



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
Paul D. Seegert (Temporary-OIC)	D-3, S-3	Mar
Operator In Charge (OIC)	System Classification	Month
F-1, S-2	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:	36 - Various Distribution Sites
Number of chlorine residual measurements that exceeded 4 mg/L:	0
Monthly average "free" chlorine residual:	0.83

Comments
Plant tap (which is N/A) residuals are take at the DPW Barn.

Certification	
Paul D. Seegert (Temporary OIC)	
Name and Title of Authorized Agent	
<i>Paul D. Seegert</i>	4/7/2020
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		

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 Lbs	Comments
	Well 1	Well 2				
1	0.095	0.084	0.179	0.179	1.493	
2	0.091	0.087	0.178	0.178	1.485	
3	0.075	0.087	0.162	0.162	1.351	
4	0.074	0.083	0.157	0.157	1.309	
5	0.072	0.085	0.157	0.157	1.309	
6	0.083	0.080	0.163	0.163	1.359	
7	0.078	0.085	0.163	0.163	1.359	
8	0.079	0.063	0.142	0.142	1.184	
9	0.149	0.080	0.229	0.229	1.910	
10	0.085	0.062	0.147	0.147	1.226	
11	0.079	0.071	0.150	0.150	1.251	
12	0.103	0.138	0.241	0.241	2.010	
13	0.094	0.071	0.165	0.165	1.376	
14	0.094	0.069	0.163	0.163	1.359	
15	0.098	0.070	0.168	0.168	1.401	
16	0.095	0.072	0.167	0.167	1.393	
17	0.098	0.072	0.170	0.170	1.418	
18	0.097	0.071	0.168	0.168	1.401	
19	0.097	0.072	0.169	0.169	1.409	
20	0.097	0.073	0.170	0.170	1.418	
21	0.100	0.073	0.173	0.173	1.443	
22	0.105	0.076	0.181	0.181	1.510	
23	0.101	0.076	0.177	0.177	1.476	
24	0.096	0.078	0.174	0.174	1.451	
25	0.098	0.078	0.176	0.176	1.468	
26	0.171	0.096	0.267	0.267	2.227	
27	0.093	0.074	0.167	0.167	1.393	
28	0.095	0.075	0.170	0.170	1.418	
29	0.098	0.079	0.177	0.177	1.476	
30	0.104	0.080	0.184	0.184	1.535	
31	0.104	0.076	0.180	0.180	1.501	
Total	2.998	2.436	5.434	5.434	45.320	
Avg	0.097	0.079	0.175	0.175	1.462	
Max	0.171	0.138	0.309	0.309	2.577	
Min	0.072	0.062	0.134	0.134	Pumpage	

Day of the month	Water in Millions of Gallons				Head Loss Thru Filter ft/psi	Oxidant/Chlorine		Plant Tap 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	0.179		0.179	1.493		4.0	2.68			0.32	0.53		
2	0.178		0.178	1.485		5.0	3.37			0.11	0.43		
3	0.162		0.162	1.351		4.0	2.96			0.34	0.41		
4	0.157		0.157	1.309		6.0	4.58			0.27	0.39		
5	0.157		0.157	1.309		6.0	4.58			0.38	0.47		
6	0.163	0.040	0.123	1.359		5.0	3.68			0.39	0.46		
7	0.163		0.163	1.359		8.0	5.88			0.46	0.53		
8	0.142		0.142	1.184		6.0	5.07			0.44	0.49		
9	0.229		0.229	1.910		5.0	2.62			0.04	0.34		
10	0.147		0.147	1.226		5.0	4.08			0.49	0.55		
11	0.150		0.150	1.251		5.0	4.00			0.67	0.68		
12	0.241	0.040	0.201	2.010		10.0	4.98			0.26	0.30		
13	0.165		0.165	1.376		6.0	4.36			0.32	0.42		
14	0.163		0.163	1.359		6.0	4.41			0.49	0.56		
15	0.168		0.168	1.401		6.0	4.28			0.43	0.51		
16	0.167		0.167	1.393		6.0	4.31			0.34	0.40		
17	0.170		0.170	1.418		7.0	4.94			0.34	0.98		
18	0.168		0.168	1.401		6.0	4.28			0.36	0.42		
19	0.169		0.169	1.409		7.0	4.97			0.28	0.35		
20	0.170		0.170	1.418		7.0	4.94			0.25	0.41		
21	0.173		0.173	1.443		6.0	4.16			0.33	0.39		
22	0.181		0.181	1.510		6.0	3.97			0.11	0.19		
23	0.177	0.040	0.137	1.476		5.0	3.39			0.00	0.00		
24	0.174		0.174	1.451		7.0	4.82			0.20	0.29		
25	0.176		0.176	1.468		7.0	4.77			0.25			
26	0.267		0.267	2.227		10.0	4.49						
27	0.167		0.167	1.393		6.0	4.31			0.28	0.36		
28	0.170		0.170	1.418		6.0	4.23			0.36	0.41		
29	0.177		0.177	1.476		7.0	4.74			0.17	0.27		
30	0.184	0.040	0.144	1.535		7.0	4.56			0.11	0.30		
31	0.180		0.180	1.501		7.0	4.66			0.13	0.28		
Total	5.434	0.160	5.274	45.320		194.0	133.07			8.9	12.1		
Avg	0.175	0.040	0.170	1.462		6.3	4.29			0.30	0.42		
Max	0.267	0.040	0.267	2.227		10.0	5.88			0.67	0.98		

