



2nd Quarter, 2010

(April, May, June)

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WDEQ - RRD
JACKSON DISTRICT OFFICE

Table of Contents

Summary of activity during this quarter

Submittals/Responses

Anticipated activities for the next quarter

Quarterly Performance Analysis

Mass Reduction

Summary of Activity

CEB = Central Environmental Building
C3 = C3 aquifer
D2 = D2 aquifer
E = E aquifer
SW = Southwest Property Area
Maple = Maple Road

Treatment Activities

04/01/10-04/02/10 - TW-11 (E) was shut down for maintenance.

04/03/10-04/04/10 - Evergreen (D2) extraction was shut down due to a storm-related DTE power failure.

04/04/10- 1B was shut down briefly to adjust the Pond level

04/04/10-04/05/10 - TW-2 (C3) was shut down due to a storm-related DTE power failure.

04/07/10-04/08/10 - TW-14 (C3), TW-17 (E) and SW extraction were shut down due to a DTE power failure.

04/07/10-04/08/10 - 2A was shut down for maintenance.

04/07/10-04/13/10 - TW-1 (C3) was shut down due to damage from a DTE power failure.

04/12/10-04/13/10 - TW-11 (E) was shut down for maintenance.

04/26/10 - 1A was shut down briefly to clean the Pond screens.

05/03/10 - 05/17/10 - TW-14 (C3) was shut down for well maintenance.

05/08/10 - LB-3 (D2) was shut down briefly due to a DTE power failure in the area.

05/14/10 - 05/17/10 - TW-11 (E) was shut down for maintenance.

05/23/10 - PW-1 (Marshy) was shut down briefly due to a power outage.

05/26/10 – TW-1 & TW-2 (C3), HW-S (D2), PW-1 (Marshy), SW, and TW-18 (E) were shut down briefly for maintenance.

05/29/10 - LB-3 (D2) was shut down briefly due to a DTE power failure in the area.

6/02/10 - TW-9 (D2) was shut down to adjust the Pond level.

6/03/10 - TW-1, TW-10, & TW-14 (C3), and TW-17 (E) were shut down to adjust the Pond level during maintenance.

6/03/10, 06/10/10, 6/16/10, & 6/17/10 - System 2A was shut down for maintenance.

6/08/10 – Maple Treatment was shut down for maintenance.

6/16/10 - TW-14 (C3) was shut down to adjust the Pond level during maintenance.

6/16/10-6/17/10 - TW-18 (E) was shut down to adjust the Pond level during maintenance.

6/18/10 - 6/24/10 – Various extraction wells (C3, D2, E, SW, Marshy) were shut down periodically due to power outages caused by storms in the area.

6/18/10-6/20/10 & 6/22/10 – Maple treatment was shut down periodically due to weather-related DTE power failures in the area.

6/28/10 - 6/30/10 Extraction and treatment were shut down for Pond cleaning.

Field Activities

05/21/10 Installation of pipeline from TW-21 to TW-18 piping and from TW-21 to Porter Pumping Station.

Submittals/Responses

04/12/09 PLS submitted Maple Interim Response Operation Report to MDEQ
PLS submitted Monthly Monitoring Report (NPDES) to MDEQ
PLS submitted Discharge Monitoring Report (DMR) electronically to MDEQ

04/13/09 PLS submitted 1st Quarter 2010 Report to MDEQ

05/14/09 PLS submitted Maple Interim Response Operation Report to MDEQ
PLS submitted Monthly Monitoring Report (NPDES) to MDEQ
PLS submitted Discharge Monitoring Report (DMR) electronically to MDEQ

06/14/09 PLS submitted Maple Interim Response Operation Report to MDEQ
PLS submitted Monthly Monitoring Report (NPDES) to MDEQ
PLS submitted Discharge Monitoring Report (DMR) electronically to MDEQ

Anticipated Major Activities for the Next Quarter

- When access is granted, install a series of wells for the Western System, as requested by DNRE
- Replace MW-102 on City property
- Schedule rehabilitation of injection wells on Maple Rd.
- Work with DNRE to complete the global remediation package

Quarterly Performance Analysis

For the months of April, May, and June 2010, over 598 pounds of 1,4-dioxane were removed and 136,352,698 gallons of water were extracted from the contaminated aquifers, treated and discharged. The total mass of 1,4-dioxane removed since May 1997 is just under 83,000 pounds and the total volume of water discharged since May 1997 is over 5.6 billion gallons.

