

October 7, 2019

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

**Re: Monitoring Report # 269  
September 1 – September 30, 2019**

Dear Ms. Dijak:

Pursuant to the National Pollutant Discharge Elimination System (NPDES) Permit No. MI0048453, please find the enclosed Monitoring Report for the period of September 1 through September 30, 2019.

Should you have any questions or concerns regarding this report, please contact me at 386-562-0176.

Sincerely,



Lawrence J. Gelb  
Sr. Director Global EHS

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



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**UNIT D2 UPGRADE EXTRACTION DATA**

Month of: **Sep-19**

Date	Horizontal Well Extraction			TW-9			TW-5			TW-21			Daily Flow	Daily Total
	HW-S	GPM	Run Hrs.	TW-9	GPM	Run Hrs.	TW-5	GPM	Run Hrs.	TW-21	GPM	Run Hrs.	GPM	Gallons
	Gallons			Gallons			Gallons			Gallons				
Sun-9/1/19	-	-	-	-	-	-	-	-	-	86,636	60	24.00	60	86,636
Mon-9/2/19	-	-	-	-	-	-	-	-	-	86,686	60	24.00	60	86,686
Tue-9/3/19	-	-	-	-	-	-	-	-	-	86,660	60	24.00	60	86,660
Wed-9/4/19	-	-	-	-	-	-	-	-	-	86,663	60	24.00	60	86,663
Thu-9/5/19	-	-	-	-	-	-	-	-	-	86,638	60	24.00	60	86,638
Fri-9/6/19	-	-	-	-	-	-	-	-	-	86,625	60	24.00	60	86,625
Sat-9/7/19	-	-	-	-	-	-	-	-	-	86,661	60	24.00	60	86,661
Sun-9/8/19	-	-	-	-	-	-	-	-	-	86,651	60	24.00	60	86,651
Mon-9/9/19	-	-	-	-	-	-	-	-	-	86,641	60	24.00	60	86,641
Tue-9/10/19	-	-	-	-	-	-	-	-	-	86,692	60	24.00	60	86,692
Wed-9/11/19	-	-	-	823	51	0.27	-	-	-	86,748	60	24.00	61	87,571
Thu-9/12/19	-	-	-	73,179	51	24.00	-	-	-	86,706	60	24.00	111	159,885
Fri-9/13/19	-	-	-	24,251	51	7.93	-	-	-	86,718	60	24.00	77	110,969
Sat-9/14/19	-	-	-	-	-	-	-	-	-	86,699	60	24.00	60	86,699
Sun-9/15/19	-	-	-	-	-	-	-	-	-	86,688	60	24.00	60	86,688
Mon-9/16/19	-	-	-	-	-	-	-	-	-	86,716	60	24.00	60	86,716
Tue-9/17/19	-	-	-	-	-	-	-	-	-	86,681	60	24.00	60	86,681
Wed-9/18/19	-	-	-	-	-	-	-	-	-	86,674	60	24.00	60	86,674
Thu-9/19/19	-	-	-	-	-	-	-	-	-	86,685	60	24.00	60	86,685
Fri-9/20/19	-	-	-	-	-	-	-	-	-	86,720	60	24.00	60	86,720
Sat-9/21/19	-	-	-	-	-	-	-	-	-	86,714	60	24.00	60	86,714
Sun-9/22/19	-	-	-	-	-	-	-	-	-	86,704	60	24.00	60	86,704
Mon-9/23/19	-	-	-	-	-	-	-	-	-	86,684	60	24.00	60	86,684
Tue-9/24/19	-	-	-	-	-	-	-	-	-	86,649	60	24.00	60	86,649
Wed-9/25/19	-	-	-	-	-	-	-	-	-	86,664	60	24.00	60	86,664
Thu-9/26/19	-	-	-	-	-	-	-	-	-	86,633	60	24.00	60	86,633
Fri-9/27/19	-	-	-	-	-	-	-	-	-	86,569	60	24.00	60	86,569
Sat-9/28/19	-	-	-	-	-	-	-	-	-	86,581	60	24.00	60	86,581
Sun-9/29/19	-	-	-	-	-	-	-	-	-	86,596	60	24.00	60	86,596
Mon-9/30/19	-	-	-	-	-	-	-	-	-	86,666	60	24.00	60	86,666
<b>TOTALS</b>	-	-	-	<b>98,253</b>	<b>51</b>	<b>32.20</b>	-	-	-	<b>2,600,048</b>	<b>60</b>	<b>720.00</b>	<b>62</b>	<b>2,698,301</b>

<b>TOTAL VOLUME EXTRACTED :</b>	<b>2,698,301 GALLONS</b>
<b>DAYS IN MONTH :</b>	<b>30 DAYS</b>
<b>MONTHLY AVERAGE FLOW RATE :</b>	<b>62.46 GPM</b>