Min	0.142	0.040	0.123	1.184		4.0	2.62			0.00	0.00		
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Iron Removal

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																						
8																						
9																						
10																						
11																						
12																						
13		781.00		13.70		270.00		266.00		6.00		116.00					10.00		7.72			
14																						
15																						
16																						
17																						
18																						
19																						
20																						
21																						
22																						
23																						
24																						
25																						
26		1072.00		18.30				284.00		26.00		79.75					84.10		7.54			
27																						
28																						
29																						
30																						
31																						
Total:																						
Average:		926.5		16.0		270.0		275.0		16.0		97.9					47.1		7.63			
Maximum:		1072.0		18.3		270.0		284.0		26.0		116.0					84.1		7.72			
Minimum:		781.0		13.7		270.0		266.0		6.0		79.8					10.0		7.54			

Comments:

* 3/26/2020 -- Blissfield Water Treatment Plant conducted results -- 1.18 fluoride; 0.15 iron; 0.017 UV; and 3 color were also measured.

City of Morenci

004490

Mar 2020

Name of Supply

WSSN

Oxidation & Chlorination

Day of the month	Treated Water		Oxidant / Chlorine		Chlorine Residual mg/L							Comments
	Metered		Avail 99.8% Cl ₂ Gas in	Cl ₂ Applied	Plant Tap (DPW Barn)		Distribution System		Distribution System Location	Applied IRP Filters		
	Million Gallons	Million lbs			Free	Total	Free	Total		Free	Total	
			lbs	mg/L								
1	0.179	1.493	4.0	2.68	0.68	0.74	0.63	0.71	607 Maple Drive	0.32	0.53	
2	0.178	1.485	5.0	3.37	0.69	0.79				0.11	0.43	
3	0.162	1.351	4.0	2.96	0.66	0.76				0.34	0.41	
4	0.157	1.309	6.0	4.58	0.64	0.80				0.27	0.39	
5	0.157	1.309	6.0	4.58	0.76	0.92				0.38	0.47	
6	0.163	1.359	5.0	3.68	0.84	0.99				0.39	0.46	
7	0.163	1.359	8.0	5.88	0.78	0.94	0.58	0.73	City Hall	0.46	0.53	
8	0.142	1.184	6.0	5.07	0.77	0.91				0.44	0.49	
9	0.229	1.910	5.0	2.62	0.64	0.75				0.04	0.34	
10	0.147	1.226	5.0	4.08	0.93	1.02	0.64	0.82	City Hall	0.49	0.55	
11	0.150	1.251	5.0	4.00	0.80	0.96	0.63	0.82	City Hall	0.67	0.68	
12	0.241	2.010	10.0	4.98	0.86	0.99				0.26	0.30	
13	0.165	1.376	6.0	4.36	0.77	0.96				0.32	0.42	
14	0.163	1.359	6.0	4.41	0.95	1.15				0.49	0.56	
15	0.168	1.401	6.0	4.28	0.97	1.07	0.67	0.82	City Hall	0.43	0.51	
16	0.167	1.393	6.0	4.31	0.87	1.01				0.34	0.40	
17	0.170	1.418	7.0	4.94	0.82	0.97				0.34	0.98	
18	0.168	1.401	6.0	4.28	0.85	0.99				0.36	0.42	
19	0.169	1.409	7.0	4.97	0.88	1.05				0.28	0.35	
20	0.170	1.418	7.0	4.94	0.87	0.93				0.25	0.41	
21	0.173	1.443	6.0	4.16	1.03	1.25				0.33	0.39	
22	0.181	1.510	6.0	3.97	0.99	1.22				0.11	0.19	
23	0.177	1.476	5.0	3.39	0.22	0.23				0.00	0.00	
24	0.174	1.451	7.0	4.82	0.60	0.65				0.20	0.29	
25	0.176	1.468	7.0	4.77	0.95	1.12				0.25		
26	0.267	2.227	10.0	4.49	1.26	1.49						
27	0.167	1.393	6.0	4.31	1.09	1.15				0.28	0.36	
28	0.170	1.418	6.0	4.23	1.08	1.28				0.36	0.41	
29	0.177	1.476	7.0	4.74			1.60	1.81	215 E. LaGrange	0.17	0.27	
30	0.184	1.535	7.0	4.56			1.60	1.81	215 E. LaGrange	0.11	0.30	
31	0.180	1.501	7.0	4.66			0.90	1.07	215 E. LaGrange	0.13	0.28	
Total	5.434	45.320	194.0			27.1	7.3	8.6		8.9	12.1	
Avg	0.175	1.462	6.3	4.28	0.83	0.97	0.91	1.07		0.30	0.42	
Max	0.309	2.227	10.0	5.88	1.26	1.49	1.60	1.81		0.67	0.98	
Min	0.134	1.184	4.0	2.62	0.22	0.23	0.58	0.71	Oxidation & Chlorination	0.00	0.00	

