FLEIS&VANDENBRINK

DESIGN. BUILD. OPERATE.

January 20, 2022

Bridgett Carver
Surface Water Quality Division
Michigan Department of EGLE
301 East Louis Glick Highway
Jackson, Michigan 49201

Re: Monitoring Report #296
December 1 – December 31, 2021

Dear Ms. Carver:

Pursuant to the National Pollutant Discharge Elimination System (NPDES) Permit No. MI0048453, please find the enclosed Monitoring Report for the period of December 1 through December 31, 2021.

Should you have any questions or concerns regarding this report, please contact me at 269-993-7585.

Sincerely,

FLEIS & VANDENBRINK

Jim Brode, CPG
Senior Project Manager

cc: Dan Hamel, EGLE
Supervisor, Scio Twp.
City of Ann Arbor

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TABLE #1

UNIT D2 UPGRADIENT EXTRACTION DATA

Month of: Dec-21

	Horizontal Well Extraction			TW-9			TW-5			TW-21			Daily Flow	Daily Total
Date	HW-S Gallons	GPM	Run Hrs.	TW-9 Gallons	GPM	Run Hrs.	TW-5 Gallons	GPM	Run Hrs.	TW-21 Gallons	GPM	Run Hrs.	GPM	Gallons
Wed-12/1/21	-		-	-		-	-		-	144,094	100	24.00	100	144,094
Thu-12/2/21	-		-	-		-	-		-	144,160	100	24.00	100	144,160
Fri-12/3/21	-		-	-		-	-		-	144,086	100	24.00	100	144,086
Sat-12/4/21	-		-	-		-	-		-	144,109	100	24.00	100	144,109
Sun-12/5/21	-		-	-		-	-		-	144,073	100	24.00	100	144,073
Mon-12/6/21	-		-	-		-	-		-	144,098	100	24.00	100	144,098
Tue-12/7/21	-		-	-		-	-		-	48,734	100	8.13	34	48,734
Wed-12/8/21	-		-	-		-	-		-	-		-	0	-
Thu-12/9/21	-		-	-		-	-		-	-		-	0	-
Fri-12/10/21	-		-	-		-	-		-	57,895	100	9.65	40	57,895
Sat-12/11/21	-		-	-		-	-		-	144,159	100	24.00	100	144,159
Sun-12/12/21	-		-	-		-	-		-	144,093	100	24.00	100	144,093
Mon-12/13/21	-		-	-		-	-		-	144,132	100	24.00	100	144,132
Tue-12/14/21	-		-	-		-	-		-	144,113	100	24.00	100	144,113
Wed-12/15/21	-		-	-		-	-		-	144,188	100	24.00	100	144,188
Thu-12/16/21	-		-	640	32	0.33	-		-	144,079	100	24.00	100	144,719
Fri-12/17/21	-		-	-		-	-		-	144,077	100	24.00	100	144,077
Sat-12/18/21	-		-	-		-	-		-	144,054	100	24.00	100	144,054
Sun-12/19/21	-		-	-		-	-		-	144,026	100	24.00	100	144,026
Mon-12/20/21	-		-	-		-	-		-	144,058	100	24.00	100	144,058
Tue-12/21/21	-		-	-		-	-		-	144,039	100	24.00	100	144,039
Wed-12/22/21	-		-	-		-	-		-	144,017	100	24.00	100	144,017
Thu-12/23/21	-		-	-		-	-		-	143,327	100	23.88	100	143,327
Fri-12/24/21	-		-	-		-	-		-	144,119	100	24.00	100	144,119
Sat-12/25/21	-		-	-		-	-		-	144,134	100	24.00	100	144,134
Sun-12/26/21	-		-	-		-	-		-	144,044	100	24.00	100	144,044
Mon-12/27/21	-		-	-		-	-		-	144,071	100	24.00	100	144,071
Tue-12/28/21	-		-	-		-	-		-	143,993	100	24.00	100	143,993
Wed-12/29/21	-		-	-		-	-		-	144,072	100	24.00	100	144,072
Thu-12/30/21	-		-	-		-	-		-	144,061	100	24.00	100	144,061
Fri-12/31/21	-		-	-		-	-		-	144,114	100	24.00	100	144,114
TOTALS	-		-	640	32	0.33	-		-	3,996,219	100	665.66	90	3,996,859

TOTAL VOLUME EXTRACTED :	3,996,859 GALLONS
DAYS IN MONTH :	31 DAYS
MONTHLY AVERAGE FLOW RATE :	89.54 GPM

12/7/21-12/10/21 - TW-21 was shut down for rehabilitation.