**UNIT D2 DOWNGRADIENT EXTRACTION DATA**

Month of: **Sep-19**

Date	LB-1			LB-4			Daily	Daily
	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.	Flow GPM	Total Gallons
Sun-9/1/19	-	-	-	144,215	100	24.00	100	144,215
Mon-9/2/19	-	-	-	144,213	100	24.00	100	144,213
Tue-9/3/19	-	-	-	144,207	100	24.00	100	144,207
Wed-9/4/19	-	-	-	144,176	100	24.00	100	144,176
Thu-9/5/19	-	-	-	144,170	100	24.00	100	144,170
Fri-9/6/19	-	-	-	143,797	100	23.93	100	143,797
Sat-9/7/19	-	-	-	144,172	100	24.00	100	144,172
Sun-9/8/19	-	-	-	144,214	100	24.00	100	144,214
Mon-9/9/19	-	-	-	144,190	100	24.00	100	144,190
Tue-9/10/19	-	-	-	144,179	100	24.00	100	144,179
Wed-9/11/19	-	-	-	136,046	100	22.65	94	136,046
Thu-9/12/19	-	-	-	144,198	100	24.00	100	144,198
Fri-9/13/19	-	-	-	144,164	100	24.00	100	144,164
Sat-9/14/19	-	-	-	144,211	100	24.00	100	144,211
Sun-9/15/19	-	-	-	144,198	100	24.00	100	144,198
Mon-9/16/19	-	-	-	144,189	100	24.00	100	144,189
Tue-9/17/19	-	-	-	144,206	100	24.00	100	144,206
Wed-9/18/19	-	-	-	144,263	100	24.00	100	144,263
Thu-9/19/19	-	-	-	144,235	100	24.00	100	144,235
Fri-9/20/19	-	-	-	144,180	100	24.00	100	144,180
Sat-9/21/19	-	-	-	144,188	100	24.00	100	144,188
Sun-9/22/19	-	-	-	144,180	100	24.00	100	144,180
Mon-9/23/19	-	-	-	144,181	100	24.00	100	144,181
Tue-9/24/19	-	-	-	144,229	100	24.00	100	144,229
Wed-9/25/19	-	-	-	144,196	100	24.00	100	144,196
Thu-9/26/19	-	-	-	99,527	100	16.58	69	99,527
Fri-9/27/19	-	-	-	144,187	100	24.00	100	144,187
Sat-9/28/19	-	-	-	144,184	100	24.00	100	144,184
Sun-9/29/19	-	-	-	144,176	100	24.00	100	144,176
Mon-9/30/19	-	-	-	144,168	100	24.00	100	144,168
<b>TOTALS</b>	-	-	-	<b>4,272,639</b>	<b>100</b>	<b>711.16</b>	<b>99</b>	<b>4,272,639</b>

<b>TOTAL VOLUME EXTRACTED :</b>	<b>4,272,639 GALLONS</b>
<b>DAYS IN MONTH :</b>	<b>30 DAYS</b>
<b>MONTHLY AVERAGE FLOW RATE :</b>	<b>98.90 GPM</b>

09/11/19 - LB-4 was shut down briefly due to DTE Energy power outage.  
 09/26/19 - LB-4 was shut down due to DTE Energy power outage.

