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RACER Trust

2012 Annual Report

Closed Hazardous Waste
Surface Impoundment, RACER
Trust– INR000021436

February 20, 2013

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2012 Annual Report

Closed Hazardous Waste Surface Impoundment RACER Trust – INR000021436

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Drawing 5 Potentiometric Surface - Lower Sand & Gravel Unit – October 16, 2012

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1. Introduction

ARCADIS respectfully submits this annual report for the year 2012 regarding the post-closure care activities conducted at the Closed Hazardous Waste Surface Impoundment Area (SIA) at 2701 West Raymond Avenue, Indianapolis, Indiana.

On or about December 1, 1993, the then General Motors Corporation (GMC) sold Plant 5 (i.e., the Rolls-Royce Plant), including the surface impoundment, to AEC Acquisitions Corporation. Pursuant to terms of the sales agreement, GMC was to maintain responsibility for post-closure care of the surface impoundment.

AEC Acquisitions Corporation has since sold Plant 5 (including the former surface impoundment) to Rolls-Royce Corporation. To more effectively fulfill its obligation for post-closure care of the closed surface impoundment, GMC purchased the property encompassing the former surface impoundment area from Rolls-Royce. As a result of the General Motors Corporation (GMC) Chapter 11 bankruptcy filing in 2009, the Trust and Settlement Agreements of 2010, and approval by the Bankruptcy Court in March of 2011, on March 31, 2011 the former AGT Surface Impoundment property, and remedial funding were transferred to RACER Trust. RACER Trust is the current land owner of the Site and now has responsibility for performing the activities identified in the Post Closure Permit for the former AGT Surface Impoundment.

The Site is limited to the approximately ten acre parcel as illustrated and described in Drawing 1. The Site address is 2701 West Raymond Street, and the ID number is INR000021436.

IDEM approved the Closure Certification for the SIA (officially granting closure as required by 40 CFR 265 Subpart G) in a March 4, 1997, correspondence. In a letter dated September 16, 1997, IDEM stated that the beginning of the post-closure care period for the SIA was June 4, 1996. Subsequently, GMC and MLC submitted several Permit Applications and Permit Modifications which are tabulated in a table provided in Appendix A. RACER Trust submitted a Permit Modification during the first quarter 2012. The Permit Modification was approved on March 26, 2012. RACER Trust will submit a Permit Modification during the first quarter 2013 to update Appendix E (Contingency Plan).

2. Slurry Wall and Monitoring Well System Installation

In 1994, a bentonite cutoff wall, nine dewatering walls, and 16 hydraulic monitoring wells were installed at the SIA. A final cover system, settlement monuments, and security control devices were also installed as part of the closure of the SIA. In 1999, three double-cased monitoring wells were installed outside of the cutoff wall around the SIA and screened in the lower sand and gravel aquifer. Locations of the cutoff wall, hydraulic monitoring wells, three double-cased monitoring wells and dewatering wells are shown in Figure 1. The bentonite cutoff wall functions as a hydraulic no-flow barrier and the dewatering wells provide control of the groundwater level within the cutoff wall. The system is designed to transfer water pumped from the dewatering wells to the sanitary sewer. The 16 hydraulic monitoring wells were installed in pairs, eight inside the cutoff wall with a corresponding well outside the cutoff wall. The wells allow for measurement of groundwater elevations inside the barrier relative to the aquifer outside the barrier. The three double-cased monitoring wells are monitored to ensure that an inward hydraulic gradient is being maintained from the lower sand and gravel aquifer into the contained area.

3. Summary of 2012 Activities

The following activities were completed in 2012:

- In June and October, the static head and total depth in the hydraulic monitoring well pairs and the lower aquifer monitoring wells were gauged. The data was tabulated and used to calculate a water budget and ensure that an inward hydraulic gradient is being maintained;

- In March, June, August and October, field inspections of the cover system and the groundwater extraction system were performed;

- In October, the groundwater extraction system was tested to ensure it was running properly. Testing of the extraction wells indicated that all extraction wells are operational. Water was encountered and pumped out of the basins of extraction wells EW-204 and EW-209. It should be noted that pumping from the extraction wells was not needed to lower the groundwater elevation inside the slurry wall. Based on the average rise rate, the anticipated date to operate the extraction pumps was calculated and is estimated to be in 1.05 years (11/4/2013) (see Section 6).

- IDEM performed an inspection of the impoundment in September 2012.
- Mowing was completed three times from May through October. Mowing events were limited in 2012, due to the lack of rainfall.
- Throughout the year, rodenticide was placed in areas of rodent activity to remove rodents from the cap and maintain the integrity of the cover system.
- In October, groundwater samples were collected from monitoring wells MW-201B, MW-202B, MW-203B and MW-206B to complete the groundwater statistical analysis as required in the approved Permit; and
- Throughout 2012, new labels and locks were installed on the monitoring wells, as necessary.

Details regarding these activities are presented in the following sections.

4. Inward Hydraulic Gradient

In June and October 2012, groundwater gauging events were completed and in October 2012, groundwater sampling event was completed according to the updated Appendix H of the Permit (Sampling and Analysis Plan). On June 1, and October 17, 2012, depth to groundwater and total depth was measured in 18 monitoring wells in June (monitoring well MW-200C was unable to be opened during this event) and 19 monitoring wells in October, at the Facility to obtain site-specific groundwater flow patterns in both the upper and lower sand and gravel units. The data collected is summarized in Table 1 of this report and were used to calculate groundwater elevations at each of the monitoring wells. The monitoring wells do not show evidence of siltation greater than one foot (criteria stated in Appendix H of the Permit to indicate when monitoring wells should be redeveloped). Groundwater elevations for each monitoring well nest during the June and October gauging events are presented in Drawings 2a and 2b. The groundwater elevation contours in the upper sand and gravel units for June and October 2012 are provided as Drawings 3 and 4, respectively. The groundwater elevation contours in the lower sand and gravel units for June and October 2012 are provided as Drawings 5 and 6, respectively.

During the June 1, 2012 and October 16, 2012 gauging events, the groundwater flow direction in the upper sand and gravel unit was generally toward the east (Drawings 3 and 4). During the June gauging event, monitoring well, MW-200C could not be

accessed due to a lock issue, therefore, groundwater flow direction in the lower sand and gravel unit was not determined because only two monitoring wells screened in this unit were accessible. Due to cost, it was determined that the field staff would not mobilize to purchase bolt cutters to remove the lock. The lock was removed with bolt cutters in October and replaced. During the October 16, 2012 gauging event, the groundwater flow direction in the lower sand and gravel unit was generally to the southwest (Drawing 5).

Table 2 provides a summary of groundwater elevations with head differences between exterior monitoring wells ("B" wells) and interior monitoring wells ("A" wells) and rise rates for the interior monitoring wells. Rise rates were calculated for each of the interior hydraulic monitoring wells based on the rise of groundwater over time. Groundwater elevations from the November 4, 2011, through the October 16, 2012 monitoring events were used to calculate the rise rates. The rise rates for monitoring wells inside the cutoff wall range from 0.00262 ft/day to 0.00280 ft/day with an average of 0.00272 ft/day. Historical rise rates are provided in Table 3. The observed rise rates for 2012 are within the range of historically observed rates.

Based on the June 2012 data, groundwater elevations within the upper sand and gravel aquifer for the wells outside of the cutoff wall (“B” wells) ranged from 669.36 feet Mean Sea Level (MSL) to 672.44 feet MSL with an average of 671.53 feet MSL. Groundwater elevations within the cutoff wall (“A” wells) ranged from 664.07 feet MSL to 666.12 feet MSL with an average of 665.24 feet MSL. The head differences between monitoring wells inside the cutoff wall compared to its corresponding monitoring well outside the cutoff wall range from 7.98 feet lower in monitoring well MW-205A/B to 3.78 feet lower in monitoring well MW-202A/B with an average of 6.29 feet lower. Therefore, the hydraulic gradient in the upper sand and gravel aquifer in June 2012 was toward the inside of the cutoff wall (i.e. inward hydraulic gradient).

Based on the June 2012 data, groundwater elevations of monitoring wells within the lower sand and gravel unit (“C” wells) were 666.36 feet MSL and 667.05 feet MSL. Monitoring well MW-200C was not gauged during this event. The head differences between A-series monitoring wells inside the cutoff wall compared to its corresponding monitoring well outside the cutoff wall in the lower sand and gravel unit was 1.89 feet lower in monitoring well MW-203A/MW-203C and 0.78 feet lower in monitoring well MW-202A/MW-202C, with an average of 1.33 feet lower. Therefore, the vertical hydraulic gradient between the groundwater in the lower sand and gravel unit and the groundwater within the cutoff wall was upward to the groundwater within the cutoff wall in June 2012.

Based on the November 2012 data, groundwater elevations within the upper sand and gravel aquifer for the wells outside of the cutoff wall ("B" wells) ranged from 670.25 feet MSL to 673.27 feet MSL with an average of 672.35 feet MSL. Groundwater elevations within the cutoff wall ("A" wells) ranged from 664.26 feet MSL to 666.27 feet MSL with an average of 665.38 feet MSL. The head differences between monitoring wells inside the cutoff wall compared to its corresponding monitoring well outside the cutoff wall ranged from 9.01 feet lower in monitoring well MW-205A/B to 4.56 feet lower in monitoring well MW-202A/B with an average of 6.97 feet lower. Therefore, the hydraulic gradient in the upper sand and gravel aquifer in November 2012 was toward the inside of the cutoff wall (i.e. inward hydraulic gradient).

Based on the November 2012 data, groundwater elevations of monitoring wells within the lower sand and gravel unit ("C" wells) ranged from 661.61 feet MSL to 668.47 feet MSL. The head differences between A-series monitoring wells inside the cutoff wall compared to its corresponding monitoring well outside the cutoff wall in the lower sand and gravel unit ranged from 2.20 feet lower in monitoring well MW-206A/200C to 0.92 feet lower in monitoring well MW-202A/MW-202C with an average of 1.69 feet lower. Therefore, the vertical hydraulic gradient between the groundwater in the lower sand and gravel unit and the groundwater within the cutoff wall was upward to the groundwater within the cutoff wall in November 2012.

5. Groundwater Extraction

Nine dewatering wells (EW-201 through EW-210) are located throughout the SIA to extract groundwater. Locations of the wells are shown in Drawing 1. No extraction was performed during 2012 except for during the testing of the extraction wells. When extracted water is pumped from the dewatering wells, it is transmitted to the discharge control building via underground piping. From the discharge building, the water is discharged to the sanitary sewer on the north side of Raymond Street. In 2012, during the testing of the extraction wells, a total of 100 gallons were discharged to the sanitary sewer. See Section 8 for details.

6. Water Budget Calculations

The Water Budget Calculations, based on data from the November 2011 through the October 2012 gauging events, are shown in Appendix C. The Original Water Budget Calculations included in a May 24, 1995 submittal from GZA Environmental, Inc. to IDEM are shown in Appendix D. The observed rise rates from November 2011 to October 2012 ranged from 0.00262 ft/day to 0.00280 ft/day with an average of 0.00272

ft/day as shown in Table 2. Using the specific yield (Sy) of 20% used by GZA in the Closure Certification Report and the observed rise rates; there is an average flow rate of 0.996 gallons/min into the SIA with a minimum of 0.960 gallons/min and a maximum of 1.025 gallons/min. Also included in Appendix C is a calculation of Sy based on amount of water withdrawn, combined inflow within the cutoff wall based on average rise rates, and average, minimum and maximum flowrates in to the SIA. The calculated Sy based on field data is 13.3%. Using a Sy of 13.3% and the observed rise rates, there is an average flow rate of 0.662 gallons/min into the SIA with a minimum of 0.638 gallons/min and a maximum of 0.682 gallons/min.

The approved Post-Closure Permit specifies that extraction wells will be manually turned on when groundwater elevations in one or more of the "A" series interior wells reach an elevation within one foot of the groundwater elevation observed in either aquifer (B and C series monitoring wells) in order to maintain a hydraulic gradient from outside to the inside of the cutoff wall. Based on the average rise rate, the date to operate the extraction pumps is estimated to be in 1.05 years (11/4/2013).

The volume of groundwater withdrawn from Plant 5 production wells is provided in Table 4. The 2012 data is not yet available.

In summary, the cutoff wall and the cover system are effective and the inward gradient has been maintained from both the upper and lower sand and gravel units toward the interior of the cutoff wall. Based on the observed rise rate of the groundwater within the cutoff wall compared to the closure estimated rise rates (0.003 ft/day), the hydraulic containment system is performing as designed.

7. Groundwater Monitoring and Statistical Evaluation

In accordance with the Permit Modification approved on June 17, 2009, one groundwater sample was collected in October 2012, from monitoring wells MW-201B, MW-202B, MW-203B and up-gradient monitoring well MW-206B in order to compare data to the calculated background screening level. Calculations were conducted in accordance with Section 4.3 of the Permit and Appendix H of the Permit: Sampling and Analysis Plan. The Groundwater Data Statistical Evaluations for October 2012 was submitted in January 2013. The results of the statistical evaluation indicate that there is no need for any response action.

In accordance with the Permit, the ASCII Digital Datasets was submitted directly to IDEM via e-mail in January 2013 (June 2012 gauging event and October 2012 groundwater sampling and gauging event).

8. Inspections, Mowing and Erosion Control

Routine inspections of the SIA were conducted quarterly in 2012, including during the annual groundwater monitoring event to evaluate the performance of the final cover, security control and the groundwater hydraulic control and monitoring system. Inspections were performed by properly trained personnel. Post-Closure Inspection Checklists and maps noting the results of the inspection activities are provided in Appendix E. During the checks, the following items were inspected:

- Security Control Devices - Fencing, gates, locks, and posted signs were inspected for storm damage, vandalism, or deterioration;
- Erosion Damage - Final cover and drainage areas;
- Cover Settlement, Subsidence, and Displacement - Unusual settlement of benchmarks, wells, and monuments, and inspect for animal burrows and low spots;
- Vegetative Cover System - Cover system for bare areas or reduced vegetation;
- Integrity of Run-on and Run-off Controls — Inspect culverts and drainage ditch for hindrances to flow;
- Integrity of Cover Drainage and Gas Venting Systems — Inspect discharge points and gas venting systems for blockage;
- Integrity of Cut-off Wall — Review data from semi-annual groundwater monitoring event to ensure integrity of cut-off wall;
- Monitoring Well Conditions - Locks, casings, concrete seals, and settlement of the wells;

- Extraction Well System Functionality - Proper maintenance of the controls; and

- Exterior of each extraction well vault was inspected for deterioration and damage.

In October 2012, testing of the groundwater extraction system was performed. Testing of the extraction wells indicated that all extraction wells were operational. Water was encountered and pumped out of the basins of extraction wells EW-204 and EW-209.In February 2012, a gasket was replaced in the well vault of extraction well EW-202 and transformers were replaced in extractions wells EW-207 and EW-210 (per the October 2011 groundwater extraction system test). Detailed documentation of the testing and troubleshooting of the groundwater extraction system completed in 2012 is provided in Appendix F.

Mainscape, Inc. mowed the SIA three times from May through October 2012. Mowing events occurred on May 22, June 19 and October 30, 2011. No damage was incurred during any of the mowing events. No erosion control was necessary in 2012.

In addition to the tasks described above, the use of rodenticide was continued throughout 2012 in an effort to remove rodents from the cap and maintain the integrity of the cover system. Throughout 2012, monitoring well labels and locks were replaced, as necessary.

9. Monument Survey

The settlement monuments were required to be surveyed twice per year for the first five years (1997 through 2001) of the post-closure period and annually thereafter. According to the approved Class 1 Permit Modification submitted on February 26, 2012, the settlement monuments are now required to be surveyed every three years. Monuments M1 through M8 will be surveyed during the annual inspection in 2014. Monument locations are presented on Figure 1 and historical data and data from the survey conducted in 2011 is provided in Table 5.

10. Revised Post-Closure Cost Estimate

The RACER Trust is funded using a Property Funding Account identified in the Settlement Agreement. According to the Agreement, the State released the financial assurance instruments listed in Attachment D to MLC/RACER Trust based on the site

funding in the Settlement Agreement. The funds included in the Settlement Agreement totaled $1,668,108 as of July 1, 2010. This cost is divided into three management categories as presented in Attachment A of the Settlement Agreement: “Minimum Estimated Property Funding” and “Reserve Property Funding” which occurs in years 1 through 10 and “Operation, Monitoring and Maintenance Property Funding”, which occurs in years 11 through 100. An estimated $97,590 was spent on long term care of the landfill from July 1, 2010 through December 2012. The budgetary forecast included with each year’s budget approval package will take into account the previous year’s activities, and consistent with the terms of the Settlement Agreement will maintain a completion date of 2109. The IDEM approved budget (also known as the post-closure cost estimate) for 2013, is attached in Appendix G.

11. Post-Closure Tasks for 2013

Planned future activities include routine post-closure care activities and routine groundwater sampling. Rodent control from the cover system will continue and additional troubleshooting and repair of the extraction system will be conducted, as necessary. It is anticipated that water will need to be pumped from within the surface impoundment to maintain an inward hydraulic gradient. A permit modification is planned to be submitted to IDEM in the first quarter of 2013 to update Appendix E (Contingency Plan).

Certification

Certification: I certify, under penalty of law, that this document and attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, 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.

INR000021436
U.S EPA I.D. Number

RACER Trust – Former AGT
Surface Impoundment
Site Name

2-15-13
Date

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Table 1. Monitoring Well and Groundwater Data, Surface Impoundment Area, RACER Trust, Indianapolis, Indiana.