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TABLE #2

UNIT D2 DOWNGRADIENT EXTRACTION DATA

Month of: Dec-21

Date	LB-1 Gallons	GPM	Run Hrs.	LB-4 Gallons	GPM	Run Hrs.	Daily Flow GPM	Daily Total Gallons
Wed-12/1/21	885	42	0.35	144,218	100	24.00	101	145,103
Thu-12/2/21	-		-	144,226	100	24.00	100	144,226
Fri-12/3/21	-		-	144,229	100	24.00	100	144,229
Sat-12/4/21	-		-	144,188	100	24.00	100	144,188
Sun-12/5/21	-		-	144,191	100	24.00	100	144,191
Mon-12/6/21	-		-	144,250	100	24.00	100	144,250
Tue-12/7/21	-		-	144,204	100	24.00	100	144,204
Wed-12/8/21	-		-	144,220	100	24.00	100	144,220
Thu-12/9/21	-		-	144,240	100	24.00	100	144,240
Fri-12/10/21	-		-	144,209	100	24.00	100	144,209
Sat-12/11/21	-		-	144,170	100	24.00	100	144,170
Sun-12/12/21	-		-	144,198	100	24.00	100	144,198
Mon-12/13/21	-		-	144,215	100	24.00	100	144,215
Tue-12/14/21	-		-	144,192	100	24.00	100	144,192
Wed-12/15/21	-		-	144,223	100	24.00	100	144,223
Thu-12/16/21	844	35	0.40	144,209	100	24.00	101	145,053
Fri-12/17/21	-		-	144,233	100	24.00	100	144,233
Sat-12/18/21	-		-	144,207	100	24.00	100	144,207
Sun-12/19/21	-		-	144,213	100	24.00	100	144,213
Mon-12/20/21	-		-	144,263	100	24.00	100	144,263
Tue-12/21/21	-		-	144,248	100	24.00	100	144,248
Wed-12/22/21	-		-	144,196	100	24.00	100	144,196
Thu-12/23/21	-		-	144,181	100	24.00	100	144,181
Fri-12/24/21	-		-	144,249	100	24.00	100	144,249
Sat-12/25/21	-		-	144,199	100	24.00	100	144,199
Sun-12/26/21	-		-	144,175	100	24.00	100	144,175
Mon-12/27/21	-		-	144,228	100	24.00	100	144,228
Tue-12/28/21	-		-	144,224	100	24.00	100	144,224
Wed-12/29/21	-		-	144,211	100	24.00	100	144,211
Thu-12/30/21	-		-	144,234	100	24.00	100	144,234
Fri-12/31/21	-		-	144,167	100	24.00	100	144,167
TOTALS	**1,729**	**39**	**0.75**	**4,470,610**	**100**	**744.00**	**100**	**4,472,339**

TOTAL VOLUME EXTRACTED :	4,472,339 GALLONS
DAYS IN MONTH :	31 DAYS
MONTHLY AVERAGE FLOW RATE :	100.19 GPM

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TABLE #3

CORE AREA EXTRACTION DATA

Month of: Dec-21

Core Area Well Extraction

Date	TW-1 Gallons	GPM	Run Hrs.	TW-2 (Dolph) Gallons	GPM	Run Hrs.	TW-3 Gallons	GPM	Run Hrs.	TW-10 Gallons	GPM	Run Hrs.	TW-14 Gallons	GPM	Run Hrs.	TW-20 Gallons	GPM	Run Hrs.	TW-24 Gallons	GPM	Run Hrs.	Daily Flow GPM	Daily Total Gallons
Wed-12/1/21	-		-	36,708	25	24.00	-		-	-		-	-		-	43,454	30	24.00	-		-	56	80,162
Thu-12/2/21	-		-	36,741	26	24.00	-		-	-		-	-		-	43,455	30	24.00	-		-	56	80,196
Fri-12/3/21	-		-	36,708	25	24.00	-		-	-		-	-		-	43,448	30	24.00	-		-	56	80,156
Sat-12/4/21	-		-	36,743	26	24.00	-		-	-		-	-		-	43,420	30	24.00	-		-	56	80,163
Sun-12/5/21	-		-	36,730	26	24.00	-		-	-		-	-		-	43,317	30	24.00	-		-	56	80,047
Mon-12/6/21	-		-	36,765	26	24.00	-		-	-		-	-		-	43,324	30	24.00	-		-	56	80,089
Tue-12/7/21	-		-	36,847	26	24.00	-		-	-		-	47,751	50	15.85	43,309	30	24.00	-		-	89	127,907
Wed-12/8/21	-		-	36,779	26	24.00	-		-	-		-	71,870	50	24.00	43,319	30	24.00	-		-	106	151,968
Thu-12/9/21	-		-	36,744	26	24.00	-		-	-		-	71,521	50	24.00	43,302	30	24.00	-		-	105	151,567
Fri-12/10/21	-		-	36,785	26	24.00	-		-	-		-	44,062	50	14.72	43,298	30	24.00	5,413	10	8.90	90	129,558
Sat-12/11/21	-		-	36,861	26	24.00	-		-	-		-	14,050	30	7.68	43,292	30	24.00	14,465	10	24.00	75	108,668
Sun-12/12/21	-		-	36,912	26	24.00	-		-	-		-	42,526	30	24.00	43,252	30	24.00	14,321	10	24.00	95	137,011
Mon-12/13/21	-		-	36,819	26	24.00	-		-	-		-	13,932	30	7.82	38,354	27	24.00	14,317	10	24.00	72	103,422
Tue-12/14/21	-		-	40,612	28	24.00	-		-	-		-	-		-	36,019	25	24.00	14,213	10	24.00	63	90,844
Wed-12/15/21	-		-	41,474	29	24.00	-		-	-		-	-		-	35,961	25	24.00	14,609	10	24.00	64	92,044
Thu-12/16/21	903	53	0.28	41,446	29	24.00	847	45	0.32	410	32	0.22	502	30	0.28	36,101	25	24.00	14,353	10	24.00	66	94,562
Fri-12/17/21	-		-	41,431	29	24.00	-		-	-		-	-		-	36,386	25	24.00	14,357	10	24.00	64	92,174
Sat-12/18/21	-		-	41,408	29	24.00	-		-	-		-	-		-	36,314	25	24.00	14,551	10	24.00	64	92,273
Sun-12/19/21	-		-	41,408	29	24.00	-		-	-		-	-		-	36,287	25	24.00	14,367	10	24.00	64	92,062
Mon-12/20/21	-		-	41,432	29	24.00	-		-	-		-	-		-	21,590	25	14.27	12,331	10	20.65	52	75,353
Tue-12/21/21	-		-	38,836	27	24.00	-		-	-		-	47,570	50	15.82	21,225	25	13.93	14,140	10	24.00	85	121,771
Wed-12/22/21	-		-	37,321	26	24.00	-		-	-		-	71,614	50	24.00	32,720	25	21.55	12,378	10	20.92	107	154,033
Thu-12/23/21	-		-	37,545	26	24.00	-		-	-		-	71,637	50	24.00	35,935	25	24.00	5,225	10	8.88	104	150,342
Fri-12/24/21	-		-	37,562	26	24.00	-		-	-		-	71,481	50	24.00	36,013	25	24.00	-		-	101	145,056
Sat-12/25/21	-		-	37,534	26	24.00	-		-	-		-	71,617	50	24.00	43,296	30	24.00	-		-	106	152,447
Sun-12/26/21	-		-	37,577	26	24.00	-		-	-		-	71,741	50	24.00	43,248	30	24.00	-		-	106	152,566
Mon-12/27/21	-		-	38,095	28	22.73	-		-	-		-	72,057	50	24.00	43,246	30	24.00	-		-	107	153,398
Tue-12/28/21	-		-	41,955	29	24.00	-		-	-		-	45,638	50	15.18	43,221	30	24.00	-		-	91	130,814
Wed-12/29/21	-		-	41,946	29	24.00	-		-	-		-	-		-	43,210	30	24.00	-		-	59	85,156
Thu-12/30/21	-		-	41,923	29	24.00	-		-	-		-	-		-	38,158	26	24.00	-		-	56	80,081
Fri-12/31/21	-		-	41,883	29	24.00	-		-	-		-	-		-	35,743	25	24.00	-		-	54	77,626
TOTALS	903	53	0.28	1,199,530	27	742.73	847	45	0.32	410	32	0.22	829,569	45	293.35	1,213,217	28	721.75	179,040	10	299.35	77	3,423,516

