

ADRIAN WWTP

INFLUENT SHEET

ADRIAN, MICHIGAN

APRIL 2020

DAY	CHEMICALS ADDED FeCl <sub>3</sub> Gals.	FLOW		BOD <sub>5</sub>	
		TOTAL	MAX RATE	mg/L	Lbs.
		MGD 50050	MGD 50051	00310	85001
1	0	5.781	8.6	110	5303
2	250	5.443	8.3	114	5175
3	260	5.380	7.1	128	5743
4	240	5.215	8.1	128	5567
5	250	5.128	7.7	138	5902
6	220	4.998	7.4	143	5961
7	230	6.159	10.8	140	7191
8	390	6.537	14.4	145	7905
9	270	5.698	8.7	106	5037
10	820	5.392	5.5	120	5396
11	340	5.028	5.4	128	5367
12	330	5.213	7.6	143	6217
13	300	5.567	8.3	147	6825
14	290	5.125	7.7	134	5727
15	280	5.159	7.9	152	6540
16	300	4.598	6.3	130	4985
17	400	5.307	8.1	78	3452
18	400	5.777	12.0	148	7131
19	380	5.332	7.7	114	5069
20	370	5.285	7.6	157	6920
21	250	5.239	7.2	140	6117
22	260	5.161	7.9	157	6758
23	240	5.202	7.6	144	6247
24	210	4.898	7.5	145	5923
25	190	5.712	13.4	155	7384
26	200	5.245	7.6	134	5862
27	190	5.142	7.3	145	6218
28	220	5.145	8.1	146	6265
29	190	5.313	8.5	156	6912
30	270	5.280	8.2	152	6693
TOTAL	8540	160.459		4077	181796
AVERAGE	285	5.349		136	6060

## ADRIAN WWTP

## INFLUENT SHEET

## ADRIAN, MICHIGAN

APRIL 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	108	5207	102	7.5	2.7	130	20.9	1008
2	108	4903	98	7.5	2.8	127	20.6	935
3	84	3769	72	7.5				
4	114	4958	104	7.5				
5	112	4790	102	7.5	3.0	128	18.9	808
6	114	4752	106	7.4	3.2	133	19.2	800
7	142	7294	122	7.4	3.4	175	19.3	991
8	214	11667	162	7.5	3.2	174	17.2	938
9	116	5512	92	7.4	2.8	133	19.1	908
10	109	4902	104	7.5				
11	108	4529	108	7.5				
12	106	4609	100	7.5	3.4	148	19.9	865
13	126	5850	118	7.5	3.5	163	21.8	1012
14	122	5215	114	7.5	3.8	162	21.2	906
15	128	5507	114	7.4	3.4	146	24.5	1054
16	124	4755	116	7.4	4.0	153	24.3	932
17	194	8587	162	7.4				
18	132	6360	120	7.5				
19	92	4091	88	7.4	2.5	111	14.5	645
20	104	4584	92	7.5	2.8	123	15.6	688
21	118	5156	110	7.3	3.0	131	16.7	730
22	146	6284	134	7.4	3.4	146	17.6	758
23	136	5900	114	7.4	3.1	134	15.7	681
24	120	4902	118	7.4				
25	160	7622	136	7.3				
26	166	7261	136	7.4	3.0	131	16.4	717
27	130	5575	114	7.4	3.1	133	18.6	798
28	150	6436	140	7.3	3.6	154	14.5	622
29	150	6647	140	7.4	3.7	164	14.2	629
30	128	5637	120	7.4	3.6	159	16.5	727
TOTAL		173260	3458		71.0	3161	407.2	18151
AVERAGE	129	5775	115	7.4	3.2	144	18.5	825