WELL NO	DATE	DEPTH TO GROUNDWATER (FEET)	GROUNDWATER ELEVATION (FEET MSL)	GROUNDWATER ELEVATION CHANGE[1] (FEET)	TOTAL DEPTH (FEET)	BOTTOM OF WELL ELEVATION (FEET MSL)	DIFFERENCE FROM AS-BUILT TOTAL DEPTH (FEET)
MW-201A	6/28/1994	NA	NA	NA	NA	NA	NA
	7/7/1994	NA	NA	NA	NA	NA	NA
	7/20/1994	NA	NA	NA	NA	NA	NA
Top of Casing Elev.	7/27/1994	37.35	655.86	NA	NA	NA	NA
693.21' MSL	8/10/1994	37.21	656.00	0.14	NA	NA	NA
	8/22/1994	37.05	656.16	0.16	NA	NA	NA
	9/1/1994	36.94	656.27	0.11	NA	NA	NA
As-Built Total Depth	9/8/1994	36.86	656.35	0.08	NA	NA	NA
from Top of Casing	9/15/1994	36.80	656.41	0.06	NA	NA	NA
39.31'	9/20/1994	36.75	656.46	0.05	NA	NA	NA
	9/29/1994	36.67	656.54	0.08	NA	NA	NA
	10/7/1994	36.57	656.64	0.10	NA	NA	NA
	10/13/1994	36.55	656.66	0.02	NA	NA	NA
	10/26/1994	36.45	656.76	0.10	NA	NA	NA
	11/2/1994	36.37	656.84	0.08	NA	NA	NA
	6/29/1995	35.87	657.34	0.50	NA	NA	NA
	1/31/1996	36.07	657.14	-0.20	NA	NA	NA
	6/26/1996	34.52	658.69	1.55	NA	NA	NA
Reestablished Top of	12/18/1996	34.83	658.38	-0.31	39.31	653.90	0.00
Casing Elevation on	5/28/1997	34.00	659.21	0.83	39.26	653.95	-0.05
March 17, 1998	11/19/1997	33.68	659.93	0.72	39.29	653.92	-0.02
693.89' MSL	5/12/1998	33.03	660.86	NA	39.31	654.58	0.00
	11/3/1998	36.64	657.25	-3.61	39.31	654.58	0.00
	6/28/1999	36.57	657.32	0.07	39.31	654.58	0.00
	11/30/1999	35.07	658.82	1.50	39.31	654.58	0.00
	5/16/2000	34.80	659.09	0.27	39.31	654.58	0.00
	11/13/2000	36.19	657.70	-1.39	39.31	654.58	0.00
	5/30/2001	37.01	656.88	-0.82	39.29	654.60	-0.02
	11/23/2001	36.44	657.45	0.57	39.31	654.58	0.00
	5/29/2002	39.31	658.27	0.82	39.31	654.58	0.00
	11/21/2002	35.17	658.72	0.45	39.31	654.58	0.00
	5/20/2003	34.69	659.20	0.48	39.30	654.59	-0.01
	11/18/2003	36.06	657.83	-1.37	39.30	654.59	-0.01
	5/24/2004	36.68	657.21	-0.62	39.31	654.58	0.00
	11/11/2004	34.82	659.07	1.86	39.31	654.58	0.00
	5/10/2005	34.73	659.16	0.09	39.30	654.59	-0.01
	11/9/2005	35.17	658.72	-0.44	39.31	654.58	0.00
	5/17/2006	34.35	659.54	0.82	39.30	654.59	-0.01
	11/8/2006	33.89	660.00	0.46	39.31	654.58	0.00
	5/16/2007	33.17	660.72	0.72	39.08	654.81	-0.23
	11/15/2007	32.85	661.04	0.32	39.30	654.59	-0.01
	5/13/2008	32.10	661.79	0.65	39.05	654.84	-0.26
	11/6/2008	32.70	661.19	-0.60	39.30	654.59	-0.01
	5/13/2009	31.99	661.90	0.71	39.31	654.58	0.00
	11/23/2009	31.47	662.42	0.52	39.29	654.60	-0.02
	6/3/2010	30.83	663.06	0.64	39.34	654.55	-0.05
	10/6/2010	30.50	663.39	0.33	39.23	654.66	0.11
	5/31/2011	29.91	663.98	0.59	39.15	654.74	0.08
	11/4/2011	29.58	664.31	0.33	39.19	654.70	-0.04
	6/1/2012	28.77	665.12	0.81	39.11	654.78	0.08
	10/16/2012	28.61	665.28	0.16	39.11	654.78	0.00
MW-201B	6/28/1994	25.42	668.02	NA	NA	NA	NA
	7/7/1994	25.15	668.29	0.27	NA	NA	NA
	7/20/1994	25.22	668.22	-0.07	NA	NA	NA
	7/27/1994	25.22	668.22	0.00	NA	NA	NA
Top of Casing Elev.	8/10/1994	25.86	667.58	-0.64	NA	NA	NA
693.44' MSL	8/22/1994	25.94	667.50	-0.08	NA	NA	NA

Note: Groundwater and bottom of well elevations after 5/12/98 are calculated with reference to the reestablished top of casing elevation

Table 1. Monitoring Well and Groundwater Data, Surface Impoundment Area, RACER Trust, Indianapolis, Indiana.

WELL NO	DATE	DEPTH TO GROUNDWATER (FEET)	GROUNDWATER ELEVATION (FEET MSL)	GROUNDWATER ELEVATION CHANGE[1] (FEET)	TOTAL DEPTH (FEET)	BOTTOM OF WELL ELEVATION (FEET MSL)	DIFFERENCE FROM AS-BUILT TOTAL DEPTH (FEET)
	9/1/1994	26.00	667.44	-0.06	NA	NA	NA
	9/8/1994	25.75	667.69	0.25	NA	NA	NA
As-Built Total Depth	9/15/1994	24.16	669.28	1.59	NA	NA	NA
from Top of Casing	9/20/1994	24.16	669.28	0.00	NA	NA	NA
38.51'	9/29/1994	26.44	667.00	-2.28	NA	NA	NA
	10/7/1994	26.62	666.82	-0.18	NA	NA	NA
	10/13/1994	26.46	666.98	0.16	NA	NA	NA
	10/26/1994	26.97	666.47	-0.51	NA	NA	NA
	11/2/1994	26.92	666.52	0.05	NA	NA	NA
	6/29/1995	26.36	667.08	0.56	NA	NA	NA
	1/31/1996	27.49	665.95	-1.13	NA	NA	NA
Reestablished Top of	6/26/1996	24.30	669.14	3.19	NA	NA	NA
Casing Elevation on	12/18/1996	24.13	669.31	0.17	38.42	655.02	-0.09
March 17, 1998	5/28/1997	23.42	670.02	0.71	38.40	655.04	-0.11
693.06' MSL	11/19/1997	27.70	665.74	-4.28	38.45	654.99	-0.06
	5/12/1998	25.46	667.60	NA	38.47	654.59	-0.04
	11/3/1998	26.05	667.01	-0.59	38.45	654.61	-0.06
	6/28/1999	26.14	666.92	-0.09	38.44	654.62	-0.07
	11/30/1999	27.60	665.46	-1.46	38.35	654.71	-0.16
	5/16/2000	27.51	665.55	0.09	38.33	654.73	-0.18
	11/13/2000	27.72	665.34	-0.21	38.50	654.56	-0.01
	5/30/2001	27.07	665.99	0.65	38.31	654.75	-0.20
	11/23/2001	24.97	668.09	2.10	38.45	654.61	-0.06
	5/29/2002	20.72	672.34	4.25	38.44	654.62	-0.07
	11/21/2002	25.54	667.52	-4.82	38.46	654.60	-0.05
	5/20/2003	23.19	669.87	2.35	38.27	654.79	-0.24
	11/18/2003	22.74	670.32	0.45	38.25	654.81	-0.26
	5/24/2004	22.73	670.33	0.01	38.42	654.64	-0.08
	11/11/2004	23.44	669.62	-0.71	38.42	654.64	-0.08
	5/10/2005	21.51	671.55	1.93	38.52	654.54	0.01
	11/9/2005	23.77	669.29	-2.26	38.42	654.64	-0.09
	5/17/2006	21.40	671.66	2.37	38.43	654.63	-0.08
	11/8/2006	22.40	670.66	-1.00	38.44	654.62	-0.07
	5/16/2007	20.34	672.72	2.06	38.36	654.70	-0.15
	11/15/2007	23.51	669.55	-3.17	38.34	654.72	-0.17
	5/13/2008	20.63	672.43	2.88	38.36	654.70	-0.15
	11/6/2008	22.86	670.20	-2.23	38.45	654.61	-0.06
	5/13/2009	20.09	672.97	2.77	38.45	654.61	-0.06
	11/23/2009	22.08	670.98	-1.99	38.46	654.60	-0.05
	6/3/2010	21.75	671.31	0.33	38.20	654.86	0.26
	10/6/2010	22.37	670.69	-0.62	37.81	655.25	0.39
	5/31/2011	18.81	674.25	3.56	37.62	655.44	0.19
	11/4/2011	22.15	670.91	-3.34	37.65	655.41	-0.03
	6/1/2012	22.76	670.30	-0.61	37.51	655.55	0.14
	10/16/2012	21.80	671.26	0.96	37.55	655.51	-0.04
MW-202A	6/28/1994	41.89	655.53	NA	NA	NA	NA
	7/7/1994	41.86	655.56	0.03	NA	NA	NA
	7/20/1994	42.62	654.80	-0.76	NA	NA	NA
	7/27/1994	NA	NA	NA	NA	NA	NA
Top of Casing Elev.	8/10/1994	NA	NA	NA	NA	NA	NA
697.42' MSL	8/22/1994	NA	NA	NA	NA	NA	NA
	9/1/1994	NA	NA	NA	NA	NA	NA
	9/8/1994	41.04	656.38	NA	NA	NA	NA
As-Built Total Depth	9/15/1994	40.99	656.43	0.05	NA	NA	NA
from Top of Casing	9/20/1994	40.92	656.50	0.07	NA	NA	NA
44.50'	9/29/1994	40.83	656.59	0.09	NA	NA	NA
	10/7/1994	40.76	656.66	0.07	NA	NA	NA
	10/13/1994	40.74	656.68	0.02	NA	NA	NA
	10/26/1994	40.61	656.81	0.13	NA	NA	NA
	11/2/1994	40.57	656.85	0.04	NA	NA	NA
	6/29/1995	39.11	658.31	1.46	NA	NA	NA
	1/31/1996	38.34	659.08	0.77	NA	NA	NA
Reestablished Top of	6/26/1996	37.77	659.65	0.57	NA	NA	NA
Casing Elevation on	12/18/1996	38.07	659.35	-0.30	44.50	652.92	0.00
March 17, 1998	5/28/1997	37.30	660.12	0.77	44.09	653.33	-0.41
697.58' MSL	11/19/1997	36.91	660.51	0.39	44.05	653.37	-0.45

Note: Groundwater and bottom of well elevations after 5/12/98 are calculated with reference to the reestablished top of casing elevation

Table 1. Monitoring Well and Groundwater Data, Surface Impoundment Area, RACER Trust, Indianapolis, Indiana.

WELL NO	DATE	DEPTH TO GROUNDWATER (FEET)	GROUNDWATER ELEVATION (FEET MSL)	GROUNDWATER ELEVATION CHANGE[1] (FEET)	TOTAL DEPTH (FEET)	BOTTOM OF WELL ELEVATION (FEET MSL)	DIFFERENCE FROM AS-BUILT TOTAL DEPTH (FEET)
	5/12/1998	36.47	661.11	NA	44.06	653.52	-0.44
	11/3/1998	38.90	658.68	-2.43	44.08	653.50	-0.42
	6/28/1999	38.58	659.00	0.32	44.05	653.53	-0.45
	11/30/1999	38.32	659.26	0.26	44.06	653.52	-0.44
	5/16/2000	37.89	659.69	0.43	44.10	653.48	-0.40
	11/13/2000	39.44	658.14	-1.55	44.07	653.51	-0.43
	5/30/2001	40.27	657.31	-0.83	44.07	653.51	-0.43
	11/23/2001	39.68	657.90	0.59	44.08	653.50	-0.42
	5/29/2002	38.88	658.70	0.80	44.07	653.51	-0.43
	11/21/2002	38.37	659.21	0.51	44.07	653.51	-0.43
	5/20/2003	37.77	659.81	0.60	43.97	653.61	-0.53
	11/18/2003	39.32	658.26	-1.55	43.98	653.60	-0.52
	5/24/2004	36.41	659.17	0.91	43.96	653.62	-0.54
	11/11/2004	38.06	659.52	0.35	43.96	653.62	-0.54
	5/10/2005	37.98	659.60	0.08	44.02	653.56	-0.48
	11/9/2005	38.41	659.17	-0.43	44.03	653.55	-0.47
	5/17/2006	37.56	660.02	0.85	44.01	653.57	-0.49
	11/8/2006	37.12	660.46	0.44	44.01	653.57	-0.49
	5/16/2007	36.43	661.15	0.69	43.70	653.88	-0.80
	11/15/2007	36.10	661.48	0.33	44.02	653.56	-0.48
	5/13/2008	35.31	662.27	0.79	43.77	653.81	-0.73
	11/6/2008	35.94	661.64	-0.63	44.01	653.57	-0.49
	5/13/2009	35.20	662.38	0.74	44.00	653.58	-0.50
	11/23/2009	34.71	662.87	0.49	44.01	653.57	-0.49
	6/3/2010	34.10	663.48	0.61	44.02	653.56	-0.01
	10/6/2010	33.81	663.77	0.29	43.96	653.62	0.06
	5/31/2011	33.17	664.41	0.64	43.90	653.68	0.06
	11/4/2011	32.80	664.78	0.37	43.85	653.73	0.05
	6/1/2012	32.00	665.58	0.80	43.85	653.73	0.00
	10/16/2012	31.89	665.69	0.11	43.74	653.84	0.11
MW-202B	6/28/1994	25.27	666.32	NA	NA	NA	NA
	7/7/1994	24.73	666.86	0.54	NA	NA	NA
	7/20/1994	24.91	666.68	-0.18	NA	NA	NA
	7/27/1994	25.29	666.30	-0.38	NA	NA	NA
Top of Casing Elev.	8/10/1994	25.53	666.06	-0.24	NA	NA	NA
691.59' MSL	8/22/1994	25.63	665.96	-0.10	NA	NA	NA
	9/1/1994	25.82	665.77	-0.19	NA	NA	NA
	9/8/1994	25.57	666.02	0.25	NA	NA	NA
As-Built Total Depth	9/15/1994	25.97	665.62	-0.40	NA	NA	NA
from Top of Casing	9/20/1994	26.13	665.46	-0.16	NA	NA	NA
37.71'	9/29/1994	26.11	665.48	0.02	NA	NA	NA
	10/7/1994	26.33	665.26	-0.22	NA	NA	NA
	10/13/1994	26.43	665.16	-0.10	NA	NA	NA
	10/26/1994	26.69	664.90	-0.26	NA	NA	NA
	11/2/1994	26.63	664.96	0.06	NA	NA	NA
	6/29/1995	26.00	665.59	0.63	NA	NA	NA
	1/31/1996	26.75	664.84	-0.75	NA	NA	NA
	6/26/1996	24.09	667.50	2.66	NA	NA	NA
Reestablished Top of	12/18/1996	23.75	667.84	0.34	37.62	653.97	-0.09
Casing Elevation on	5/28/1997	23.18	668.41	0.57	37.62	653.97	-0.09
March 17, 1998	11/19/1997	27.80	663.79	-4.62	37.68	653.91	-0.03
691.43' MSL	5/12/1998	24.88	666.55	NA	37.68	653.75	-0.03
	11/3/1998	25.76	665.67	-0.88	37.67	653.76	-0.04
	6/28/1999	25.72	665.71	0.04	37.69	653.74	-0.02
	11/30/1999	27.32	664.11	-1.60	37.58	653.85	-0.13
	5/16/2000	27.80	663.63	-0.48	37.65	653.78	-0.06
	11/13/2000	27.89	663.54	-0.09	37.71	653.72	0.00
	5/30/2001	26.90	664.53	0.99	37.51	653.92	-0.20
	11/23/2001	24.73	666.70	2.17	37.67	653.76	-0.04
	5/29/2002	20.73	670.70	4.00	37.67	653.76	-0.04
	11/21/2002	25.42	666.01	-4.69	37.70	653.73	-0.01
	5/20/2003	23.21	668.22	2.21	37.69	653.74	-0.02
	11/18/2003	22.80	668.83	0.61	37.67	653.76	-0.04
	5/24/2004	22.55	668.88	0.05	37.64	653.79	-0.07
	11/11/2004	23.17	668.26	-0.62	37.64	653.79	-0.07
	5/10/2005	21.11	670.32	2.06	37.66	653.77	-0.05

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Table 1. Monitoring Well and Groundwater Data, Surface Impoundment Area, RACER Trust, Indianapolis, Indiana.

WELL NO	DATE	DEPTH TO GROUNDWATER (FEET)	GROUNDWATER ELEVATION (FEET MSL)	GROUNDWATER ELEVATION CHANGE[1] (FEET)	TOTAL DEPTH (FEET)	BOTTOM OF WELL ELEVATION (FEET MSL)	DIFFERENCE FROM AS-BUILT TOTAL DEPTH (FEET)
	11/9/2005	23.56	667.87	-2.45	37.66	653.77	-0.05
	5/17/2006	21.14	670.29	2.42	37.61	653.82	-0.10
	11/8/2006	21.88	669.55	-0.74	37.67	653.76	-0.04
	5/16/2007	20.15	671.28	1.73	37.42	654.01	-0.29
	11/15/2007	22.89	668.54	-2.74	37.50	653.93	-0.21
	5/13/2008	20.07	671.36	2.82	37.31	654.12	-0.40
	11/6/2008	22.33	669.10	-2.26	37.62	653.81	-0.09
	5/13/2009	19.55	671.88	2.78	37.51	653.92	-0.20
	11/23/2009	21.73	669.70	-2.18	37.52	653.91	-0.19
	6/3/2010	21.30	670.13	0.43	37.60	653.83	-0.08
	10/6/2010	21.72	669.71	-0.42	37.53	653.90	0.07
	5/31/2011	18.53	672.90	3.19	37.45	653.98	0.08
	11/4/2011	21.65	669.78	-3.12	37.43	654.00	0.02
	6/1/2012	22.07	669.36	-0.42	37.20	654.23	0.23
	10/16/2012	21.18	670.25	0.89	37.53	653.90	-0.33
MW-203A	6/28/1994	37.30	657.50	NA	NA	NA	NA
	7/7/1994	37.44	657.36	-0.14	NA	NA	NA
	7/20/1994	37.78	657.02	-0.34	NA	NA	NA
	7/27/1994	NA	NA	NA	NA	NA	NA
Top of Casing Elev.	8/10/1994	NA	NA	NA	NA	NA	NA
694.80' MSL	8/22/1994	37.94	656.86	NA	NA	NA	NA
	9/1/1994	37.94	656.86	0.00	NA	NA	NA
	9/8/1994	37.94	656.86	0.00	NA	NA	NA
As-Built Total Depth	9/15/1994	NA	NA	NA	NA	NA	NA
from Top of Casing	9/20/1994	NA	NA	NA	NA	NA	NA
40.06'	9/29/1994	NA	NA	NA	NA	NA	NA
	10/7/1994	NA	NA	NA	NA	NA	NA
	10/13/1994	NA	NA	NA	NA	NA	NA
	10/26/1994	NA	NA	NA	NA	NA	NA
	11/2/1994	NA	NA	NA	NA	NA	NA
	6/29/1995	36.47	658.33	NA	NA	NA	NA
	1/31/1996	35.66	659.14	0.81	NA	NA	NA
Reestablished Top of	6/26/1996	35.10	659.70	0.56	NA	NA	NA
Casing Elevation on	12/18/1996	35.40	659.40	-0.30	40.04	654.76	-0.02
March 17, 1998	5/28/1997	34.60	660.20	0.80	40.03	654.77	-0.03
694.46' MSL	11/19/1997	34.23	660.57	0.37	40.02	654.78	-0.04
	5/12/1998	33.80	660.66	NA	40.04	654.42	-0.02
	11/3/1998	36.25	658.21	-2.45	40.05	654.41	-0.01
	6/28/1999	35.96	658.50	0.29	40.04	656.42	-0.02
	11/30/1999	35.64	658.82	0.32	40.04	656.42	-0.02
	5/16/2000	35.25	659.21	0.39	40.05	654.41	-0.01
	11/13/2000	36.75	657.71	-1.50	40.05	654.41	-0.01
	5/30/2001	37.60	656.86	-0.85	40.04	654.42	-0.02
	11/23/2001	37.02	657.44	0.58	40.05	654.41	-0.01
	5/29/2002	36.21	658.25	0.81	40.01	654.45	-0.05
	11/21/2002	35.71	658.75	0.50	40.01	654.45	-0.05
	5/20/2003	35.20	659.26	0.51	40.06	654.40	0.00
	11/18/2003	36.68	657.78	-1.48	40.04	654.42	-0.02
	5/24/2004	35.84	658.62	0.84	40.04	654.42	-0.02
	11/11/2004	35.37	659.09	0.47	40.04	654.42	-0.02
	5/10/2005	34.60	659.86	0.77	40.03	654.43	-0.03
	11/9/2005	35.72	658.74	-1.12	40.04	654.42	-0.02
	5/17/2006	34.50	659.96	1.22	40.04	654.42	-0.02
	11/8/2006	34.45	660.01	0.05	40.04	654.42	-0.02
	5/16/2007	33.73	660.73	0.72	39.81	654.67	-0.25
	11/15/2007	33.39	661.07	0.34	40.04	654.42	-0.02
	5/13/2008	32.23	662.23	1.16	39.81	654.67	-0.25
	11/6/2008	33.27	661.19	-1.04	40.03	654.43	-0.03
	5/13/2009	32.53	661.93	0.74	40.04	654.42	-0.02
	11/23/2009	32.03	662.43	0.50	40.04	654.42	-0.02
	6/3/2010	31.40	663.06	0.63	40.08	654.38	-0.04
	10/6/2010	31.13	663.33	0.27	39.92	654.54	0.16
	5/31/2011	30.46	664.00	0.67	39.90	654.46	-0.08
	11/4/2011	30.11	664.35	0.35	39.91	654.55	0.09
	6/1/2012	29.30	665.16	0.81	39.85	654.61	0.06
	10/16/2012	29.19	665.27	0.11	39.82	654.64	0.03