**TABLE #3**

**CORE AREA EXTRACTION DATA**

Month of: Sep-19

Core Area Well Extraction															Daily	Daily				
Date	TW-1			TW-2 (Dolph)			TW-3			TW-10			TW-14			TW-20			Flow GPM	Total Gallons
	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.		
Sun-9/1/19	-	-	-	17,712	12	24.00	-	-	-	-	-	-	-	-	-	28,804	20	24.00	32	46,516
Mon-9/2/19	-	-	-	17,740	12	24.00	-	-	-	-	-	-	-	-	-	28,804	20	24.00	32	46,544
Tue-9/3/19	-	-	-	17,776	12	24.00	-	-	-	-	-	-	-	-	-	28,763	20	24.00	32	46,539
Wed-9/4/19	-	-	-	17,765	12	24.00	-	-	-	-	-	-	-	-	-	28,744	20	24.00	32	46,509
Thu-9/5/19	-	-	-	17,778	12	24.00	-	-	-	-	-	-	-	-	-	28,736	20	24.00	32	46,514
Fri-9/6/19	-	-	-	17,773	12	24.00	-	-	-	-	-	-	-	-	-	28,673	20	24.00	32	46,446
Sat-9/7/19	-	-	-	17,753	12	24.00	-	-	-	-	-	-	-	-	-	28,962	20	24.00	32	46,715
Sun-9/8/19	-	-	-	17,737	12	24.00	-	-	-	-	-	-	-	-	-	28,901	20	24.00	32	46,638
Mon-9/9/19	-	-	-	17,619	12	24.00	-	-	-	-	-	-	-	-	-	28,584	20	23.87	32	46,203
Tue-9/10/19	-	-	-	17,762	12	24.00	-	-	-	-	-	-	-	-	-	28,776	20	24.00	32	46,538
Wed-9/11/19	-	-	-	17,745	12	24.00	-	-	-	3,398	44	1.17	-	-	-	28,730	20	24.00	35	49,873
Thu-9/12/19	-	-	-	17,684	12	24.00	-	-	-	64,844	45	24.00	-	-	-	28,734	20	24.00	77	111,262
Fri-9/13/19	-	-	-	17,680	12	24.00	-	-	-	18,891	46	6.54	-	-	-	28,812	20	24.00	45	65,383
Sat-9/14/19	-	-	-	17,639	12	24.00	-	-	-	-	-	-	-	-	-	28,793	20	24.00	32	46,432
Sun-9/15/19	-	-	-	17,605	12	24.00	-	-	-	-	-	-	-	-	-	28,866	20	23.98	32	46,471
Mon-9/16/19	-	-	-	17,653	12	24.00	-	-	-	-	-	-	-	-	-	28,899	20	24.00	32	46,552
Tue-9/17/19	-	-	-	17,627	12	24.00	-	-	-	-	-	-	-	-	-	28,861	20	24.00	32	46,488
Wed-9/18/19	-	-	-	17,651	12	24.00	-	-	-	-	-	-	-	-	-	28,977	20	24.00	32	46,628
Thu-9/19/19	-	-	-	17,630	12	24.00	-	-	-	-	-	-	-	-	-	28,965	20	24.00	32	46,595
Fri-9/20/19	-	-	-	17,621	12	24.00	-	-	-	-	-	-	-	-	-	28,987	20	24.00	32	46,608
Sat-9/21/19	-	-	-	17,612	12	24.00	-	-	-	-	-	-	-	-	-	28,950	20	24.00	32	46,562
Sun-9/22/19	-	-	-	17,646	12	24.00	-	-	-	-	-	-	-	-	-	28,927	20	24.00	32	46,573
Mon-9/23/19	-	-	-	17,564	12	24.00	-	-	-	-	-	-	-	-	-	29,019	20	24.00	32	46,583
Tue-9/24/19	-	-	-	17,579	12	24.00	-	-	-	-	-	-	-	-	-	28,872	20	24.00	32	46,451
Wed-9/25/19	-	-	-	17,597	12	24.00	-	-	-	-	-	-	-	-	-	28,956	20	24.00	32	46,553
Thu-9/26/19	-	-	-	17,606	12	24.00	-	-	-	-	-	-	-	-	-	29,082	20	24.00	32	46,688
Fri-9/27/19	-	-	-	17,847	12	24.00	-	-	-	-	-	-	-	-	-	29,039	20	24.00	33	46,886
Sat-9/28/19	-	-	-	17,926	12	24.00	-	-	-	-	-	-	-	-	-	28,964	20	24.00	33	46,890
Sun-9/29/19	-	-	-	17,929	12	24.00	-	-	-	-	-	-	-	-	-	28,977	20	24.00	33	46,906
Mon-9/30/19	-	-	-	17,943	12	24.00	-	-	-	-	-	-	-	-	-	28,979	20	24.00	33	46,922
<b>TOTALS</b>	-	-	-	<b>531,199</b>	<b>12</b>	<b>720.00</b>	-	-	-	<b>87,133</b>	<b>45</b>	<b>31.71</b>	-	-	-	<b>866,136</b>	<b>20</b>	<b>719.85</b>	<b>34</b>	<b>1,484,468</b>

TOTAL VOLUME EXTRACTED :	1,484,468 GALLONS
DAYS IN MONTH :	30 DAYS
MONTHLY AVERAGE FLOW RATE :	34.36 GPM

**MARSHY AREA EXTRACTION DATA**

**Month of: Sep-19**

Marshy Well Extraction				Daily	Daily
Date	PW-1		Run Hrs.	Flow	Total
	Gallons	GPM		GPM	Gallons
Sun-9/1/19	2,145	1	24.00	1	2,145
Mon-9/2/19	2,137	1	24.00	1	2,137
Tue-9/3/19	2,138	1	24.00	1	2,138
Wed-9/4/19	2,143	1	24.00	1	2,143
Thu-9/5/19	2,148	1	24.00	1	2,148
Fri-9/6/19	2,146	1	24.00	1	2,146
Sat-9/7/19	2,146	1	24.00	1	2,146
Sun-9/8/19	2,153	1	24.00	1	2,153
Mon-9/9/19	2,136	1	24.00	1	2,136
Tue-9/10/19	2,128	1	24.00	1	2,128
Wed-9/11/19	2,121	1	24.00	1	2,121
Thu-9/12/19	2,142	1	24.00	1	2,142
Fri-9/13/19	2,141	1	24.00	1	2,141
Sat-9/14/19	2,140	1	24.00	1	2,140
Sun-9/15/19	2,135	1	24.00	1	2,135
Mon-9/16/19	2,134	1	24.00	1	2,134
Tue-9/17/19	2,138	1	24.00	1	2,138
Wed-9/18/19	2,137	1	24.00	1	2,137
Thu-9/19/19	2,134	1	24.00	1	2,134
Fri-9/20/19	2,127	1	24.00	1	2,127
Sat-9/21/19	2,122	1	24.00	1	2,122
Sun-9/22/19	2,122	1	24.00	1	2,122
Mon-9/23/19	2,128	1	24.00	1	2,128
Tue-9/24/19	2,130	1	24.00	1	2,130
Wed-9/25/19	2,134	1	24.00	1	2,134
Thu-9/26/19	2,136	1	24.00	1	2,136
Fri-9/27/19	2,079	1	23.27	1	2,079
Sat-9/28/19	2,032	1	22.77	1	2,032
Sun-9/29/19	-	-	-	-	-
Mon-9/30/19	1,435	1	16.07	1	1,435
<b>TOTALS</b>	<b>61,087</b>	<b>1</b>	<b>686.10</b>	<b>1</b>	<b>61,087</b>