City of Morenci

004490

Mar

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 coliform positive			
0	Routine samples positive	P/A	Analytical Method			
				Average	0.69	0.78
				Maximum	0.77	0.86
				Mininum	0.61	0.70

Distribution System - Routine Samples			Chlorine Residual (mg/L)	
Count	Sample Location	Date Collected	Free	Total
1	597 West Chestnut	03/09/20	0.77	0.86
2	118 Orchard Street	03/09/20	0.61	0.70
3	485 West Main - Well #1 - Raw	03/09/20	N/A	N/A
4	485 West Main - Well #2 - Raw	03/09/20	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				

Bateriological

DRINKING WATER ANALYSIS				DO NOT WRITE IN SHADED AREA (LABORATORY USE ONLY)			
Village of Blissfield W.T.P. Laboratory MDEQ ID#0750 1330 Beamer Rd. Blissfield, MI. 49228 (517) 486-3350							
COMPLETE FOR ALL SAMPLES (Please Print)							
WSSN or Pool ID# 004490	Chlorinated? <input checked="" type="radio"/> Yes <input type="radio"/> No	Cl- Residual mg/L F-0.61 T-0.70	Sample ID# 7434		Comment		
Sample Collector Name PAUL SEEGELI	Date Collected 3-9-20	Time Collected 02:05	Incubator Time In: 15:09 Out: 15:10		NO COLIFORM E-COLI DETECTED		
System/ Owner Name CITY OF MORENCI	Collection Site (street address) 118 ORCHARD ST.		Sample ID#		Comment		
City/Twp MORENCI	State MI	County LENAWEE	Zip 49256	Incubator Time In: 15:09 Out: 15:10		ANALYST SMH	
Sampling Point (kitchen, bath, etc.) BATH FAUCET	Phone Number 517.458.6828		Result		BACTERIOLOGICAL		
REPORT RESULTS TO: (please print)							
Name CITY OF MORENCI	State MI		Zip 49256	Analysis		Result	
Address 118 ORCHARD STREET	City MORENCI		Signature Paul Segeli		Coliform NEG		
City MORENCI	State MI	Zip 49256	Signature Paul Segeli		MF		
Signature Paul Segeli	PD	CH	PS	PU	HPC		
					E. coli Enumeration		
					CHEMICAL		
					Chlorine		
					Fluoride		
					Nitrate		
				A TRUE COPY VILLAGE OF BLISSFIELD WTP			

The analyses performed by the Blissfield Drinking Water Laboratory were conducted using methods approved by the U.S.E.P.A. and other regulatory agencies as appropriate.