## PRIMARY EFFLUENT SHEET

ADRIAN, MICHIGAN

APRIL 2020

DAY	FLOW MGD		BOD5		SUS. SOLIDS		VSS	T. PHOSPHORUS		AMMONIA-N		PRIMARY SLUDGE Kgal
	1-4	5-7	mg/L 00310	Lbs. 85001	mg/L 00530	Lbs. 85002	mg/L 00535	mg/L 00665	Lbs. 85004	mg/L 00610	Lbs. 81019	
1	3.459	2.638	74	3763	20	1017	18	2.1	107	16.0	814	63
2	3.253	2.480	68	3251	34	1626	32	1.9	91	15.9	760	65
3	3.214	2.463	64	3030	26	1231	26					70
4	3.139	2.388	67	3088	26	1198	20					72
5	3.083	2.358	64	2904	16	726	16	1.7	77	14.1	640	72
6	2.980	2.276	78	3419	30	1315	28	1.9	83	15.5	679	72
7	3.648	2.836	67	3623	34	1839	32	1.9	103	14.3	773	66
8	3.905	3.033	58	3356	26	1504	24	1.5	87	11.6	671	59
9	3.442	2.619	54	2730	42	2123	42	1.4	71	16.9	854	70
10	3.287	2.493	47	2266	50	2410	26					74
11	3.033	2.307	66	2939	28	1247	28					74
12	3.148	2.400	72	3331	32	1481	30	1.6	74	15.5	717	74
13	3.372	2.563	64	3168	30	1485	30	1.7	84	14.9	738	72
14	3.130	2.347	60	2741	32	1462	30	1.9	87	13.6	621	66
15	3.158	2.381	80	3696	32	1478	30	1.8	83	15.6	721	63
16	2.750	2.092	76	3069	36	1454	34	2.3	93	17.9	723	66
17	3.220	2.444	68	3212	38	1795	30					69
18	3.416	2.631	62	3127	42	2118	42					68
19	3.190	2.426	62	2904	24	1124	24	1.3	61	10.8	506	67
20	3.198	2.428	71	3331	28	1314	20	1.5	70	12.4	582	68
21	3.170	2.389	70	3245	44	2040	38	1.5	70	11.3	524	75
22	3.129	2.380	72	3308	38	1746	32	1.7	78	11.1	510	79
23	3.137	2.391	76	3504	66	3043	56	1.8	83	12.0	553	71
24	2.945	2.254	64	2775	42	1821	42					67
25	3.389	2.627	74	3713	40	2007	40					66
26	3.133	2.379	71	3264	52	2390	50	2.1	97	12.8	588	66
27	3.089	2.346	69	3128	34	1541	30	2.0	91	14.5	657	76
28	3.062	2.358	67	3029	28	1266	28	2.0	90	11.0	497	70
29	3.164	2.439	75	3505	26	1215	26	2.5	117	10.3	481	78
30	3.140	2.408	72	3331	32	1481	30	2.2	102	12.6	583	71
TOTAL	96.383	73.574		95750		48496			1897		14193	
AVERAGE	3.213	2.452	68	3192	34	1617	31	1.8	86	13.7	645	70

ADRIAN WWTP

EAST ACTIVATED SLUDGE SHEET

ADRIAN, MICHIGAN

APRIL 2020

DAY	AERATION	DETENTION	SLUDGE	ORGANIC	AIR	D.O.	S.S.	MIXED LIQUOR			S.S.	RETURN ACTIVATED SLUDGE		WASTE	
	VOLUME	TIME	AGE	LOADING	SUPPLIED		mg/L	V.S.S.	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	7.5	18.7	0.25	3.5	10.5	1200	965	8	1.50	1640	1300	2.685	78	65
2	144	7.9	10.8	0.23	3.3	10.5	1110	885	8	1.39	1620	1282	2.684	83	64
3	144	8.0	12.0	0.27	3.2	10.1	930	703	8	1.16	1680	1314	2.681	83	64
4	144	8.2	13.9	0.23	3.2	10.6	1050	844	8	1.31	1720	1410	2.684	86	66
5	144	8.4	21.2	0.24	3.3	10.7	970	769	9	1.08	1560	1252	2.682	87	65
6	144	8.7	12.8	0.25	3.3	10.4	1060	860	8	1.33	2120	1746	2.688	90	66
7	144	7.1	9.6	0.25	3.1	10.3	1110	897	8	1.39	1660	1356	2.683	74	69
8	144	6.6	11.2	0.24	3.0	8.5	1060	863	8	1.33	2500	2018	2.682	69	64
9	144	7.5	8.7	0.18	3.2	10.3	1170	956	8	1.46	1900	1568	2.686	78	62
10	144	7.9	7.7	0.15	3.3	10.5	1170	943	9	1.30	2000	1634	2.689	82	62
11	144	8.5	14.3	0.20	3.3	10.5	1130	921	9	1.26	2160	1762	2.689	89	62
12	144	8.2	12.9	0.21	3.2	10.5	1210	993	9	1.34	1520	1272	2.686	85	63
13	144	7.7	10.6	0.26	3.2	10.5	1000	784	9	1.11	1860	1482	2.689	80	63
14	144	8.3	12.2	0.19	3.4	10.8	1130	901	9	1.26	1720	1382	2.686	86	63
15	144	8.2	12.6	0.24	3.4	10.4	1180	959	9	1.31	1720	1400	2.686	85	63
16	144	9.4	12.0	0.22	3.4	10.7	1100	878	9	1.22	1540	1234	2.685	98	62
17	144	8.0	9.2	0.24	3.4	10.7	1050	839	9	1.17	1580	1272	2.684	83	63
18	144	7.6	9.9	0.17	3.3	10.8	1320	1166	9	1.47	2000	1564	2.684	79	63
19	144	8.1	15.2	0.21	3.2	10.5	1080	864	9	1.20	1580	1288	2.686	84	62
20	144	8.1	14.0	0.22	3.2	10.5	1160	956	9	1.29	2000	1676	2.686	84	63
21	144	8.2	9.1	0.21	3.3	10.4	1180	975	10	1.18	2260	1870	2.684	85	63
22	144	8.3	10.6	0.22	3.4	10.7	1170	968	9	1.30	1700	1418	2.684	86	63
23	144	8.2	5.9	0.24	3.3	10.4	1130	925	9	1.26	2080	1728	2.686	86	64
24	144	8.8	10.6	0.17	3.2	10.4	1220	1001	9	1.36	1860	1544	2.689	91	63
25	144	7.6	8.7	0.26	3.3	9.8	1090	894	9	1.21	2000	1624	2.687	79	63
26	144	8.3	7.1	0.23	3.2	10.4	1080	888	9	1.20	2200	1800	2.685	86	65
27	144	8.4	10.7	0.24	3.2	10.2	1040	833	9	1.16	2400	1950	2.685	87	64
28	144	8.4	12.6	0.24	3.1	10.2	1000	782	10	1.00	1820	1472	2.683	88	64
29	144	8.2	13.4	0.27	3.1	10.0	1020	813	9	1.13	1520	1214	2.684	85	64
30	144	8.2	10.1	0.28	3.2	10.0	940	759	10	0.94	1820	1500	2.689	86	63
AVERAGE	144	8.1	11.6	0.23	3.3	10.4	1102	893	9	1.25	1858	1511	2.685	84	64