<b>TOTAL VOLUME EXTRACTED :</b>	<b>61,087 GALLONS</b>
<b>DAYS IN MONTH :</b>	<b>30 DAYS</b>
<b>MONTHLY AVERAGE FLOW RATE :</b>	<b>1.41 GPM</b>

PW-1 was shut down intermittently due to flow fluctuations

**SOUTHWEST AREA EXTRACTION DATA**

Month of: **Sep-19**

South West Well Extraction							Daily	Daily
Date	TW22			TW28			Flow	Total
	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.	GPM	Gallons
Sun-9/1/19	2,698	2	24.00	35,763	25	24.00	27	38,461
Mon-9/2/19	3,204	2	24.00	35,659	25	24.00	27	38,863
Tue-9/3/19	2,847	2	23.98	35,714	25	23.98	27	38,561
Wed-9/4/19	2,676	2	24.00	35,783	25	24.00	27	38,459
Thu-9/5/19	2,673	2	23.98	35,764	25	23.98	27	38,437
Fri-9/6/19	2,671	2	24.00	35,773	25	24.00	27	38,444
Sat-9/7/19	2,666	2	24.00	35,736	25	24.00	27	38,402
Sun-9/8/19	2,669	2	24.00	35,710	25	24.00	27	38,379
Mon-9/9/19	2,666	2	24.00	35,667	25	24.00	27	38,333
Tue-9/10/19	2,723	2	24.00	36,029	25	24.00	27	38,752
Wed-9/11/19	2,769	2	24.00	36,099	25	24.00	27	38,868
Thu-9/12/19	2,756	2	24.00	36,051	25	24.00	27	38,807
Fri-9/13/19	2,753	2	24.00	36,063	25	24.00	27	38,816
Sat-9/14/19	2,767	2	24.00	36,066	25	24.00	27	38,833
Sun-9/15/19	2,811	2	24.00	36,057	25	24.00	27	38,868
Mon-9/16/19	2,970	2	24.00	36,055	25	24.00	27	39,025
Tue-9/17/19	2,961	2	24.00	36,055	25	24.00	27	39,016
Wed-9/18/19	2,957	2	24.00	36,053	25	24.00	27	39,010
Thu-9/19/19	2,937	2	24.00	36,046	25	24.00	27	38,983
Fri-9/20/19	2,934	2	24.00	36,022	25	24.00	27	38,956
Sat-9/21/19	2,932	2	24.00	36,005	25	24.00	27	38,937
Sun-9/22/19	2,930	2	24.00	36,021	25	24.00	27	38,951
Mon-9/23/19	2,927	2	24.00	36,033	25	24.00	27	38,960
Tue-9/24/19	2,925	2	24.00	36,007	25	24.00	27	38,932
Wed-9/25/19	2,921	2	24.00	36,019	25	24.00	27	38,940
Thu-9/26/19	2,922	2	24.00	36,006	25	24.00	27	38,928
Fri-9/27/19	2,926	2	24.00	35,991	25	24.00	27	38,917
Sat-9/28/19	2,922	2	24.00	35,953	25	24.00	27	38,875
Sun-9/29/19	2,929	2	24.00	35,896	25	24.00	27	38,825
Mon-9/30/19	2,929	2	24.00	35,919	25	24.00	27	38,848
<b>TOTALS</b>	<b>85,371</b>	<b>2</b>	<b>719.97</b>	<b>1,078,015</b>	<b>25</b>	<b>719.97</b>	<b>27</b>	<b>1,163,386</b>

<b>TOTAL VOLUME EXTRACTED :</b>	<b>1,163,386 GALLONS</b>
<b>DAYS IN MONTH :</b>	<b>30 DAYS</b>
<b>MONTHLY AVERAGE FLOW RATE :</b>	<b>26.93 GPM</b>