DRINKING WATER ANALYSIS				DO NOT WRITE IN SHADED AREA (LABORATORY USE ONLY)			
Village of Blissfield W.T.P. Laboratory MDEQ ID#0750 1330 Beamer Rd. Blissfield, MI. 49228 (517) 486-3350							
COMPLETE FOR ALL SAMPLES (Please Print)							
WSSN or Pool ID# 004490	Chlorinated? <input checked="" type="radio"/> Yes <input type="radio"/> No	Cl- Residual mg/L F-0.77 T-0.86	Sample ID# 7433		Comment		
Sample Collector Name PAUL SEEGELI	Date Collected 3-9-20	Time Collected 02:25	Incubator Time In: 15:09 Out: 15:10		NO COLIFORM E-COLI DETECTED		
System/ Owner Name CITY OF MORENCI	Collection Site (street address) 597 W. CHESTNUT		Sample ID#		Comment		
City/Twp MORENCI	State MI	County LENAWEE	Zip 49256	Incubator Time In: 15:09 Out: 15:10		ANALYST SMH	
Sampling Point (kitchen, bath, etc.) BATH FAUCET	Phone Number 517.458.6828		Result		BACTERIOLOGICAL		
REPORT RESULTS TO: (please print)							
Name CITY OF MORENCI	State MI		Zip 49256	Analysis		Result	
Address 118 ORCHARD STREET	City MORENCI		Signature Paul Segeli		Coliform NEG		
City MORENCI	State MI	Zip 49256	Signature Paul Segeli		MF		
Signature Paul Segeli	PD	CH	PS	PU	HPC		
					E. coli Enumeration		
					CHEMICAL		
					Chlorine		
					Fluoride		
					Nitrate		
				A TRUE COPY VILLAGE OF BLISSFIELD WTP			

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DRINKING WATER ANALYSIS				DO NOT WRITE IN SHADED AREA (LABORATORY USE ONLY)			
Village of Blissfield W.T.P. Laboratory MDEQ ID#0750 1330 Beamer Rd. Blissfield, MI. 49228 (517) 486-3350							
COMPLETE FOR ALL SAMPLES (Please Print)							
WSSN or Pool ID# 00490	Chlorinated? Yes <input checked="" type="radio"/> No <input type="radio"/>	Cl- Residual mg/L -	Sample ID# 7432 Comment NO COLIFORM or E. COLI DETECTED				
Sample Collector Name PAUL SEEGERLT	Date Collected 3-9-20	Time Collected 01:15:00 PM					
System/ Owner Name MORENOI	Collection Site (street address) 485 W. MAIN WELL #2		Incubator Time In: 15:09 Out: 15:10	Analyst SM	A TRUE COPY VILLAGE OF BLISSFIELD WTP		
City/Twp. MORENOI	State MI	County LELAWEE	Zip 49256				
Sampling Point (kitchen, bath, etc.) WELL # 2-LAW	Phone Number 517.458.6828		Received in Lab Date: 3/9/20 Time: 15:01	Result Coliform NEG	MF	HPC	E. coli Enumeration
REPORT RESULTS TO: (please print)							
Name CITY OF MORENOI	BACTERIOLOGICAL						
Address 118 ORCHARD STREET	CHEMICAL						
City MORENOI	State MI	Zip 49256	Chlorine				
Signature Paul D. Seeger	PD	CH	PS	PL	TX	FX	Fluoride
	Nitrate						

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DRINKING WATER ANALYSIS				DO NOT WRITE IN SHADED AREA (LABORATORY USE ONLY)			
Village of Blissfield W.T.P. Laboratory MDEQ ID#0750 1330 Beamer Rd. Blissfield, MI. 49228 (517) 486-3350							
COMPLETE FOR ALL SAMPLES (Please Print)							
WSSN or Pool ID# 004490	Chlorinated? Yes <input checked="" type="radio"/> No <input type="radio"/>	Cl- Residual mg/L -	Sample ID# 7431 Comment NO COLIFORM or E. COLI DETECTED				
Sample Collector Name PAUL SEEGERLT	Date Collected 3-9-20	Time Collected 01:45 PM					
System/ Owner Name MORENOI	Collection Site (street address) 485 W. MAIN WELL #1		Incubator Time In: 15:01 Out: 15:10	Analyst SM	A TRUE COPY VILLAGE OF BLISSFIELD WTP		
City/Twp. MORENOI	State MI	County LELAWEE	Zip 49256				
Sampling Point (kitchen, bath, etc.) WELL # 1-LAW	Phone Number 517.458.6828		Received in Lab Date: 3/9/20 Time: 15:01	Result Coliform NEG	MF	HPC	E. coli Enumeration
REPORT RESULTS TO: (please print)							
Name CITY OF MORENOI	BACTERIOLOGICAL						
Address 118 ORCHARD STREET	CHEMICAL						
City MORENOI	State MI	Zip 49256	Chlorine				
Signature Paul D. Seeger	PD	CH	PS	PL	TX	FX	Fluoride
	Nitrate						

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