TOTAL VOLUME EXTRACTED :	3,423,516 GALLONS
DAYS IN MONTH :	31 DAYS
MONTHLY AVERAGE FLOW RATE :	76.69 GPM

12/27/21 - TW-2 was shut down briefly due to communication loss.

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MARSHY AREA EXTRACTION DATA

Month of: Dec-21

Marshy Well Extraction				Daily	Daily
	PW-1			Flow	Total
Date	Gallons	GPM	Run Hrs.	GPM	Gallons
Wed-12/1/21	2,928	2	24.00	2	2,928
Thu-12/2/21	2,929	2	24.00	2	2,929
Fri-12/3/21	2,937	2	24.00	2	2,937
Sat-12/4/21	2,945	2	24.00	2	2,945
Sun-12/5/21	2,961	2	24.00	2	2,961
Mon-12/6/21	2,980	2	24.00	2	2,980
Tue-12/7/21	3,016	2	24.00	2	3,016
Wed-12/8/21	3,013	2	24.00	2	3,013
Thu-12/9/21	3,013	2	24.00	2	3,013
Fri-12/10/21	2,990	2	24.00	2	2,990
Sat-12/11/21	3,009	2	24.00	2	3,009
Sun-12/12/21	3,025	2	24.00	2	3,025
Mon-12/13/21	3,029	2	24.00	2	3,029
Tue-12/14/21	3,034	2	24.00	2	3,034
Wed-12/15/21	3,033	2	24.00	2	3,033
Thu-12/16/21	3,032	2	24.00	2	3,032
Fri-12/17/21	3,033	2	24.00	2	3,033
Sat-12/18/21	3,051	2	24.00	2	3,051
Sun-12/19/21	3,060	2	24.00	2	3,060
Mon-12/20/21	1,876	2	14.27	1	1,876
Tue-12/21/21	1,707	2	13.93	1	1,707
Wed-12/22/21	2,673	2	21.55	2	2,673
Thu-12/23/21	2,997	2	24.00	2	2,997
Fri-12/24/21	2,980	2	24.00	2	2,980
Sat-12/25/21	2,975	2	24.00	2	2,975
Sun-12/26/21	2,995	2	24.00	2	2,995
Mon-12/27/21	3,020	2	24.00	2	3,020
Tue-12/28/21	3,061	2	24.00	2	3,061
Wed-12/29/21	3,125	2	24.00	2	3,125
Thu-12/30/21	3,134	2	24.00	2	3,134
Fri-12/31/21	3,120	2	24.00	2	3,120
TOTALS	90,681	2	721.75	2	90,681

TOTAL VOLUME EXTRACTED :	90,681 GALLONS
DAYS IN MONTH :	31 DAYS
MONTHLY AVERAGE FLOW RATE :	2.03 GPM

12/20/21-12/22/21 - PW-1 was shut down during electrical work.