TABLE #6

UNIT "E" EXTRACTION DATA

Month of: Sep-19

Date	TW-11			TW-12			TW-17			TW-18			TW-19			TW-23			Daily Flow GPM	Daily Total Gallons	
	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.			
Sun-9/1/19	-	-	-	-	-	-	-	-	-	241,129	167	24.00	44,360	31	24.00	99,254	69	24.00	267	384,743	
Mon-9/2/19	-	-	-	-	-	-	-	-	-	237,810	165	24.00	44,374	31	24.00	99,240	69	24.00	265	381,424	
Tue-9/3/19	-	-	-	-	-	-	-	-	-	241,132	167	24.00	44,397	31	24.00	99,108	69	24.00	267	384,637	
Wed-9/4/19	-	-	-	-	-	-	-	-	-	241,124	167	24.00	44,388	31	24.00	99,149	69	24.00	267	384,661	
Thu-9/5/19	-	-	-	-	-	-	-	-	-	241,021	167	24.00	44,404	31	24.00	99,180	69	24.00	267	384,605	
Fri-9/6/19	-	-	-	-	-	-	-	-	-	241,022	167	24.00	44,437	31	24.00	99,199	69	24.00	267	384,658	
Sat-9/7/19	-	-	-	-	-	-	-	-	-	241,058	167	24.00	44,428	31	24.00	99,178	69	24.00	267	384,664	
Sun-9/8/19	-	-	-	-	-	-	-	-	-	241,013	167	24.00	44,442	31	24.00	99,212	69	24.00	267	384,667	
Mon-9/9/19	-	-	-	-	-	-	-	-	-	239,641	167	23.87	44,473	31	24.00	99,142	69	24.00	266	383,256	
Tue-9/10/19	-	-	-	-	-	-	-	-	-	241,087	167	24.00	44,478	31	24.00	99,184	69	24.00	267	384,749	
Wed-9/11/19	-	-	-	-	-	-	-	-	-	241,106	167	24.00	36,272	31	19.60	80,838	69	19.58	249	358,216	
Thu-9/12/19	-	-	-	-	-	-	-	-	-	240,976	167	24.00	-	-	-	-	-	-	-	167	240,976
Fri-9/13/19	-	-	-	-	-	-	-	-	-	224,337	156	24.00	35,421	31	18.98	78,440	69	18.95	235	338,198	
Sat-9/14/19	-	-	-	-	-	-	-	-	-	219,093	152	24.00	44,979	31	24.00	99,198	69	24.00	252	363,270	
Sun-9/15/19	-	-	-	-	-	-	-	-	-	219,095	152	23.98	45,114	31	24.00	99,165	69	24.00	252	363,374	
Mon-9/16/19	-	-	-	-	-	-	-	-	-	219,020	152	24.00	45,229	31	24.00	99,247	69	24.00	252	363,496	
Tue-9/17/19	-	-	-	-	-	-	-	-	-	219,098	152	24.00	45,272	31	24.00	99,242	69	24.00	253	363,612	
Wed-9/18/19	-	-	-	-	-	-	-	-	-	219,121	152	24.00	45,291	31	24.00	99,245	69	24.00	253	363,657	
Thu-9/19/19	-	-	-	-	-	-	-	-	-	235,938	164	24.00	45,304	31	24.00	99,262	69	24.00	264	380,504	
Fri-9/20/19	-	-	-	-	-	-	-	-	-	241,060	167	24.00	45,228	31	24.00	99,206	69	24.00	268	385,494	
Sat-9/21/19	-	-	-	-	-	-	-	-	-	241,009	167	24.00	45,298	31	24.00	99,333	69	24.00	268	385,640	
Sun-9/22/19	-	-	-	-	-	-	-	-	-	241,076	167	24.00	45,316	31	24.00	99,237	69	24.00	268	385,629	
Mon-9/23/19	-	-	-	-	-	-	-	-	-	241,036	167	24.00	45,350	31	24.00	99,202	69	24.00	268	385,588	
Tue-9/24/19	-	-	-	-	-	-	-	-	-	241,021	167	24.00	45,388	32	24.00	99,241	69	24.00	268	385,650	
Wed-9/25/19	-	-	-	-	-	-	-	-	-	240,996	167	24.00	41,145	32	21.75	89,877	69	21.75	258	372,018	
Thu-9/26/19	-	-	-	-	-	-	-	-	-	241,005	167	24.00	35,088	31	18.67	77,055	69	18.63	245	353,148	
Fri-9/27/19	-	-	-	-	-	-	-	-	-	240,981	167	24.00	45,596	32	24.00	99,244	69	24.00	268	385,821	
Sat-9/28/19	-	-	-	-	-	-	-	-	-	240,976	167	24.00	45,163	31	24.00	99,329	69	24.00	268	385,468	
Sun-9/29/19	-	-	-	-	-	-	-	-	-	241,012	167	24.00	44,329	31	24.00	99,229	69	24.00	267	384,570	
Mon-9/30/19	-	-	-	-	-	-	-	-	-	241,045	167	24.00	44,441	31	24.00	99,316	69	24.00	267	384,802	
<b>TOTALS</b>	-	-	-	-	-	-	-	-	-	<b>7,095,038</b>	<b>164</b>	<b>719.85</b>	<b>1,269,405</b>	<b>31</b>	<b>679.00</b>	<b>2,806,752</b>	<b>69</b>	<b>678.91</b>	<b>259</b>	<b>11,171,195</b>	

TOTAL VOLUME EXTRACTED :	11,171,195 GALLONS
DAYS IN MONTH :	30 DAYS
MONTHLY AVERAGE FLOW RATE :	258.59 GPM

09/11/19 - 09/13/19 - TW-19 and TW-23 were shut down due to a DTE Energy power outage caused by storms in the area.  
 09/25/19 - 09/26/19 - TW-19 and TW-23 were shut down due to a DTE Energy power outage.



