510	5.4	3.58	0.63	0.86			597 W. Chestnut	0.05	0.20	
Total	4.976	41.500	187.0			32.5				3.3	10.5	
Avg	0.166	1.383	6.2	4.51	0.89	1.12				0.11	0.36	
Max	0.238	1.810	7.6	8.42	1.32	1.42				0.35	0.71	
Min	0.039	0.776	4.1	2.95	0.57	0.76				0.04	0.20	

City of Morenci

004490

Nov 2020

Name of Supply

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Month

Year

2	Routine samples required	0	Repeat samples taken	43963.00	Cl ₂ residuals from routine & repeat		
4	Routine samples taken	0	Repeat samples total colifor		Average	0.74	0.83
0	Routine samples positive	P/A	Analytical Method		Maximum	0.74	0.85
					Minumum	0.73	0.80

Distribution System - Routine Samples			Chlorine Residual (mg/L)	
Count	Sample Location	Date Collected	Free	Total
1	597 West Chestnut Street	11/04/20	0.73	0.80
2	118 Orchard Street	11/04/20	0.74	0.85
3	485 West Main - Well #1 - Raw	11/04/20	N/A	N/A
4	485 West Main - Well #2 - Raw	11/04/20	N/A	N/A
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
19				

Distribution System - Repeat Samples-Contact District if > one Positive			Chlorine Residual (mg/L)	
Count	Sample Location	Date Collected	Free	Total
1				
2				
3				
4				
5				
6				
7				
8				
9				

Other: Triggered Source Water Samples, entry point (plant tap) ...			Chlorine Residual (mg/L)	
Count	Sample Location	Date Collected	Free	Total
1				
2				
3				
4				
5				
6				
7				
8				
9				