ADRIAN WWTP

WEST #1 ACTIVATED SLUDGE SHEET

ADRIAN, MICHIGAN

APRIL 2020

DAY	AERATION	DETENTION	SLUDGE	ORGANIC	AIR	D.O.	S.S.	MIXED LIQUOR			S.S.	RETURN ACTIVATED SLUDGE		WASTE	
	VOLUME	TIME	AGE	LOADING	SUPPLIED		mg/L	V.S.S.	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	8.3	18.0	0.25	0.9	8.3	1040	848	9	1.16	2260	1822	1.191	90	33
2	61	8.8	9.1	0.27	0.8	7.8	840	689	9	0.93	1940	1592	1.193	96	34
3	61	8.9	12.7	0.24	0.8	7.2	890	709	8	1.11	2360	1922	1.195	97	35
4	61	9.2	13.8	0.23	0.8	7.8	940	766	9	1.04	2080	1714	1.197	100	34
5	61	9.3	24.9	0.19	0.8	8.2	1030	861	9	1.14	2240	1822	1.195	101	35
6	61	9.6	14.4	0.22	0.8	7.2	1080	902	9	1.20	2300	1920	1.198	105	35
7	61	7.7	9.0	0.26	0.8	7.8	950	792	9	1.06	1920	1594	1.196	84	35
8	61	7.2	11.6	0.23	0.8	7.2	1000	849	10	1.00	2800	2350	1.198	79	34
9	61	8.4	9.0	0.17	0.8	8.7	1090	913	9	1.21	2320	1950	1.196	91	35
10	61	8.8	7.5	0.15	0.8	9.0	1020	841	9	1.13	1800	1480	1.196	96	34
11	61	9.5	12.3	0.23	0.8	9.4	870	717	9	0.97	1660	1376	1.197	104	34
12	61	9.1	11.9	0.23	0.8	9.3	1000	830	10	1.00	1920	1594	1.197	100	34
13	61	8.5	10.3	0.25	0.8	8.7	870	710	10	0.87	2000	1658	1.196	93	34
14	61	9.3	12.4	0.18	0.8	8.9	1020	841	10	1.02	2000	1646	1.198	102	34
15	61	9.2	11.5	0.26	0.8	7.6	960	790	9	1.07	1900	1580	1.198	101	34
16	61	10.5	11.8	0.22	0.8	7.7	970	799	10	0.97	1860	1528	1.198	115	34
17	61	9.0	9.3	0.23	0.8	7.8	950	783	9	1.06	1860	1550	1.194	98	34
18	61	8.3	9.6	0.18	0.8	9.0	1160	997	9	1.29	2600	2236	1.192	91	34
19	61	9.0	15.0	0.21	0.8	8.5	960	790	10	0.96	2040	1692	1.195	99	33
20	61	9.0	13.7	0.22	0.8	8.1	1020	864	10	1.02	2080	1762	1.197	99	33
21	61	9.2	8.9	0.21	0.8	8.1	1020	863	10	1.02	2020	1702	1.197	100	32
22	61	9.2	10.1	0.22	0.8	8.5	1000	846	10	1.00	2060	1744	1.196	101	33
23	61	9.2	5.7	0.23	0.8	8.1	990	865	10	0.99	2180	1862	1.198	100	33
24	61	9.7	9.9	0.18	0.8	7.7	1030	870	9	1.14	2040	1700	1.197	106	33
25	61	8.3	7.5	0.30	0.8	6.7	860	712	9	0.96	1620	1362	1.197	91	34
26	61	9.2	6.6	0.25	0.8	7.2	900	755	9	1.00	1940	1622	1.196	101	33
27	61	9.3	10.6	0.23	0.8	6.4	930	775	9	1.03	1840	1534	1.197	102	33
28	61	9.3	12.2	0.24	0.8	7.0	880	717	9	0.98	1860	1536	1.197	102	33
29	61	9.0	13.4	0.26	0.8	6.5	930	772	9	1.03	2280	1890	1.197	98	33
30	61	9.1	9.1	0.31	0.8	7.1	770	617	9	0.86	2120	1758	1.196	99	33
AVERAGE	61	9.0	11.4	0.23	0.8	7.9	966	803	9	1.04	2063	1717	1.196	98	34