**TABLE #7**

**Little Lake Area System**

MW-53i	
Date	1,4-Dioxane ug/L
06/04/19	100
07/17/19	44
08/05/19	57
09/04/19	56

A2 Cleaning Supply Well	
Date	1,4-Dioxane ug/L
06/13/19	76
07/03/19	82
08/05/19	99
09/04/19	88

Date	Gallons Purged
9/12/2019	28,000

**TABLE #8**

**INDIVIDUAL PURGE WELL CONCENTRATIONS**

<b>SAMPLE ID</b>	<b>Date Sampled</b>	<b>1,4-DIOXANE (ppb)</b>
DOLPH-09-09-19-10:28-1	09/09/19	120
TW-10-09-12-19-11:36-1	09/12/19	450
TW-20-09-09-19-10:34-1	09/09/19	860
LB-4-09-09-19-10:10-1	09/09/19	480
TW-21-09-09-19-10:20-1	09/09/19	190
TW-9-09-12-19-11:34-1	09/12/19	510
TW-18-09-09-19-10:23-1	09/09/19	240
TW-19-09-09-19-09:33-1	09/09/19	560
TW-23-09-09-19-09:36-1	09/09/19	480
PW-1-09-09-19-10:40-1	09/09/19	800
TW-22-09-09-19-09:23-1	09/09/19	470
TW-28-09-09-19-09:26-1	09/09/19	820

**RED POND DATA**

Month of: **Sep-19**

Date	Time	Notes	Red Pond				
			Pond	Level	Aeration	Influent	Influent
			Visual Chk	Feet	Hours	Hours	GPM
Sun-9/1/19	04:00:00.000	(1)		4.3	-	24.00	488
Mon-9/2/19	04:00:00.000		Y	4.4	-	24.00	486
Tue-9/3/19	04:00:00.000		Y	4.5	-	24.00	488
Wed-9/4/19	04:00:00.000		Y	4.5	-	24.00	488
Thu-9/5/19	04:00:00.000		Y	4.5	-	24.00	488
Fri-9/6/19	04:00:00.000		Y	4.6	-	24.00	488
Sat-9/7/19	04:00:00.000	(1)		4.6	-	24.00	488
Sun-9/8/19	04:00:00.000	(1)		4.6	-	24.00	488
Mon-9/9/19	04:00:00.000		Y	4.7	-	24.00	487
Tue-9/10/19	04:00:00.000		Y	4.7	-	24.00	488
Wed-9/11/19	04:00:00.000		Y	4.8	-	24.00	467
Thu-9/12/19	04:00:00.000		Y	5.0	-	24.00	484
Fri-9/13/19	04:00:00.000		Y	4.4	-	24.00	486
Sat-9/14/19	04:00:00.000	(1)		4.2	-	24.00	473
Sun-9/15/19	04:00:00.000	(1)		4.1	-	24.00	473
Mon-9/16/19	04:00:00.000		Y	4.0	-	24.00	474
Tue-9/17/19	04:00:00.000		Y	3.8	-	24.00	474
Wed-9/18/19	04:00:00.000		Y	3.7	-	24.00	474
Thu-9/19/19	04:00:00.000		Y	3.7	-	24.00	486
Fri-9/20/19	04:00:00.000		Y	3.7	-	24.00	489
Sat-9/21/19	04:00:00.000	(1)		3.8	-	24.00	489
Sun-9/22/19	04:00:00.000	(1)		4.0	-	24.00	489
Mon-9/23/19	04:00:00.000		Y	4.0	-	24.00	489
Tue-9/24/19	04:00:00.000		Y	4.0	-	24.00	489
Wed-9/25/19	04:00:00.000		Y	3.7	-	24.00	480
Thu-9/26/19	04:00:00.000		Y	3.2	-	24.00	435
Fri-9/27/19	04:00:00.000		Y	3.4	-	24.00	489
Sat-9/28/19	04:00:00.000	(1)		3.5	-	24.00	489
Sun-9/29/19	04:00:00.000	(1)		3.5	-	24.00	487
Mon-9/30/19	04:00:00.000		Y	3.6	-	24.00	488
<b>TOTALS</b>			-	-	-	<b>720</b>	

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.

**TABLE #10**

**RED POND CONCENTRATIONS**

Concentrations of 1,4-Dioxane found in the Red Pond

<b>SAMPLE ID</b>	<b>Date Sampled</b>	<b>1,4-DIOXANE (ppb)</b>
Red Pond-09-03-19-08:44-1	9/3/2019	360
Red Pond-09-09-19-08:19-1	9/9/2019	400
Red Pond-09-16-19-08:23-1	9/16/2019	360
Red Pond-09-23-19-08:30-1	9/23/2019	340
Red Pond-09-30-19-07:50-1	9/30/2019	360