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TABLE #5

SOUTHWEST AREA EXTRACTION DATA

Month of: Dec-21

SouthWest Well Extraction							Daily	Daily
	TW22			TW28			Flow	Total
Date	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.	GPM	Gallons
Wed-12/1/21	3,267	2	24.00	36,001	25	24.00	27	39,268
Thu-12/2/21	3,301	2	24.00	36,014	25	24.00	27	39,315
Fri-12/3/21	3,325	2	24.00	35,981	25	24.00	27	39,306
Sat-12/4/21	2,837	2	24.00	36,101	25	24.00	27	38,938
Sun-12/5/21	3,032	2	24.00	36,066	25	24.00	27	39,098
Mon-12/6/21	3,035	2	24.00	36,072	25	24.00	27	39,107
Tue-12/7/21	3,035	2	24.00	36,026	25	24.00	27	39,061
Wed-12/8/21	3,042	2	24.00	36,031	25	24.00	27	39,073
Thu-12/9/21	3,046	2	24.00	36,014	25	24.00	27	39,060
Fri-12/10/21	3,142	2	24.00	35,979	25	24.00	27	39,121
Sat-12/11/21	628	2	4.70	7,051	25	4.70	27	7,679
Sun-12/12/21	-	0	-	-	0	-	0	-
Mon-12/13/21	2,176	2	16.38	24,760	25	16.38	27	26,936
Tue-12/14/21	3,191	2	24.00	36,238	25	24.00	27	39,429
Wed-12/15/21	3,228	2	24.00	36,258	25	24.00	27	39,486
Thu-12/16/21	2,945	2	24.00	35,911	25	24.00	27	38,856
Fri-12/17/21	2,780	2	24.00	35,728	25	24.00	27	38,508
Sat-12/18/21	2,781	2	24.00	35,678	25	24.00	27	38,459
Sun-12/19/21	2,772	2	24.00	35,639	25	24.00	27	38,411
Mon-12/20/21	2,775	2	24.00	35,681	25	24.00	27	38,456
Tue-12/21/21	2,630	2	24.00	35,964	25	24.00	27	38,594
Wed-12/22/21	2,552	2	24.00	36,063	25	24.00	27	38,615
Thu-12/23/21	2,912	2	24.00	35,987	25	24.00	27	38,899
Fri-12/24/21	3,139	2	24.00	35,955	25	24.00	27	39,094
Sat-12/25/21	3,127	2	24.00	35,912	25	24.00	27	39,039
Sun-12/26/21	3,123	2	24.00	35,872	25	24.00	27	38,995
Mon-12/27/21	3,130	2	24.00	35,920	25	24.00	27	39,050
Tue-12/28/21	3,223	2	24.00	35,822	25	24.00	27	39,045
Wed-12/29/21	3,399	2	24.00	35,670	25	24.00	27	39,069
Thu-12/30/21	3,399	2	24.00	35,662	25	24.00	27	39,061
Fri-12/31/21	3,406	2	24.00	35,666	25	24.00	27	39,072
TOTALS	**88,378**	**2**	**693.08**	**1,037,722**	**24**	**693.08**	**26**	**1,126,100**

TOTAL VOLUME EXTRACTED :	1,126,100 GALLONS
DAYS IN MONTH :	31 DAYS
MONTHLY AVERAGE FLOW RATE :	25.23 GPM

12/11/21-12/13/21 - TW-22 and TW-28 were shut down due to a power outage.

