

ADRIAN WWTP

INFLUENT SHEET

ADRIAN, MICHIGAN

JUNE 2020

DAY	CHEMICALS ADDED FeCl <sub>3</sub> Gals.	FLOW		BOD <sub>5</sub>	
		TOTAL	MAX RATE	mg/L	Lbs.
		MGD	MGD	00310	85001
1	600	5.022	8.0	162	6785
2	450	5.019	7.8	154	6446
3	350	4.960	7.6	156	6453
4	340	5.049	8.0	177	7453
5	290	4.748	7.0	162	6415
6	270	4.574	6.5	162	6180
7	280	4.576	7.4	171	6526
8	270	4.437	6.8	199	7364
9	260	4.523	7.5	208	7846
10	310	4.924	11.1	226	9281
11	390	4.411	6.8	152	5592
12	400	4.383	7.1	176	6434
13	380	4.329	7.2	179	6463
14	390	4.099	6.7	178	6085
15	370	4.327	6.9	217	7831
16	420	4.386	7.4	182	6657
17	530	4.366	7.3	198	7210
18	580	4.336	7.2	208	7522
19	520	4.165	7.0	165	5731
20	270	3.949	6.8	187	6159
21	260	3.995	6.2	222	7397
22	230	4.219	6.1	216	7600
23	230	4.882	10.7	221	8998
24	460	4.172	7.1	181	6298
25	780	4.125	6.9	171	5883
26	990	4.253	7.0	214	7591
27	880	7.177	20.1	214	12809
28	900	4.307	7.5	166	5963
29	800	4.320	7.4	178	6413
30	600	4.317	7.4	203	7309
TOTAL	13800	136.350		5605	212693
AVERAGE	460	4.545		187	7090

ADRIAN WWTP

## INFLUENT SHEET

ADRIAN, MICHIGAN

JUNE 2020

DAY	SUS. SOLIDS		VOLATILE SS mg/L 00535	pH SU 00400	T. PHOSPHORUS		AMMONIA-N	
	mg/L 00530	Lbs. 8500			mg/L 00665	Lbs. 85004	mg/L 00611	Lbs. 81020
1	146	6115	130	7.2	3.4	142	23.5	984
2	144	6028	122	7.2	3.4	142	17.3	724
3	126	5212	114	7.3	3.5	145	15.2	629
4	134	5643	126	7.3	4.0	168	24.2	1019
5	124	4910	116	7.4				
6	146	5569	140	7.5				
7	156	5954	146	7.3	3.8	145	16.3	622
8	176	6513	162	7.2	4.2	155	18.1	670
9	176	6639	162	7.2	4.1	155	21.6	815
10	255	10472	202	7.4	4.6	189	19.0	780
11	116	4267	104	7.3	3.5	129	16.0	589
12	126	4606	120	7.2				
13	126	4549	124	7.1				
14	138	4718	126	7.4	4.1	140	18.8	643
15	168	6063	152	7.1	4.6	166	20.4	736
16	174	6365	144	7.0	4.0	146	17.6	644
17	174	6336	164	7.0	4.0	146	18.2	663
18	158	5714	150	7.1	4.4	159	19.4	702
19	154	5349	146	7.3				
20	153	5039	149	7.0				
21	142	4731	134	7.0	4.6	153	24.7	823
22	218	7671	198	7.2	5.0	176	26.6	936
23	248	10098	216	7.2	4.6	187	23.3	949
24	130	4523	126	7.2	4.3	150	27.3	950
25	154	5298	136	7.2	4.5	155	28.1	967
26	162	5746	154	7.4				
27	296	17717	212	7.1				
28	118	4239	110	7.2	3.2	115	19.5	700
29	126	4540	116	7.2	3.6	130	20.0	721
30	140	5041	130	7.1	4.0	144	23.3	839
TOTAL		185662	4331		89.4	3338	458.4	17103
AVERAGE	160	6189	144	7.2	4.1	152	20.8	777

## PRIMARY EFFLUENT SHEET

ADRIAN, MICHIGAN

JUNE 2020

DAY	FLOW		BOD <sub>5</sub>		SUS. SOLIDS		VSS	T. PHOSPHORUS		AMMONIA-N		PRIMARY SLUDGE Kgal
	MGD		mg/L	Lbs.	mg/L	Lbs.	mg/L	mg/L	Lbs.	mg/L	Lbs.	
	1-4	5-7	00310	85001	00530	85002	00535	00665	85004	00610	81019	
1	2.960	2.278	56	2446	44	1922	42	1.0	44	15.6	681	81
2	2.962	2.268	54	2355	46	2006	30	1.2	52	12.5	545	88
3	2.948	2.236	56	2421	32	1384	30	1.5	65	11.2	484	86
4	3.007	2.296	66	2919	28	1238	28	1.6	71	13.1	579	81
5	2.810	2.132	62	2555	10	412	10					84
6	2.716	2.059	70	2788	30	1195	30					83
7	2.723	2.065	74	2955	32	1278	32	2.0	80	11.6	463	79
8	2.623	2.001	81	3124	44	1697	40	2.1	81	13.3	513	77
9	2.689	2.061	76	3011	48	1902	44	2.3	91	15.2	602	75
10	2.910	2.234	78	3346	42	1802	28	2.2	94	13.4	575	75
11	2.629	1.986	56	2155	28	1078	26	1.7	65	11.1	427	72
12	2.615	1.980	70	2683	30	1150	30					69
13	2.567	1.952	64	2412	30	1131	28					76
14	2.437	1.854	62	2219	34	1217	32	1.9	68	13.7	490	81
15	2.565	1.963	78	2946	34	1284	30	2.0	76	14.8	559	81
16	2.618	2.004	65	2506	42	1619	26	2.0	77	13.3	513	80
17	2.621	1.992	64	2462	80	3078	70	1.6	62	13.6	523	82
18	2.604	1.972	68	2595	40	1527	36	1.7	65	15.0	572	74
19	2.486	1.888	60	2189	44	1605	44					78
20	2.347	1.796	77	2661	40	1382	40					76
21	2.379	1.820	98	3432	46	1611	42	2.7	95	19.7	690	77
22	2.507	1.907	92	3387	44	1620	42	3.3	121	20.0	736	76
23	2.918	2.205	90	3845	44	1880	42	3.2	137	18.7	799	64
24	2.483	1.891	70	2554	22	803	22	2.6	95	20.2	737	76
25	2.465	1.871	52	1880	28	1013	26	1.5	54	18.9	683	77
26	2.521	1.936	58	2156	24	892	24					66
27	4.240	3.229	62	3862	50	3115	50					58
28	2.643	1.859	70	2628	38	1427	36	0.7	26	14.7	552	61
29	2.652	1.886	64	2422	30	1135	30	1.0	36	14.3	541	60
30	2.648	1.895	71	2690	36	1364	36	0.9	34	16.5	625	61
TOTAL	81.293	61.516	2064	81604	1120	44763	1026	40.7	1589	330.4	12892	
AVERAGE	2.710	2.051	69	2720	37	1492	34	1.8	72	15.0	586	75