In general, the performance of the operation was as expected, purging and treating contaminated groundwater to the existing allowable capacities.

Mass Reduction

MASS REDUCTION SUMMARY
Mass Removed Per Month (lb)

A	B	C	D	E	F
Month	Mass Removed from Unit E Only	Mass Removed from Southwest Only	Mass Removed from Marshy Only	Mass Removed from Units C3 and D2 Only	Total Mass Removed from Units E, D2, C3, Southwest and Marshy
Aug-00	0	0	8	366	374
Sep-00	0	0	9	332	341
Oct-00	0	5	9	583	597
Nov-00	0	3	12	1160	1175
Dec-00	0	0	10	1040	1050
Jan-01	0	0	7	816	823
Feb-01	0	0	7	1056	1063
Mar-01	0	0	11	1379	1390
Apr-01	0	0	9	1140	1149
May-01	0	1	8	990	999
Jun-01	0	2	8	933	943
Jul-01	0	2	10	1121	1133
Aug-01	0	2	13	1018	1033
Sep-01	0	1	9	909	919
Oct-01	0	5	8	896	909
Nov-01	0	4	5	827	836
Dec-01	0	6	4	768	778
Jan-02	0	6	5	753	764
Feb-02	0	4	6	691	701
Mar-02	0	7	7	663	677
Apr-02	0	6	7	682	695
May-02	100	9	7	898	1014
Jun-02	94	9	6	889	998
Jul-02	56	10	7	640	713
Aug-02	53	8	6	745	812
Sep-02	51	8	6	860	925
Oct-02	33	6	4	603	646
Nov-02	57	8	5	880	950
Dec-02	48	9	5	842	904
Jan-03	45	8	6	839	898
Feb-03	37	6	6	767	816
Mar-03	44	8	7	763	822
Apr-03	39	8	3	716	766
May-03	36	13	5	725	779
Jun-03	34	15	5	683	737
Jul-03	29	15	5	678	727
Aug-03	31	15	6	676	728
Sep-03	27	16	5	644	692
Oct-03	34	17	5	701	757
Nov-03	26	12	5	663	706
Dec-03	29	14	6	635	684
Jan-04	28	15	6	667	716
Feb-04	8	11	5	485	509
Mar-04	23	14	7	573	617
Apr-04	27	15	6	537	585
May-04	16	10	5	439	470
Jun-04	21	11	5	499	536
Jul-04	36	12	5	506	559

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Aug-04	54	12	5	480	551
Sep-04	34	9	5	382	430
Oct-04	30	10	5	358	403
Nov-04	30	9	5	395	439
Dec-04	33	11	5	442	491
Jan-05	29	11	4	404	448
Feb-05	26	9	4	390	429
Mar-05	27	9	4	409	450
Apr-05	33	4	3	396	436
May-05	27	8	2	364	401
Jun-05	31	9	3	361	404
Jul-05	31	8	1	279	319
Aug-05	12	6	2	275	295
Sep-05	13	8	2	327	350
Oct-05	16	6	3	297	322
Nov-05	13	7	4	291	315
Dec-05	12	8	4	325	349
Jan-06	115	7	3	308	433
Feb-06	144	7	3	290	444
Mar-06	148	8	3	331	490
Apr-06	125	7	3	291	426
May-06	137	9	3	402	551
Jun-06	119	5	2	329	456
Jul-06	107	8	3	310	427
Aug-06	104	8	2	307	421
Sep-06	97	9	3	300	409
Oct-06	93	9	3	327	432
Nov-06	80	7	2	268	357
Dec-06	68	6	2	238	314
Jan-07	91	8	2	305	406
Feb-07	84	8	2	284	378
Mar-07	91	8	3	306	408
Apr-07	84	8	2	280	374
May-07	82	8	2	288	380
Jun-07	81	8	2	279	370
Jul-07	66	8	2	256	332
Aug-07	73	8	2	270	353
Sep-07	77	8	2	247	334
Oct-07	73	8	2	244	327
Nov-07	68	8	2	263	341
Dec-07	69	8	2	260	339
Jan-08	65	7	2	237	311
Feb-08	53	6	2	203	264
Mar-08	56	7	2	220	285
Apr-08	54	7	2	200	263
May-08	55	7	2	206	270
Jun-08	52	6	2	195	256
Jul-08	39	1	2	139	181

