




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.

<b>Water Supply Information</b>		
City of Morenci		004490
Supply Name		WSSN
Kipp Scott	D-3, S-3	Mar
Operator In Charge (OIC)	System Classification	Month
F-2, S-3	Lenawee	2021
Certification Level of OIC	County	Year

<b>Distribution Chlorine Residual Monitoring</b> (Sampling Conducted per DBPR Monitoring Plan)	
Number of chlorine residual measurements taken during the month:	31 - Various Distribution Sites
Number of chlorine residual measurements that exceeded 4 mg/L:	0
Monthly average "free" chlorine residual:	1.27

<b>Comments</b>
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).

<b>Certification</b>	
Kipp Scott - OIC	
Name and Title of Authorized Agent	
	4/7/2021
Signature	Date Submitted

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

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	0.110	0.136	0.246	0.246	2.052	
2	0.110	0.039	0.149	0.149	1.243	
3	0.176	0.219	0.395	0.395	3.294	
4	0.085	0.125	0.210	0.210	1.751	
5	0.092	0.115	0.207	0.207	1.726	
6	0.071	0.103	0.174	0.174	1.451	
7	0.102	0.086	0.188	0.188	1.568	
8	0.093	0.093	0.186	0.186	1.551	
9	0.081	0.106	0.187	0.187	1.560	
10	0.143	0.099	0.242	0.242	2.018	
11	0.146	0.094	0.240	0.240	2.002	
12	0.096	0.085	0.181	0.181	1.510	
13	0.102	0.084	0.186	0.186	1.551	
14	0.106	0.089	0.195	0.195	1.626	
15	0.112	0.102	0.214	0.214	1.785	
16	0.114	0.089	0.203	0.203	1.693	
17	0.094	0.136	0.230	0.230	1.918	
18	0.093	0.086	0.179	0.179	1.493	
19	0.100	0.084	0.184	0.184	1.535	
20	0.104	0.087	0.191	0.191	1.593	
21	0.107	0.088	0.195	0.195	1.626	
22	0.108	0.089	0.197	0.197	1.643	
23	0.106	0.092	0.198	0.198	1.651	
24	0.160	0.126	0.286	0.286	2.385	
25	0.157	0.097	0.254	0.254	2.118	
26	0.003	0.097	0.100	0.100	0.834	
27	0.086	0.100	0.186	0.186	1.551	
28	0.091	0.104	0.195	0.195	1.626	
29	0.082	0.104	0.186	0.186	1.551	
30	0.094	0.099	0.193	0.193	1.610	
31	0.132	0.122	0.254	0.254	2.118	
Total	3.256	3.175	6.431	6.431	53.635	
Avg	0.105	0.102	0.207	0.207	1.730	
Max	0.176	0.219	0.395	0.395	3.294	
Min	0.003	0.039	0.042	0.042	0.350	