ADRIAN WWTP

## EAST ACTIVATED SLUDGE SHEET

ADRIAN, MICHIGAN

JUNE 2020

DAY	AERATION	DETENTION	SLUDGE	ORGANIC	AIR	D.O.	SS	MIXED LIQUOR			S.S.	RETURN ACTIVATED SLUDGE		WASTE	
	VOLUME	TIME	AGE	LOADING	SUPPLIED		mg/L	VSS	SETTLED	SDI	mg/L	V.S.S.	RETURN	RETURN	SLUDGE
	KCF	HOURS	DAYS	F-M	MIL CU. FT.			mg/L	%	%		mg/L	MGD	%	Kgal.
	80993	81001	80990	80992	81000	00300	70323	70323	81004	81007	81006	70325			80991
1	144	8.7	9.9	0.17	3.1	9.6	1200	886	10	1.20	2620	1946	2.516	85	68
2	144	8.7	9.1	0.17	2.9	9.4	1150	859	12	0.96	3240	2456	2.304	78	57
3	144	8.8	16.2	0.14	2.9	9.3	1420	1092	10	1.42	2640	2026	2.381	81	61
4	144	8.6	16.4	0.19	3.0	9.2	1280	980	10	1.28	2610	2004	2.542	85	69
5	144	9.2	42.2	0.19	3.0	9.3	1100	840	10	1.10	2140	1616	2.674	95	65
6	144	9.5	9.3	0.32	3.0	9.2	700	546	10	0.70	1460	1156	2.679	99	70
7	144	9.5	14.0	0.21	3.1	9.4	1130	880	10	1.13	2000	1554	2.683	99	69
8	144	9.9	9.6	0.26	3.0	9.1	1030	771	11	0.94	2080	1616	2.373	90	62
9	144	9.6	10.7	0.19	2.9	8.7	1280	975	10	1.28	2400	1842	2.018	75	50
10	144	8.9	13.1	0.17	2.8	8.4	1490	1223	11	1.35	3040	2492	1.986	68	50
11	144	9.8	16.7	0.16	3.0	8.9	1140	866	11	1.04	2520	1964	2.491	95	65
12	144	9.9	17.8	0.16	3.1	9.2	1300	1055	10	1.30	1980	1616	2.357	90	62
13	144	10.1	14.7	0.16	3.2	9.6	1050	932	10	1.05	1900	1426	1.393	54	52
14	144	10.6	17.0	0.13	3.2	9.7	1310	1066	10	1.31	1200	1028	1.396	57	55
15	144	10.1	12.1	0.25	3.2	9.8	980	745	10	0.98	1160	916	1.558	61	47
16	144	9.9	9.7	0.21	3.2	9.7	990	748	10	0.99	1680	1276	1.404	54	35
17	144	9.9	5.3	0.20	3.1	9.7	1030	788	10	1.03	2000	1536	1.399	53	101
18	144	9.9	9.8	0.23	3.1	9.4	950	712	9	1.06	1580	1176	1.942	75	91
19	144	10.4	8.3	0.22	3.0	8.8	840	637	8	1.05	1580	1200	2.394	96	38
20	144	11.0	10.3	0.24	3.0	8.7	900	709	8	1.13	1620	1280	2.392	102	41
21	144	10.9	9.3	0.29	3.0	8.9	940	740	9	1.04	1980	1556	2.394	101	41
22	144	10.3	8.8	0.30	3.0	8.1	900	706	9	1.00	1800	1422	2.671	107	50
23	144	8.9	8.1	0.33	3.0	7.7	960	740	10	0.96	1640	1264	2.691	92	59
24	144	10.4	23.1	0.18	3.0	8.8	1170	904	10	1.17	1840	1416	2.690	108	60
25	144	10.5	15.0	0.16	3.0	8.8	960	727	11	0.87	2120	1656	2.689	109	60
26	144	10.3	19.4	0.17	2.9	8.9	1090	821	11	0.99	1800	1364	2.656	105	60
27	144	6.1	4.8	0.33	2.7	9.3	950	736	11	0.86	1900	1506	2.688	63	60
28	144	9.8	12.3	0.19	2.8	9.2	1150	896	11	1.05	2300	1760	2.689	102	60
29	144	9.7	14.2	0.20	2.8	9.2	1050	793	12	0.88	1960	1476	2.692	102	60
30	144	9.8	13.9	0.18	2.8	9.1	1230	966	12	1.03	2200	1740	2.692	102	60
AVERAGE	144	9.7	13.4	0.21	3.0	9.1	1089	845	10	1.07	2033	1576	2.314	86	59