ADRIAN WWTP

WEST #2 ACTIVATED SLUDGE SHEET

ADRIAN, MICHIGAN

APRIL 2020

DAY	AERATION	DETENTION	SLUDGE	ORGANIC	AIR	D.O.	S.S.	MIXED LIQUOR			S.S.	RETURN ACTIVATED SLUDGE		WASTE	
	VOLUME	TIME	AGE	LOADING	SUPPLIED		mg/L	V.S.S.	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	8.3	14.9	0.31	1.0	9.0	860	686	8	1.08	2240	1794	1.198	91	29
2	61	8.8	12.8	0.19	1.0	8.5	1180	955	8	1.48	2340	1918	1.202	97	32
3	61	8.9	13.8	0.22	1.0	8.1	970	784	7	1.39	2380	1938	1.202	98	34
4	61	9.2	12.2	0.26	1.0	8.6	830	685	8	1.04	2180	1806	1.202	101	34
5	61	9.3	22.0	0.23	1.0	8.8	910	727	8	1.14	2020	1620	1.204	102	34
6	61	9.6	14.3	0.22	1.0	8.0	1070	891	8	1.34	2440	2040	1.204	106	34
7	61	7.7	9.7	0.24	0.9	8.1	1030	870	9	1.14	2140	1796	1.204	85	34
8	61	7.2	11.6	0.23	0.9	7.6	1000	838	9	1.11	3180	2656	1.204	79	34
9	61	8.4	8.6	0.18	1.0	9.4	1040	866	9	1.16	2200	1844	1.204	92	34
10	61	8.8	7.1	0.16	1.0	9.7	970	797	9	1.08	2060	1686	1.204	97	34
11	61	9.5	13.0	0.22	1.0	9.8	920	764	9	1.02	1440	1188	1.204	104	34
12	61	9.1	12.1	0.22	1.0	9.7	1020	860	9	1.13	1900	1618	1.205	100	34
13	61	8.5	10.8	0.24	1.0	9.2	910	756	10	0.91	1960	1636	1.204	94	34
14	61	9.3	11.8	0.19	1.0	9.6	970	794	9	1.08	1940	1602	1.205	103	33
15	61	9.2	11.3	0.27	1.0	8.6	940	776	8	1.18	1960	1616	1.205	101	34
16	61	10.5	11.4	0.23	1.0	8.3	940	769	9	1.04	1800	1472	1.205	115	34
17	61	9.0	9.4	0.23	1.0	8.5	960	793	9	1.07	1820	1508	1.205	99	34
18	61	8.3	9.8	0.18	1.0	9.4	1190	1020	9	1.32	2240	1932	1.205	92	34
19	61	9.0	15.0	0.21	1.0	9.1	960	794	10	0.96	1920	1594	1.205	99	34
20	61	9.0	13.7	0.22	1.0	8.7	1020	857	9	1.13	2120	1782	1.204	99	33
21	61	9.2	10.9	0.17	1.0	8.5	1260	1068	9	1.40	2460	2072	1.205	101	33
22	61	9.2	10.1	0.22	1.0	8.9	1000	845	9	1.11	2200	1854	1.205	101	33
23	61	9.2	5.8	0.23	1.0	8.6	1010	858	9	1.12	2100	1770	1.205	101	33
24	61	9.7	9.6	0.19	1.0	8.0	1000	848	9	1.11	2180	1848	1.205	107	33
25	61	8.3	7.6	0.30	1.0	7.1	870	720	9	0.97	1820	1514	1.205	92	33
26	61	9.2	6.7	0.24	1.0	7.9	910	760	9	1.01	2120	1782	1.204	101	33
27	61	9.3	11.2	0.22	1.0	7.2	980	816	9	1.09	2020	1688	1.205	103	33
28	61	9.3	15.6	0.19	1.0	7.6	1130	934	8	1.41	2040	1680	1.205	102	33
29	61	9.0	14.1	0.25	0.9	7.0	980	812	8	1.23	2000	1640	1.204	99	32
30	61	9.1	10.8	0.25	1.0	7.0	910	752	9	1.01	2100	1732	1.205	100	33
AVERAGE	61	9.0	11.6	0.22	1.0	8.5	991	823	9	1.14	2111	1754	1.204	99	33