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TABLE #6

UNIT "E" EXTRACTION DATA

Month of: Dec-21

Date	TW-11 Gallons	GPM	Run Hrs.	TW-17 Gallons	GPM	Run Hrs.	TW-18 Gallons	GPM	Run Hrs.	TW-29 Gallons	GPM	Run Hrs.	TW-23 Gallons	GPM	Run Hrs.	Daily Flow GPM	Daily Total Gallons
Wed-12/1/21	50,754	35	24.00	64,895	45	24.00	147,312	102	24.00	71,279	50	23.78	71,583	50	23.78	282	405,823
Thu-12/2/21	50,824	35	24.00	64,991	45	24.00	147,267	102	24.00	71,771	50	24.00	72,245	50	24.00	283	407,098
Fri-12/3/21	50,756	35	24.00	65,031	45	24.00	147,284	102	24.00	71,749	50	24.00	72,218	50	24.00	283	407,038
Sat-12/4/21	50,773	35	24.00	65,009	45	24.00	147,262	102	24.00	71,816	50	24.00	72,372	50	24.00	283	407,232
Sun-12/5/21	50,746	35	24.00	64,953	45	24.00	147,255	102	24.00	71,825	50	24.00	72,440	50	24.00	283	407,219
Mon-12/6/21	50,759	35	24.00	64,874	45	24.00	147,303	102	24.00	71,905	50	24.00	72,298	50	24.00	283	407,139
Tue-12/7/21	65,947	46	24.00	74,360	52	24.00	147,312	102	24.00	71,982	50	24.00	72,238	50	24.00	300	431,839
Wed-12/8/21	72,429	50	24.00	79,337	55	24.00	147,315	102	24.00	71,865	50	24.00	72,294	50	24.00	308	443,240
Thu-12/9/21	72,441	50	24.00	79,488	55	24.00	147,294	102	24.00	71,850	50	24.00	72,313	50	24.00	308	443,386
Fri-12/10/21	53,022	43	20.73	71,043	49	24.00	147,375	102	24.00	71,958	50	24.00	72,211	50	24.00	289	415,609
Sat-12/11/21	50,811	35	24.00	57,841	40	24.00	147,261	102	24.00	71,824	50	24.00	72,272	50	24.00	278	400,009
Sun-12/12/21	50,772	35	24.00	57,952	40	24.00	147,264	102	24.00	71,885	50	24.00	72,181	50	24.00	278	400,054
Mon-12/13/21	46,914	33	24.00	54,355	38	24.00	147,332	102	24.00	108,725	76	24.00	55,228	50	11.70	273	392,554
Tue-12/14/21	43,554	30	24.00	50,610	35	24.00	147,340	102	24.00	143,863	100	24.00	-		-	268	385,367
Wed-12/15/21	43,603	30	24.00	50,743	35	24.00	147,333	102	24.00	143,880	100	24.00	-		-	268	385,559
Thu-12/16/21	43,605	30	24.00	50,692	35	24.00	147,276	102	24.00	142,990	99	24.00	-		-	267	384,563
Fri-12/17/21	43,539	30	24.00	50,619	35	24.00	147,346	102	24.00	109,198	76	24.00	34,723	50	11.51	268	385,425
Sat-12/18/21	43,514	30	24.00	50,576	35	24.00	147,382	102	24.00	71,971	50	24.00	72,336	50	24.00	268	385,779
Sun-12/19/21	43,491	30	24.00	50,576	35	24.00	147,341	102	24.00	71,915	50	24.00	72,253	50	24.00	268	385,576
Mon-12/20/21	43,515	30	24.00	50,568	35	24.00	147,330	102	24.00	71,154	50	23.71	72,216	50	24.00	267	384,783
Tue-12/21/21	63,805	44	24.00	64,740	45	24.00	41,393	102	6.75	71,876	50	24.00	72,275	50	24.00	218	314,089
Wed-12/22/21	72,443	50	24.00	72,026	50	24.00	-		-	71,854	50	24.00	72,326	50	24.00	200	288,649
Thu-12/23/21	72,447	50	24.00	72,114	50	24.00	-		-	71,842	50	24.00	72,414	50	24.00	201	288,817
Fri-12/24/21	72,527	50	24.00	72,174	50	24.00	-		-	71,828	50	24.00	72,347	50	24.00	201	288,876
Sat-12/25/21	72,529	50	24.00	72,123	50	24.00	-		-	71,893	50	24.00	72,337	50	24.00	201	288,882
Sun-12/26/21	72,463	50	24.00	72,089	50	24.00	-		-	71,757	50	24.00	72,185	50	24.00	200	288,494
Mon-12/27/21	72,465	50	24.00	72,133	50	24.00	-		-	72,033	50	24.00	72,209	50	24.00	201	288,840
Tue-12/28/21	72,455	50	24.00	45,615	50	15.18	53,949	101	8.87	71,843	50	24.00	72,315	50	24.00	220	316,177
Wed-12/29/21	72,471	50	24.00	-		-	146,295	102	24.00	71,783	50	24.00	86,337	60	24.00	262	376,886
Thu-12/30/21	72,459	50	24.00	-		-	146,371	102	24.00	71,904	50	24.00	81,011	56	24.00	258	371,745
Fri-12/31/21	72,500	50	24.00	-		-	146,344	102	24.00	71,825	50	24.00	72,205	50	24.00	252	362,874
TOTALS	1,810,333	41	740.73	1,761,527	44	663.18	3,480,536	102	567.62	2,515,843	56	743.49	1,971,382	51	646.99	259	11,539,621

TOTAL VOLUME EXTRACTED :	11,539,621 GALLONS
DAYS IN MONTH :	31 DAYS
MONTHLY AVERAGE FLOW RATE :	258.50 GPM

12/21/21-12/28/21 - TW-18 was shut down for rehabilitation.
12/13/21-12/17/21 - TW-23 was shut down for rehabilitation.

GelmanSciences

TABLE #7

Little Lake Area System

MW-53i	
Date	1,4-Dioxane ug/L
09/01/21	57
10/04/21	38
11/18/21	31
12/01/21	40

A2 Cleaning Supply Well	
Date	1,4-Dioxane ug/L
09/01/21	44
10/04/21	51
11/23/21	35
12/02/21	51

GelmanSciences

TABLE #8

INDIVIDUAL PURGE WELL CONCENTRATIONS

SAMPLE ID	Date Sampled	1,4-DIOXANE (ppb)
DOLPH-12-16-21-13:50-1	12/16/21	130
TW-1-12-16-21-12:50-1	12/16/21	52
TW-10-12-16-21-13:25-1	12/16/21	470
TW-14-12-07-21-10:20-1	12/07/21	110
TW-14-12-16-21-12:30-1	12/16/21	110
TW-20-12-16-21-13:30-1	12/16/21	770
TW-24-12-11-21-10:10-1	12/11/21	2100
TW-24-12-16-21-14:00-1	12/16/21	2200
TW-3-12-16-21-13:10-1	12/16/21	40
TW-6-12-11-21-13:35-1	12/11/21	70
LB-1-12-16-21-10:10-1	12/16/21	330
LB-4-12-16-21-09:50-1	12/16/21	430
TW-21-12-11-21-10:00-1	12/11/21	230
TW-21-12-16-21-11:30-1	12/16/21	230
TW-5-12-16-21-11:45-1	12/16/21	750
TW-9-12-16-21-12:10-1	12/16/21	380
TW-11-12-16-21-11:50-1	12/16/21	150
TW-17-12-16-21-12:35-1	12/16/21	56
TW-18-12-16-21-11:35-1	12/16/21	230
TW-18-12-29-21-13:35-1	12/29/21	240
TW-23-12-20-21-12:50-1	12/20/21	400
TW-29-12-16-21-09:55-1	12/16/21	400