ADRIAN WWTP

WEST #1 ACTIVATED SLUDGE SHEET

ADRIAN, MICHIGAN

JUNE 2020

DAY	AERATION	DETENTION	SLUDGE	ORGANIC	AIR	D.O.	SS	MIXED LIQUOR			S.S.	RETURN ACTIVATED SLUDGE		WASTE	
	VOLUME	TIME	AGE	LOADING	SUPPLIED		mg/L	VSS	SETTLED	SDI	mg/L	V.S.S.	RETURN	RETURN	SLUDGE
	KCF	HOURS	DAYS	F-M	MIL CU. FT.			mg/L	%	%		mg/L	MGD	%	Kgal.
	80993	81001	80990	80992	81000	00300	70323	70323	81004	81007	81006	70325			80991
1	61	9.6	8.7	0.20	1.0	10.0	960	689	9	1.07	1720	1240	1.195	105	34
2	61	9.7	17.7	0.09	1.0	9.9	2020	1490	9	2.24	1480	1084	1.196	105	34
3	61	9.8	13.0	0.18	1.0	9.8	1020	764	8	1.28	1860	1452	1.198	107	34
4	61	9.5	14.3	0.22	1.0	9.7	1010	772	9	1.12	1900	1500	1.195	104	34
5	61	10.3	34.2	0.25	1.0	9.8	800	579	9	0.89	1600	1230	1.197	112	32
6	61	10.6	13.3	0.24	1.0	9.8	900	672	9	1.00	1660	1270	1.197	116	30
7	61	10.6	11.0	0.28	1.0	9.8	800	602	9	0.89	1400	1056	1.194	116	30
8	61	10.9	10.2	0.24	1.0	9.6	980	730	9	1.09	1600	1262	1.194	119	29
9	61	10.6	7.4	0.29	1.0	9.6	800	590	9	0.89	1500	1166	1.194	116	28
10	61	9.8	11.0	0.21	0.9	9.4	1130	920	9	1.26	1700	1406	1.196	107	28
11	61	11.0	13.5	0.20	1.0	9.6	820	600	10	0.82	1360	998	1.196	120	27
12	61	11.1	15.5	0.19	1.0	9.1	1010	809	9	1.12	1640	1302	1.197	121	27
13	61	11.2	16.5	0.16	1.0	8.0	1060	860	8	1.33	1520	1130	1.198	123	29
14	61	11.8	15.9	0.14	1.0	8.5	1100	892	9	1.22	1900	1548	1.196	129	28
15	61	11.2	14.2	0.21	1.0	7.9	1040	816	10	1.04	1780	1394	1.195	122	28
16	61	10.9	9.3	0.22	1.0	8.0	860	662	10	0.86	1880	1454	1.196	119	29
17	61	11.0	5.4	0.19	1.0	8.4	940	730	10	0.94	2220	1738	1.194	120	29
18	61	11.1	10.8	0.20	1.0	8.2	930	723	11	0.85	2320	1802	1.197	121	28
19	61	11.6	10.8	0.16	1.0	9.2	980	767	11	0.89	1720	1346	1.198	127	26
20	61	12.2	11.9	0.21	1.0	9.1	940	732	12	0.78	1680	1298	1.197	133	27
21	61	12.0	10.4	0.23	1.0	9.3	950	837	13	0.73	1320	1000	1.197	132	27
22	61	11.5	10.0	0.27	1.0	8.8	920	720	13	0.71	1460	1160	1.198	126	27
23	61	9.9	8.7	0.31	1.0	8.7	920	707	13	0.71	1480	1136	1.195	108	27
24	61	11.6	21.7	0.19	1.0	9.5	990	764	13	0.76	1520	1172	1.197	127	25
25	61	11.7	17.4	0.14	1.0	9.4	1000	760	14	0.71	1360	1032	1.196	128	25
26	61	11.3	16.3	0.20	1.0	9.4	830	614	14	0.59	1440	1068	1.167	121	24
27	61	6.8	4.8	0.34	0.9	9.8	850	653	13	0.65	1440	1108	1.193	74	23
28	61	11.8	11.6	0.21	0.9	9.8	900	680	12	0.75	1440	1080	1.198	129	22
29	61	11.6	15.0	0.19	0.9	9.7	930	708	13	0.72	1720	1306	1.196	127	23
30	61	11.6	11.6	0.22	0.9	9.5	870	665	13	0.67	1280	980	1.195	126	22
AVERAGE	61	10.8	13.1	0.21	1.0	9.2	975	750	11	0.95	1630	1257	1.195	118	28