ADRIAN WWTP

## EFFLUENT SHEET

ADRIAN, MICHIGAN

APRIL 2020

DAY	FLOW		CBOD <sub>5</sub>		SUSPENDED SOLIDS			V.S.S.	pH	Mercury	
	MGD 50050	mg/L 80082	Lbs. 80082	% Rem 80091	mg/L 00530	Lbs. 00530	% Rem 81011	mg/L 00535	SU 00400	ng/L 71900	Lbs. 71900
1	4.391	3.6	132	97	3	110	97	3	7.2		
2	4.030	3.2	108	97	3	101	97	3	7.3		
3	3.985	3.5	116	97	3	100	96	3	7.2		
4	3.789	3.4	107	97	3	95	97	2	7.0		
5	3.636	3.4	103	98	2	61	98	2	7.1		
6	3.644	3.6	109	97	3	91	97	2	7.2		
7	4.580	3.8	145	97	4	153	97	4	7.1		
8	4.840	3.7	149	97	4	161	98	3	7.1		
9	4.071	3.2	109	97	4	136	97	3	7.1		
10	3.765	2.7	85	98	2	63	98	2	7.3		
11	3.610	1.0	30	99	2	60	98	2	7.2		
12	3.733	2.2	68	98	2	62	98	2	7.7		
13	3.993	2.1	70	99	3	100	98	3	7.1		
14	3.574	2.0	60	99	2	60	98	2	7.2		
15	3.562	1.6	48	99	2	59	98	2	7.2		
16	4.435	1.2	44	99	2	74	98	2	7.2		
17	3.802	2.1	67	97	3	95	98	2	7.1		
18	4.461	2.0	74	99	3	112	98	3	7.1		
19	4.025	1.9	64	98	2	67	98	2	7.2		
20	3.723	1.0	31	99	2	62	98	2	7.2		
21	3.752	1.8	56	99	2	63	98	2	7.2		
22	3.634	1.8	55	99	3	91	98	3	7.2	1.10	0.000033
23	3.777	1.8	57	99	3	95	98	2	7.2		
24	3.510	2.5	73	98	2	59	98	2	7.1		
25	4.248	2.1	74	99	3	106	98	2	7.1		
26	3.951	1.3	43	99	3	99	98	3	7.2		
27	3.658	2.4	73	98	2	61	98	2	7.3		
28	3.662	1.8	55	99	3	92	98	3	7.1		
29	3.979	1.6	53	99	2	66	99	1	7.1		
30	3.928	1.8	59	99	2	66	98	2	7.2		
TOTAL	117.748	70.1	2318		79	2617		71			
AVERAGE	3.925	2.3	77	98.2	3	87	97.9	2	7.2		

ADRIAN WWTP

EFFLUENT SHEET

ADRIAN, MICHIGAN

APRIL 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	0.94	34	65	0.06	2	100	53	8.9	7		
2	1.18	40	58	0.09	3	100	57	8.4	8		
3							55	8.6	4		
4							57	7.9	3		
5	0.97	29	68	0.08	2	100	55	8.2	1		
6	0.96	29	70	0.08	2	100	56	8.3	0		
7	1.04	40	69	0.08	3	100	56	8.0	24		
8	0.92	37	71	0.12	5	99	57	7.6	3		
9	0.71	24	75	0.06	2	100	57	7.6	10		
10							54	8.7	4		
11							55	8.4	1		
12	0.73	23	79	0.06	2	100	56	8.1	0		
13	0.80	27	77	0.05	2	100	55	8.7	4		
14	0.89	27	77	0.06	2	100	55	8.9	5		
15	0.95	28	72	0.06	2	100	54	9.2	22		
16	1.01	37	75	0.07	3	100	53	8.9	13		
17							55	8.8	12		
18							55	8.5	9		
19	0.64	21	74	0.06	2	100	56	8.2	8		
20	0.56	17	80	0.06	2	100	56	8.2	9		
21	0.64	20	79	0.06	2	100	56	7.9	10	<2.0	<0.062
22	0.71	22	79	0.05	2	100	55	9.0	14		
23	0.78	25	75	0.04	1	100	55	8.4	13		
24							56	8.0	13		
25							56	7.8	13		
26	1.20	40	60	0.06	2	100	56	8.0	10		
27	1.11	34	64	0.07	2	100	55	7.5	5		
28	1.11	34	69	0.06	2	100	58	8.2	1		
29	1.41	47	62	0.07	2	100	59	7.7	6		
30	1.43	47	60	0.07	2	100	56	8.1	4		
TOTAL	20.69	681		1.47	49						
AVERAGE	0.94	31	71	0.07	2	100	56	8.3	5		