GelmanSciences

TABLE #9

RED POND DATA

Month of: Dec-21

			Red Pond				
			Pond	Level	Aeration	Influent	Influent
Date	Time	Notes	Visual Chk	Feet	Hours	Hours	GPM
Wed-12/1/21	04:00:00.000		Y	4.3	-	24.00	568
Thu-12/2/21	04:00:00.000		Y	4.4	-	24.00	568
Fri-12/3/21	04:00:00.000		Y	4.5	-	24.00	568
Sat-12/4/21	04:00:00.000	(1)		4.5	-	24.00	568
Sun-12/5/21	04:00:00.000	(1)		4.5	-	24.00	568
Mon-12/6/21	04:00:00.000		Y	4.6	-	24.00	568
Tue-12/7/21	04:00:00.000		Y	4.6	-	24.00	552
Wed-12/8/21	04:00:00.000		Y	4.6	-	24.00	543
Thu-12/9/21	04:00:00.000		Y	4.7	-	24.00	543
Fri-12/10/21	04:00:00.000		Y	4.7	-	24.00	548
Sat-12/11/21	04:00:00.000	(1)		4.7	-	24.00	561
Sun-12/12/21	04:00:00.000	(1)		4.9	-	24.00	575
Mon-12/13/21	04:00:00.000		Y	5.3	-	24.00	565
Tue-12/14/21	04:00:00.000		Y	5.1	-	24.00	560
Wed-12/15/21	04:00:00.000		Y	5.0	-	24.00	561
Thu-12/16/21	04:00:00.000		Y	5.1	-	24.00	563
Fri-12/17/21	04:00:00.000		Y	5.0	-	24.00	561
Sat-12/18/21	04:00:00.000	(1)		5.1	-	24.00	561
Sun-12/19/21	04:00:00.000	(1)		5.0	-	24.00	561
Mon-12/20/21	04:00:00.000		Y	4.7	-	24.00	548
Tue-12/21/21	04:00:00.000		Y	4.4	-	24.00	531
Wed-12/22/21	04:00:00.000		Y	4.5	-	24.00	536
Thu-12/23/21	04:00:00.000		Y	4.4	-	24.00	534
Fri-12/24/21	04:00:00.000		Y	4.2	-	24.00	531
Sat-12/25/21	04:00:00.000	(1)		4.2	-	24.00	536
Sun-12/26/21	04:00:00.000	(1)		4.1	-	24.00	536
Mon-12/27/21	04:00:00.000		Y	4.1	-	24.00	537
Tue-12/28/21	04:00:00.000		Y	4.0	-	24.00	540
Wed-12/29/21	04:00:00.000		Y	4.7	-	24.00	550
Thu-12/30/21	04:00:00.000		Y	4.6	-	24.00	543
Fri-12/31/21	04:00:00.000		Y	4.5	-	24.00	535
		TOTALS	-		-	744	

Daily readings are collected by the Operator at various times of the day, resulting in varied readings and calculations.

(1) Manual readings were not taken due to weekend and/or holiday.

GelmanSciences

TABLE #10

RED POND CONCENTRATIONS

SAMPLE ID	Date Sampled	1,4-DIOXANE (ppb)
Red Pond-12-01-21-07:30-1	12/1/2021	340
Red Pond-12-02-21-07:15-1	12/2/2021	330
Red Pond-12-03-21-07:10-1	12/3/2021	300
Red Pond-12-06-21-07:35-1	12/6/2021	330
Red Pond-12-07-21-07:00-1	12/7/2021	310
Red Pond-12-08-21-06:55-1	12/8/2021	260
Red Pond-12-09-21-07:00-1	12/9/2021	340
Red Pond-12-10-21-07:45-1	12/10/2021	350
Red Pond-12-13-21-07:10-1	12/13/2021	370
Red Pond-12-14-21-07:30-1	12/14/2021	370
Red Pond-12-15-21-07:35-1	12/15/2021	390
Red Pond-12-16-21-07:15-1	12/16/2021	390
Red Pond-12-17-21-07:10-1	12/17/2021	380
Red Pond-12-20-21-07:35-1	12/20/2021	380
Red Pond-12-21-21-10:40-1	12/21/2021	380
Red Pond-12-22-21-07:15-1	12/22/2021	390
Red Pond-12-23-21-07:30-1	12/23/2021	390
Red Pond-12-28-21-07:40-1	12/28/2021	360
Red Pond-12-29-21-07:30-1	12/29/2021	350
Red Pond-12-30-21-07:00-1	12/30/2021	360

Analyte value quantified from a dilution, reporting limit is raised to reflect dilution