ADRIAN WWTP

WEST #2 ACTIVATED SLUDGE SHEET

ADRIAN, MICHIGAN

JUNE 2020

DAY	AERATION	DETENTION	SLUDGE	ORGANIC	AIR	D.O.	SS	MIXED LIQUOR			S.S.	RETURN ACTIVATED SLUDGE		WASTE	
	VOLUME	TIME	AGE	LOADING	SUPPLIED		mg/L	VSS	SETTLED	SDI	mg/L	V.S.S.	RETURN	RETURN	SLUDGE
	KCF	HOURS	DAYS	F-M	MIL CU. FT.			mg/L	%	%		mg/L	MGD	%	Kgal.
	80993	81001	80990	80992	81000	00300	70323	70323	81004	81007	81006	70325			80991
1	61	9.6	10.4	0.17	1.0	9.8	1140	819	9	1.27	1840	1316	1.202	106	33
2	61	9.7	10.6	0.15	0.9	9.9	1210	907	9	1.34	2100	1540	1.203	106	34
3	61	9.8	14.3	0.16	0.9	9.7	1120	848	9	1.24	1400	1114	1.203	108	34
4	61	9.5	14.1	0.22	0.9	9.7	990	757	9	1.10	1920	1490	1.203	105	34
5	61	10.3	37.2	0.22	0.9	9.8	870	656	9	0.97	1520	1104	1.204	113	32
6	61	10.6	13.0	0.24	0.9	9.5	880	653	9	0.98	1200	924	1.203	117	30
7	61	10.6	11.7	0.26	1.0	9.8	850	638	10	0.85	1560	1158	1.203	117	30
8	61	10.9	8.6	0.30	1.0	9.6	830	602	9	0.92	1500	1146	1.203	120	30
9	61	10.6	8.3	0.25	0.9	9.3	900	677	7	1.29	1360	1020	1.204	117	28
10	61	9.8	11.9	0.19	0.9	9.2	1220	992	9	1.36	2000	1644	1.204	108	27
11	61	11.0	15.1	0.18	1.0	9.5	920	668	10	0.92	1440	1066	1.204	121	27
12	61	11.1	16.7	0.17	1.0	8.9	1090	870	9	1.21	1600	1260	1.203	122	28
13	61	11.2	18.9	0.14	1.0	8.0	1210	987	10	1.21	2520	1992	1.204	123	29
14	61	11.8	16.9	0.13	1.0	8.5	1170	938	10	1.17	2220	1790	1.203	130	29
15	61	11.2	14.5	0.20	1.0	7.8	1060	826	10	1.06	2040	1600	1.204	123	29
16	61	10.9	11.1	0.18	1.0	7.8	1020	788	11	0.93	2180	1682	1.204	120	27
17	61	11.0	5.9	0.18	1.0	8.2	1030	794	12	0.86	2500	1946	1.204	121	26
18	61	11.1	12.5	0.18	0.9	8.2	1080	838	12	0.90	2580	1994	1.205	122	24
19	61	11.6	12.2	0.14	0.9	9.1	1110	866	13	0.85	2020	1556	1.206	128	22
20	61	12.2	14.1	0.18	0.9	9.0	1110	863	14	0.79	2020	1560	1.206	134	23
21	61	12.0	12.0	0.23	0.9	9.1	1100	848	14	0.79	1700	1286	1.206	133	22
22	61	11.5	12.5	0.21	0.9	8.8	1150	903	13	0.88	1460	1160	1.198	126	22
23	61	9.9	12.7	0.21	1.0	8.8	1350	1040	14	0.96	2000	1538	1.205	109	25
24	61	11.6	23.5	0.18	1.0	9.5	1070	823	14	0.76	2000	1534	1.206	128	23
25	61	11.7	19.9	0.12	1.0	9.3	1140	868	15	0.76	1900	1434	1.205	129	25
26	61	11.3	21.0	0.15	0.9	9.4	1070	804	15	0.71	1980	1480	1.176	121	25
27	61	6.8	5.6	0.29	0.9	9.7	990	763	14	0.71	1880	1420	1.198	74	26
28	61	11.8	12.7	0.20	0.9	9.7	980	728	14	0.70	1980	1622	1.204	130	25
29	61	11.6	20.2	0.14	0.9	9.5	1250	956	15	0.83	1920	1450	1.204	128	25
30	61	11.6	12.7	0.20	0.9	9.6	950	725	14	0.68	1560	1188	1.204	127	26
AVERAGE	61	10.8	14.4	0.19	0.9	9.2	1062	815	11	0.97	1863	1434	1.203	119	27

ADRIAN WWTP

## EFFLUENT SHEET

ADRIAN, MICHIGAN

JUNE 2020

DAY	FLOW		CBOD <sub>5</sub>		SUSPENDED SOLIDS			V.S.S.	pH
	MGD 50050	mg/L 80082	Lbs. 80082	% Rem 80091	mg/L 00530	Lbs. 00530	% Rem 81011	mg/L 00535	SU 00400
1	3.906	1.2	39	99	2	65	99	2	7.2
2	3.789	2.2	70	99	2	63	99	2	7.2
3	3.371	2.6	73	98	2	56	98	2	7.2
4	3.484	2.7	78	98	2	58	99	2	7.3
5	3.597	2.6	78	98	1	30	99	1	7.2
6	3.247	2.4	65	99	2	54	99	2	7.1
7	3.263	2.2	60	99	1	27	99	1	7.1
8	3.589	1.7	51	99	1	30	99	1	7.2
9	3.323	1.9	53	99	3	83	98	2	7.2
10	3.595	1.6	48	99	2	60	99	1	7.0
11	3.174	2.3	61	98	2	53	98	2	7.0
12	3.627	0.0	0	100	2	60	98	2	7.1
13	3.217	0.7	19	100	2	54	98	2	7.0
14	2.999	2.6	65	99	3	75	98	3	7.2
15	3.406	1.8	51	99	2	57	99	1	7.0
16	3.234	2.2	59	99	1	27	99	1	6.9
17	2.867	3.0	72	98	1	24	99	1	6.9
18	3.013	2.6	65	99	1	25	99	1	6.9
19	2.802	3.6	84	98	1	23	99	1	7.0
20	2.805	4.2	98	98	1	23	99	1	7.2
21	2.949	2.4	59	99	1	25	99	1	7.1
22	3.156	3.0	79	99	2	53	99	1	7.0
23	3.738	2.3	72	99	1	31	100	1	7.0
24	3.129	3.4	89	98	1	26	99	1	7.0
25	3.001	4.4	110	97	1	25	99	1	7.0
26	3.145	5.3	139	98	2	52	99	2	7.8
27	5.851	3.8	185	98	2	98	99	2	6.8
28	3.288	4.3	118	97	1	27	99	1	7.2
29	3.190	3.6	96	98	2	53	98	2	7.1
30	3.102	3.2	83	98	1	26	99	1	7.1
TOTAL	100.857	79.8	2219		48	1365			
AVERAGE	3.362	2.7	74	98.6	2	45	98.9	1	7.1