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Aug-08	50	7	2	198	256
Sep-08	43	5	2	177	227
Oct-08	45	5	2	187	239
Nov-08	45	7	2	197	251
Dec-08	45	5	2	187	239
Jan-09	39	8	2	124	173
Feb-09	34	8	2	122	164
Mar-09	35	8	2	122	166
Apr-09	32	6	1	119	158
May-09	45	7	2	201	254
Jun-09	39	5	1	157	202
Jul-09	38	5	1	152	196
Aug-09	39	7	2	202	250
Sep-09	36	6	2	223	267
Oct-09	36	8	2	206	251
Nov-09	32	7	1	167	208
Dec-09	32	8	1	171	212
Jan-10	34	8	1	175	219
Feb-10	30	7	1	161	198
Mar-10	33	7	1	173	214
Apr-10	33	7	1	175	216
May-10	33	7	1	176	217
Jun-10	29	6	1	130	165
Total to date	5021	877	488	55135	61521

MASS REDUCTION DETAIL BY AQUIFER

April 1 - April 30, 2010

Extraction Well	Month To Date Gallons Extracted	Month To Date Average Daily Flow Rate GPM	Month To Date Average Daily Pounds Removed	Month To Date Average Daily Pounds Removed	Month To Date Average Concentration ppb
C3					
TW-1	1,309,951	30	0.0	1.4	127
TW-2 (Dolph)	2,308,295	53	0.1	1.5	80
TW-3	-	0	0.0	0.0	59
TW-6	-	0	0.0	0.0	97
TW-10	3,428,269	79	0.7	20.3	711
TW-14	3,432,596	79	0.1	3.1	109
TW-20	3,243,813	75	1.5	44.6	1649
MW-22	-	0.0	0.0	0.0	2620
<i>Sub-Totals</i>	13,720,924	318	2	71	
Marshy					
PW-1	191,330	4	0.0	1.2	741
<i>Sub-Totals</i>	191,330	4	0	1	
E					
TW-11	1,342,436	31	0.1	2.8	247
TW-12	-	0	0.0	0.0	18
TW-17	3,425,544	79	0.1	2.8	100
TW-18	10,207,201	236	0.9	27.3	321
MW-64	-	0	0.0	0.0	71
<i>Sub-Totals</i>	14,975,181	347	1	33	
Southwest					
Active Wells*	1,539,577	36	0.2	6.7	525
MW-10d	-	0.0	0.0	0.0	1083
MW-75	-	0	0.0	0.0	257
MW-45d	-	0.0	0.0	0.0	335
<i>Sub-Totals</i>	1,539,577	36	0	7	
D2					
LB-1	3,967,123	92	0.6	17.8	536
LB-3	3,342,321	77	0.5	13.9	498
AE-3	625,798	14	0.0	0.6	118
HW-S	1,052,515	24	0.3	8.1	920
TW-5	4,805,572	111	1.2	36.5	911
TW-9	3,361,606	78	0.9	27.3	972
MW-11d	-	0	0.0	0.0	290
<i>Sub-Totals</i>	17,154,935	397	3	104	
Overall Totals	47,581,947	1,101	7.2	216.1	