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WELL NO	DATE	DEPTH TO GROUNDWATER (FEET)	GROUNDWATER ELEVATION (FEET MSL)	GROUNDWATER ELEVATION CHANGE[1] (FEET)	TOTAL DEPTH (FEET)	BOTTOM OF WELL ELEVATION (FEET MSL)	DIFFERENCE FROM AS-BUILT TOTAL DEPTH (FEET)
MW-203B	6/28/1994	21.96	668.24	NA	NA	NA	NA
	7/7/1994	21.92	668.28	0.04	NA	NA	NA
	7/20/1994	22.04	668.16	-0.12	NA	NA	NA
	7/27/1994	21.32	668.88	0.72	NA	NA	NA
Top of Casing Elev.	8/10/1994	22.61	667.59	-1.29	NA	NA	NA
690.20' MSL	8/22/1994	22.80	667.40	-0.19	NA	NA	NA
	9/1/1994	22.90	667.30	-0.10	NA	NA	NA
	9/8/1994	22.83	667.33	0.07	NA	NA	NA
As-Built Total Depth	9/15/1994	23.12	667.08	-0.29	NA	NA	NA
from Top of Casing	9/20/1994	23.26	666.94	-0.14	NA	NA	NA
34.30'	9/29/1994	23.42	666.78	-0.16	NA	NA	NA
	10/7/1994	23.42	666.78	0.00	NA	NA	NA
	10/13/1994	23.46	666.74	-0.04	NA	NA	NA
	10/26/1994	23.56	666.64	-0.10	NA	NA	NA
	11/2/1994	23.56	666.64	0.00	NA	NA	NA
	6/29/1995	23.04	667.16	0.52	NA	NA	NA
	1/31/1996	23.56	666.64	-0.52	NA	NA	NA
Reestablished Top of	6/26/1996	21.12	669.08	2.44	NA	NA	NA
Casing Elevation on	12/18/1996	21.30	668.90	-0.18	34.30	657.35	0.00
March 17, 1998	5/28/1997	20.88	669.32	0.42	34.25	657.40	-0.05
691.65' MSL	11/19/1997	24.88	665.32	-4.00	34.40	657.25	0.10
	5/12/1998	22.81	668.77	NA	34.48	657.17	0.18
	11/3/1998	23.34	668.31	-0.46	34.29	657.36	-0.01
	6/28/1999	22.72	668.93	0.62	34.26	657.39	-0.04
	11/30/1999	24.39	667.26	-1.67	34.27	657.38	-0.03
	5/16/2000	24.53	667.12	-0.14	34.28	657.37	-0.02
	11/13/2000	24.43	667.22	0.10	34.30	657.35	0.00
	5/30/2001	23.73	667.92	0.70	34.29	657.36	-0.01
	11/23/2001	21.81	669.64	1.82	34.30	657.35	0.00
	5/29/2002	17.95	673.70	3.86	34.28	657.37	-0.02
	11/21/2002	22.49	669.16	-4.54	34.27	657.38	-0.03
	5/20/2003	20.67	670.98	1.82	34.30	657.35	0.00
	11/18/2003	20.68	670.97	-0.01	34.30	657.35	0.00
	5/24/2004	20.13	671.52	0.55	34.30	657.35	0.00
	11/11/2004	20.85	670.80	-0.72	34.30	657.35	0.00
	5/10/2005	20.62	671.03	0.23	34.30	657.35	0.00
	11/9/2005	21.43	670.22	-0.81	34.30	657.35	0.00
	5/17/2006	22.02	669.63	-0.59	34.32	657.33	0.02
	11/8/2006	19.62	672.03	2.40	34.28	657.37	-0.02
	5/16/2007	18.12	673.53	1.50	34.11	657.54	-0.19
	11/15/2007	20.67	670.98	-2.55	34.29	657.36	-0.01
	5/13/2008	18.12	673.53	2.55	33.92	657.73	-0.38
	11/6/2008	19.90	671.75	-1.78	34.27	657.38	-0.03
	5/13/2009	17.86	673.79	2.04	34.30	657.35	0.00
	11/23/2009	19.78	671.87	-1.92	34.30	657.35	0.00
	6/3/2010	19.17	672.48	0.61	34.15	657.50	0.15
	10/6/2010	19.81	671.84	-0.64	34.15	657.50	0.00
	5/31/2011	16.71	674.94	3.10	34.10	657.55	0.05
	11/4/2011	19.61	672.04	-2.90	34.13	657.52	-0.03
	6/1/2012	20.06	671.59	-0.45	33.96	657.69	0.17
	10/16/2012	19.21	672.44	0.85	33.95	657.70	0.01
MW-204A	6/28/1994	28.79	665.09	NA	NA	NA	NA
	7/7/1994	38.41	655.47	-9.62	NA	NA	NA
	7/20/1994	38.41	655.47	0.00	NA	NA	NA
	7/27/1994	39.63	654.25	-1.22	NA	NA	NA
Top of Casing Elev.	8/10/1994	37.89	655.99	1.74	NA	NA	NA
693.88' MSL	8/22/1994	37.70	656.18	0.19	NA	NA	NA
	9/1/1994	37.63	656.25	0.07	NA	NA	NA
	9/8/1994	37.53	656.35	0.10	NA	NA	NA
As-Built Total Depth	9/15/1994	37.47	656.41	0.06	NA	NA	NA
from Top of Casing	9/20/1994	37.43	656.45	0.04	NA	NA	NA
38.80'	9/29/1994	37.34	656.54	0.09	NA	NA	NA
	10/7/1994	37.34	656.54	0.00	NA	NA	NA
	10/13/1994	37.19	656.69	0.14	NA	NA	NA
	10/26/1994	37.11	656.77	0.08	NA	NA	NA

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WELL NO	DATE	DEPTH TO GROUNDWATER (FEET)	GROUNDWATER ELEVATION (FEET MSL)	GROUNDWATER ELEVATION CHANGE[1] (FEET)	TOTAL DEPTH (FEET)	BOTTOM OF WELL ELEVATION (FEET MSL)	DIFFERENCE FROM AS-BUILT TOTAL DEPTH (FEET)
	11/2/1994	37.05	656.83	0.06	NA	NA	NA
	6/29/1995	35.57	658.31	1.48	NA	NA	NA
Reestablished Top of	1/31/1996	34.79	659.09	0.78	NA	NA	NA
Casing Elevation on	6/26/1996	34.21	659.67	0.58	NA	NA	NA
March 17, 1998	12/18/1996	34.52	659.36	-0.31	38.71	655.17	-0.09
693.89' MSL	5/28/1997	33.71	660.17	0.81	38.68	655.20	-0.12
	11/19/1997	33.36	660.52	0.35	38.71	655.17	-0.09
	5/12/1998	32.46	661.43	NA	38.74	655.15	-0.06
	11/3/1998	35.67	658.22	-3.21	38.78	655.11	-0.02
	6/28/1999	35.05	658.84	0.62	38.75	655.14	-0.05
	11/30/1999	34.56	659.33	0.49	38.75	655.14	-0.05
	5/16/2000	34.40	659.49	0.16	38.77	655.12	-0.03
	11/13/2000	35.90	657.99	-1.50	38.78	655.11	-0.02
	5/30/2001	36.72	657.17	-0.72	38.76	655.13	-0.04
	11/23/2001	36.12	657.77	0.60	38.75	655.14	-0.05
	5/29/2002	35.33	658.56	0.79	38.75	655.14	-0.05
	11/21/2002	34.83	659.06	0.50	38.74	655.15	-0.06
	5/20/2003	34.38	659.51	0.45	38.73	655.16	-0.07
	11/18/2003	35.79	658.10	-1.41	38.72	655.17	-0.08
	5/24/2004	34.96	658.93	0.83	38.74	655.15	-0.06
	11/11/2004	34.51	659.38	0.45	38.74	655.15	-0.06
	5/10/2005	34.44	659.45	0.07	38.75	655.14	-0.05
	11/9/2005	34.84	659.05	-0.40	38.74	655.15	-0.06
	5/17/2006	34.05	659.84	0.79	38.72	655.17	-0.08
	11/8/2006	33.60	660.29	0.45	38.74	655.15	-0.06
	5/16/2007	32.87	661.02	0.73	38.50	655.40	-0.30
	11/15/2007	32.52	661.37	0.35	38.74	655.15	-0.06
	5/13/2008	31.78	662.11	0.74	38.50	655.40	-0.30
	11/6/2008	32.39	661.50	-0.61	38.75	655.14	-0.05
	5/13/2009	31.66	662.23	0.73	38.75	655.14	-0.05
	11/23/2009	31.17	662.72	0.49	38.75	655.14	-0.05
	6/3/2010	30.55	663.34	0.62	37.50	656.39	1.25
	10/6/2010	30.22	663.67	0.33	38.70	655.19	-1.20
	5/31/2011	26.90	664.29	0.62	38.61	655.28	0.09
	11/4/2011	30.33	663.56	-0.73	38.61	655.28	0.00
	6/1/2012	28.45	665.44	1.88	37.64	656.25	0.97
	10/16/2012	28.33	665.56	0.12	38.53	655.36	-0.89
MW-204B	6/28/1994	22.13	670.47	NA	NA	NA	NA
	7/7/1994	22.21	670.39	-0.08	NA	NA	NA
	7/20/1994	22.23	670.37	-0.02	NA	NA	NA
	7/27/1994	22.50	670.10	-0.27	NA	NA	NA
Top of Casing Elev.	8/10/1994	22.80	669.80	-0.30	NA	NA	NA
692.60' MSL	8/22/1994	23.02	669.58	-0.22	NA	NA	NA
	9/1/1994	24.08	668.52	-0.06	NA	NA	NA
	9/8/1994	23.14	669.46	0.94	NA	NA	NA
As-Built Total Depth	9/15/1994	23.24	669.36	-0.10	NA	NA	NA
from Top of Casing	9/20/1994	23.41	669.19	-0.17	NA	NA	NA
37.82'	9/29/1994	23.46	669.14	-0.05	NA	NA	NA
	10/7/1994	23.58	669.02	-0.12	NA	NA	NA
	10/13/1994	23.62	668.98	-0.04	NA	NA	NA
	10/26/1994	22.84	669.76	-0.78	NA	NA	NA
	11/2/1994	23.94	668.66	-1.10	NA	NA	NA
	6/29/1995	23.41	669.19	0.53	NA	NA	NA
	1/31/1996	24.26	668.34	0.85	NA	NA	NA
Reestablished Top of	6/26/1996	21.39	671.21	2.87	NA	NA	NA
Casing Elevation on	12/18/1996	21.68	670.92	-0.29	37.78	654.82	-0.04
March 17, 1998	5/28/1997	21.29	671.31	0.39	37.72	654.88	-0.10
693.23' MSL	11/19/1997	26.65	665.95	-5.36	37.80	654.80	-0.02
	5/12/1998	23.22	670.01	NA	37.81	655.42	-0.01
	11/3/1998	23.46	669.77	-0.24	37.81	655.42	-0.01
	6/28/1999	22.84	670.39	0.62	37.82	655.41	0.00
	11/30/1999	24.55	668.68	-1.71	37.81	655.42	-0.01
	5/16/2000	24.41	668.82	0.14	37.80	655.43	-0.02
	11/13/2000	24.01	669.22	0.40	37.81	655.42	-0.01
	5/30/2001	23.77	669.46	0.24	37.79	655.44	-0.03
	11/23/2001	22.02	671.21	1.75	37.80	655.43	-0.02

Note: Groundwater and bottom of well elevations after 5/12/98 are calculated with reference to the reestablished top of casing elevation

Table 1. Monitoring Well and Groundwater Data, Surface Impoundment Area, RACER Trust, Indianapolis, Indiana.

WELL NO	DATE	DEPTH TO GROUNDWATER (FEET)	GROUNDWATER ELEVATION (FEET MSL)	GROUNDWATER ELEVATION CHANGE[1] (FEET)	TOTAL DEPTH (FEET)	BOTTOM OF WELL ELEVATION (FEET MSL)	DIFFERENCE FROM AS-BUILT TOTAL DEPTH (FEET)
	5/29/2002	18.46	674.77	3.56	37.79	655.44	-0.03
	11/21/2002	22.24	670.99	-3.78	37.78	655.45	-0.04
	5/20/2003	20.46	672.77	1.78	37.78	655.45	-0.04
	11/18/2003	20.84	672.39	-0.38	37.78	655.45	-0.04
	5/24/2004	20.39	672.84	0.45	37.80	655.43	-0.02
	11/11/2004	21.13	672.10	-0.74	37.80	655.43	-0.02
	5/10/2005	19.10	674.13	2.03	37.79	655.44	-0.03
	11/9/2005	21.89	671.34	-2.79	37.80	655.43	-0.02
	5/17/2006	22.51	670.72	-0.62	37.76	655.47	-0.06
	11/8/2006	20.53	672.70	1.98	37.80	655.43	-0.02
	5/16/2007	18.51	674.72	2.02	37.51	655.72	-0.31
	11/15/2007	21.24	671.99	2.73	37.79	655.44	-0.03
	5/13/2008	18.89	674.34	2.35	37.58	655.65	-0.24
	11/6/2008	20.37	672.86	-1.48	37.81	655.42	-0.01
	5/13/2009	18.80	674.43	1.57	37.79	655.44	-0.03
	11/23/2009	20.27	672.96	-1.47	37.79	655.44	-0.03
	6/3/2010	19.53	673.70	0.74	37.83	655.40	-0.04
	10/20/2010	20.59	672.64	-1.06	37.70	655.53	0.13
	5/31/2011	17.38	675.85	3.21	37.61	655.62	0.09
	11/4/2011	21.10	672.13	-3.72	37.65	655.58	-0.04
	6/1/2012	20.80	672.43	0.30	37.64	655.59	0.01
	10/16/2012	19.96	673.27	0.84	37.59	655.64	0.05
MW-205A	6/28/1994	40.27	654.81	NA	NA	NA	NA
	7/7/1994	39.61	655.47	0.31	NA	NA	NA
	7/20/1994	NA	NA	NA	NA	NA	NA
Top of Casing Elev.	7/27/1994	39.30	655.78	NA	NA	NA	NA
695.08' MSL	8/10/1994	39.22	655.86	0.08	NA	NA	NA
	8/22/1994	39.02	656.06	0.20	NA	NA	NA
	9/1/1994	38.92	656.16	0.10	NA	NA	NA
As-Built Total Depth	9/8/1994	38.84	656.24	0.09	NA	NA	NA
from Top of Casing	9/15/1994	38.77	656.31	0.07	NA	NA	NA
39.61'	9/20/1994	38.72	656.36	0.05	NA	NA	NA
	9/29/1994	38.63	656.45	0.09	NA	NA	NA
	10/7/1994	38.55	656.53	0.08	NA	NA	NA
	10/13/1994	38.51	656.57	0.04	NA	NA	NA
	10/26/1994	38.40	656.68	0.11	NA	NA	NA
	11/2/1994	38.32	656.76	0.09	NA	NA	NA
	6/29/1995	36.80	658.28	1.52	NA	NA	NA
	1/31/1996	36.00	659.08	0.80	NA	NA	NA
Reestablished Top of	6/26/1996	35.44	659.64	0.56	NA	NA	NA
Casing Elevation on	12/18/1996	35.74	659.34	-0.30	39.52	655.56	-0.09
March 17, 1998	5/28/1997	34.93	660.15	0.81	39.61	655.47	0.00
693.74' MSL	11/19/1997	34.56	660.52	0.37	39.61	655.47	0.00
	5/12/1998	34.46	659.28	NA	39.63	654.11	0.02
	11/3/1998	37.03	656.71	-2.57	39.60	654.14	-0.01
	6/28/1999	36.25	657.49	1.78	39.63	654.11	0.02
	11/30/1999	35.97	657.77	-0.72	39.64	654.10	0.03
	5/16/2000	35.59	658.15	0.38	39.65	654.09	0.04
	11/13/2000	37.10	656.64	-1.51	39.64	654.10	0.03
	5/30/2001	37.92	655.82	-0.82	39.62	654.12	0.01
	11/23/2001	37.34	656.40	0.58	39.63	654.11	0.02
	5/29/2002	36.53	657.21	0.81	39.63	654.11	0.02
	11/21/2002	36.04	657.70	0.49	39.62	654.12	0.01
	5/20/2003	35.58	658.16	0.46	39.62	654.12	0.01
	11/18/2003	36.99	656.75	-1.41	39.63	654.11	0.02
	5/24/2004	36.17	657.57	0.82	39.61	654.13	0.00
	11/11/2004	34.72	659.02	1.45	39.61	654.13	0.00
	5/10/2005	34.92	658.82	-0.20	39.61	654.13	0.00
	11/9/2005	36.05	657.69	-1.13	39.63	654.11	0.02
	5/17/2006	34.73	659.01	1.32	39.61	654.13	0.00
	11/8/2006	34.62	659.12	0.11	39.61	654.13	0.00
	5/16/2007	34.08	659.66	0.54	39.37	654.37	-0.24
	11/15/2007	33.75	659.99	0.33	39.61	654.13	0.00
	5/13/2008	32.98	660.76	0.77	39.40	654.34	-0.21
	11/6/2008	33.61	660.13	-0.63	39.60	654.14	-0.01
	5/13/2009	32.87	660.87	0.74	39.61	654.13	0.00

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Table 1. Monitoring Well and Groundwater Data, Surface Impoundment Area, RACER Trust, Indianapolis, Indiana.