ADRIAN WWTP

EFFLUENT SHEET

ADRIAN, MICHIGAN

JUNE 2020

DAY	TOTAL PHOSPHORUS			AMMONIA-N			TEMP °F	D.O. mg/L 00300	FECAL COLIFORM cts/100 mL 74055	AvCN	
	mg/L 00665	Lbs. 00665	% Rem 81012	mg/L 00610	Lbs. 00610	% Rem				ug/L 01257	Lbs. 01257
1	0.63	21	81	0.11	4	100	60	8.4	5		
2	0.58	18	83	0.08	3	100	65	7.7	*G		
3	0.78	22	78	0.07	2	100	64	7.8	3		
4	0.83	24	79	0.06	2	100	65	7.7	0		
5							65	7.3	2		
6							63	7.4	3		
7	1.11	30	71	0.07	2	100	63	7.5	0		
8	1.03	31	75	0.06	2	100	63	7.6	2		
9	1.11	31	73	0.06	2	100	64	7.5	0		
10	1.18	35	74	0.07	2	100	69	6.9	2		
11	1.09	29	69	0.06	2	100	64	7.6	1		
12							66	7.1	0		
13							65	7.3	0		
14	0.98	25	76	0.06	2	100	63	7.9	5		
15	0.96	27	79	0.05	1	100	64	7.7	24		
16	1.01	27	75	0.05	1	100	66	7.3	3		
17	0.90	22	78	0.04	1	100	66	7.3	4		
18	0.89	22	80	0.04	1	100	65	7.6	1		
19							66	7.4	5		
20							70	7.3	1		
21	0.92	23	80	0.03	1	100	69	7.1	0		
22	1.25	33	75	0.03	1	100	69	7.0	1		
23	1.53	48	67	0.03	1	100	69	7.4	0		
24	1.57	41	63	0.06	2	100	66	7.7	2		
25	1.35	34	70	0.04	1	100	66	7.3	1	<2.0	<0.05
26							67	7.3	1		
27							69	7.1	34		
28	0.39	11	88	0.05	1	100	69	7.5	1		
29	0.28	7	92	0.05	1	100	68	8.0	0		
30	0.31	8	92	0.06	2	100	68	7.6	1		
TOTAL	20.68	568		1.23	34						
AVERAGE	0.94	26	77	0.06	2	100	66	7.5	1		



ADRIAN WWTP

THICKENER SLUDGE

ADRIAN, MICHIGAN

JUNE 2020

DAY	THICKENER #1				THICKENER #2			
	FLOW KGAL	pH SU	SOLIDS %	VOL. SOLIDS %	FLOW KGAL	pH SU	SOLIDS %	VOL. SOLIDS %
1	00S	00S	00S	00S	11.3	5.5	4.39	74
2	00S	00S	00S	00S	12.2	5.6	4.23	74
3	00S	00S	00S	00S	12.5	5.3	4.01	74
4	00S	00S	00S	00S	11.8	5.3	3.83	74
5	00S	00S	00S	00S	11.6	5.2	3.77	75
6	00S	00S	00S	00S	11.9	5.1	4.39	75
7	00S	00S	00S	00S	11.8	5.1	4.29	76
8	00S	00S	00S	00S	12.0	5.1	4.80	77
9	00S	00S	00S	00S	11.8	5.0	4.54	77
10	00S	00S	00S	00S	12.2	5.0	4.34	77
11	00S	00S	00S	00S	12.4	5.6	4.45	78
12	00S	00S	00S	00S	12.4	5.6	4.80	77
13	00S	00S	00S	00S	11.8	5.8	4.34	77
14	00S	00S	00S	00S	11.8	5.4	4.62	77
15	00S	00S	00S	00S	13.2	5.6	4.48	77
16	00S	00S	00S	00S	13.2	5.8	3.06	76
17	00S	00S	00S	00S	13.0	5.8	3.10	77
18	00S	00S	00S	00S	13.6	5.0	3.47	77
19	00S	00S	00S	00S	15.4	5.0	3.48	76
20	00S	00S	00S	00S	16.0	5.1	3.32	76
21	00S	00S	00S	00S	15.4	4.9	3.43	76
22	00S	00S	00S	00S	15.7	6.0	3.89	67
23	00S	00S	00S	00S	14.6	6.6	2.85	67
24	00S	00S	00S	00S	15.8	5.0	3.22	77
25	00S	00S	00S	00S	19.3	5.0	3.34	78
26	00S	00S	00S	00S	21.6	5.2	2.99	77
27	00S	00S	00S	00S	23.4	no data	3.27	75
28	00S	00S	00S	00S	22.7	5.0	3.23	73
29	00S	00S	00S	00S	21.2	5.2	2.66	72
30	00S	00S	00S	00S	20.1	5.0	3.16	71
TOTAL	0.0				441.7			
AVERAGE	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	14.7	5.3	3.79	75

ADRIAN WWTP

PRIMARY SLUDGE

ADRIAN, MICHIGAN

JUNE 2020

DAY	PRIMARIES #1 - #4			PRIMARIES #5 - #7		
	pH SU	SOLIDS %	VOL. SOLIDS %	pH SU	SOLIDS %	VOL. SOLIDS %
1						
2						
3	7.2	0.21	53	6.8	0.80	73
4						
5						
6						
7						
8						
9						
10	6.3	0.21	50	6.4	1.32	89
11						
12						
13						
14						
15						
16						
17	6.8	0.27	59	6.0	1.34	70
18						
19						
20						
21						
22						
23						
24	6.7	0.56	71	6.7	0.89	75
25						
26						
27						
28						
29						
30						
AVERAGE	6.8	0.31	58	6.5	1.09	77

