



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	May
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:	64 - Various Distribution Sites
Number of chlorine residual measurements that exceeded 4 mg/L:	0
Monthly average "free" chlorine residual:	0.99

Comments
<u>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).</u>

Certification	
Kipp Scott - OIC	
Name and Title of Authorized Agent	
Signature	6/5/2020
	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		

Name of Supply

WSSN

Day of the month	Raw Pumpage in Million of Gallons per Day		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	0.100	0.074	0.174	0.174	1.451	
2	0.102	0.073	0.175	0.175	1.460	
3	0.110	0.074	0.184	0.184	1.535	
4	0.100	0.073	0.173	0.173	1.443	
5	0.096	0.072	0.168	0.168	1.401	
6	0.097	0.072	0.169	0.169	1.409	
7	0.127	0.075	0.202	0.202	1.685	
8	0.101	0.071	0.172	0.172	1.434	
9	0.102	0.071	0.173	0.173	1.443	
10	0.096	0.070	0.166	0.166	1.384	
11	0.148	0.035	0.183	0.183	1.526	
12	0.099	0.074	0.173	0.173	1.443	
13	0.103	0.078	0.181	0.181	1.510	
14	0.175	0.087	0.262	0.262	2.185	
15	0.093	0.068	0.161	0.161	1.343	
16	0.094	0.071	0.165	0.165	1.376	
17	0.093	0.074	0.167	0.167	1.393	
18	0.093	0.071	0.164	0.164	1.368	
19	0.093	0.071	0.164	0.164	1.368	
20	0.127	0.072	0.199	0.199	1.660	
21	0.094	0.071	0.165	0.165	1.376	
22	0.103	0.073	0.176	0.176	1.468	
23	0.107	0.073	0.180	0.180	1.501	
24	0.194	0.094	0.288	0.288	2.402	
25	0.102	0.080	0.182	0.182	1.518	
26	0.125	0.135	0.260	0.260	2.168	
27	0.115	0.083	0.198	0.198	1.651	
28	0.085	0.081	0.166	0.166	1.384	
29	0.167	0.099	0.266	0.266	2.218	
30	0.033	0.065	0.098	0.098	0.817	
31	0.186	0.103	0.289	0.289	2.410	
Total	3.460	2.383	5.843	5.843	48.731	
Avg	0.112	0.077	0.188	0.188	1.572	
Max	0.194	0.135	0.329	0.329	2.744	
Min	0.033	0.035	0.068	0.068	0.567	

Pumpage

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	0.174		0.174	1.451		6.0	4.13			0.18	0.25		
2	0.175		0.175	1.460		6.0	4.11			0.12	0.19		
3	0.184		0.184	1.535		6.0	3.91			0.30	0.33		
4	0.173		0.173	1.443		7.0	4.85			0.19	0.24		
5	0.168		0.168	1.401		6.0	4.28			0.20	0.26		
6	0.169		0.169	1.409		6.0	4.26			0.30	0.33		
7	0.202	0.020	0.182	1.685		8.0	4.75			0.30	0.33		
8	0.172		0.172	1.434		7.0	4.88			0.26	0.29		
9	0.173		0.173	1.443		6.0	4.16			0.22	0.24		
10	0.166		0.166	1.384		6.0	4.33			0.28	0.34		
11	0.183		0.183	1.526		6.0	3.93			0.28	0.34		
12	0.173		0.173	1.443		7.0	4.85			0.18	0.35		
13	0.181		0.181	1.510		7.0	4.64			0.18	0.24		
14	0.262	0.020	0.242	2.185		9.0	4.12			0.17	0.17		
15	0.161		0.161	1.343		7.0	5.21			0.22	0.43		
16	0.165		0.165	1.376		6.0	4.36			0.38	0.43		
17	0.167		0.167	1.393		6.0	4.31			0.34	0.43		
18	0.164		0.164	1.368		6.0	4.39			0.31	0.37		
19	0.164		0.164	1.368		6.0	4.39			0.30	0.33		
20	0.199	0.020	0.179	1.660		8.0	4.82			0.17	0.37		
21	0.165		0.165	1.376		6.0	4.36			0.31	0.32		
22	0.176		0.176	1.468		7.0	4.77			0.25	0.34		
23	0.180		0.180	1.501		7.0	4.66			0.21	0.27		
24	0.288		0.288	2.402		10.0	4.16			0.33	0.34		
25	0.182		0.182	1.518		7.0	4.61			0.29	0.46		
26	0.260		0.260	2.168		10.0	4.61			0.23	0.28		
27	0.198	0.020	0.178	1.651		7.0	4.24			0.42	0.49		
28	0.166		0.166	1.384		7.0	5.06			0.34	0.45		
29	0.266		0.266	2.218		10.0	4.51			0.21	0.27		
30	0.098		0.098	0.817		5.0	6.12			0.45	0.48		
31	0.289		0.289	2.410		9.0	3.73			0.50	0.53		
Total	5.843	0.080	5.763	48.731		217.0	139.51			8.4	10.5		
Avg	0.188	0.020	0.186	1.572		7.0	4.50			0.27	0.34		
Max	0.289	0.020	0.289	2.410		10.0	6.12			0.50	0.53		
Min	0.098	0.020	0.098	0.817		5.0	3.73			0.12	0.17		

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																						
5																						
6																						
7		672		20.3		260		265		89.0		64.1					13.1		7.76			
8																						
9																						
10																						
11																						
12																						
13																						
14																						
15																						
16																						
17																						
18																						
19																						
20		673		18.20		294		278		78.0		81.4					13.7		7.54			
21																						
22																						
23																						
24																						
25																						
26																						
27																						
28																						
29																						
30																						
31																						
Total:																						
Average:		672.5		19.3		277.0		271.5		83.5		72.8					13.4		7.65			
Maximum:		673.0		20.3		294.0		278.0		89.0		81.4					13.7		7.76			
Minimum:		672.0		18.2		260.0		265.0		78.0		64.1					13.1		7.54			

Comments: * Morenci is obtaining quotes for setting up is very own water testing laboratory which should be operational by June 2020.