WELL NO	DATE	DEPTH TO GROUNDWATER (FEET)	GROUNDWATER ELEVATION (FEET MSL)	GROUNDWATER ELEVATION CHANGE[1] (FEET)	TOTAL DEPTH (FEET)	BOTTOM OF WELL ELEVATION (FEET MSL)	DIFFERENCE FROM AS-BUILT TOTAL DEPTH (FEET)
	11/23/2009	32.38	661.36	0.49	39.61	654.13	0.00
	6/3/2010	31.75	661.99	0.63	39.65	654.09	-0.04
	10/6/2010	31.40	662.34	0.35	39.56	654.18	0.09
	5/31/2011	30.81	662.93	0.59	39.50	654.24	0.06
	11/4/2011	31.55	662.19	-0.74	39.51	654.23	-0.01
	6/1/2012	29.67	664.07	1.88	39.45	654.29	0.06
	10/16/2012	29.48	664.26	0.19	39.43	654.31	0.02
MW-205B	6/28/1994	23.14	670.99	NA	NA	NA	NA
	7/7/1994	23.13	671.00	0.01	NA	NA	NA
	7/20/1994	23.27	670.86	-0.14	NA	NA	NA
Top of Casing Elev.	7/27/1994	23.39	670.74	-0.12	NA	NA	NA
694.13' MSL	8/10/1994	23.68	670.45	-0.29	NA	NA	NA
	8/22/1994	23.88	670.25	-0.20	NA	NA	NA
	9/1/1994	23.93	670.20	-0.05	NA	NA	NA
	9/8/1994	24.05	670.08	-0.12	NA	NA	NA
As-Built Total Depth	9/15/1994	24.13	670.00	-0.08	NA	NA	NA
from Top of Casing	9/20/1994	24.07	669.90	-0.10	NA	NA	NA
39.29'	9/29/1994	24.34	669.79	-0.11	NA	NA	NA
	10/7/1994	24.46	669.67	-0.12	NA	NA	NA
	10/13/1994	24.53	669.60	-0.07	NA	NA	NA
	10/26/1994	24.72	669.41	-0.19	NA	NA	NA
	11/2/1994	24.86	669.27	-0.14	NA	NA	NA
	6/29/1995	24.49	669.64	0.37	NA	NA	NA
	1/31/1996	25.48	668.65	-0.99	NA	NA	NA
Reestablished Top of	6/26/1996	22.32	671.81	3.16	NA	NA	NA
Casing Elevation on	12/18/1996	22.55	671.58	-0.23	38.87	655.26	-0.42
March 17, 1998	5/28/1997	22.05	672.08	0.50	39.02	655.11	-0.27
693.97' MSL	11/19/1997	25.45	668.68	-3.40	39.05	655.08	-0.24
	5/12/1998	24.21	669.76	NA	39.13	654.84	-0.16
	11/3/1998	24.25	669.72	-0.04	39.17	654.80	-0.12
	6/28/1999	23.68	670.29	0.57	38.79	655.18	-0.50
	11/30/1999	25.27	668.70	-1.59	38.75	655.22	-0.54
	5/16/2000	25.17	668.80	0.10	38.80	655.17	-0.49
	11/13/2000	24.75	669.22	0.42	38.80	655.17	-0.49
	5/30/2001	24.57	669.40	0.18	38.76	655.21	-0.53
	11/23/2001	22.78	671.19	1.79	38.78	655.19	-0.51
	5/29/2002	17.87	676.10	4.91	38.77	655.20	-0.52
	11/21/2002	23.06	670.91	-5.19	38.78	655.19	-0.51
	5/20/2003	21.79	672.18	1.27	38.81	655.16	-0.48
	11/18/2003	21.36	672.61	0.43	38.79	655.18	-0.50
	5/24/2004	20.99	672.98	0.37	38.81	655.16	-0.48
	11/11/2004	21.74	672.23	-0.75	38.81	655.16	-0.48
	5/10/2005	20.44	673.53	1.30	38.80	655.17	-0.49
	11/9/2005	22.53	671.44	-2.09	38.94	655.03	-0.35
	5/17/2006	23.07	670.90	-0.54	38.75	655.22	-0.54
	11/8/2006	21.20	672.77	1.87	38.81	655.16	-0.48
	5/16/2007	19.06	674.91	2.14	38.60	655.37	-0.69
	11/15/2007	21.96	672.01	-2.90	38.72	655.25	-0.57
	5/13/2008	19.55	674.42	2.41	38.50	655.47	-0.79
	11/6/2008	21.02	672.95	-1.47	38.71	655.26	-0.58
	5/13/2009	19.50	674.47	1.52	38.75	655.22	-0.54
	11/23/2009	20.84	673.13	-1.34	38.71	655.26	-0.58
	6/3/2010	20.10	673.87	0.74	38.78	655.19	-0.07
	10/6/2010	20.88	673.09	-0.78	38.66	655.31	0.12
	5/31/2011	18.02	675.95	2.86	38.53	655.44	0.13
	11/4/2011	21.70	672.27	-3.68	38.55	655.42	-0.02
	6/1/2012	21.92	672.05	-0.22	38.10	655.87	0.45
	10/16/2012	20.70	673.27	1.22	38.45	655.52	-0.35
MW-206A	6/28/1994	38.82	659.02	NA	NA	NA	NA
	7/7/1994	NA	NA	NA	NA	NA	NA
	7/20/1994	NA	NA	NA	NA	NA	NA
Top of Casing Elev.	7/27/1994	NA	NA	NA	NA	NA	NA
697.84' MSL	8/10/1994	NA	NA	NA	NA	NA	NA
	8/22/1994	NA	NA	NA	NA	NA	NA
	9/1/1994	NA	NA	NA	NA	NA	NA

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	9/8/1994	41.49	656.35	NA	NA	NA	NA
As-Built Total Depth	9/15/1994	41.42	656.42	0.07	NA	NA	NA
from Top of Casing	9/20/1994	NA	NA	NA	NA	NA	NA
43.25'	9/29/1994	41.29	656.55	NA	NA	NA	NA
	10/7/1994	41.21	656.63	0.08	NA	NA	NA
	10/13/1994	41.20	656.64	0.01	NA	NA	NA
	10/26/1994	41.04	656.80	0.16	NA	NA	NA
	11/2/1994	40.96	656.88	0.08	NA	NA	NA
	6/29/1995	39.50	658.34	1.46	NA	NA	NA
	1/31/1996	38.70	659.14	0.80	NA	NA	NA
Reestablished Top of	6/26/1996	38.14	659.70	0.56	NA	NA	NA
Casing Elevation on	12/18/1996	38.46	659.38	-0.32	43.28	654.56	0.03
March 17, 1998	5/28/1997	37.65	660.19	0.81	43.26	654.58	0.01
698.52' MSL	11/19/1997	37.27	660.57	0.38	43.23	654.61	-0.02
	5/12/1998	36.00	662.52	NA	43.26	655.26	0.01
	11/3/1998	39.75	658.77	-3.75	43.25	655.27	0.00
	6/28/1999	39.01	659.51	0.74	43.25	655.27	0.00
	11/30/1999	38.70	659.82	0.31	43.26	655.26	0.01
	5/16/2000	38.52	660.00	0.18	43.23	655.29	-0.02
	11/13/2000	38.83	659.69	-0.31	43.27	655.25	0.02
	5/30/2001	40.64	657.88	-1.81	43.25	655.27	0.00
	11/23/2001	40.06	658.46	0.58	43.26	655.26	0.02
	5/29/2002	39.25	659.27	0.81	43.25	655.27	0.00
	11/21/2002	38.76	659.76	0.49	43.25	655.27	0.00
	5/20/2003	38.07	660.45	0.69	43.18	655.34	-0.07
	11/18/2003	39.67	658.85	-1.60	43.19	655.33	-0.06
	5/24/2004	38.72	659.80	0.95	43.20	655.32	-0.05
	11/11/2004	38.44	660.08	0.28	43.20	655.32	-0.05
	5/10/2005	37.71	660.81	0.73	43.18	655.34	-0.07
	11/9/2005	39.78	658.74	-2.07	43.20	655.32	-0.05
	5/17/2006	37.96	660.56	1.82	43.17	655.35	-0.08
	11/8/2006	38.48	660.04	-0.52	43.14	655.38	-0.11
	5/16/2007	36.80	661.72	1.68	42.96	655.56	-0.29
	11/15/2007	36.48	662.04	0.32	43.20	655.32	-0.05
	5/13/2008	35.72	662.80	0.76	42.95	655.57	-0.30
	11/6/2008	36.32	662.60	-0.60	43.20	655.32	-0.05
	5/13/2009	35.59	662.93	0.33	43.24	655.28	-0.01
	11/23/2009	35.10	663.42	0.49	43.15	655.37	-0.10
	6/3/2010	34.47	664.05	0.63	43.20	655.32	-0.05
	10/6/2010	34.20	664.32	0.27	43.15	655.37	0.05
	5/31/2011	33.54	664.98	0.66	43.13	655.39	0.02
	11/4/2011	34.28	664.24	-0.74	43.15	655.37	-0.02
	6/1/2012	32.40	666.12	1.88	43.07	655.45	0.08
	10/16/2012	32.25	666.27	0.15	43.00	655.52	0.07
MW-206B	6/28/1994	22.69	670.95	NA	NA	NA	NA
	7/7/1994	22.69	670.95	0.00	NA	NA	NA
	7/20/1994	22.78	670.86	-0.09	NA	NA	NA
Top of Casing Elev.	7/27/1994	22.92	670.72	-0.14	NA	NA	NA
693.64' MSL	8/10/1994	23.21	670.43	-0.29	NA	NA	NA
	8/22/1994	23.39	670.25	-0.18	NA	NA	NA
	9/1/1994	23.47	670.17	-0.08	NA	NA	NA
	9/8/1994	23.53	670.11	-0.06	NA	NA	NA
As-Built Total Depth	9/15/1994	23.63	670.01	-0.10	NA	NA	NA
from Top of Casing	9/20/1994	23.75	669.89	-0.12	NA	NA	NA
37.73'	9/29/1994	23.84	669.80	-0.09	NA	NA	NA
	10/7/1994	23.97	669.67	-0.13	NA	NA	NA
	10/13/1994	24.07	669.57	-0.10	NA	NA	NA
	10/26/1994	24.27	669.37	-0.20	NA	NA	NA

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WELL NO	DATE	DEPTH TO GROUNDWATER (FEET)	GROUNDWATER ELEVATION (FEET MSL)	GROUNDWATER ELEVATION CHANGE[1] (FEET)	TOTAL DEPTH (FEET)	BOTTOM OF WELL ELEVATION (FEET MSL)	DIFFERENCE FROM AS-BUILT TOTAL DEPTH (FEET)
	11/2/1994	24.43	669.21	-0.16	NA	NA	NA
	6/29/1995	24.08	669.56	0.35	NA	NA	NA
	1/31/1996	25.15	668.49	-1.07	NA	NA	NA
Reestablished Top of	6/26/1996	21.91	671.73	3.24	NA	NA	NA
Casing Elevation on	12/18/1996	22.07	671.57	-0.16	37.64	656.00	-0.09
March 17, 1998	5/28/1997	21.51	672.13	0.56	37.63	656.01	-0.10
693.46' MSL	11/19/1997	25.05	668.59	-3.54	37.70	655.94	-0.03
	5/12/1998	23.80	669.66	NA	37.69	655.77	-0.04
	11/3/1998	23.79	669.67	0.01	37.70	655.76	-0.03
	6/28/1999	23.27	670.19	0.52	37.64	655.82	-0.09
	11/30/1999	25.04	668.42	-1.77	37.64	655.82	-0.09
	5/16/2000	25.00	668.46	0.04	37.63	655.83	-0.10
	11/13/2000	24.39	669.07	0.61	37.72	655.74	-0.01
	5/30/2001	24.22	669.24	0.17	37.65	655.81	-0.08
	11/23/2001	22.33	671.13	1.89	37.72	655 74	-0.01
	5/29/2002	18.53	674.93	3.80	37.69	655.77	-0.04
	11/21/2002	22.60	670.86	-4.07	37.70	655.76	-0.03
	5/20/2003	21.18	672.28	1.42	37.66	655.80	-0.07
	11/18/2003	20.73	672.73	0.45	37.66	655.80	-0.07
	5/24/2004	20.45	673.01	0.24	37.69	655.70	-0.04
	11/11/2004	21.20	672.26	-0.75	37.69	655.70	-0.04
	5/10/2005	19.71	673.75	1.49	37.70	655.76	-0.03
	11/9/2005	21.97	671.49	-2.26	37.63	655.83	-0.10
	5/17/2006	22.51	670.95	-0.54	37.67	655.79	-0.06
	11/8/2006	20.67	672.79	1.84	37.67	655.79	-0.06
	5/16/2007	18.47	674.99	2.20	37.48	655.98	-0.25
	11/15/2007	21.48	671.98	-3.01	37.67	655.79	-0.06
	5/13/2008	19.42	674.04	2.06	37.42	656.04	-0.31
	11/6/2008	20.53	672.93	-1.11	37.68	655.78	-0.05
	5/13/2009	18.93	674.53	1.60	37.66	655.80	-0.07
	11/23/2009	20.30	673.16	-1.37	37.69	655.77	-0.04
	6/3/2010	19.60	673.86	0.70	37.70	655.76	-0.01
	10/20/2010	20.73	672.73	-1.13	37.62	655.84	0.08
	5/31/2011	17.44	676.02	3.29	37.54	655.92	0.08
	11/4/2011	21.15	672.31	-3.71	37.59	655.87	-0.05
	6/1/2012	21.02	672.44	0.13	37.47	655.99	0.12
	10/16/2012	20.15	673.31	0.87	37.47	655.99	0.00
MW-207A	6/28/1994	42.44	655.00	NA	NA	NA	NA
	7/7/1994	NA	NA	NA	NA	NA	NA
	7/20/1994	41.74	655.70	NA	NA	NA	NA
Top of Casing Elev.	7/27/1994	41.61	655.83	0.13	NA	NA	NA
697.44' MSL	8/10/1994	41.47	655.97	0.14	NA	NA	NA
	8/22/1994	41.32	656.12	0.15	NA	NA	NA
	9/1/1994	41.21	656.23	0.11	NA	NA	NA
	9/8/1994	41.12	656.32	0.09	NA	NA	NA
As-Built Total Depth	9/15/1994	41.07	656.37	0.05	NA	NA	NA
from Top of Casing	9/20/1994	41.00	656.44	0.07	NA	NA	NA
43.58'	9/29/1994	40.64	656.80	0.36	NA	NA	NA
	10/7/1994	40.84	656.60	-0.20	NA	NA	NA
	10/13/1994	40.82	656.62	0.02	NA	NA	NA
	10/26/1994	40.71	656.73	0.11	NA	NA	NA
	11/2/1994	40.64	656.80	0.07	NA	NA	NA
	6/29/1995	39.13	658.31	1.51	NA	NA	NA
	1/31/1996	38.34	659.10	0.79	NA	NA	NA
	6/26/1996	37.80	659.64	0.54	NA	NA	NA
Reestablished Top of	12/18/1996	38.09	659.35	-0.29	43.57	653.87	-0.01
Casing Elevation on	5/28/1997	37.28	660.16	0.81	43.58	653.86	0.00
March 17, 1998	11/19/1997	36.92	660.52	0.36	43.54	653.90	-0.04
697.22' MSL	5/12/1998	36.68	660.54	NA	43.57	653.65	-0.01
	11/3/1998	39.33	657.89	-2.65	43.58	653.64	0.00
	6/28/1999	38.92	658.30	0.41	43.56	653.66	-0.02
	11/30/1999	38.32	658.90	0.60	43.57	653.65	-0.01
	5/16/2000	37.95	659.27	0.37	43.55	653.67	-0.03
	11/13/2000	39.49	657.73	-1.54	43.58	653.64	0.00
	5/30/2001	40.29	656.93	-0.80	43.58	653.64	0.00

Note: Groundwater and bottom of well elevations after 5/12/98 are calculated with reference to the reestablished top of casing elevation

Table 1. Monitoring Well and Groundwater Data, Surface Impoundment Area, RACER Trust, Indianapolis, Indiana.

WELL NO	DATE	DEPTH TO GROUNDWATER (FEET)	GROUNDWATER ELEVATION (FEET MSL)	GROUNDWATER ELEVATION CHANGE[1] (FEET)	TOTAL DEPTH (FEET)	BOTTOM OF WELL ELEVATION (FEET MSL)	DIFFERENCE FROM AS-BUILT TOTAL DEPTH (FEET)
	11/23/2001	39.71	657.51	0.58	43.58	653.64	0.00
	5/29/2002	38.89	658.33	0.82	43.57	653.65	-0.01
	11/21/2002	38.41	658.81	0.48	43.57	653.65	-0.01
	5/20/2003	37.94	659.28	0.47	43.58	653.64	0.00
	11/18/2003	39.35	657.87	-1.41	43.57	653.65	-0.01
	5/24/2004	38.53	658.69	0.82	43.56	653.66	-0.02
	11/11/2004	38.08	659.14	0.45	43.56	653.66	-0.02
	5/10/2005	37.34	659.88	0.74	43.56	653.66	-0.02
	11/9/2005	38.44	658.78	-1.10	43.56	653.66	-0.02
	5/17/2006	37.61	659.61	0.83	43.57	653.65	-0.01
	11/8/2006	37.15	660.07	0.46	43.55	653.67	-0.03
	5/16/2007	36.45	660.77	0.70	43.33	653.89	-0.25
	11/15/2007	36.12	661.10	0.33	43.57	653.65	-0.01
	5/13/2008	35.34	661.88	0.78	43.31	653.91	-0.27
	11/6/2008	35.97	661.25	-0.63	43.58	653.64	0.00
	5/13/2009	35.23	661.99	0.74	43.56	653.66	-0.02
	11/23/2009	34.73	662.49	0.50	43.53	653.69	-0.05
	6/3/2010	34.18	663.04	0.55	43.60	653.62	-0.07
	10/21/2010	33.80	663.42	0.38	40.67	656.55	2.93
	2/24/2011	33.53	663.69	0.27	43.45	653.77	0.15
	5/31/2011	33.17	664.05	0.36	43.43	653.79	0.02
	11/4/2011	33.90	663.32	-0.73	43.46	653.76	-0.03
	6/1/2012	32.02	665.20	1.88	43.44	653.78	0.02
	10/16/2012	31.88	665.34	0.14	43.37	653.85	0.07
MW-207B	6/28/1994	23.10	670.80	NA	NA	NA	NA
	7/7/1994	23.09	670.81	0.01	NA	NA	NA
	7/20/1994	23.21	670.69	-0.12	NA	NA	NA
Top of Casing Elev.	7/27/1994	23.35	670.55	-0.14	NA	NA	NA
693.90' MSL	8/10/1994	23.65	670.25	-0.30	NA	NA	NA
	8/22/1994	23.82	670.08	-0.17	NA	NA	NA
	9/1/1994	23.91	669.99	-0.09	NA	NA	NA
As-Built Total Depth	9/8/1994	23.94	669.96	-0.03	NA	NA	NA
from Top of Casing	9/15/1994	24.07	669.83	-0.13	NA	NA	NA
38.87'	9/20/1994	24.18	669.72	-0.11	NA	NA	NA
	9/29/1994	24.27	669.63	-0.09	NA	NA	NA
	10/7/1994	24.41	669.49	-0.14	NA	NA	NA
	10/13/1994	24.54	669.36	-0.13	NA	NA	NA
	10/26/1994	24.79	669.11	-0.25	NA	NA	NA
	11/2/1994	24.88	669.02	-0.09	NA	NA	NA
	6/29/1995	24.52	669.38	0.36	NA	NA	NA
	1/31/1996	25.71	668.19	-1.19	NA	NA	NA
	6/26/1996	22.41	671.49	3.30	NA	NA	NA
Reestablished Top of	12/18/1996	22.51	671.39	-0.10	38.90	655.00	0.03
Casing Elevation on	5/28/1997	21.87	672.03	0.64	38.86	655.04	-0.01
March 17, 1998	11/19/1997	25.57	668.33	-3.70	38.92	654.98	0.05
693.72' MSL	5/12/1998	24.23	669.49	NA	38.90	654.82	0.03
	11/3/1998	24.26	669.46	-0.03	38.81	654.91	-0.06
	6/28/1999	23.75	669.97	0.31	38.84	654.88	-0.03
	11/30/1999	25.54	668.18	-1.79	38.82	654.90	-0.05
	5/16/2000	25.35	668.37	0.19	38.80	654.92	-0.07
	11/13/2000	24.79	668.93	0.56	38.87	654.85	0.00
	5/30/2001	24.71	669.01	0.08	38.87	654.85	0.00
	11/23/2001	22.67	671.05	2.04	38.85	654.87	-0.02
	5/29/2002	18.88	674.84	3.79	38.87	654.85	0.00
	11/21/2002	22.03	670.69	-4.15	38.87	654.85	0.00
	5/20/2003	21.62	672.10	1.41	38.74	654.98	-0.13
	11/18/2003	21.04	672.68	0.58	38.72	655.00	-0.15
	5/24/2004	20.02	673.70	1.02	38.84	654.88	-0.03
	11/11/2004	21.55	672.17	-1.53	38.84	654.88	-0.03
	5/10/2005	20.73	672.99	0.82	38.81	654.91	-0.06