## ADRIAN WWTP

## DIGESTED SLUDGE

## ADRIAN, MICHIGAN

JUNE 2020

DAY	#	FLOW KGAL.	pH SU	SOLIDS %	SOLIDS VOL. %
1					
2					
3					
4	2	36.0	7.2	4.31	58
5	4	55.2	7.1	3.77	58
6	6	45.6	7.2	4.37	58
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18	2	63.0	7.2	4.26	58
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30	6	100.8	7.2	4.40	56
TOTAL		300.6			

CITY OF ADRIAN  
 135 E. Maumee St.  
 ADRIAN, MICHIGAN  
 JUNE 2020

DISCHARGE MONITORING REPORT DAILY MONITORING

CARL NELSON WASTEWATER TREATMENT PLANT  
 1001 OAKWOOD RD ADRIAN, MI 49221

DISCHARGE NUMBER  
 001 A

PARA#	50050	80082	80082	00530	00530	00665	00610	00610	00400	00300	74055
PARA	FLOW	CBOD	CBOD	SS	SS	PHOSPHORUS	AMMONIA	AMMONIA	pH	D.O.	FECAL
LIMIT	REPORT					1.0			6.5-9.0	≥ 6.0	cts/
DAY	MGD	mg/L	Lbs.	mg/L	Lbs.	mg/L	mg/L	Lbs.	S.U.	mg/L	100 mL
1	3.906	1.2	39	2	65	0.63	0.11	4	7.2	8.4	5
2	3.789	2.2	70	2	63	0.58	0.08	3	7.2	7.7	*G
3	3.371	2.6	73	2	56	0.78	0.07	2	7.2	7.8	3
4	3.484	2.7	78	2	58	0.83	0.06	2	7.3	7.7	0
5	3.597	2.6	78	1	30				7.2	7.3	2
6	3.247	2.4	65	2	54				7.1	7.4	3
7	3.263	2.2	60	1	27	1.11	0.07	2	7.1	7.5	0
8	3.589	1.7	51	1	30	1.03	0.06	2	7.2	7.6	2
9	3.323	1.9	53	3	83	1.11	0.06	2	7.2	7.5	0
10	3.595	1.6	48	2	60	1.18	0.07	2	7.0	6.9	2
11	3.174	2.3	61	2	53	1.09	0.06	2	7.0	7.6	1
12	3.627	0.0	0	2	60				7.1	7.1	0
13	3.217	0.7	19	2	54				7.0	7.3	0
14	2.999	2.6	65	3	75	0.98	0.06	2	7.2	7.9	5
15	3.406	1.8	51	2	57	0.96	0.05	1	7.0	7.7	24
16	3.234	2.2	59	1	27	1.01	0.05	1	6.9	7.3	3
17	2.867	3.0	72	1	24	0.90	0.04	1	6.9	7.3	4
18	3.013	2.6	65	1	25	0.89	0.04	1	6.9	7.6	1
19	2.802	3.6	84	1	23				7.0	7.4	5
20	2.805	4.2	98	1	23				7.2	7.3	1
21	2.949	2.4	59	1	25	0.92	0.03	1	7.1	7.1	0
22	3.156	3.0	79	2	53	1.25	0.03	1	7.0	7.0	1
23	3.738	2.3	72	1	31	1.53	0.03	1	7.0	7.4	0
24	3.129	3.4	89	1	26	1.57	0.06	2	7.0	7.7	2
25	3.001	4.4	110	1	25	1.35	0.04	1	7.0	7.3	1
26	3.145	5.3	139	2	52				7.8	7.3	1
27	5.851	3.8	185	2	98				6.8	7.1	34
28	3.288	4.3	118	1	27	0.39	0.05	1	7.2	7.5	1
29	3.190	3.6	96	2	53	0.28	0.05	1	7.1	8.0	0
30	3.102	3.2	83	1	26	0.31	0.06	2	7.1	7.6	1
TOTAL	100.857	79.8	2219	48	1365	20.68	1.23	34			
MAX	5.851	5.3	185	3	98	1.57	0.11	4	7.8	8.4	
MIN	2.802	0.0	0	1	23	0.28	0.03	1	6.8	6.9	
AVE	3.362	2.7	74	2	45	0.94	0.06	2	7.1	7.5	1

**PERMITTEE NAME:** Adrian WWTP  
**MAILING ADDRESS:** 135 E. Maumee St.  
Adrian, MI 49221  
**FACILITY:** Adrian WWTP  
**LOCATION:** 1001 Oakwood Road  
Adrian, MI 49221

**PERMIT NUMBER:** MI0022152  
**DISTRICT:** Jackson  
**COUNTY:** Lenawee  
**MONITORING POINT:** 001A  
**MONITORING PERIOD:** 2020-06-01 To 2020-06-30