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 <sub>2</sub> Applied Pounds	Cl <sub>2</sub> Applied mg/L	Free	Total	Free	Total	Iron as Fe mg/L	Manganese as Mn mg/L
1	0.246		0.246	2.052		10.6	5.17	1.24	1.47	0.12	0.37	No Test	
2	0.149		0.149	1.243		4.9	3.94	2.68	2.79	0.23	0.53	No Test	
3	0.395	0.020	0.375	3.294		14.5	4.40	2.44	2.56	0.13	0.59	0.19	
4	0.210		0.210	1.751		8.8	5.02	2.70	2.76	0.25	0.54	No Test	
5	0.207		0.207	1.726		7.4	4.29	2.05	2.42	0.30	0.45	No Test	
6	0.174		0.174	1.451		7.3	5.03	1.26	1.42	0.19	0.36	No Test	
7	0.188		0.188	1.568		6.5	4.15	1.39	1.52	0.15	0.33	0.49	
8	0.186		0.186	1.551		6.7	4.32	0.83	0.92	0.16	0.33	0.06	
9	0.187		0.187	1.560		7.0	4.49	0.86	0.99	0.12	0.38	0.22	
10	0.242	0.020	0.222	2.018		9.1	4.51	0.92	1.09	0.09	0.34	0.10	
11	0.240		0.240	2.002		7.4	3.70	2.04	2.12	0.12	0.49	0.22	
12	0.181		0.181	1.510		6.1	4.04	1.18	1.18	0.30	0.46	0.37	
13	0.186		0.186	1.551		6.7	4.32	1.09	1.15	0.20	0.38	0.60	
14	0.195		0.195	1.626		6.6	4.06	1.05	1.12	0.18	0.36	0.36	
15	0.214		0.214	1.785		7.6	4.26	1.02	1.11	0.15	0.38	0.22	
16	0.203		0.203	1.693		6.9	4.08	0.97	1.09	0.27	0.36	0.30	
17	0.230	0.020	0.210	1.918		8.7	4.54	0.83	1.06	0.08	0.34	0.31	
18	0.179		0.179	1.493		6.1	4.09	0.92	1.02	0.10	0.41	0.29	
19	0.184		0.184	1.535		6.3	4.11	0.94	1.07	0.21	0.38	0.20	
20	0.191		0.191	1.593		6.6	4.14	0.97	1.11	0.19	0.36	0.22	
21	0.195		0.195	1.626		6.8	4.18	0.64	0.79	0.18	0.39	0.20	
22	0.197		0.197	1.643		6.9	4.20	0.89	1.01	0.16	0.39	0.40	
23	0.198		0.198	1.651		6.8	4.12	0.83	0.97	0.17	0.37	0.15	
24	0.286	0.020	0.266	2.385		10.4	4.36	0.78	0.99	0.10	0.36	0.16	
25	0.254		0.254	2.118		5.8	2.74	1.09	1.30	0.24	0.44	0.22	
26	0.100		0.100	0.834		6.1	7.31	1.10	1.19	0.32	0.52	0.16	
27	0.186		0.186	1.551		6.3	4.06	0.67	0.88	0.24	0.46	0.22	
28	0.195		0.195	1.626		6.9	4.24	0.93	1.10	0.21	0.41	0.42	
29	0.186		0.186	1.551		6.6	4.25	0.99	1.19	0.21	0.41	0.22	
30	0.193		0.193	1.610		6.6	4.10	1.02	1.21	0.10	0.35	0.29	
31	0.254	0.020	0.234	2.118		8.6	4.06	0.84	1.10	0.09	0.39	0.10	
Total	6.431	0.100	6.331	53.635		229.6	134.26	37.16	41.70	5.6	12.6	6.69	
Avg	0.207	0.020	0.204	1.730		7.4	4.33	1.20	1.35	0.18	0.41	0.26	
Max	0.395	0.020	0.375	3.294		14.5	7.31	2.70	2.79	0.32	0.59	0.60	
Min	0.100	0.020	0.100	0.834		4.9	2.74	0.64	0.79	0.08	0.33	0.06	

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		654		12.7		282		265				77.0	0.72	0.19							7.52	
4																						
5																						
6																						
7																						
8																						
9																						
10		676		12		279		272		43.7		72.9	0.66	0.10			24.0			7.53		
11																						
12																						
13																						
14																						
15																						
16																						
17		654		12.5		272		273				81.4	0.81	0.31						7.7		
18																						
19																						
20																						
21																						
22																						
23																						
24		654		12.2		298		274		33.9		78.2	0.78	0.16			28.9			7.37		
25																						
26																						
27																						
28																						
29																						
30																						
31		654		12.50		270		276				81.4	0.66	0.10						7.48		
Total:																						
Average:		658.4		12.4		280.2		272.0		38.8		78.2					26.5			7.52		
Maximum:		676.0		12.7		298.0		276.0		43.7		81.4					28.9			7.70		
Minimum:		654.0		12.0		270.0		265.0		33.9		72.9					24.0			7.37		
Comments:																						