Note: Groundwater and bottom of well elevations after 5/12/98 are calculated with reference to the reestablished top of casing elevation

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	11/9/2005	20.02	673.70	0.71	38.81	654.91	-0.06
	5/17/2006	21.80	671.92	-1.78	38.80	654.92	-0.07
	11/8/2006	21.06	672.66	0.74	38.82	654.90	-0.05
	5/16/2007	18.77	674.95	2.29	38.58	655.14	-0.29
	11/15/2007	21.86	671.86	-3.09	38.81	654.91	-0.06
	5/13/2008	19.31	674.41	2.55	38.57	655.15	-0.30
	11/6/2008	20.93	672.79	-1.62	38.83	654.89	-0.04
	5/13/2009	19.18	674.54	1.75	38.80	654.92	-0.07
	11/23/2009	20.61	673.11	-1.43	38.75	654.97	-0.12
	6/3/2010	19.95	673.77	0.66	38.85	654.87	-0.10
	10/6/2010	20.73	672.99	-0.78	38.73	654.99	0.12
	5/31/2011	17.66	676.06	3.07	38.65	655.07	0.08
	11/4/2011	21.38	672.34	-3.72	38.65	655.07	0.00
	6/1/2012	21.35	672.37	0.03	38.50	655.22	0.15
	10/16/2012	21.38	672.34	-0.03	38.65	655.07	-0.15
MW-208A	6/28/1994	38.98	655.27	NA	NA	NA	NA
	7/7/1994	38.77	655.48	0.21	NA	NA	NA
	7/20/1994	38.51	655.74	0.26	NA	NA	NA
Top of Casing Elev.	7/27/1994	38.41	655.84	0.10	NA	NA	NA
694.25' MSL	8/10/1994	38.23	656.02	0.18	NA	NA	NA
	8/22/1994	38.10	656.15	0.13	NA	NA	NA
	9/1/1994	38.04	656.21	0.06	NA	NA	NA
	9/8/1994	37.91	656.34	0.13	NA	NA	NA
As-Built Total Depth	9/15/1994	37.83	656.42	0.08	NA	NA	NA
from Top of Casing	9/20/1994	37.78	656.47	0.05	NA	NA	NA
40.76'	9/29/1994	37.68	656.57	0.10	NA	NA	NA
	10/7/1994	37.65	656.60	0.03	NA	NA	NA
	10/13/1994	37.56	656.69	0.09	NA	NA	NA
	10/26/1994	37.47	656.78	0.09	NA	NA	NA
	11/2/1994	37.43	656.82	0.04	NA	NA	NA
	6/29/1995	36.42	657.83	1.01	NA	NA	NA
	1/31/1996	35.63	658.62	0.79	NA	NA	NA
Reestablished Top of	6/26/1996	35.08	659.17	0.55	NA	NA	NA
Casing Elevation on	12/18/1996	35.38	658.87	-0.30	40.76	653.49	-0.01
March 17, 1998	5/28/1997	34.59	659.66	0.79	40.75	653.50	-0.02
694.50' MSL	11/19/1997	34.20	660.05	0.39	40.75	653.50	-0.02
	5/12/1998	32.47	662.03	NA	40.77	653.73	0.01
	11/3/1998	36.39	658.11	-3.92	40.47	654.03	-0.29
	6/28/1999	35.87	658.63	0.52	40.77	653.73	0.01
	11/30/1999	35.60	658.90	0.27	40.75	653.75	-0.01
	5/16/2000	35.28	659.22	0.32	40.75	653.75	-0.01
	11/13/2000	36.72	657.78	-1.44	40.75	653.75	-0.01
	5/30/2001	37.54	656.96	-0.82	40.75	653.75	-0.01
	11/23/2001	36.95	657.55	0.59	40.75	653.75	-0.01
	5/29/2002	36.15	658.35	0.80	40.76	653.74	0.00
	11/21/2002	35.65	658.85	0.50	40.76	653.74	0.00
	5/20/2003	35.21	659.29	0.44	40.76	653.74	0.00
	11/18/2003	36.59	657.91	-1.38	40.76	653.74	0.00
	5/24/2004	36.44	658.06	0.15	40.75	653.75	-0.01
	11/11/2004	35.43	659.07	1.01	40.75	653.75	-0.01
	5/10/2005	35.34	659.88	0.81	40.72	653.78	-0.04
	11/9/2005	34.89	659.61	-0.27	40.71	653.79	-0.05
	5/17/2006	34.91	659.59	-0.02	40.75	653.75	-0.01
	11/8/2006	34.36	660.14	0.55	40.72	653.78	-0.04
	5/16/2007	33.69	660.81	0.67	40.50	654.00	-0.26
	11/15/2007	33.36	661.14	0.33	40.73	653.77	-0.03
	5/13/2008	32.57	661.93	0.79	40.51	653.99	-0.25
	11/6/2008	33.20	661.30	-0.63	40.73	653.77	-0.03
	5/13/2009	32.43	662.07	0.77	40.72	653.78	-0.04
	11/23/2009	31.96	662.54	0.47	40.72	653.78	-0.04
	6/3/2010	31.35	663.15	0.61	40.75	653.75	-0.03
	10/6/2010	31.00	663.50	0.35	40.67	653.83	0.08
	5/31/2011	30.38	664.12	0.62	40.56	653.94	0.11

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WELL NO	DATE	DEPTH TO GROUNDWATER (FEET)	GROUNDWATER ELEVATION (FEET MSL)	GROUNDWATER ELEVATION CHANGE[1] (FEET)	TOTAL DEPTH (FEET)	BOTTOM OF WELL ELEVATION (FEET MSL)	DIFFERENCE FROM AS-BUILT TOTAL DEPTH (FEET)
	11/4/2011	31.12	663.38	-0.74	40.60	653.90	-0.04
	6/1/2012	29.27	665.23	1.85	40.50	654.00	0.10
	10/16/2012	29.11	665.39	0.16	40.54	653.96	-0.04
MW-208B	6/28/1994	25.18	669.76	NA	NA	NA	NA
	7/7/1994	25.12	669.82	0.06	NA	NA	NA
	7/20/1994	25.19	669.75	-0.07	NA	NA	NA
Top of Casing Elev.	7/27/1994	25.42	669.52	-0.23	NA	NA	NA
694.94' MSL	8/10/1994	25.78	669.16	-0.36	NA	NA	NA
	8/22/1994	25.76	669.18	0.02	NA	NA	NA
	9/1/1994	25.88	669.06	-0.12	NA	NA	NA
	9/8/1994	25.88	669.06	0.00	NA	NA	NA
As-Built Total Depth	9/15/1994	25.02	669.92	0.86	NA	NA	NA
from Top of Casing	9/20/1994	26.17	668.77	-1.15	NA	NA	NA
39.28'	9/29/1994	25.72	669.22	0.45	NA	NA	NA
	10/7/1994	26.50	668.44	-0.78	NA	NA	NA
	10/13/1994	26.52	668.42	-0.02	NA	NA	NA
	10/26/1994	26.85	668.09	-0.33	NA	NA	NA
	11/2/1994	28.06	666.88	-1.21	NA	NA	NA
	6/29/1995	26.39	668.55	1.67	NA	NA	NA
	1/31/1996	27.62	667.32	-1.23	NA	NA	NA
Reestablished Top of	6/26/1996	24.33	670.61	3.29	NA	NA	NA
Casing Elevation on	12/18/1996	24.30	670.64	0.03	39.25	655.69	-0.03
March 17, 1998	5/28/1997	23.60	671.34	0.70	39.28	655.66	0.00
694.72' MSL	11/19/1997	28.56	666.38	-4.96	39.38	655.56	0.10
	5/12/1998	23.62	671.10	NA	39.26	655.46	-0.02
	11/3/1998	26.50	668.22	-2.88	39.26	655.46	-0.02
	6/28/1999	25.83	668.89	0.67	39.24	655.48	-0.04
	11/30/1999	27.53	667.19	-1.70	39.20	655.52	-0.08
	5/16/2000	27.65	667.07	-0.12	39.27	655.45	-0.01
	11/13/2000	27.13	667.59	0.52	39.24	655.48	-0.04
	5/30/2001	26.74	667.98	0.39	39.25	655.47	-0.03
	11/23/2001	23.75	670.97	2.99	39.25	655.47	-0.03
	5/29/2002	20.57	674.15	3.18	39.27	655.45	-0.01
	11/21/2002	25.16	669.56	-4.59	39.25	655.47	-0.03
	5/20/2003	23.32	671.40	1.84	39.24	655.48	-0.04
	11/18/2003	22.59	672.13	0.73	39.24	655.48	-0.04
	5/24/2004	22.35	672.37	0.24	39.24	655.48	-0.04
	11/11/2004	23.39	671.32	-1.05	39.25	655.47	-0.03
	5/10/2005	21.73	672.99	1.67	39.27	655.45	-0.01
	11/9/2005	23.98	670.74	-2.25	39.23	655.49	-0.05
	5/17/2006	21.52	673.20	2.46	39.25	655.47	-0.03
	11/8/2006	22.54	672.18	-1.02	39.25	655.47	-0.03
	5/16/2007	20.47	674.25	2.07	38.98	655.74	-0.30
	11/15/2007	23.65	671.07	-3.18	39.22	655.50	-0.06
	5/13/2008	20.86	673.86	2.79	38.88	655.84	-0.30
	11/6/2008	22.84	671.88	-1.98	39.24	655.48	-0.04
	5/13/2009	20.52	674.20	2.32	39.24	655.48	-0.04
	11/23/2009	22.31	672.41	-1.79	39.25	655.47	-0.03
	6/3/2010	21.72	673.00	0.59	39.23	655.49	0.02
	10/6/2010	22.56	672.16	-0.84	39.19	655.53	0.04
	5/31/2011	19.11	675.61	3.45	39.51	655.21	-0.32
	11/4/2011	22.65	672.07	-3.54	39.10	655.62	0.41
	6/1/2012	23.00	671.72	-0.35	39.10	655.62	0.00
	10/16/2012	22.02	672.70	0.98	39.01	655.71	0.09

Note: Groundwater and bottom of well elevations after 5/12/98 are calculated with reference to the reestablished top of casing elevation

Table 1. Monitoring Well and Groundwater Data, Surface Impoundment Area, RACER Trust, Indianapolis, Indiana.

WELL NO	DATE	DEPTH TO GROUNDWATER (FEET)	GROUNDWATER ELEVATION (FEET MSL)	GROUNDWATER ELEVATION CHANGE[1] (FEET)	TOTAL DEPTH (FEET)	BOTTOM OF WELL ELEVATION (FEET MSL)	DIFFERENCE FROM AS-BUILT TOTAL DEPTH (FEET)
MW-200C	2/3/1999	30.58	666.23	NA	88.38	608.43	AS-BUILT
	11/30/1999	36.39	660.42	-3.92	88.38	608.43	0.00
	5/16/2000	36.29	660.52	0.10	88.37	608.44	-0.01
	11/13/2000	35.39	661.42	0.90	88.41	608.40	0.03
Top of Casing Elev.	5/30/2001	34.14	662.67	1.25	88.30	608.51	-0.08
696.81' MSL	11/23/2001	32.49	664.32	1.65	88.38	608.43	0.00
	5/29/2002	28.81	668.00	3.68	88.35	608.46	-0.03
	11/21/2002	32.46	664.35	-3.65	88.36	608.45	-0.02
As-Built Total Depth	5/20/2003	30.54	666.27	1.92	88.29	608.52	-0.09
from Top of Casing	11/18/2003	28.98	667.83	1.56	88.30	608.51	-0.08
88.38'	5/24/2004	30.11	666.70	-1.13	88.38	608.43	0.00
	11/11/2004	29.76	667.05	0.35	88.38	608.43	0.00
	5/10/2005	31.98	664.83	-2.22	88.28	608.53	-0.10
	11/9/2005	30.26	666.55	1.72	88.36	608.45	-0.02
	5/17/2006	29.41	667.40	0.85	88.30	608.51	-0.08
	11/8/2006	27.27	669.54	2.14	88.27	608.54	-0.11
	5/16/2007	27.53	669.28	-0.26	88.12	608.69	-0.26
	11/15/2007	30.13	666.68	-2.60	88.13	608.68	-0.25
	5/13/2008	27.43	669.38	2.70	88.02	608.79	-0.36
	11/6/2008	29.83	666.98	-2.40	88.15	608.66	-0.23
	5/13/2009	26.45	670.36	3.38	88.30	608.51	-0.08
	11/23/2009	27.85	668.96	-1.40	88.29	608.52	-0.09
	6/3/2010	27.18	669.63	0.67	88.28	608.53	0.01
	10/6/2010	28.57	668.24	-1.39	82.80	614.01	5.48
	2/24/2011	29.11	667.70	-0.54	88.33	608.48	-0.05
	5/31/2011	26.79	670.02	2.32	NM	NM	NM
	11/4/2011	28.66	668.15	-1.87	88.40	608.41	-0.07
	6/1/2012	NM	NM	NM	NM	NM	NM
	10/16/2012	28.34	668.47	0.32	87.91	608.90	0.49
MW-202C	2/3/1999	25.34	666.66	NA	77.01	615.13	AS-BUILT
	6/28/1999	27.10	664.90	-1.76	77.00	615.14	0.01
	11/30/1999	31.04	660.96	-3.94	76.91	615.23	-0.10
	5/16/2000	31.32	660.82	-0.28	77.01	615.13	0.00
Top of Casing Elev.	11/13/2000	31.82	660.32	0.50	77.01	615.13	0.00
692.14' MSL	5/30/2001	30.28	661.86	1.54	76.99	615.15	-0.02
	11/23/2001	28.43	663.71	1.85	77.01	615.13	0.00
	5/29/2002	24.84	667.30	3.59	77.02	615.12	0.01
As-Built Total Depth	11/21/2002	28.60	663.54	-3.76	77.00	615.14	-0.01
from Top of Casing	5/20/2003	26.65	665.49	1.95	77.00	615.14	-0.01
77.01'	11/18/2003	24.22	667.92	2.43	76.99	615.15	-0.02
	5/24/2004	26.33	665.81	-2.11	76.99	615.15	-0.02
	11/11/2004	25.85	666.29	0.48	76.99	615.15	-0.02
	5/10/2005	24.19	667.95	1.66	77.00	615.14	-0.01
	11/9/2005	26.29	665.85	-2.30	76.98	615.16	-0.03
	5/17/2006	23.73	668.41	2.56	77.00	615.14	-0.01
	11/8/2006	22.69	669.55	1.04	76.98	615.16	-0.03
	5/16/2007	23.67	668.47	-1.08	76.62	615.52	-0.39
	11/15/2007	26.10	666.04	-2.43	76.64	615.50	-0.37
	5/13/2008	23.42	668.72	2.68	76.76	615.38	-0.25
	11/6/2008	25.62	666.52	-2.20	76.65	615.49	-0.36
	5/13/2009	22.31	669.83	3.31	76.99	615.15	-0.02
	11/23/2009	23.50	668.64	-1.19	76.98	615.15	-0.03
	6/3/2010	22.61	669.53	0.89	77.00	615.14	-0.01
	10/6/2010	23.64	668.50	-1.03	77.08	615.06	-0.08
	5/31/2011	22.89	669.25	0.75	77.40	614.74	-0.32
	11/4/2011	24.27	667.87	-1.38	76.65	615.49	0.75
	6/1/2012	25.78	666.36	-1.51	76.67	615.47	-0.02
	10/16/2012	25.53	666.61	0.25	76.77	615.37	-0.10

Note: Groundwater and bottom of well elevations after 5/12/98 are calculated with reference to the reestablished top of casing elevation

Table 1. Monitoring Well and Groundwater Data, Surface Impoundment Area, RACER Trust, Indianapolis, Indiana.

WELL NO	DATE	DEPTH TO GROUNDWATER (FEET)	GROUNDWATER ELEVATION (FEET MSL)	GROUNDWATER ELEVATION CHANGE[1] (FEET)	TOTAL DEPTH (FEET)	BOTTOM OF WELL ELEVATION (FEET MSL)	DIFFERENCE FROM AS-BUILT TOTAL DEPTH (FEET)
MW-203C	2/3/1999	24.18	666.22	NA	80.91	609.49	AS-BUILT
	6/28/1999	26.48	663.92	-2.30	80.90	609.50	-0.01
	11/30/1999	30.42	659.98	-3.94	80.91	609.49	0.00
	5/16/2000	30.49	659.91	-0.07	80.91	609.49	0.00
Top of Casing Elev.	11/13/2000	29.21	661.19	1.28	80.91	609.49	0.00
690.40' MSL	5/30/2001	27.33	663.07	1.88	80.91	609.49	0.00
	11/23/2001	26.03	664.37	1.30	80.90	609.50	-0.01
	5/29/2002	22.87	667.53	3.16	80.90	609.50	-0.01
As-Built Total Depth	11/21/2002	26.31	664.09	-3.44	80.89	609.51	-0.02
from Top of Casing	5/20/2003	24.39	666.01	1.92	80.90	609.50	-0.01
80.91'	11/18/2003	22.66	667.74	1.73	80.90	609.50	-0.01
	5/24/2004	24.13	666.27	-1.47	80.90	609.50	-0.01
	11/11/2004	23.66	666.74	0.47	80.90	609.50	-0.01
	5/10/2005	23.56 .	666.84	0.10	80.90	609.50	-0.01
	11/9/2005	24.15	666.25	-0.59	80.90	609.50	-0.01
	5/17/2006	22.67	667.73	1.48	80.91	609.49	0.00
	11/8/2006	21.11	669.29	1.56	80.90	609.50	-0.01
	5/16/2007	21.38	669.02	-0.27	80.68	609.72	-0.23
	11/15/2007	23.88	666.52	-2.50	80.67	609.73	-0.24
	5/13/2008	21.19	669.21	2.69	80.67	609.73	-0.24
	11/6/2008	23.41	666.99	-2.22	80.65	609.75	-0.26
	5/13/2009	20.56	669.84	2.85	80.90	609.50	-0.01
	11/23/2009	21.91	668.49	-1.35	80.91	609.49	0.00
	6/3/2010	21.11	669.29	0.80	80.95	609.45	-0.04
	10/6/2010	22.02	668.38	-0.91	81.01	609.39	-0.06
	5/31/2011	20.59	669.81	1.43	71.68	618.72	9.328
	11/4/2011	22.58	667.82	-1.99	80.85	609.55	-9.17
	6/1/2012	23.35	667.05	-0.77	80.71	609.69	0.14
	10/16/2012	23.19	667.21	0.16	80.71	609.69	0.00

NOTES:

MSL- Mean Sea Level

Elev. - Elevation

Transcription error in field or data entry.