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

OZONE OPERATION REPORT

Month of: Sep-19

Date	Time	Notes	SYSTEM-1A		SYSTEM-1B		SYSTEM-2A		SYSTEM-2B	
			Flow GPM	Run Hours	Flow GPM	Run Hours	Flow GPM	Run Hours	Flow GPM	Run Hours
Sun-9/1/19	14:00:00.00	(1)	240	24.00	0	0.00	240	24.00	0	0.00
Mon-9/2/19	14:00:00.00		240	24.00	0	0.00	239	24.00	0	0.00
Tue-9/3/19	14:00:00.00		239	24.00	0	0.00	239	24.00	0	0.00
Wed-9/4/19	14:00:00.00		240	24.00	0	0.00	239	24.00	0	0.00
Thu-9/5/19	14:00:00.00		240	24.00	0	0.00	239	24.00	0	0.00
Fri-9/6/19	14:00:00.00		240	24.00	0	0.00	240	24.00	0	0.00
Sat-9/7/19	14:00:00.00	(1)	240	24.00	0	0.00	240	24.00	0	0.00
Sun-9/8/19	14:00:00.00	(1)	240	24.00	0	0.00	240	24.00	0	0.00
Mon-9/9/19	14:00:00.00		240	24.00	0	0.00	240	24.00	0	0.00
Tue-9/10/19	14:00:00.00		240	24.00	0	0.00	240	24.00	0	0.00
Wed-9/11/19	14:00:00.00		240	24.00	0	0.00	240	24.00	0	0.00
Thu-9/12/19	14:00:00.00		239	23.85	0	0.00	240	23.87	0	0.00
Fri-9/13/19	14:00:00.00		240	23.77	0	0.00	240	23.80	0	0.00
Sat-9/14/19	14:00:00.00	(1)	240	23.73	0	0.00	240	23.78	0	0.00
Sun-9/15/19	14:00:00.00	(1)	240	24.00	0	0.00	240	24.00	0	0.00
Mon-9/16/19	14:00:00.00		240	24.00	0	0.00	239	24.00	0	0.00
Tue-9/17/19	14:00:00.00		239	24.00	0	0.00	239	24.00	0	0.00
Wed-9/18/19	14:00:00.00		240	24.00	0	0.00	240	24.00	0	0.00
Thu-9/19/19	14:00:00.00		239	24.00	0	0.00	241	24.00	0	0.00
Fri-9/20/19	14:00:00.00		240	24.00	0	0.00	240	24.00	0	0.00
Sat-9/21/19	14:00:00.00	(1)	240	24.00	0	0.00	240	24.00	0	0.00
Sun-9/22/19	14:00:00.00	(1)	240	24.00	0	0.00	240	24.00	0	0.00
Mon-9/23/19	14:00:00.00		240	24.00	0	0.00	239	24.00	0	0.00
Tue-9/24/19	14:00:00.00		240	24.00	0	0.00	240	24.00	0	0.00
Wed-9/25/19	14:00:00.00		240	24.00	0	0.00	240	24.00	0	0.00
Thu-9/26/19	14:00:00.00		240	24.00	0	0.00	240	24.00	0	0.00
Fri-9/27/19	14:00:00.00		239	24.00	0	0.00	239	24.00	0	0.00
Sat-9/28/19	14:00:00.00	(1)	239	24.00	0	0.00	239	24.00	0	0.00
Sun-9/29/19	14:00:00.00	(1)	240	24.00	0	0.00	240	24.00	0	0.00
Mon-9/30/19	14:00:00.00		240	24.00	0	0.00	240	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.