Parameter	Flow 50050	Total Suspended Solids 00530	Total Suspended Solids 00530	Total Suspended Solids 00530	Total Suspended Solids 00530	Carbonaceous Biochemical Oxygen Demand (CBOD5) 80082	Carbonaceous Biochemical Oxygen Demand (CBOD5) 80082	Carbonaceous Biochemical Oxygen Demand (CBOD5) 80082	Ammonia Nitrogen (as N) 00610	Ammonia Nitrogen (as N) 00610	Ammonia Nitrogen (as N) 00610	Total Phosphorus (as P) 00665	Total Phosphorus (as P) 00665	Available Cyanide 01257	Available Cyanide 01257
Stage	Final Effluent (1)	Prior to Disinfection (B)	Prior to Disinfection (B)	Conventional Daily	Conventional Daily	Prior to Disinfection (B)	Prior to Disinfection (B)	Conventional Daily	Prior to Disinfection (B)	Prior to Disinfection (B)	Conventional Daily	Prior to Disinfection (B)	Prior to Disinfection (B)	Final Effluent (1)	Final Effluent (1)
Limit	(Report)MGD	30 mg/L	1800 lbs/day	(Report)mg/L	(Report) lbs/day	10 mg/L	580 lbs/day	(Report) lbs/day	2.0 mg/L	120 lbs/day	(Report) lbs/day	(Report)mg/L	(Report) lbs/day	(Report) ug/L	(Report) lbs/day
Stat Base	Maximum Daily	Maximum 7-Day Average	Maximum 7-Day Average	Maximum Daily	Maximum Daily	Maximum Daily	Maximum 7-Day Average	Maximum Daily	Maximum Daily	Maximum 7-Day Average	Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily
1	3.906			2	65	1.2		39	0.11		4	0.63	21		
2	3.789			2	63	2.2		70	0.08		3	0.58	18		
3	3.371			2	56	2.6		73	0.07		2	0.78	22		
4	3.484			2	58	2.7		78	0.06		2	0.83	24		
5	3.597			1	30	2.6		78							
6	3.247			2	54	2.4		65							
7	3.263	2	51	1	27	2.2	66	60	0.07	2	2	1.11	30		
8	3.589	2	46	1	30	1.7	68	51	0.06	1	2	1.03	31		
9	3.323	2	48	3	83	1.9	65	53	0.06	1	2	1.11	31		
10	3.595	2	49	2	60	1.6	62	48	0.07	1	2	1.18	35		
11	3.174	2	48	2	53	2.3	59	61	0.06	1	2	1.09	29		
12	3.627	2	53	2	60	<1	48	<30		1					
13	3.217	2	52	2	54	0.7	42	19		1					
14	2.999	2	59	3	75	2.6	42	65	0.06	1	2	0.98	25		
15	3.406	2	63	2	57	1.8	42	51	0.05	1	1	0.96	27		
16	3.234	2	55	1	27	2.2	43	59	0.05	1	1	1.01	27		
17	2.867	2	50	1	24	3.0	47	72	0.04	1	1	0.90	22		
18	3.013	2	46	1	25	2.6	47	65	0.04	1	1	0.89	22		
19	2.802	2	41	1	23	3.6	59	84		1					
20	2.805	1	36	1	23	4.2	71	98		1					
21	2.949	1	29	1	25	2.4	70	59	0.03	1	1	0.92	23		
22	3.156	1	29	2	53	3.0	74	79	0.03	1	1	1.25	33		
23	3.738	1	29	1	31	2.3	76	72	0.03	1	1	1.53	48		
24	3.129	1	29	1	26	3.4	78	89	0.06	1	2	1.57	41		
25	3.001	1	29	1	25	4.4	84	110	0.04	1	1	1.35	34	<2.0	<0.05
26	3.145	1	34	2	52	5.3	92	139		1					
27	5.851	1	44	2	98	3.8	105	185		1					
28	3.288	1	45	1	27	4.3	113	118	0.05	1	1	0.39	11		
29	3.190	1	45	2	53	3.6	116	96	0.05	1	1	0.28	7		
30	3.102	1	44	1	26	3.2	117	83	0.06	1	2	0.31	8		

Total Mercury 71900	Total Mercury 71900	Total Mercury - uncorrected 7190a	Total Mercury - field duplicate 7190b	Total Mercury - field blank 7190c	Total Mercury - laboratory method blank 7190d	Fecal Coliform 74055	Fecal Coliform 74055	pH 00400	pH 00400	Dissolved Oxygen 00300
Final Effluent (1)	Final Effluent (1)	Mercury QA-Effluent	Mercury QA-Effluent	Mercury QA-Effluent	Mercury QA-Effluent	Final Effluent (1)	Fecal Daily	Final Effluent (1)	Final Effluent (1)	Final Effluent (1)
(Report) ng/L	(Report) lbs/day	(Report) ng/L	(Report) ng/L	(Report) ng/L	(Report) ng/L	400 #/100ml	(Report) #/100ml	6.5 SU	9.0 SU	6.0 mg/L
Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily	Max 7-Day Geometric Mean	Maximum Daily	Minimum Daily	Maximum Daily	Minimum Daily
*G	*G	*G	*G	*G	*G		5	7.2	7.2	8.4
							*G	7.2	7.2	7.7
							3	7.2	7.2	7.8
							<1	7.3	7.3	7.7
							2	7.2	7.2	7.3
							3	7.1	7.1	7.4
						1	<1	7.1	7.1	7.5
						1	2	7.2	7.2	7.6
						1	<1	7.2	7.2	7.5
						1	2	7.0	7.0	6.9
						1	<1	7.0	7.0	7.6
						1	<1	7.1	7.1	7.1
						0	<1	7.0	7.0	7.3
						1	5	7.2	7.2	7.9
						1	24	7.0	7.0	7.7
						1	3	6.9	6.9	7.3
						1	4	6.9	6.9	7.3
						1	<1	6.9	6.9	7.6
						3	5	7.0	7.0	7.4
						4	<1	7.2	7.2	7.3
						2	<1	7.1	7.1	7.1
						1	<1	7.0	7.0	7.0
						1	<1	7.0	7.0	7.4
						1	2	7.0	7.0	7.7
						1	<1	7.0	7.0	7.3
						1	<1	7.8	7.8	7.3
						1	34	6.8	6.8	7.1
						1	<1	7.2	7.2	7.5
						1	<1	7.1	7.1	8.0
						1	<1	7.1	7.1	7.6

**Michigan Department of Environmental Quality Discharge Monitoring Report (DMR)**

PERMITTEE NAME: Adrian WWTP  
 MAILING ADDRESS: 135 E. Maumee St.  
 Adrian, MI 49221  
 FACILITY: Adrian WWTP  
 LOCATION: 1001 Oakwood Road  
 Adrian, MI 49221

PERMIT NUMBER: M10022152  
 MONITORING POINT: 001A  
 Monitoring Period: 2020-06-01 To: 2020-06-30

DISTRICT: Jackson  
 COUNTY: Lenawee

NO DISCHARGE FROM SITE: ( )