Incorrect calculated value due to transcription error.

[1] Groundwater Elevation change is calculated from the current events groundwater elevation subtracting the previous event's groundwater elevation (for example November 4, - May 31, 2011).

Table 2. Summary of Groundwater Elevations, Head Differences and Rise Rates, Surface Impoundment Area, RACER Trust, Indianapolis, Indiana.

DATE	MW 201A	MW 201B	MW 202A	MW 202B	MW 202C	MW 203A	MW 203B	MW 203C	MW 204A	MW 204B	MW 205A	MW 205B	MW 206A	MW 206B	MW 200C	MW 207A	MW 207B	MW 200C	MW 208A	MW 208B
6/28/1994	NA	668.02	655.53	666.32		657.50	668.24		665.09	670.47	654.81	670.99	659.02	670.95		655.00	670.80		655.27	669.76
7/7/1994	NA	668.29	655.56	666.86		657.36	668.28		655.47	670.39	655.47	671.00	NA	670.95		NA	670.81		655.48	669.82
7/20/1994	NA	668.22	654.80	666.68		657.02	668.16		655.47	670.37	NA	670.86	NA	670.86		655.70	670.69		655.74	669.75
7/27/1994	655.86	668.22	NA	666.30		NA	668.88		654.25	670.10	655.78	670.74	NA	670.72		655.83	670.55		655.84	669.52
8/10/1994	656.00	667.58	NA	666.06		NA	667.59		655.99	669.80	655.86	670.45	NA	670.43		655.97	670.25		656.02	669.16
8/22/1994	656.16	667.50	NA	665.96		656.86	667.40		656.18	669.58	656.06	670.25	NA	670.25		656.12	670.08		656.15	669.18
9/1/1994	656.27	667.44	NA	665.77		656.86	667.30		656.25	668.52	656.16	670.20	NA	670.17		656.23	669.99		656.21	669.06
9/8/1994	656.35	667.69	656.38	666.02		656.86	667.37		656.35	669.46	656.24	670.08	656.35	670.11		656.32	669.96		656.34	669.06
9/15/1994	656.41	669.28	656.43	665.62		NA	667.08		656.41	669.36	656.31	670.00	656.42	670.01		656.37	669.83		656.42	669.92
9/20/1994	656.46	669.28	656.50	665.46		NA	666.94		656.45	669.19	656.36	669.90	NA	669.89		656.44	669.72		656.47	668.77
9/29/1994	656.54	667.00	656.59	665.48		NA	666.78		656.54	669.14	656.45	669.79	656.55	669.80		656.80	669.63		656.57	669.22
10/7/1994	656.64	666.82	656.66	665.26		NA	666.78		656.54	669.02	656.53	669.67	656.63	669.67		656.60	669.49		656.60	668.44
10/13/1994	656.66	666.98	656.68	665.16		NA	666.74		656.69	668.98	656.57	669.60	656.64	669.57		656.62	669.36		656.69	668.42
10/26/1994	656.76	666.47	656.81	664.90		NA	666.64		656.77	669.76	656.68	669.41	656.80	669.37		656.73	669.11		656.78	668.09
11/2/1994	656.84	666.52	656.85	664.96		NA	666.64		656.83	668.66	656.76	669.27	656.88	669.21		656.80	669.02		656.82	666.88
6/29/1995	657.34	667.08	658.31	665.59		658.33	667.16		658.31	669.19	658.28	669.64	658.34	669.56		658.31	669.38		657.83	668.55
1/31/1996	657.14	665.95	659.08	664.84		659.14	666.64		659.09	668.34	659.08	668.65	659.14	668.49		659.10	668.19		658.62	667.32
6/26/1996	658.69	669.14	659.65	667.50		659.70	669.08		659.67	671.21	659.64	671.81	659.70	671.73		659.64	671.49		659.17	670.61
12/18/1996	658.38	669.31	659.35	667.84		659.40	668.90		659.36	670.92	659.34	671.58	659.38	671.57		659.35	671.39		658.87	670.64
5/28/1997	659.21	670.02	660.12	668.41		660.20	669.32		660.17	671.31	660.15	672.08	660.19	672.13		660.16	672.03		659.66	671.34
11/19/1997	659.93	665.74	660.51	663.79		660.57	665.32		660.52	665.95	660.52	668.68	660.57	668.59		660.52	668.33		660.05	666.38
5/12/1998	660.86	667.60	661.11	666.55		660.66	668.77		661.43	670.01	659.28	669.76	662.52	669.66		660.54	669.49		662.03	671.10
11/3/1998	657.25	667.01	658.68	665.67		658.21	668.31		658.22	669.77	656.71	669.72	658.77	669.67		657.89	669.46		658.11	668.22
6/28/1999	657.32	666.92	659.00	665.71	664.90	658.50	668.93	663.92	658.84	670.39	657.49	670.29	659.51	670.19		658.30	669.97		658.63	668.89
11/30/1999	658.82	665.46	659.26	664.11	660.96	658.82	667.26	659.98	659.33	668.68	657.77	668.70	659.82	668.42	660.42	658.90	668.18	660.42	658.90	667.19
5/16/2000	659.09	665.55	659.69	663.63	660.82	659.21	667.12	659.91	659.49	668.82	658.15	668.80	660.00	668.46	660.52	659.27	668.37	660.52	659.22	667.07
11/13/2000	657.70	665.34	658.14	663.54	660.32	657.71	667.22	661.19	657.99	669.22	656.64	669.22	659.69	669.07	661.42	657.73	668.93	661.42	657.78	667.59
5/30/2001	656.88	665.99	657.31	664.53	661.86	656.86	667.92	663.07	657.17	669.46	655.82	669.40	657.88	669.24	662.67	656.93	669.01	662.67	656.96	667.98
11/23/2001	657.45	668.09	657.90	666.70	663.71	657.44	669.84	664.37	657.77	671.21	656.40	671.19	658.46	671.13	664.32	657.51	671.05	664.32	657.55	670.97
5/29/2002	658.27	672.34	658.70	670.70	667.30	658.25	673.70	667.53	658.56	674.77	657.21	676.10	659.27	674.93	668.00	658.33	674.84	668.00	658.35	674.15
11/21/2002	658.72	667.52	659.21	666.01	663.54	658.75	669.16	664.09	659.06	670.99	657.70	670.91	659.76	670.86	664.35	658.81	670.69	664.35	658.85	669.56
5/20/2003	659.20	669.87	659.81	668.22	665.49	659.26	670.98	666.01	659.51	672.77	658.16	672.18	660.45	672.28	666.27	659.28	672.10	666.27	659.29	671.40
11/18/2003	657.83	670.32	658.26	668.63	667.92	657.78	670.97	667.74	658.10	672.39	656.75	672.61	658.85	672.73	667.83	657.87	672.68	667.83	657.91	672.13
5/24/2004	657.21	670.33	659.17	668.88	665.81	658.62	671.52	666.27	658.93	672.84	657.57	672.98	659.80	673.01	666.70	658.69	673.70	666.70	658.06	672.37
11/11/2004	659.07	669.62	659.52	668.26	666.29	659.09	670.80	666.74	659.38	672.10	659.02	672.23	660.08	672.26	667.05	659.14	672.17	667.05	659.07	671.32
5/10/2005	659.16	672.55	659.60	670.32	667.95	659.86	671.03	666.84	659.45	674.13	658.82	673.53	660.81	673.75	664.83	659.88	672.99	664.83	659.81	672.99
11/9/2005	658.72	669.29	659.17	667.87	665.85	658.74	670.22	666.25	659.05	671.34	657.69	671.44	658.74	671.49	666.55	658.78	673.70	666.55	659.61	670.74
5/17/2006	659.54	671.66	660.02	670.29	668.41	659.96	669.63	667.73	659.84	670.72	659.01	670.90	660.56	670.95	667.40	659.61	671.92	667.40	659.59	673.20
11/8/2006	660.00	670.66	660.46	669.55	669.55	660.01	672.03	669.29	660.29	672.70	659.12	672.77	660.04	672.79	669.54	660.07	672.66	669.54	660.14	672.18
5/16/2007	660.72	672.72	661.15	671.28	668.47	660.73	673.53	669.02	661.02	674.72	659.66	674.91	661.72	674.99	669.28	660.77	674.95	669.28	660.81	674.25
11/15/2007	661.14	669.55	661.48	668.54	666.04	661.07	670.98	666.52	661.37	671.99	659.99	672.01	662.04	671.98	666.68	661.10	671.86	666.68	661.14	671.07
5/13/2008	661.79	672.43	662.27	671.36	668.72	662.23	673.53	669.21	662.11	674.34	660.76	674.42	662.80	674.04	669.38	661.88	674.41	669.38	661.93	673.86
11/6/2008	661.19	670.20	661.64	669.10	666.52	661.19	671.75	666.99	661.50	672.86	660.13	672.95	662.20	672.93	666.98	661.25	672.79	666.98	661.30	671.88
5/13/2009	661.90	672.97	662.38	671.88	669.83	661.93	673.79	669.84	662.23	674.43	660.87	674.47	662.93	674.53	670.36	661.99	674.54	670.36	662.07	674.20
11/23/2009	662.42	670.98	662.87	669.70	668.64	662.43	671.87	668.49	662.72	672.96	661.36	673.13	663.42	673.16	668.96	662.49	673.11	668.96	662.54	672.41
6/3/2010	663.06	671.31	663.48	670.13	669.53	663.06	672.48	669.29	663.34	673.70	661.99	673.87	664.05	673.86	669.63	663.04	673.77	669.63	663.15	673.00
10/6/2010	663.39	670.69	663.77	669.71	668.50	663.33	671.84	668.38	663.67	672.64	662.34	673.09	664.32	672.73	668.24	663.42	672.99	668.24	663.50	672.16
5/31/2011	663.98	674.25	664.41	672.90	669.25	664.00	674.94	669.81	664.29	675.85	662.93	675.95	664.98	676.02	670.02	664.05	676.06	670.02	664.12	675.61
11/4/2011	664.31	670.91	664.78	669.78	668.25	664.35	672.04	668.05	664.64	673.16	663.32	673.27	665.32	673.26	669.26	664.37	673.20	669.26	664.42	672.52
6/1/2012	665.12	670.30	665.58	669.36	666.36	665.16	671.59	667.05	665.44	672.43	664.07	672.05	666.12	672.44	NM	665.20	672.37	NM	665.23	671.72
10/16/2012	665.28	671.26	665.69	670.25	666.61	665.27	672.44	667.21	665.56	673.27	664.26	673.27	666.27	673.27	668.47	665.34	672.34	668.47	665.39	672.70

Table 2. Summary of Groundwater Elevations, Head Differences and Rise Rates, Surface Impoundment Area, RACER Trust, Indianapolis, Indiana.

DATE	MW 201A	MW 201B	MW 202A	MW 202B	MW 202C	MW 203A	MW 203B	MW 203C	MW 204A	MW 204B	MW 205A	MW 205B	MW 206A	MW 206B	MW 200C	MW 207A	MW 207B	MW 200C	MW 208A	MW 208B
Head Difference Between Outside and Inside Cutoff Wall, (6/1/2012)	-5.18		-3.78			-6.43			-6.99		-7.98		-6.32			-7.17			-6.49	
Head Difference Between Outside and Inside Cutoff Wall, (10/16/2012)	-5.98		-4.56			-7.17			-7.71		-9.01		-7.00			-7.00			-7.31	
Head Difference Between Lower Sand and Gravel and Inside Cutoff Wall (6/1/2012)					-0.78			-1.89							Not Available			Not Available		
Head Difference Lower Sand and Gravel and Inside Cutoff Wall (10/16/2012)					-0.92			-1.94							-2.20			-3.13		
Rise Rate* (ft/day)	0.00280		0.00262			0.00265			0.00265		0.00271		0.00274			0.00280			0.00280	

Average GW Elevation Inside Cap on 6/1/12 (ft)	665.24	Average Groundwater Elevation Inside Cap on 10/16/12 (ft)	665.38
Average GW Elevation Outside Cap (Shallow Unit) on 6/1/12 (ft)	671.53	Average GW Elev. Outside Cap (Shallow Unit) on 10/16/12 (ft)	672.35
Average GW Elevation Outside Cap (Lower S&G) on 6/1/12 (ft)	666.71	Average GW Elev. Outside Cap (Lower S&G) on 10/16/12 (ft)	667.43
Average Head Diff. Across the Cutoff Wall (Shallow Unit) on 6/1/12 (ft)	-6.29	Average Head Diff. Across Cutoff Wall (Shallow Unit) on 10/16/12 (ft)	-6.97
Average Vertical Hydraulic Gradient on 6/1/12 (ft)	-1.33	Average Vertical Hydraulic Gradient on10/16/12 (ft)	-1.69
Average Rise Rate (ft/day)	0.00272		

* Rise Rate calculation based on 'A' series elevation differences between November 4, 2011 and October 16, 2012.

Table 3. Rise Rate Versus Time, Surface Impoundment Area, RACER Trust, Indianapolis, Indiana.

DATE	MW 201A	MW 201B	MW 202A	MW 202B	MW 203A	MW 203B	MW 204A	MW 204B	MW 205A	MW 205B	MW 206A	MW 206B	MW 207A	MW 207B	MW 208A	MW 208B
6/28/1994	NA	668.02	655.53	666.32	657.50	668.24	665.09	670.47	654.81	670.99	659.02	670.95	655.00	670.80	655.27	669.76
7/7/1994	NA	668.29	655.56	666.86	657.36	668.28	655.47	670.39	655.47	671.00	NA	670.95	NA	670.81	655.48	669.82
7/20/1994	NA	668.22	654.80	666.68	657.02	668.16	655.47	670.37	NA	670.86	NA	670.86	655.70	670.69	655.74	669.75
7/27/1994	655.86	668.22	NA	666.30	NA	668.88	654.25	670.10	655.78	670.74	NA	670.72	655.83	670.55	655.84	669.52
8/10/1994	656.00	667.58	NA	666.06	NA	667.59	655.99	669.80	655.86	670.45	NA	670.43	655.97	670.25	656.02	669.16
8/22/1994	656.16	667.50	NA	665.96	656.86	667.40	656.18	669.58	656.06	670.25	NA	670.25	656.12	670.08	656.15	669.18
9/1/1994	656.27	667.44	NA	665.77	656.86	667.30	656.25	668.52	656.16	670.20	NA	670.17	656.23	669.99	656.21	669.06
9/8/1994	656.35	667.69	656.38	666.02	656.86	667.37	656.35	669.46	656.24	670.08	656.35	670.11	656.32	669.96	656.34	669.06
9/15/1994	656.41	669.28	656.43	665.62	NA	667.08	656.41	669.36	656.31	670.00	656.42	670.01	656.37	669.83	656.42	669.92
9/20/1994	656.46	669.28	656.50	665.46	NA	666.94	656.45	669.19	656.36	669.90	NA	669.89	656.44	669.72	656.47	668.77
9/29/1994	656.54	667.00	656.59	665.48	NA	666.78	656.54	669.14	656.45	669.79	656.55	669.80	656.80	669.63	656.57	669.22
10/7/1994	656.64	666.82	656.66	665.26	NA	666.78	656.54	669.02	656.53	669.67	656.63	669.67	656.60	669.49	656.60	668.44
10/13/1994	656.66	666.98	656.68	665.16	NA	666.74	656.69	668.98	656.57	669.60	656.64	669.57	656.62	669.36	656.69	668.42
10/26/1994	656.76	666.47	656.81	664.90	NA	666.64	656.77	669.76	656.68	669.41	656.80	669.37	656.73	669.11	656.78	668.09
11/2/1994	656.84	666.52	656.85	664.96	NA	666.64	656.83	668.66	656.76	669.27	656.88	669.21	656.80	669.02	656.82	666.88
6/29/1995	657.34	667.08	658.31	665.59	658.33	667.16	658.31	669.19	658.28	669.64	658.34	669.56	658.31	669.38	657.83	668.55
1/31/1996	657.14	665.95	659.08	664.84	659.14	666.64	659.09	668.34	659.08	668.65	659.14	668.49	659.10	668.19	658.62	667.32
6/26/1996	658.69	669.14	659.65	667.50	659.70	669.08	659.67	671.21	659.64	671.81	659.70	671.73	659.64	671.49	659.17	670.61
12/18/1996	658.38	669.31	659.35	667.84	659.40	668.90	659.36	670.92	659.34	671.58	659.38	671.57	659.35	671.39	658.87	670.64
5/28/1997	659.21	670.02	660.12	668.41	660.20	669.32	660.17	671.31	660.15	672.08	660.19	672.13	660.16	672.03	659.66	671.34
11/19/1997	659.93	665.74	660.51	663.79	660.57	665.32	660.52	665.95	660.52	668.68	660.57	668.59	660.52	668.33	660.05	666.38
5/12/1998	660.86	667.60	661.11	666.55	660.66	668.77	661.43	670.01	659.28	669.76	662.52	669.66	660.54	669.49	662.03	671.10
11/3/1998	657.25	667.01	658.68	665.67	658.21	668.31	658.22	669.77	656.71	669.72	658.77	669.67	657.89	669.46	658.11	668.22
6/28/1999	657.32	666.92	659.00	665.71	658.50	668.93	658.84	670.39	657.49	670.29	659.51	670.19	658.30	669.97	-658.63	668.89
11/30/1999	658.82	665.46	659.26	664.11	658.82	667.26	659.33	668.68	657.77	668.70	659.82	668.42	658.90	668.18	658.90	667.19
5/16/2000	659.09	665.55	659.69	663.63	659.21	667.12	659.49	668.82	658.15	668.80	660.00	668.46	659.27	668.37	659.22	667.07
11/13/2000	657.70	665.34	658.14	663.54	657.71	667.22	657.99	669.22	656.64	669.22	659.69	669.07	657.73	668.93	657.78	667.59
5/30/2001	656.88	665.99	657.31	664.53	656.86	667.92	657.17	669.46	655.82	669.40	657.88	669.24	656.93	669.01	656.96	667.98
11/23/2001	657.45	668.09	657.90	666.70	657.44	669.84	657.77	671.21	656.40	671.19	658.46	671.13	657.51	671.05	657.55	670.97

Table 3. Rise Rate Versus Time, Surface Impoundment Area, RACER Trust, Indianapolis, Indiana.