GelmanSciences

TABLE #11

OZONE OPERATION REPORT

Month of: Dec-21

			SYSTEM-1A		SYSTEM-1B		SYSTEM-2A		SYSTEM-2B	
Date	Time	Notes	Flow GPM	Run Hours	Flow GPM	Run Hours	Flow GPM	Run Hours	Flow GPM	Run Hours
Wed-12/1/21	04:00:00.000		240	24.00	0	0.00	381	24.00	0	0.00
Thu-12/2/21	04:00:00.000		240	24.00	0	0.00	380	24.00	0	0.00
Fri-12/3/21	04:00:00.000		241	24.00	0	0.00	380	24.00	0	0.00
Sat-12/4/21	04:00:00.000	(1)	240	24.00	0	0.00	380	24.00	0	0.00
Sun-12/5/21	04:00:00.000	(1)	240	24.00	0	0.00	381	24.00	0	0.00
Mon-12/6/21	04:00:00.000		240	24.00	0	0.00	379	24.00	0	0.00
Tue-12/7/21	04:00:00.000		240	24.00	0	0.00	379	24.00	0	0.00
Wed-12/8/21	04:00:00.000		240	24.00	0	0.00	380	24.00	0	0.00
Thu-12/9/21	04:00:00.000		240	24.00	0	0.00	380	24.00	0	0.00
Fri-12/10/21	04:00:00.000		240	23.83	0	0.00	381	23.80	0	0.00
Sat-12/11/21	04:00:00.000	(1)	240	24.00	0	0.00	379	24.00	0	0.00
Sun-12/12/21	04:00:00.000	(1)	240	24.00	0	0.00	380	24.00	0	0.00
Mon-12/13/21	04:00:00.000		240	23.05	0	0.00	380	23.28	0	0.00
Tue-12/14/21	04:00:00.000		239	24.00	0	0.00	379	24.00	0	0.00
Wed-12/15/21	04:00:00.000		240	24.00	0	0.00	379	24.00	0	0.00
Thu-12/16/21	04:00:00.000		240	23.78	0	0.00	380	23.78	0	0.00
Fri-12/17/21	04:00:00.000		240	24.00	0	0.00	380	24.00	0	0.00
Sat-12/18/21	04:00:00.000	(1)	240	24.00	0	0.00	380	24.00	0	0.00
Sun-12/19/21	04:00:00.000	(1)	240	24.00	0	0.00	380	24.00	0	0.00
Mon-12/20/21	04:00:00.000		241	24.00	0	0.00	381	24.00	0	0.00
Tue-12/21/21	04:00:00.000		240	24.00	0	0.00	380	24.00	0	0.00
Wed-12/22/21	04:00:00.000		241	24.00	0	0.00	380	24.00	0	0.00
Thu-12/23/21	04:00:00.000		240	23.80	0	0.00	380	23.77	0	0.00
Fri-12/24/21	04:00:00.000		241	24.00	0	0.00	379	24.00	0	0.00
Sat-12/25/21	04:00:00.000	(1)	240	24.00	0	0.00	380	24.00	0	0.00
Sun-12/26/21	04:00:00.000	(1)	240	24.00	0	0.00	380	24.00	0	0.00
Mon-12/27/21	04:00:00.000		240	24.00	0	0.00	381	24.00	0	0.00
Tue-12/28/21	04:00:00.000		240	24.00	0	0.00	380	24.00	0	0.00
Wed-12/29/21	04:00:00.000		240	23.02	0	0.00	379	22.87	0	0.00
Thu-12/30/21	04:00:00.000		240	24.00	0	0.00	379	24.00	0	0.00
Fri-12/31/21	04:00:00.000		240	24.00	0	0.00	380	24.00	0	0.00

Daily readings are collected by the Operator at various times of the day, resulting in varied readings and calculations.

(1) Manual readings were not taken due to weekend and/or holiday.

12/29/21 - Treatment System 2A was shut down briefly to repair a faulty valve.

GelmanSciences

TABLE #12

GREEN POND / DISCHARGE DATA

Month of: Dec-21

			Green Pond																
			Pond					Pond Discharge			Bypass Discharge			Recirc Thru UV to Pond			Recirc Thru UV to Disch		
Date	Time	Notes	Visual Chk	Level Feet	Aeration Hours	Influent Hours	Influent GPM	GPM	Gallons	Hours	GPM	Gallons	Hours	GPM	Gallons	Hours	GPM	Gallons	Hours
Wed-12/1/21	04:00:00.000		Y	-	-						642	925,016	24.00	-	-	-	-	-	-
Thu-12/2/21	04:00:00.000		Y	-	-						639	920,027	24.00	-	-	-	-	-	-
Fri-12/3/21	04:00:00.000		Y	-	-						642	924,953	24.00	-	-	-	-	-	-
Sat-12/4/21	04:00:00.000	(1)		-	-						642	924,947	24.00	-	-	-	-	-	-
Sun-12/5/21	04:00:00.000	(1)		-	-						642	924,716	24.00	-	-	-	-	-	-
Mon-12/6/21	04:00:00.000		Y	-	-						642	924,916	24.00	-	-	-	-	-	-
Tue-12/7/21	04:00:00.000		Y	-	-						642	924,212	24.00	-	-	-	-	-	-
Wed-12/8/21	04:00:00.000		Y	-	-						642	924,369	24.00	-	-	-	-	-	-
Thu-12/9/21	04:00:00.000		Y	-	-						642	924,389	24.00	-	-	-	-	-	-
Fri-12/10/21	04:00:00.000		Y	-	-						638	909,832	23.75	-	-	-	-	-	-
Sat-12/11/21	04:00:00.000	(1)		-	-						643	925,612	24.00	-	-	-	-	-	-
Sun-12/12/21	04:00:00.000	(1)		-	-						642	924,716	24.00	-	-	-	-	-	-
Mon-12/13/21	04:00:00.000		Y	-	-						641	878,579	22.83	-	-	-	-	-	-
Tue-12/14/21	04:00:00.000		Y	-	-						643	925,254	24.00	-	-	-	-	-	-
Wed-12/15/21	04:00:00.000		Y	-	-						643	925,716	24.00	-	-	-	-	-	-
Thu-12/16/21	04:00:00.000		Y	-	-						642	915,465	23.75	-	-	-	-	-	-
Fri-12/17/21	04:00:00.000		Y	-	-						643	925,651	24.00	-	-	-	-	-	-
Sat-12/18/21	04:00:00.000	(1)		-	-						643	925,492	24.00	-	-	-	-	-	-
Sun-12/19/21	04:00:00.000	(1)		-	-						642	925,187	24.00	-	-	-	-	-	-
Mon-12/20/21	04:00:00.000		Y	-	-						643	925,540	24.00	-	-	-	-	-	-
Tue-12/21/21	04:00:00.000		Y	-	-						643	925,689	24.00	-	-	-	-	-	-
Wed-12/22/21	04:00:00.000		Y	-	-						643	925,317	24.00	-	-	-	-	-	-
Thu-12/23/21	04:00:00.000		Y	-	-						639	912,949	23.80	-	-	-	-	-	-
Fri-12/24/21	04:00:00.000		Y	-	-						643	925,891	24.00	-	-	-	-	-	-
Sat-12/25/21	04:00:00.000	(1)		-	-						643	926,222	24.00	-	-	-	-	-	-
Sun-12/26/21	04:00:00.000	(1)		-	-						643	925,426	24.00	-	-	-	-	-	-
Mon-12/27/21	04:00:00.000		Y	-	-						643	925,437	24.00	-	-	-	-	-	-
Tue-12/28/21	04:00:00.000		Y	-	-						643	925,378	24.00	-	-	-	-	-	-
Wed-12/29/21	04:00:00.000		Y	-	-						640	879,411	22.92	-	-	-	-	-	-
Thu-12/30/21	04:00:00.000		Y	-	-						643	925,915	24.00	-	-	-	-	-	-
Fri-12/31/21	04:00:00.000		Y	-	-						643	925,998	24.00	-	-	-	-	-	-
		TOTALS			-	-			-	-		28,548,222	741		-	-		-	-