Day of the month	Treated Water		Oxidant / Chlorine		Chlorine Residual mg/L						Comments	
	Metered		Avail 99.8% Cl <sub>2</sub> Gas in lbs	Cl <sub>2</sub> Applied mg/L	Distribution (DPW)		Distribution System		Distribution System Location	Applied IRP Filters		
	Million	Million			Free	Total	Free	Total		Free		Total
	Gallons	lbs										
1	0.238	1.985	10.6	5.34	1.57	1.86			597 W. Chestnut	0.12	0.37	
2	0.122	1.017	4.9	4.82	1.75	1.94			597 W. Chestnut	0.23	0.53	
3	0.342	2.852	14.5	5.08	1.54	1.80			597 W. Chestnut	0.13	0.59	
4	0.190	1.585	8.8	5.55	1.43	1.72			597 W. Chestnut	0.25	0.54	
5	0.180	1.501	7.4	4.93	1.55	1.83			597 W. Chestnut	0.30	0.45	
6	0.163	1.359	7.3	5.37	1.69	1.90			597 W. Chestnut	0.19	0.36	
7	0.169	1.409	6.5	4.61	1.74	2.04			597 W. Chestnut	0.15	0.33	
8	0.169	1.409	6.7	4.75	1.25	1.51			597 W. Chestnut	0.16	0.33	
9	0.172	1.434	7.0	4.88	1.22	1.38			597 W. Chestnut	0.12	0.38	
10	0.204	1.701	9.1	5.35	1.29	1.46			597 W. Chestnut	0.09	0.34	
11	0.200	1.668	7.4	4.44	1.27	1.44			597 W. Chestnut	0.12	0.49	
12	0.163	1.359	6.1	4.49	1.40	1.69			597 W. Chestnut	0.30	0.46	
13	0.166	1.384	6.7	4.84	1.30	1.48			597 W. Chestnut	0.20	0.38	
14	0.174	1.451	6.6	4.55	1.17	1.37			597 W. Chestnut	0.18	0.36	
15	0.193	1.610	7.6	4.72	1.20	1.37			597 W. Chestnut	0.15	0.38	
16	0.181	1.510	6.9	4.57	1.24	1.40			597 W. Chestnut	0.27	0.36	
17	0.191	1.593	8.7	5.46	No	Test			597 W. Chestnut	0.08	0.34	
18	0.162	1.351	6.1	4.51	1.16	1.37			597 W. Chestnut	0.10	0.41	
19	0.164	1.368	6.3	4.61	1.17	1.32			597 W. Chestnut	0.21	0.38	
20	0.166	1.384	6.6	4.77	1.12	1.28			597 W. Chestnut	0.19	0.36	
21	0.174	1.451	6.8	4.69	1.03	1.23			597 W. Chestnut	0.18	0.39	
22	0.176	1.468	6.9	4.70	1.04	1.21			597 W. Chestnut	0.16	0.39	
23	0.177	1.476	6.8	4.61	1.07	1.19			597 W. Chestnut	0.17	0.37	
24	0.233	1.943	10.4	5.35	0.99	1.13			597 W. Chestnut	0.10	0.36	
25	0.162	1.351	5.8	4.29	1.01	1.22			597 W. Chestnut	0.24	0.44	
26	0.164	1.368	6.1	4.46	1.41	1.56			597 W. Chestnut	0.32	0.52	
27	0.170	1.418	6.3	4.44	0.65	0.92			597 W. Chestnut	0.24	0.46	
28	0.177	1.476	6.9	4.67	1.12	1.33			597 W. Chestnut	0.21	0.41	
29	0.172	1.434	6.6	4.60	1.24	1.41			597 W. Chestnut	0.21	0.41	
30	0.175	1.460	6.6	4.52	1.24	1.43			597 W. Chestnut	0.10	0.35	
31	0.208	1.735	8.6	4.96	No	Test			597 W. Chestnut	0.09	0.39	
Total	6.431	47.513	229.6			42.8				5.6	12.6	
Avg	0.207	1.533	7.4	4.83	1.27	1.48				0.18	0.41	
Max	0.395	2.852	14.5	5.55	1.75	2.04				0.32	0.59	
Min	0.042	1.017	4.9	4.29	0.65	0.92				0.08	0.33	

Name of Supply

WSSN

Month

Year

2	Routine samples required	0	Repeat samples taken	Cl <sub>2</sub> residuals from routine & repeat		
4	Routine samples taken	0	Repeat samples total colifor 43963.00			
0	Routine samples positive	P/A	Analytical Method	Average	1.04	1.21
				Maximum	1.25	1.38
				Minumum	0.82	1.03

Distribution System - Routine Samples			Chlorine Residual (mg/L)	
Count	Sample Location	Date Collected	Free	Total
1	597 West Chestnut Street	03/10/21	1.25	1.38
2	118 Orchard Street	03/10/21	0.82	1.03
3	485 West Main - Well #1 - Raw	03/10/21	N/A	N/A
4	485 West Main - Well #2 - Raw	03/10/21	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	597 West Chestnut Street	03/10/21	1.25	1.38
2	118 Orchard Street	03/10/21	0.82	1.03
3	485 West Main - Well #1 - Raw	03/10/21	N/A	N/A
4	485 West Main - Well #2 - Raw	03/10/21	N/A	N/A
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				