DATE	MW 201A	MW 201B	MW 202A	MW 202B	MW 203A	MW 203B	MW 204A	MW 204B	MW 205A	MW 205B	MW 206A	MW 206B	MW 207A	MW 207B	MW 208A	MW 208B
5/29/2002	658.27	672.34	658.70	670.70	658.25	673.70	658.56	674.77	657.21	676.10	659.27	674.93	658.33	674.84	658.35	674.15
11/21/2002	658.72	667.52	659.21	666.01	658.75	669.16	659.06	670.99	657.70	670.91	659.76	670.86	658.81	670.69	658.85	669.56
5/20/2003	659.20	669.87	659.81	668.22	659.26	670.98	659.51	672.77	658.16	672.18	660.45	672.28	659.28	672.10	659.29	671.40
11/18/2003	657.83	670.32	658.26	668.63	657.78	670.97	658.10	672.39	656.75	672.61	658.85	672.73	657.87	672.68	657.91	672.13
5/24/2004	657.21	670.33	659.17	668.88	658.62	671.52	658.93	672.84	657.57	672.98	659.80	673.01	658.69	673.70	658.06	672.37
11/11/2004	659.07	669.62	659.52	668.26	659.09	670.80	659.38	672.10	659.02	672.23	660.08	672.26	659.14	672.17	659.07	671.32
5/10/2005	659.16	672.55	659.60	670.32	659.86	671.03	659.45	674.13	658.82	673.53	660.81	673.75	659.88	672.99	659.81	672.99
11/9/2005	658.72	669.29	659.17	667.87	658.74	670.22	659.05	671.34	657.69	671.44	658.74	671.49	658.78	673.70	659.61	670.74
5/17/2006	659.54	671.66	660.02	670.29	659.96	669.63	659.84	670.72	659.01	670.90	660.56	670.95	659.61	671.92	659.59	673.20
11/8/2006	660.00	670.66	660.46	669.55	660.01	672.03	660.29	672.70	659.12	672.77	660.04	672.79	660.07	672.66	660.14	672.18
5/16/2007	660.72	672.72	661.15	671.28	660.73	673.53	661.02	674.72	659.66	674.91	661.72	674.99	660.77	674.95	660.81	674.25
11/15/2007	661.14	669.55	661.48	668.54	661.07	670.98	661.37	671.99	659.99	672.01	662.04	671.98	661.1	671.86	661.14	671.07
5/13/2008	661.79	672.43	662.27	671.36	662.23	673.53	662.11	674.34	660.76	674.42	662.80	674.04	661.88	674.41	661.93	673.86
11/6/2008	661.19	670.20	661.64	669.10	661.19	671.75	661.50	672.86	660.13	672.95	662.20	672.93	661.25	672.79	661.30	671.88
5/13/2009	661.90	672.97	662.38	671.88	661.93	673.79	662.23	674.43	660.87	674.47	662.93	674.53	661.99	674.54	662.07	674.20
11/23/2009	662.42	670.98	662.87	669.70	662.43	671.87	662.72	672.96	661.36	673.13	663.42	673.16	662.49	673.11	662.54	672.41
6/3/2010	663.06	671.31	663.48	670.13	663.06	672.48	663.34	673.70	661.99	673.87	664.05	673.86	663.04	673.77	663.15	673.00
10/6/2010	663.39	670.69	663.77	669.71	663.33	671.84	663.67	672.64	662.34	673.09	664.32	672.73	663.42	672.99	663.50	672.16
5/31/2011	663.98	674.25	664.41	672.90	664.00	674.94	664.29	675.85	662.93	675.95	664.98	676.02	664.05	676.06	664.12	675.61
11/4/2011	664.31	670.91	664.78	669.78	664.35	672.04	664.64	673.16	663.32	673.27	665.32	673.26	664.37	673.20	664.42	672.52
6/1/2012	665.12	670.30	665.58	669.36	665.16	671.59	665.44	672.43	664.07	672.05	666.12	672.44	665.20	672.37	665.23	671.72
10/16/2012	665.28	671.26	665.69	670.25	665.27	672.44	665.56	673.27	664.26	673.27	666.27	673.31	665.34	672.34	665.39	672.70

Table 3. Rise Rate Versus Time, Surface Impoundment Area, RACER Trust, Indianapolis, Indiana.

DATE	MW 201A	MW 201B	MW 202A	MW 202B	MW 203A	MW 203B	MW 204A	MW 204B	MW 205A	MW 205B	MW 206A	MW 206B	MW 207A	MW 207B	MW 208A	MW 208B
Rise Rate (ft/day)																
11/2/94 - 6/26/96	0.00307		0.00465		0.00377		0.00472		0.00478		0.00468		0.00472		0.00390	
12/18/96 - 5/12/98	0.00486		0.00345		0.00247		0.00406		0.00351		0.00616		0.00233		0.00620	
11/3/98 - 5/16/00	0.00329		0.00180		0.00179		0.00227		0.00257		0.00220		0.00246		0.00198	
5/30/01 - 5/20/03	0.00322		0.00347		0.00333		0.00325		0.00325		0.00357		0.00326		0.00324	
11/18/03 - 5/10/05	0.00247		0.00249		0.00386		0.00250		0.00384		0.00364		0.00373		0.00353	
11/9/05 - 5/13/08	0.00335		0.00338		0.00381		0.00334		0.00335		0.00443		0.00338		0.00253	
11/6/08 - 11/23/09	0.00322		0.00322		0.00325		0.00319		0.00322		0.00319		0.00325		0.00325	
11/23/09 - 10/6/10	0.00306		0.00284		0.00284		0.00300		0.00309		0.00284		0.00293		0.00303	
10/6/10 - 11/4/11	0.00234		0.00256		0.00259		0.00246		0.00249		0.00254		0.00241		0.00234	
11/4/11 - 10/16/12	0.00280		0.00262		0.00265		0.00265		0.00271		0.00274		0.00280		0.00280	

Average Rise Rate	(ft/day)
11/2/94 - 6/26/96	0.00429
12/18/96 - 5/12/98	0.00413
11/3/98 - 5/16/00	0.00229
5/30/01 - 5/20/03	0.00332
11/18/03 - 5/10/05	0.00326
11/9/05 - 5/13/08	0.00345
11/6/08 - 11/23/09	0.00322
11/23/09 - 10/6/10	0.00295
10/6/10 - 11/4/11	0.00247
11/4/11 - 10/16/12	0.00272

Table 4. Summary of Groundwater Withdrawals from Rolls-Royce Corporation Production Wells, Surface Impoundment Area, RACER Trust, Indianapolis, Indiana.

YEAR	WELL NO. 1	WELL NO. 2	WELL NO. 4	TOTAL
1995	373.3	327.1	258.3	958.7
1996	501.4	501.8	167.4	1170.6
1997	34.0	451.8	280.1	765.9
1998	97.4	515.4	288.5	901.3
1999	498.0	495.5	69.1	1062.6
2000	665.0	165.0	303.0	1133.0
2001	513.0	493.0	42.0	1048.0
2002	479.0	322.5	156.3	957.8
2003	334.7	310.0	156.5	801.2
2004	207.6	291.9	68.4	567.9
2005	144.6	140.2	253.5	538.3
2006	144.7	270.6	217.6	632.9
2007	237.4	237.4	0.0	474.8
2008	193.7	193.7	18.9	406.3
2009	120.0	294.3	15.6	429.9
2010	57.9	412.9	0.3	471.1
2011	257.7	138.1	9.6	405.5
2012	NA	NA	NA	NA

Volumes in millions of gallons

NA - Not Available

Table 5. Settlement Monument Survey, Surface Impoundment Area, RACER Trust, Indianapolis, Indiana

SETTLEMENT NUMBER	NORTHING	EASTING	ELEVATION	DATE OF SURVEY
1	1999.85	2700.00	699.05	10/20/1994
1	1999.85	2700.00	699.04	2/16/1996
1	-	-	699.08	5/27/1997
1	-	-	699.06	11/19/1997
1	-	-	699.01	5/11/1998
1	-	-	699.02	11/4/1998
1	-	-	698.99	6/28/1999
1	-	-	698.99	11/30/1999
1	-	-	698.99	5/16/2000
1	-	-	698.99	11/13/2000
1	-	-	698.98	5/30/2001
1	-	-	698.98	11/21/2001
1	-	-	698.97	5/30/2002
1	-	-	698.96	5/21/2003
1	-	-	698.95	5/25/2004
1	-	-	698.93	5/11/2005
1	-	-	698.94	5/31/2006
1	-	-	698.93	5/16/2007
1	-	-	698.91	5/13/2008
1	-	-	698.89	5/13/2009
1	1999.85	2700.00	698.80	10/18/2010
1			698.79	10/24/2011
2	2400.14	2899.91	699.01	10/20/1994
2	2400.14	2899.91	698.88	2/16/1996
2	-	-	698.88	5/27/1997
2	-	-	698.85	11/19/1997
2	-	-	698.81	5/11/1998
2		-	698.78	11/4/1998
2	-	-	698.77	6/28/1999
2	-	-	698.77	11/30/1999
2	-	-	698.74	5/16/2000
2	-	-	698.73	11/13/2000
2	-	-	698.71	5/30/2001
2	-	-	698.70	11/21/2001
2	-	-	698.68	5/30/2002
2	-	-	698.67	5/21/2003
2	-	-	698.65	5/25/2004
2	-	-	698.66	5/11/2005
2	-	-	698.66	5/31/2006
2	-	-	698.65	5/16/2007
2	-	-	698.64	5/13/2008
2	-	-	698.62	5/13/2009
2	2200.23	2700.16	698.62	10/18/2010
2			698.62	10/24/2011
3	2200.23	2700.16	700.41	10/20/1994
3	2200.23	2700.16	700.29	2/16/1996
3	-	-	700.27	5/27/1997
3	-	-	700.24	11/19/1997
3	-	-	700.18	5/11/1998
3	-		700.14	11/4/1998
3	-		700.14	6/28/1999
3	-	-	700.11	11/30/1999
3	-	-	700.10	5/16/2000
3	-	-	700.07	11/13/2000
3	-	-	700.05	5/30/2001
3	-	-	700.04	11/21/2001
3	-	-	700.01	5/30/2002
3	-	-	699.98	5/21/2003
3	-		699.98	5/25/2004
3		-	699.98	5/11/2005
3	-	-	699.98	5/31/2006
3	-	-	699.97	5/16/2007
3	-	-	699.97	5/13/2008
3	-	-	699.94	5/13/2009
3	2200.23	2700.16	699.89	10/18/2010
3			699.89	10/24/2011

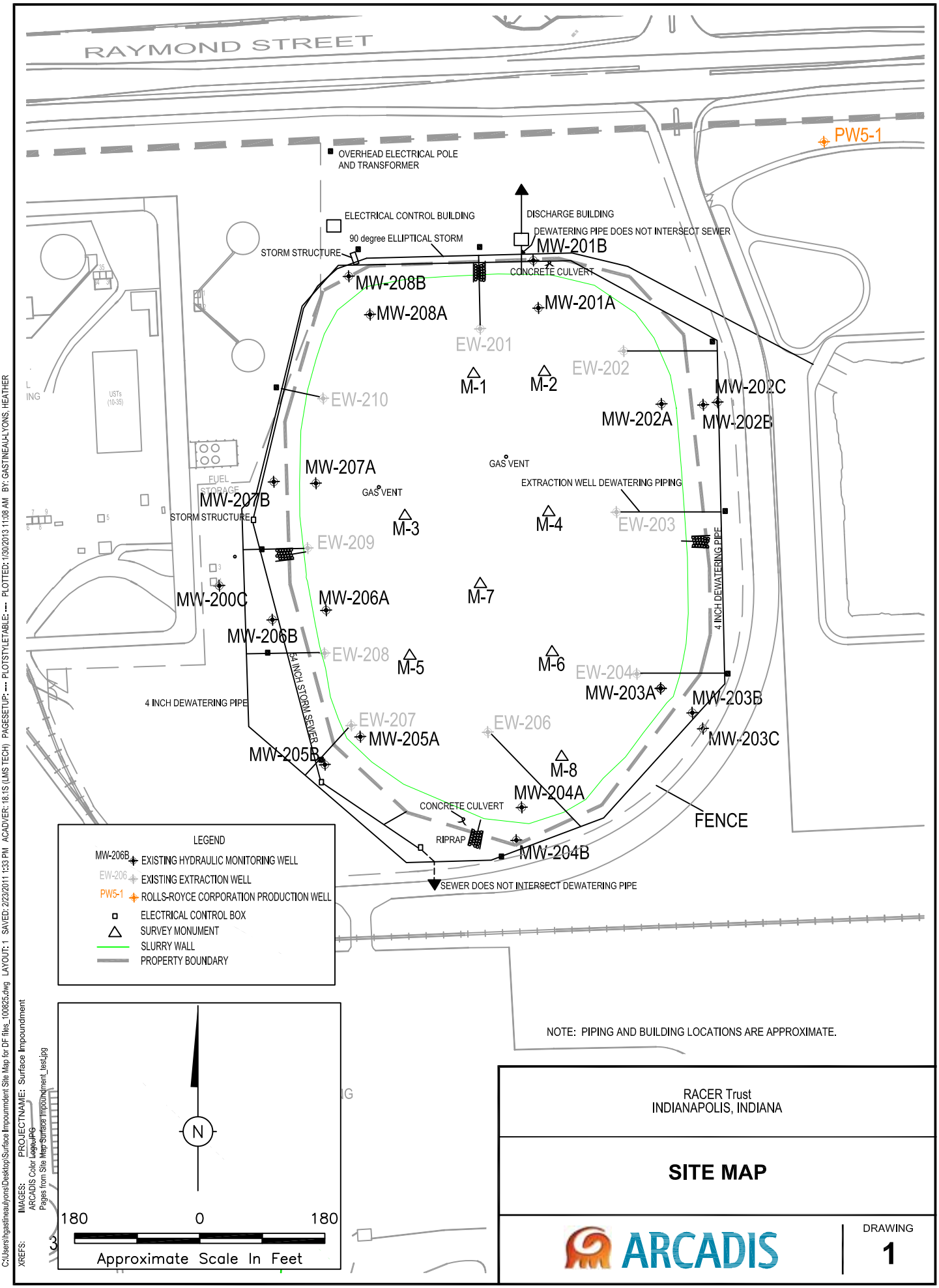
Table 5. Settlement Monument Survey, Surface Impoundment Area, RACER Trust, Indianapolis, Indiana

SETTLEMENT NUMBER	NORTHING	EASTING	ELEVATION	DATE OF SURVEY
4	2200.41	2900.54	700.81	10/20/1994
4	2200.41	2900.54	700.73	2/16/1996
4	-	-	700.69	5/27/1997
4	-	-	700.67	11/19/1997
4	-	-	700.62	5/11/1998
4	-		700.57	11/4/1998
4	-		700.59	6/28/1999
4	-	-	700.55	11/30/1999
4	-	-	700.55	5/16/2000
4	-	-	700.52	11/13/2000
4	-	-	700.51	5/30/2001
4	-	-	700.50	11/21/2001
4	-	-	700.48	5/30/2002
4	-	-	700.45	5/21/2003
4	-	-	700.44	5/25/2004
4	-	-	700.42	5/11/2005
4	-	-	700.46	5/31/2006
4	-	-	700.44	5/16/2007
4	-	-	700.40	5/13/2008
4	-	-	700.37	5/13/2009
4	2200.41	2900.54	700.47	10/18/2010
4			700.50	10/24/2011
5	1999.86	2700.00	698.47	10/20/1994
5	1999.86	2700.00	698.31	2/16/1996
5	-	-	698.02	5/27/1997
5	-	-	697.94	11/19/1997
5		-	697.92	5/11/1998
5	-	-	697.86	11/4/1998
5	-	-	697.86	6/28/1999
5	-	-	697.79	11/30/1999
5	-	-	697.79	5/16/2000
5	-	-	697.76	11/13/2000
5	-	-	697.75	5/30/2001
5	-	-	697.75	11/21/2001
5	-	-	697.72	5/30/2002
5	-	-	697.70	5/21/2003
5	-	-	697.68	5/25/2004
5	-	-	697.64	5/11/2005
5	-	-	697.61	5/31/2006
5	-	-	697.59	5/16/2007
5	-	-	697.55	5/13/2008
5	-	-	697.53	5/13/2009
5	1999.86	2700.00	697.62	10/18/2010
5			697.60	10/24/2011
6	2000.01	2900.44	698.83	10/20/1994
6	2000.01	2900.44	698.78	2/16/1996
6	-	-	698.62	5/27/1997
6	-	-	698.58	11/19/1997
6	-	-	698.57	5/11/1998
6	-	-	698.49	11/4/1998
6	-	-	698.54	6/28/1999
6	-	-	698.48	11/30/1999
6	-	-	698.48	5/16/2000
6	-	-	698.45	11/13/2000
6	-	-	698.43	5/30/2001
6	-	-	698.41	11/21/2001
6	-	-	698.39	5/30/2002
6	-	-	698.36	5/21/2003
6	-	-	698.34	5/25/2004
6	-	-	698.34	5/11/2005
6	-	-	698.36	5/31/2006
6	-	-	698.34	5/16/2007
6	-	-	698.31	5/13/2008
6	-	-	698.30	5/13/2009
6	2000.01	2900.44	698.57	10/18/2010
6			698.60	10/24/2011

Table 5. Settlement Monument Survey, Surface Impoundment Area, RACER Trust, Indianapolis, Indiana

SETTLEMENT NUMBER	NORTHING	EASTING	ELEVATION	DATE OF SURVEY
7	2101.97	2803.42	699.87	10/20/1994
7	2101.97	2803.42	699.82	2/16/1996
7	-	-	699.76	5/27/1997
7	-	-	699.74	11/19/1997
7	-	-	699.71	5/11/1998
7	-	-	699.65	11/4/1998
7	-	-	699.68	6/28/1999
7	-	-	699.64	11/30/1999
7	-	-	699.63	5/16/2000
7	-	-	699.64	11/13/2000
7	-	-	699.63	5/30/2001
7		-	699.62	11/21/2001
7			699.60	5/30/2002
7		-	699.57	5/21/2003
7		-	699.55	5/25/2004
7	-		699.54	5/11/2005
7	-	-	699.54	5/31/2006
7	-		699.53	5/16/2007
7	-	-	699.52	5/13/2008
7	-	-	699.52	5/13/2009
7	2101.97	2803.42	699.60	10/18/2010
7			699.62	10/24/2011
8	1861.15	2900.48	696.38	10/20/1994
8	1861.15	2900.48	696.36	2/16/1996
8	-	-	696.06	5/27/1997
8	-	-	696.07	11/19/1997
8	-	-	696.06	5/11/1998
8	-	-	695.98	11/4/1998
8	-	-	696.02	6/28/1999
8	-	-	695.96	11/30/1999
8	-	-	695.97	5/16/2000
8	-		695.95	11/13/2000
8	-	-	695.95	5/30/2001
8	-	-	695.94	11/21/2001
8	-	-	695.92	5/30/2002
8	-	-	695.89	5/21/2003
8	-	-	695.87	5/25/2004
8	-	-	695.87	5/11/2005
8	-	-	695.88	5/31/2006
8	-	-	695.86	5/16/2007
8	-	-	695.84	5/13/2008
8	-	-	695.82	5/13/2009
8	1861.15	2900.48	696.20	10/18/2010
8			696.24	10/24/2011

NOTES:
Nova completed survey prior to 2010. Cripe completed survey in 2010
ARCADIS completed survey in 2011.



NOTE: PIPING AND BUILDING LOCATIONS ARE APPROXIMATE.