Day of the month	Treated Water		Oxidant / Chlorine		Chlorine Residual mg/L						Comments	
	Metered		Avail 99.8% Cl ₂ Gas in lbs	Cl ₂ Applied mg/L	Distribution (DPW)		Distribution System		Distribution System Location	Applied IRP Filters		
	Million Gallons	Million lbs			Free	Total	Free	Total		Free		Total
1	0.174	1.451	6.0	4.13	0.70	0.76			597 W. Chestnut	0.18	0.25	
2	0.175	1.460	6.0	4.11	0.48	0.54			597 W. Chestnut	0.12	0.19	
3	0.184	1.535	6.0	3.91	0.57	0.59			597 W. Chestnut	0.30	0.33	
4	0.173	1.443	7.0	4.85	0.76	0.81			597 W. Chestnut	0.19	0.24	
5	0.168	1.401	6.0	4.28	0.86	0.99			597 W. Chestnut	0.20	0.26	
6	0.169	1.409	6.0	4.26	0.98	1.06			597 W. Chestnut	0.30	0.33	
7	0.202	1.685	8.0	4.75	0.88	1.01			597 W. Chestnut	0.30	0.33	
8	0.172	1.434	7.0	4.88	0.94	1.06			597 W. Chestnut	0.26	0.29	
9	0.173	1.443	6.0	4.16	0.93	1.03			597 W. Chestnut	0.22	0.24	
10	0.166	1.384	6.0	4.33		1.15	0.91	1.15	607 Maple Dr.	0.28	0.34	
11	0.183	1.526	6.0	3.93	0.95	1.06			597 W. Chestnut	0.28	0.34	
12	0.173	1.443	7.0	4.85	0.96	1.09			597 W. Chestnut	0.18	0.35	
13	0.181	1.510	7.0	4.64	0.86	0.94			597 W. Chestnut	0.18	0.24	
14	0.262	2.185	9.0	4.12	0.82	0.90			597 W. Chestnut	0.17	0.17	
15	0.161	1.343	7.0	5.21	1.19	1.21			597 W. Chestnut	0.22	0.43	
16	0.165	1.376	6.0	4.36	0.95	1.22			597 W. Chestnut	0.38	0.43	
17	0.167	1.393	6.0	4.31	1.04	1.13			597 W. Chestnut	0.34	0.43	
18	0.164	1.368	6.0	4.39	1.07	1.18			597 W. Chestnut	0.31	0.37	
19	0.164	1.368	6.0	4.39	1.14	1.22			597 W. Chestnut	0.30	0.33	
20	0.199	1.660	8.0	4.82	1.20	1.20			597 W. Chestnut	0.17	0.37	
21	0.165	1.376	6.0	4.36	1.10	1.17			597 W. Chestnut	0.31	0.32	
22	0.176	1.468	7.0	4.77	1.06	1.14			597 W. Chestnut	0.25	0.34	
23	0.180	1.501	7.0	4.66	0.95	1.05			597 W. Chestnut	0.21	0.27	
24	0.288	2.402	10.0	4.16	0.82	1.12			597 W. Chestnut	0.33	0.34	
25	0.182	1.518	7.0	4.61	1.35	1.43			597 W. Chestnut	0.29	0.46	
26	0.260	2.168	10.0	4.61	0.94	0.96			597 W. Chestnut	0.23	0.28	
27	0.198	1.651	7.0	4.24	1.47	1.58			597 W. Chestnut	0.42	0.49	
28	0.166	1.384	7.0	5.06	1.05	1.21			597 W. Chestnut	0.34	0.45	
29	0.266	2.218	10.0	4.51	0.97	1.20			597 W. Chestnut	0.21	0.27	
30	0.098	0.817	5.0	6.12	1.47	1.55			597 W. Chestnut	0.45	0.48	
31	0.289	2.410	9.0	3.73	1.13	1.26			597 W. Chestnut	0.50	0.53	
Total	5.843	48.731	217.0			33.8	0.9	1.2		8.4	10.5	
Avg	0.188	1.572	7.0	4.45	0.99	1.09	0.91	1.15		0.27	0.34	
Max	0.329	2.410	10.0	6.12	1.47	1.58	0.91	1.15		0.50	0.53	
Min	0.068	0.817	5.0	3.73	0.48	0.54	0.91	1.15		0.12	0.17	

City of Morenci

004490

May 2020

Name of Supply

WSSN

Month

Year

2	Routine samples required	0	Repeat samples taken	Cl ₂ residuals from routine & repeat		
4	Routine samples taken	0	Repeat samples total colifor 43963.00			
0	Routine samples positive	P/A	Analytical Method			
				Average	0.74	0.79
				Maximum	0.80	0.85
				Mininum	0.68	0.72

Distribution System - Routine Samples			Chlorine Residual (mg/L)	
Count	Sample Location	Date Collected	Free	Total
1	597 West Chestnut Street	05/12/20	0.68	0.72
2	118 Orchard Street	05/12/20	0.80	0.85
3	485 West Main - Well #1 - Raw	05/12/20	N/A	N/A
4	485 West Main - Well #2 - Raw	05/12/20	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				