**TABLE #12**

**GREEN POND / DISCHARGE DATA**

Month of: **Sep-19**

Date	Time	Notes	Green Pond																	
			Pond			Influent			Pond Discharge			Bypass Discharge			Recirc Thru UV to Pond			Recirc Thru UV to Disch		
			Visual Chk	Level Feet	Aeration Hours	Influent Hours	Influent GPM	GPM	Gallons	Hours	GPM	Gallons	Hours	GPM	Gallons	Hours	GPM	Gallons	Hours	
Sun-9/1/19	04:00:00.000	(1)		-	-					497	716,257	24.00	-	-	-	-	-	-		
Mon-9/2/19	04:00:00.000		Y	-	-					498	716,451	24.00	-	-	-	-	-	-		
Tue-9/3/19	04:00:00.000		Y	-	-					498	716,675	24.00	-	-	-	-	-	-		
Wed-9/4/19	04:00:00.000		Y	-	-					498	716,454	24.00	-	-	-	-	-	-		
Thu-9/5/19	04:00:00.000		Y	-	-					497	716,373	24.00	-	-	-	-	-	-		
Fri-9/6/19	04:00:00.000		Y	-	-					498	716,416	24.00	-	-	-	-	-	-		
Sat-9/7/19	04:00:00.000	(1)		-	-					498	716,420	24.00	-	-	-	-	-	-		
Sun-9/8/19	04:00:00.000	(1)		-	-					497	716,380	24.00	-	-	-	-	-	-		
Mon-9/9/19	04:00:00.000		Y	-	-					497	716,229	24.00	-	-	-	-	-	-		
Tue-9/10/19	04:00:00.000		Y	-	-					498	716,617	24.00	-	-	-	-	-	-		
Wed-9/11/19	04:00:00.000		Y	-	-					498	716,915	24.00	-	-	-	-	-	-		
Thu-9/12/19	04:00:00.000		Y	-	-					498	709,987	23.78	-	-	-	-	-	-		
Fri-9/13/19	04:00:00.000		Y	-	-					497	708,463	23.75	-	-	-	-	-	-		
Sat-9/14/19	04:00:00.000	(1)		-	-					496	707,426	23.77	-	-	-	-	-	-		
Sun-9/15/19	04:00:00.000	(1)		-	-					497	716,375	24.00	-	-	-	-	-	-		
Mon-9/16/19	04:00:00.000		Y	-	-					498	716,415	24.00	-	-	-	-	-	-		
Tue-9/17/19	04:00:00.000		Y	-	-					498	716,432	24.00	-	-	-	-	-	-		
Wed-9/18/19	04:00:00.000		Y	-	-					498	716,442	24.00	-	-	-	-	-	-		
Thu-9/19/19	04:00:00.000		Y	-	-					497	716,388	24.00	-	-	-	-	-	-		
Fri-9/20/19	04:00:00.000		Y	-	-					498	716,409	24.00	-	-	-	-	-	-		
Sat-9/21/19	04:00:00.000	(1)		-	-					498	716,434	24.00	-	-	-	-	-	-		
Sun-9/22/19	04:00:00.000	(1)		-	-					498	716,602	24.00	-	-	-	-	-	-		
Mon-9/23/19	04:00:00.000		Y	-	-					498	716,585	24.00	-	-	-	-	-	-		
Tue-9/24/19	04:00:00.000		Y	-	-					497	716,399	24.00	-	-	-	-	-	-		
Wed-9/25/19	04:00:00.000		Y	-	-					497	716,376	24.00	-	-	-	-	-	-		
Thu-9/26/19	04:00:00.000		Y	-	-					497	716,354	24.00	-	-	-	-	-	-		
Fri-9/27/19	04:00:00.000		Y	-	-					497	716,284	24.00	-	-	-	-	-	-		
Sat-9/28/19	04:00:00.000	(1)		-	-					497	716,262	24.00	-	-	-	-	-	-		
Sun-9/29/19	04:00:00.000	(1)		-	-					497	715,964	24.00	-	-	-	-	-	-		
Mon-9/30/19	04:00:00.000		Y	-	-					497	716,183	24.00	-	-	-	-	-	-		
	04:00:00.000		Y	-	-						-	-	-	-	-	-	-	-		
<b>TOTALS</b>											<b>21,468,967</b>	<b>719</b>								

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.

**TABLE #13**  
**Daily Discharge Monitoring Report**

	(Daily)	Quarterly	(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
9/1/2019	0.716	*G	*G	6.5								6.6	
9/2/2019	0.716			5.9								6.3	
9/3/2019	0.717			5.6	0.360	<50	<0.16	yes	yes	6.9	6.9	5.6	25
9/4/2019	0.716			5.4		<50	<0.16	no	yes	7.0	7.0	6.9	
9/5/2019	0.716			6		<50	<0.16	no	no	6.8	6.8	7.4	25
9/6/2019	0.716					<50	<0.16	no	no	7.0	7.0		
9/7/2019	0.716												
9/8/2019	0.716			5.5								5.6	
9/9/2019	0.716			6.2	0.400	<50	<0.16	yes	yes	6.8	6.8	5.5	25
9/10/2019	0.717			6.1		<50	<0.16	no	no	6.9	6.9	6.2	
9/11/2019	0.717			6.1		<50	<0.16	no	yes	6.8	6.8	5.4	35
9/12/2019	0.710			5.3		<50	<0.16	no	no	7.0	7.0	5.2	
9/13/2019	0.708					<50	<0.16	no	no	6.9	6.9		
9/14/2019	0.707												
9/15/2019	0.716			5.8								6	
9/16/2019	0.716			5.6	0.360	<50	<0.16	yes	yes	6.8	6.8	6.4	45
9/17/2019	0.716			5.5		<50	<0.16	no	no	6.8	6.8	5.7	
9/18/2019	0.716			5.9		<50	<0.16	no	yes	6.9	6.9	5.4	30
9/19/2019	0.716			6.2		<50	<0.16	no	no	6.8	6.8	6.3	
9/20/2019	0.716					<50	<0.16	no	no	6.6	6.6		
9/21/2019	0.716												
9/22/2019	0.717			6.2								5.3	
9/23/2019	0.717			6.3	0.340	<50	<0.16	yes	yes	6.8	6.8	6.6	20
9/24/2019	0.716			6.7		<50	<0.16	no	no	6.9	6.9	5.7	
9/25/2019	0.716			6.7		<50	<0.16	no	yes	7.0	7.0	6.3	30
9/26/2019	0.716			4.5		<50	<0.16	no	no	7.0	7.0	6.2	
9/27/2019	0.716					<50	<0.16	no	no	7.0	7.0		
9/28/2019	0.716												
9/29/2019	0.716			5.5								7.5	
9/30/2019	0.716			5.1	0.360	<50	<0.16	yes	yes	6.8	6.8	6.7	35
Discharged	21.469												
Monthly Avg				5.8								6.1	

9/2/19 - Holiday