ADRIAN WWTP

THICKENER SLUDGE

ADRIAN, MICHIGAN

APRIL 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	13.0	5.8	4.55	79
2	00S	00S	00S	00S	12.9	5.6	4.73	80
3	00S	00S	00S	00S	13.0	5.6	4.76	82
4	00S	00S	00S	00S	13.1	5.6	4.36	82
5	00S	00S	00S	00S	12.5	5.5	4.43	82
6	00S	00S	00S	00S	13.5	5.5	4.74	82
7	00S	00S	00S	00S	13.6	5.5	4.52	82
8	00S	00S	00S	00S	13.5	5.6	4.60	81
9	00S	00S	00S	00S	12.9	5.6	4.94	79
10	00S	00S	00S	00S	13.3	5.6	4.66	78
11	00S	00S	00S	00S	12.7	5.6	4.89	78
12	00S	00S	00S	00S	13.0	5.6	4.59	78
13	00S	00S	00S	00S	13.8	5.6	4.52	80
14	00S	00S	00S	00S	13.8	5.7	4.84	79
15	00S	00S	00S	00S	12.9	5.6	5.21	79
16	00S	00S	00S	00S	13.5	5.4	5.09	79
17	00S	00S	00S	00S	13.5	5.8	4.88	80
18	00S	00S	00S	00S	13.5	5.6	4.81	80
19	00S	00S	00S	00S	13.6	5.5	5.15	80
20	00S	00S	00S	00S	13.8	5.8	5.10	79
21	00S	00S	00S	00S	13.0	5.4	4.90	80
22	00S	00S	00S	00S	13.7	5.7	5.02	80
23	00S	00S	00S	00S	14.2	5.6	4.78	80
24	00S	00S	00S	00S	13.5	5.5	4.70	80
25	00S	00S	00S	00S	13.9	5.7	4.65	81
26	00S	00S	00S	00S	13.0	5.4	4.64	81
27	00S	00S	00S	00S	13.4	5.7	4.85	81
28	00S	00S	00S	00S	12.8	5.7	4.60	81
29	00S	00S	00S	00S	12.8	5.6	4.83	81
30	00S	00S	00S	00S	12.8	5.4	4.32	82
TOTAL	0.0				398.5			
AVERAGE	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	13.3	5.6	4.76	80

ADRIAN WWTP

PRIMARY SLUDGE

ADRIAN, MICHIGAN

APRIL 2020

DAY	PRIMARIES #1 - #4			PRIMARIES #5 - #7		
	pH SU	SOLIDS %	VOL. SOLIDS %	pH SU	SOLIDS %	VOL. SOLIDS %
1	7.1	0.18	53	6.8	1.00	81
2						
3						
4						
5						
6						
7						
8	7.0	1.74	77	6.9	1.55	76
9						
10						
11						
12						
13						
14						
15	6.1	1.67	76	5.4	3.49	78
16						
17						
18						
19						
20						
21						
22	6.1	1.12	78	6.7	1.94	79
23						
24						
25						
26						
27						
28						
29	6.9	0.91	79	6.8	1.60	81
30						
AVERAGE	6.6	1.12	73	6.5	1.92	79

ADRIAN WWTP

DIGESTED SLUDGE

ADRIAN, MICHIGAN

APRIL 2020

	FLOW	pH	SOLIDS	SOLIDS	
	KGAL.	SU	%	VOL.	
DAY	#			%	
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17	4	79.2	7.2	4.75	57
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
TOTAL		79.2			