*SW Active = TW-8, TW-13

MASS REDUCTION DETAIL BY AQUIFER

May 1 - May 31, 2010

Extraction Well	Month To Date Gallons Extracted	Month To Date Average Daily Flow Rate GPM	Month To Date Average Daily Pounds Removed	Month To Date Pounds Removed	Month To Date Average Concentration ppb
C3					
TW-1	1,653,817	37	0.1	1.7	125
TW-2 (Dolph)	2,436,112	55	0.1	1.6	78
TW-3	-	0	0.0	0.0	49
TW-6	-	0	0.0	0.0	77
TW-10	3,746,747	84	0.7	21.5	688
TW-14	1,965,121	44	0.1	1.7	105
TW-20	3,351,815	75	1.4	44.3	1583
MW-22	-	0.0	0.0	0.0	2502
<i>Sub-Totals</i>	<u>13,153,612</u>	<u>295</u>	<u>2</u>	<u>71</u>	
Marshy					
PW-1	186,684	4	0.0	1.3	864
<i>Sub-Totals</i>	<u>186,684</u>	<u>4</u>	<u>0</u>	<u>1</u>	
E					
TW-11	1,370,263	31	0.1	2.8	244
TW-12	-	0	0.0	0.0	19
TW-17	4,315,784	97	0.1	3.5	96
TW-18	10,543,410	236	0.9	26.7	303
MW-64	-	0	0.0	0.0	57
<i>Sub-Totals</i>	<u>16,229,457</u>	<u>364</u>	<u>1</u>	<u>33</u>	
Southwest					
Active Wells	1,615,697	36	0.2	7.2	532
MW-10d	-	0.0	0.0	0.0	1079
MW-75	-	0	0.0	0.0	183
MW-45d	-	0.0	0.0	0.0	335
<i>Sub-Totals</i>	<u>1,615,697</u>	<u>36</u>	<u>0</u>	<u>7</u>	
D2					
LB-1	4,243,256	95	0.6	17.8	504
LB-3	3,371,979	76	0.4	13.3	474
AE-3	671,873	15	0.0	0.7	120
HW-S	1,143,673	26	0.3	9.1	956
TW-5	4,885,199	109	1.0	31.4	769
TW-9	4,009,796	90	1.1	32.8	982
MW-11d	-	0	0.0	0.0	272
<i>Sub-Totals</i>	<u>18,325,776</u>	<u>411</u>	<u>3</u>	<u>105</u>	
Overall Totals	<u>49,511,226</u>	<u>1,109</u>	<u>7.0</u>	<u>217.4</u>	

*SW Active = TW-8, TW-13

MASS REDUCTION DETAIL BY AQUIFIER

June 1 - June 30, 2010

Extraction Well	Month To Date Gallons Extracted	Month To Date Average Daily Flow Rate GPM	Month To Date Average Daily Pounds Removed	Month To Date Pounds Removed	Month To Date Average Concentration ppb
C3					
TW-1	1,244,191	29	0.0	1.3	124
TW-2 (Dolph)	2,168,923	50	0.0	1.4	80
TW-3	-	0	0.0	0.0	44
TW-6	-	0	0.0	0.0	66
TW-10	3,015,532	70	0.5	15.8	628
TW-14	2,448,569	57	0.1	2.0	98
TW-20	2,895,820	67	1.2	36.4	1501
MW-22	-	0.0	0.0	0.0	1706
<i>Sub-Totals</i>	11,773,035	273	2	57	
Marshy					
PW-1	191,268	4	0.0	1.0	616
<i>Sub-Totals</i>	191,268	4	0	1	
E					
TW-11	1,540,364	36	0.1	3.1	239
TW-12	-	0	0.0	0.0	20
TW-17	2,581,216	60	0.1	2.1	95
TW-18	7,753,223	179	0.7	20.3	315
TW-21	930,351	22	0.1	3.9	507
MW-64	-	0	0.0	0.0	56
<i>Sub-Totals</i>	12,805,154	296	1	29	
Southwest					
Active Wells	1,296,105	30	0.2	5.5	512
MW-10d	-	0.0	0.0	0.0	1073
MW-75	-	0	0.0	0.0	49
MW-45d	-	0.0	0.0	0.0	335
<i>Sub-Totals</i>	1,296,105	30	0	6	
D2					
LB-1	3,628,058	84	0.5	15.1	498
LB-3	2,750,704	64	0.4	10.8	469
AE-3	575,520	13	0.0	0.6	124
HW-S	810,441	19	0.2	6.0	880
TW-5	2,711,835	63	0.6	19.0	853
TW-9	2,717,405	63	0.7	21.1	929
MW-11d	-	0	0.0	0.0	180
<i>Sub-Totals</i>	13,193,963	305	2	73	
Overall Totals	39,259,525	909	5.5	165.4	

*SW Active = TW-8, TW-13