Daily readings are collected by the Operator at various times of the day, resulting in varied readings and calculations.

(1) Manual readings were not taken due to weekend and/or holiday.

GelmanSciences

TABLE #13
Daily Discharge Monitoring Report

	(Daily)	(Annually)	(Annually)	(Effluent - Outfall)	(Influent - Red Pond)	(Effluent - Outfall)	(Effluent - Outfall)	(Weekly)	(2 x Week)	(4 x Week)	(4 x Week)	(5 X Week)	(2 X Week)
PARAMETER NAME	Flow	Total Barium	Total Barium	1,4-Dioxane	1,4-Dioxane	Hydrogen Peroxide	Hydrogen Peroxide	Outfall Observation	Equipment Inspection	pH (Min. Daily)	pH (Max. Daily)	Bromate	Sodium Bisulfite Dose Rate
PARAMETER CODE	50050	1007	1007	82388	82388	00139	00139	84130	46478	00400	00400	99814	99798
MONITORING PT.	001A	001A	001A	001A	001A	001A	001A	001A	001A	001A	001A	001A	001A
STAGE CODE	1	1	1	1	G	1	1	1	1	1	1	1	1
UNIT	MGD	ug/l	lbs/day	ug/l	mg/l	ug/l	lbs/day	yes/no	yes/no	S.U.	S.U.	ug/l	mg/l
12/1/2021	0.925	*G	*G	6	0.340	<50	<0.16	no	yes	7.0	7.0	7.4	36
12/2/2021	0.920			6	0.330	<50	<0.16	no	no	7.0	7.0	7.4	
12/3/2021	0.925				0.300	<50	<0.16	no	no	6.9	6.9		
12/4/2021	0.925												
12/5/2021	0.925			6								8.0	
12/6/2021	0.925			6	0.330	<50	<0.16	yes	yes	7.0	7.0	7.2	36
12/7/2021	0.924			6	0.310	<50	<0.16	no	no	7.0	7.0	6.9	
12/8/2021	0.924			6	0.260	<50	<0.16	no	yes	6.9	6.9	7.2	32
12/9/2021	0.924			6	0.340	<50	<0.16	no	no	6.9	6.9	6.8	
12/10/2021	0.910				0.350	<50	<0.16	no	no	7.0	7.0		
12/11/2021	0.926												
12/12/2021	0.925			5								8.3	
12/13/2021	0.879			6	0.370	<50	<0.16	yes	yes	7.0	7.0	7.4	32
12/14/2021	0.925			6	0.370	<50	<0.16	no	no	7.0	7.0	7.8	
12/15/2021	0.926			6	0.390	<50	<0.16	no	yes	7.0	7.0	7.6	40
12/16/2021	0.915			7	0.390	<50	<0.16	no	no	7.1	7.1	8.0	
12/17/2021	0.926				0.380	<50	<0.16	no	no	7.0	7.0		
12/18/2021	0.925												
12/19/2021	0.925			8								5.4	
12/20/2021	0.926			8	0.380	<50	<0.16	yes	yes	7.0	7.0	7.5	44
12/21/2021	0.926			7	0.380	<50	<0.16	no	no	6.8	6.8	7.4	
12/22/2021	0.925			7	0.390	<50	<0.16	no	yes	6.9	6.9	7.8	56
12/23/2021	0.913			6	0.390	<50	<0.16	no	no	6.9	6.9	6.0	
12/24/2021	0.926												
12/25/2021	0.926												
12/26/2021	0.925			5								8.9	
12/27/2021	0.925			5								8.2	
12/28/2021	0.925			5	0.360	<50	<0.16	yes	yes	6.9	6.9	5.5	50
12/29/2021	0.879			5	0.350	<50	<0.16	no	no	6.9	6.9	6.6	
12/30/2021	0.926			5	0.360	<50	<0.16	no	yes	6.9	6.9	7.4	48
12/31/2021	0.926												
Discharged	**28.548**												
Monthly Avg	**0.921**			**6.0**								**7.3**	

12/24/21 - Christmas Eve Holiday.
12/27/21 - Christmas Day Holiday Observed.
12/31/21 - New Years Eve Holiday.