ADRIAN WWTP

EFFLUENT SHEET  
ADRIAN, MICHIGAN

DISCHARGE NUMBER 001A

APRIL 2020

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	4.391	3.6	132	3	110	0.94	0.06	2	7.2	8.9	7
2	4.030	3.2	108	3	101	1.18	0.09	3	7.3	8.4	8
3	3.985	3.5	116	3	100				7.2	8.6	4
4	3.789	3.4	107	3	95				7.0	7.9	3
5	3.636	3.4	103	2	61	0.97	0.08	2	7.1	8.2	1
6	3.644	3.6	109	3	91	0.96	0.08	2	7.2	8.3	0
7	4.580	3.8	145	4	153	1.04	0.08	3	7.1	8.0	24
8	4.840	3.7	149	4	161	0.92	0.12	5	7.1	7.6	3
9	4.071	3.2	109	4	136	0.71	0.06	2	7.1	7.6	10
10	3.765	2.7	85	2	63				7.3	8.7	4
11	3.610	1.0	30	2	60				7.2	8.4	1
12	3.733	2.2	68	2	62	0.73	0.06	2	7.7	8.1	0
13	3.993	2.1	70	3	100	0.80	0.05	2	7.1	8.7	4
14	3.574	2.0	60	2	60	0.89	0.06	2	7.2	8.9	5
15	3.562	1.6	48	2	59	0.95	0.06	2	7.2	9.2	22
16	4.435	1.2	44	2	74	1.01	0.07	3	7.2	8.9	13
17	3.802	2.1	67	3	95				7.1	8.8	12
18	4.461	2.0	74	3	112				7.1	8.5	9
19	4.025	1.9	64	2	67	0.64	0.06	2	7.2	8.2	8
20	3.723	1.0	31	2	62	0.56	0.06	2	7.2	8.2	9
21	3.752	1.8	56	2	63	0.64	0.06	2	7.2	7.9	10
22	3.634	1.8	55	3	91	0.71	0.05	2	7.2	9.0	14
23	3.777	1.8	57	3	95	0.78	0.04	1	7.2	8.4	13
24	3.510	2.5	73	2	59				7.1	8.0	13
25	4.248	2.1	74	3	106				7.1	7.8	13
26	3.951	1.3	43	3	99	1.20	0.06	2	7.2	8.0	10
27	3.658	2.4	73	2	61	1.11	0.07	2	7.3	7.5	5
28	3.662	1.8	55	3	92	1.11	0.06	2	7.1	8.2	1
29	3.979	1.6	53	2	66	1.41	0.07	2	7.1	7.7	6
30	3.928	1.8	59	2	66	1.43	0.07	2	7.2	8.1	4
TOTAL	117.748	70.1	2318	79	2617	20.69	1.47	49			
MAX	4.840	3.8	149	4	161	1.43	0.12	5	7.7	9.2	
MIN	3.510	1.0	30	2	59	0.56	0.04	1	7.0	7.5	
AVE	3.925	2.3	77	3	87	0.94	0.07	2	7.2	8.3	5

**PERMITTEE NAME:** Adrian WWTP **PERMIT NUMBER:** \_\_\_\_\_  
**MAILING ADDRESS:** 135 E. Maumee St. **DISTRICT:** \_\_\_\_\_  
Adrian, MI 49221 **COUNTY:** \_\_\_\_\_  
**FACILITY:** Adrian WWTP **MONITORING POINT:** \_\_\_\_\_  
**LOCATION:** 1001 Oakwood Road **MONITORING PERIOD:** \_\_\_\_\_  
Adrian, MI 49221

**MI0022152** \_\_\_\_\_  
Jackson \_\_\_\_\_  
Lenawee \_\_\_\_\_  
001A \_\_\_\_\_  
2020-04-01 To 2020-04-30 \_\_\_\_\_

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	45 mg/L	2600 lbs/day	(Report)mg/L	(Report) lbs/day	21 mg/L	1200 lbs/day	(Report) lbs/day	14 mg/L	820 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	4.391			3	110	3.6		132	0.06		2	0.94	34		
2	4.030			3	101	3.2		108	0.09		3	1.18	40		
3	3.985			3	100	3.5		116							
4	3.789			3	95	3.4		107							
5	3.636			2	61	3.4		103	0.08		2	0.97	29		
6	3.644			3	91	3.6		109	0.08		2	0.96	29		
7	4.580	3	101	4	153	3.8	117	145	0.08	2	3	1.04	40		
8	4.840	3	109	4	161	3.7	120	149	0.12	2	5	0.92	37		
9	4.071	3	114	4	136	3.2	120	109	0.06	2	2	0.71	24		
10	3.765	3	108	2	63	2.7	115	85		2					
11	3.610	3	104	2	60	1.0	104	30		2					
12	3.733	3	104	2	62	2.2	99	68	0.06	2	2	0.73	23		
13	3.993	3	105	3	100	2.1	94	70	0.05	2	2	0.80	27		
14	3.574	3	92	2	60	2.0	82	60	0.06	2	2	0.89	27		
15	3.562	2	77	2	59	1.6	67	48	0.06	1	2	0.95	28		
16	4.435	2	68	2	74	1.2	58	44	0.07	1	3	1.01	37		
17	3.802	2	73	3	95	2.1	55	67		1					
18	4.461	2	80	3	112	2.0	62	74		1					
19	4.025	2	81	2	67	1.9	61	64	0.06	1	2	0.64	21		
20	3.723	2	76	2	62	1.0	55	31	0.06	1	2	0.56	17		
21	3.752	2	76	2	63	1.8	55	56	0.06	1	2	0.64	20	<2.0	<0.062
22	3.634	2	80	3	91	1.8	56	55	0.05	1	2	0.71	22		
23	3.777	3	83	3	95	1.8	58	57	0.04	1	1	0.78	25		
24	3.510	2	78	2	59	2.5	59	73		1					
25	4.248	2	77	3	106	2.1	59	74		1					
26	3.951	3	82	3	99	1.3	56	43	0.06	1	2	1.20	40		
27	3.658	3	82	2	61	2.4	62	73	0.07	1	2	1.11	34		
28	3.662	3	86	3	92	1.8	61	55	0.06	1	2	1.11	34		
29	3.979	3	82	2	66	1.6	61	53	0.07	1	2	1.41	47		
30	3.928	2	78	2	66	1.8	62	59	0.07	2	2	1.43	47		