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
		Average	Maximum		Minimum	Average	Maximum				
Flow PARAM CODE: 50050 Mon. Site No.: 001A Stage Code: 1	Sample Measurement	3.362	5.851	MGD	*****	*****	*****	*****	0	Daily	Report Total Daily Flow
	Permit Requirement	(report) Maximum Monthly Average	(report) Maximum Daily		*****	*****	*****		Daily	Report Total Daily Flow	
Total Suspended Solids PARAM CODE: 00530 Mon. Site No.: 001A Stage Code: 1	Sample Measurement	45	63	lbs/day	*****	2	2	mg/l	0	Daily	24-HR Composite
	Permit Requirement	1200 Maximum Monthly Average	1800 Maximum 7-Day Average		*****	20 Maximum Monthly Average	30 Maximum 7-Day Average		Daily	24-HR Composite	
Carbonaceous Biochemical Oxygen Demand (CBOD5) PARAM CODE: 80082 Mon. Site No.: 001A Stage Code: 1	Sample Measurement	74	117	lbs/day	*****	2.7	5.3	mg/l	0	Daily	24-HR Composite
	Permit Requirement	230 Maximum Monthly Average	580 Maximum 7-Day Average		*****	4 Maximum Monthly Average	10 Maximum Daily		Daily	24-HR Composite	
Ammonia Nitrogen (as N) PARAM CODE: 00610 Mon. Site No.: 001A Stage Code: 1	Sample Measurement	2	2	lbs/day	*****	0.06	0.11	mg/l	0	Daily	24-HR Composite
	Permit Requirement	29 Maximum Monthly Average	120 Maximum 7-Day Average		*****	0.5 Maximum Monthly Average	2.0 Maximum Daily		Daily	24-HR Composite	
Total Phosphorus (as P) PARAM CODE: 00665 Mon. Site No.: 001A Stage Code: 1	Sample Measurement	26	48	lbs/day	*****	0.94	1.57	mg/l	0	Daily	24-HR Composite
	Permit Requirement	58 Maximum Monthly Average	(Report) Maximum Daily		*****	1.0 Maximum Monthly Average	(Report) Maximum Daily		Daily	24-HR Composite	
Available Cyanide PARAM CODE: 01257 Mon. Site No.: 001A Stage Code: 1	Sample Measurement	0.000	0.000	lbs/day	*****	0.0	0.0	ug/l	0	Quarterly	Grab
	Permit Requirement	0.34 Maximum Monthly Average	(Report) Maximum Daily		*****	5.8 Maximum Monthly Average	(Report) Maximum Daily		Quarterly	Grab	
Total Mercury PARAM CODE: 71900 Mon. Site No.: 001A Stage Code: 1	Sample Measurement	*G	*G	lbs/day	*****	*G	*G	ng/l	0	Quarterly	Grab
	Permit Requirement	Maximum Monthly Average	(Report) Maximum Daily		*****	Maximum Monthly Average	(Report) Maximum Daily		Quarterly	Grab	
Name/Title of Principle Executive Officer Or Authorized Agent	I certify under penalty of law that I have personally examined and am familiar with the information submitted herein; and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.					Signature of Principal Executive Officer Or Authorized Agwnt		Telephone No	Date (YYYY-MM-DD)		
Ryan L. White WWTP Superintendent								517-264-4867	2020-07-10		

**Michigan Department of Environmental Quality Discharge Monitoring Report (DMR)**

PERMITTEE NAME: Adrian WWTP  
 MAILING ADDRESS: 135 E. Maumee St.  
 Adrian, MI 49221  
 FACILITY: Adrian WWTP  
 LOCATION: 1001 Oakwood Road  
 Adrian, MI 49221

PERMIT NUMBER: M10022152  
 MONITORING POINT: 001A

DISTRICT: Jackson  
 COUNTY: Lenawee

Monitoring Period: 2020-06-01 To: 2020-06-30

NO DISCHARGE FROM SITE: ( )

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
		Average	Maximum		Minimum	Average	Maximum				
Total Mercury PARAM CODE: 71900 Mon. Site No.: 001A Stage Code: X	Sample Measurement	*****	0.000024	lbs/day	*****	*****	0.66	ng/l	0	Quarterly	Grab
	Permit Requirement	*****	0.00012 12-Month Rolling Average		*****	*****	2.0 12-Month Rolling Average		Quarterly	Grab	
Fecal Coliform PARAM CODE: 74055 Mon. Site No.: 001A Stage Code: 1	Sample Measurement	*****	*****	*****	*****	1	4	cts/100 ml	0	Daily	Grab
	Permit Requirement	*****	*****		*****	200 Max Monthly Geometric Mean	400 Max 7-Day Geometric Mean		Daily	Grab	
pH PARAM CODE: 00400 Mon. Site No.: 001A Stage Code: 1	Sample Measurement	*****	*****	*****	6.8	*****	7.8	S.U.	0	5X Weekly	Grab
	Permit Requirement	*****	*****		6.5 Minimum Daily	*****	9.0 Maximum Daily		5X Weekly	Grab	
Dissolved Oxygen PARAM CODE: 00300 Mon. Site No.: 001A Stage Code: 1	Sample Measurement	*****	*****	*****	6.9	*****	*****	mg/l	0	5X Weekly	Grab
	Permit Requirement	*****	*****		6.0 Minimum Daily	*****	*****		5X Weekly	Grab	
Name/Title of Principle Executive Officer Or Authorized Agent	I certify under penalty of law that I have personally examined and am familiar with the information submitted herein; and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.					Signature of Principal Executive Officer Or Authorized Agent		Telephone No	Date (YYYY-MM-DD)		
Ryan L. White WWTP Superintendent								517-264-4867	2020-07-10		

When completed mail this report to: PCS-Data Entry, MDEQ-WD, P.O. Box 30273, Lansing, MI 48909-7773