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
							7	7.2	7.2	8.9
							8	7.3	7.3	8.4
							4	7.2	7.2	8.6
							3	7.0	7.0	7.9
							<1	7.1	7.1	8.2
							<1	7.2	7.2	8.3
						3	24	7.1	7.1	8.0
						3	3	7.1	7.1	7.6
						3	10	7.1	7.1	7.6
						3	4	7.3	7.3	8.7
						2	<1	7.2	7.2	8.4
						2	<1	7.7	7.7	8.1
						3	4	7.1	7.1	8.7
						2	5	7.2	7.2	8.9
						3	22	7.2	7.2	9.2
						3	13	7.2	7.2	8.9
						4	12	7.1	7.1	8.8
						5	9	7.1	7.1	8.5
						9	8	7.2	7.2	8.2
						10	9	7.2	7.2	8.2
						11	10	7.2	7.2	7.9
1.10	0.000033	1.10	1.10	<0.20	<0.20	11	14	7.2	7.2	9.0
						11	13	7.2	7.2	8.4
						11	13	7.1	7.1	8.0
						11	13	7.1	7.1	7.8
						12	10	7.2	7.2	8.0
						11	5	7.3	7.3	7.5
						8	<1	7.1	7.1	8.2
						7	6	7.1	7.1	7.7
						6	4	7.2	7.2	8.1

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

PERMITTEE NAME: Adrian WWTP  
 MAILING ADDRESS: 100 East Church St.  
 Adrian, MI 49221  
 FACILITY: Adrian WWTP  
 LOCATION: 1001 Oakwood Road  
 Adrian, MI 49221

PERMIT NUMBER: M10022152  
 MONITORING GROUP: 001A

DISTRICT: Jackson  
 COUNTY: Lenawee

Monitoring Period: 2020-04-01 To: 2020-04-30

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				
Flow PARAM CODE: 50050 Mon. Site No.: 001A Stage Code: 1	Sample Measurement	3.925	4.840	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	87	114	lbs/day	*****	3	3	mg/l	0	Daily	24-HR Composite
	Permit Requirement	1800 Maximum Monthly Average	2600 Maximum 7-Day Average		*****	30 Maximum Monthly Average	45 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	77	120	lbs/day	*****	2.3	3.8	mg/l	0	Daily	24-HR Composite
	Permit Requirement	820 Maximum Monthly Average	1200 Maximum 7-Day Average		*****	14 Maximum Monthly Average	21 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	*****	0.07	0.12	mg/l	0	Daily	24-HR Composite
	Permit Requirement	Maximum Monthly Average	820 Maximum 7-Day Average		*****	Maximum Monthly Average	14 Maximum Daily		Daily	24-HR Composite	
Total Phosphorus (as P) PARAM CODE: 00665 Mon. Site No.: 001A Stage Code: 1	Sample Measurement	31	47	lbs/day	*****	0.94	1.43	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	0.000033	0.000033	lbs/day	*****	1.10	1.10	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	2020-05-15		

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

PERMITTEE NAME: Adrian WWTP  
 MAILING ADDRESS: 100 East Church St.  
 Adrian, MI 49221  
 FACILITY: Adrian WWTP  
 LOCATION: 1001 Oakwood Road  
 Adrian, MI 49221

PERMIT NUMBER: M10022152  
 MONITORING GROUP: 001A

DISTRICT: Jackson  
 COUNTY: Lenawee

Monitoring Period: 2020-04-01 To: 2020-04-30

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	*****	0.000021	lbs/day	*****	*****	0.52	ng/l	0	Monthly	Calculation
	Permit Requirement	*****	0.00012 12-Month Rolling Average		*****	*****	2.0 12-Month Rolling Average		Monthly	Calculation	
Fecal Coliform PARAM CODE: 74055 Mon. Site No.: 001A Stage Code: 1	Sample Measurement	*****	*****	*****	*****	5	12	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	*****	*****	*****	7.0	*****	7.7	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	*****	*****	*****	7.5	*****	*****	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 Agwnt		Telephone No	Date (YYYY-MM-DD)		
Ryan L. White WWTP Superintendent								517-264-4867	2020-05-15		

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