RACER Trust
INDIANAPOLIS, INDIANA

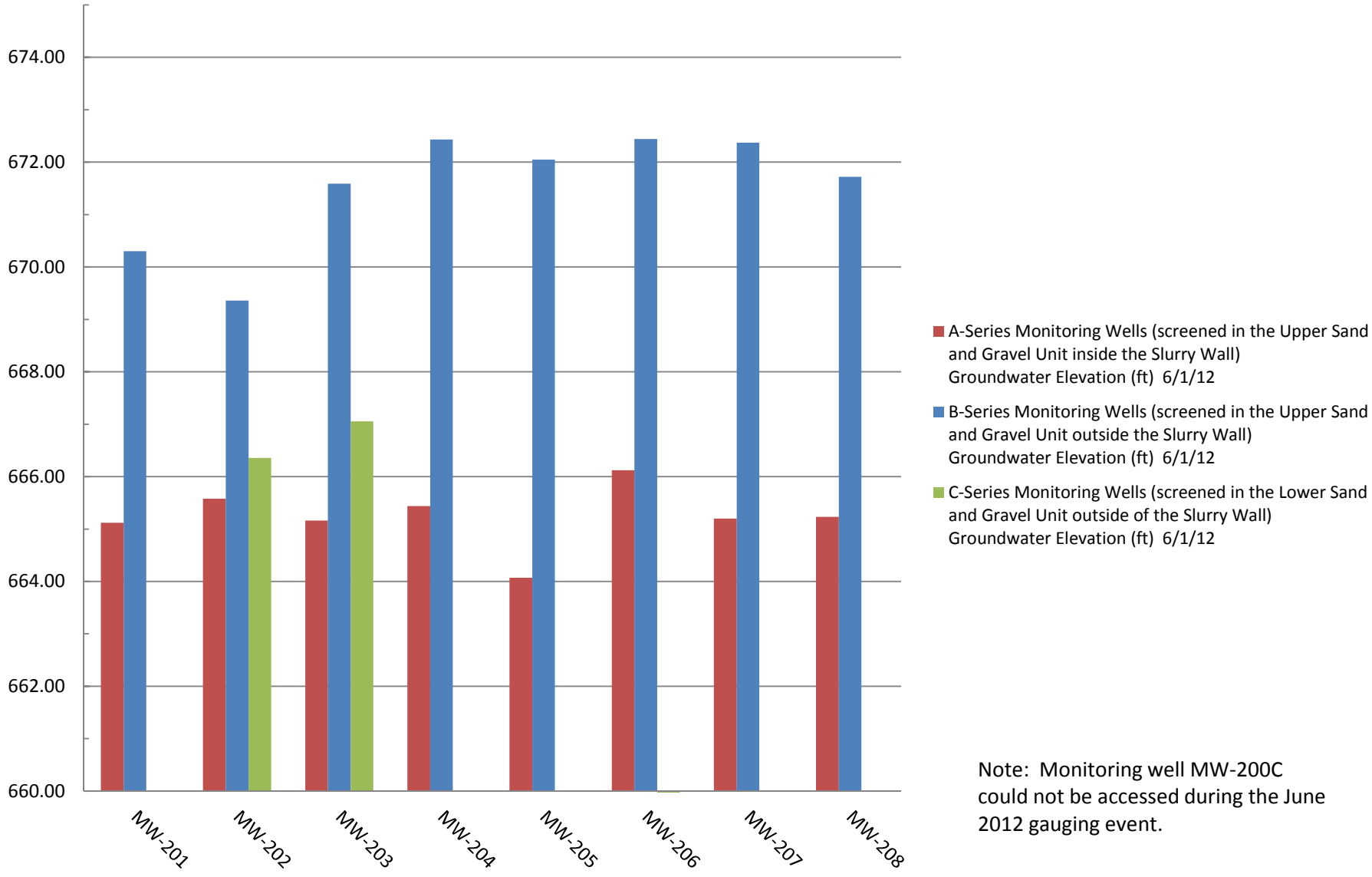
SITE MAP

ARCADIS

DRAWING 1

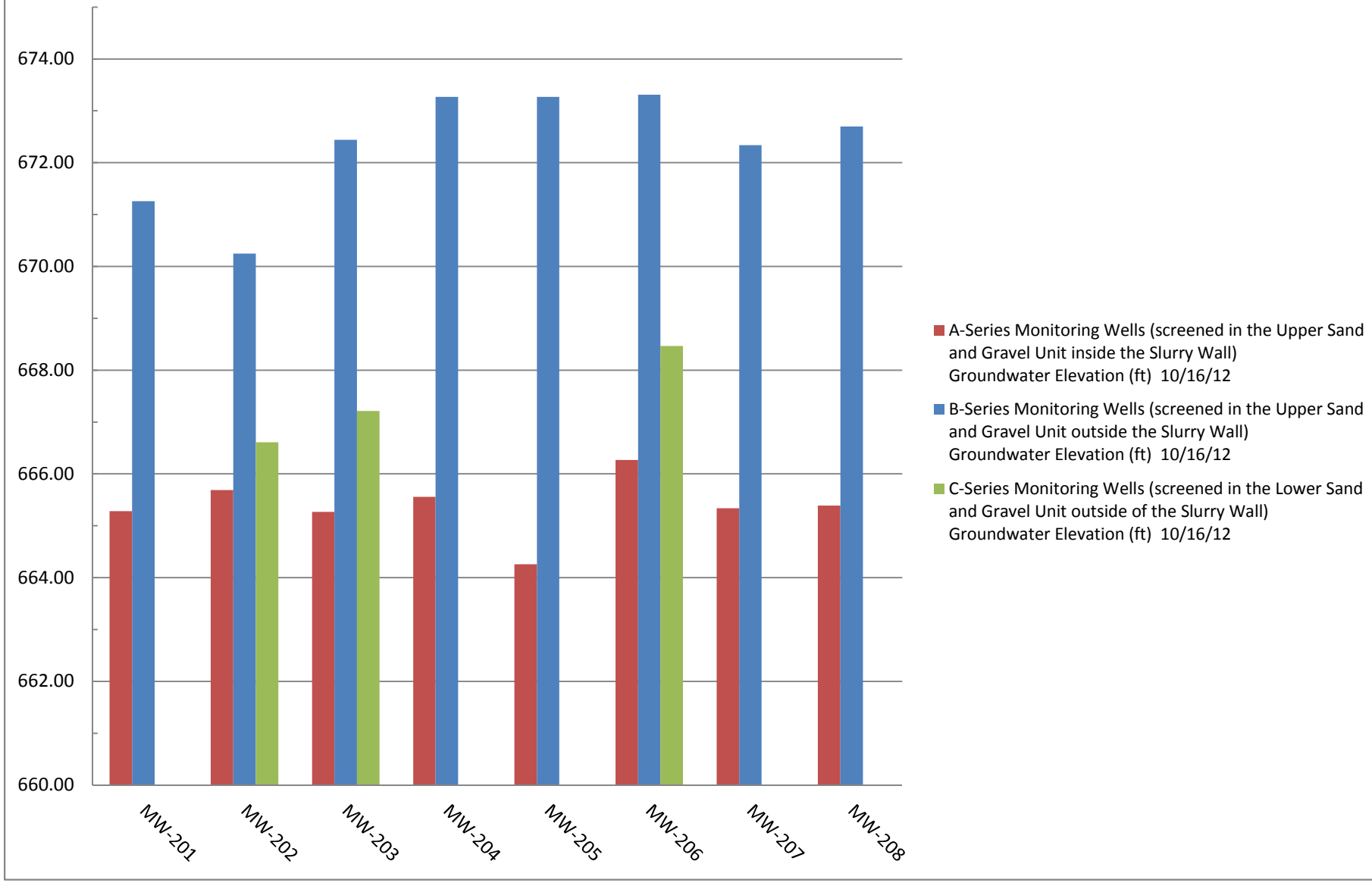
CITY:Indianapolis DIV/GROUP:SER DB:HGL PM:JCosgrove TM:(Opt) LAYOUT: 1 SAVED: 2/23/2011 1:33 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 1/30/2013 11:08 AM BY: GASTINEAU-LYONS, HEATHER
C:\Users\hgastineaulyons\Desktop\Surface Impoundment Site Map for DF files_100825.dwg
XREFS: IMAGES: PROJECTNAME: Surface Impoundment
ARCADIS Color Logo.JPG
Pages from Site Map Surface Impoundment_test.jpg

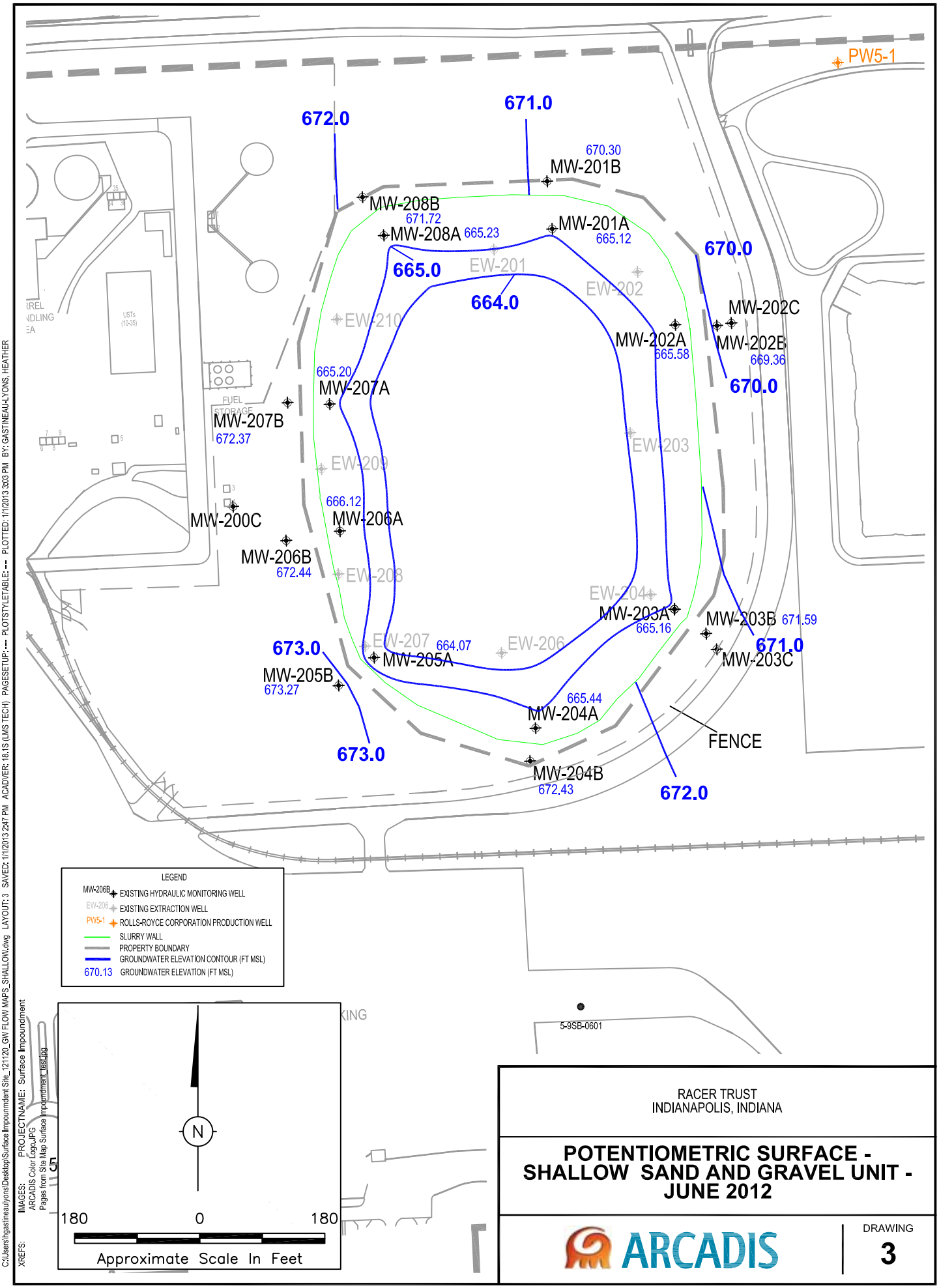
Drawing 2a. Surface Impoundment
June 1, 2012 Groundwater Elevations



Note: Monitoring well MW-200C could not be accessed during the June 2012 gauging event.

Drawing 2b. Surface Impoundment
October 16, 2012 Groundwater Elevations



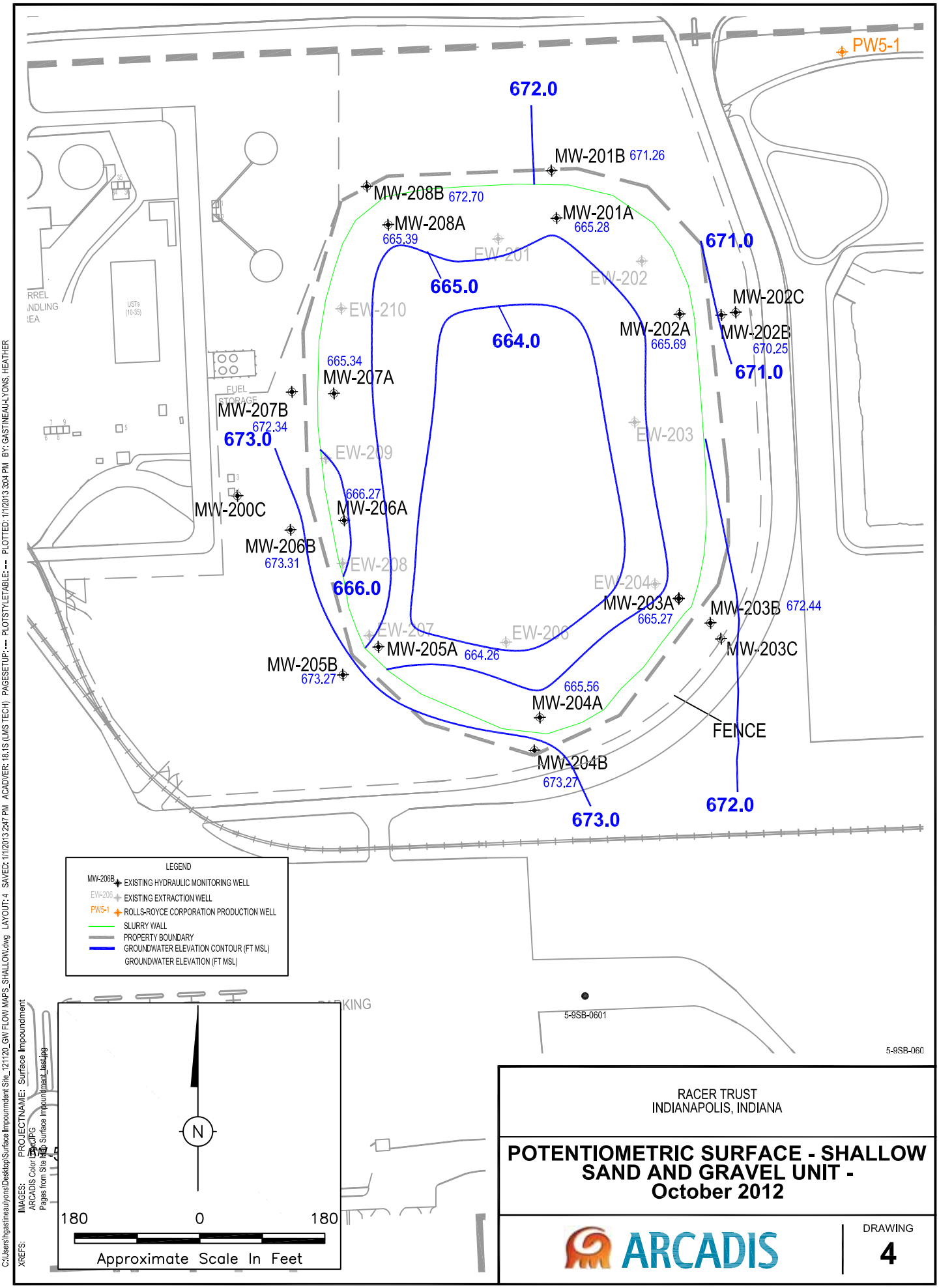


RACER TRUST
INDIANAPOLIS, INDIANA

POTENTIOMETRIC SURFACE - SHALLOW SAND AND GRAVEL UNIT - JUNE 2012

ARCADIS

DRAWING
3

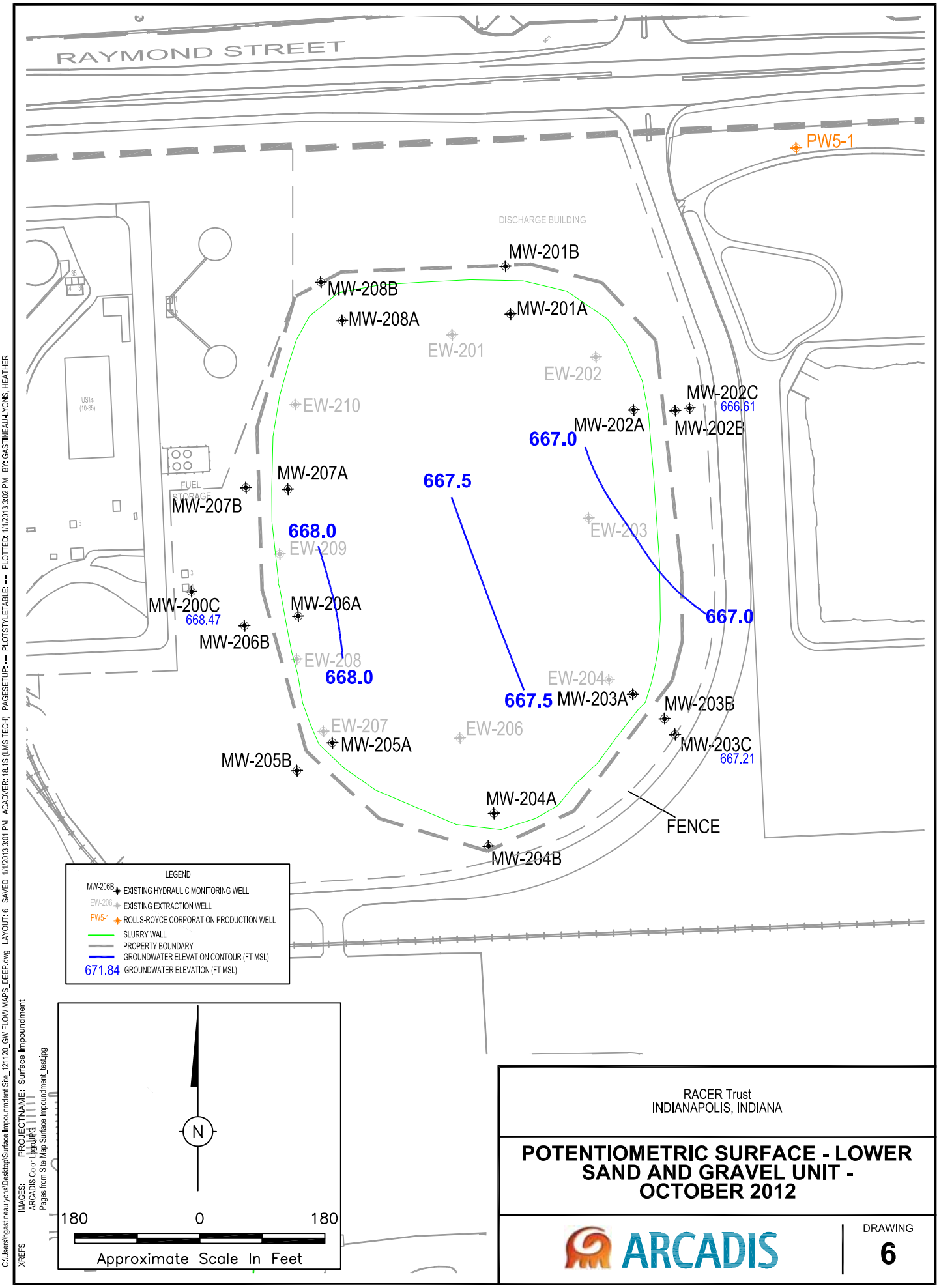


RACER TRUST
INDIANAPOLIS, INDIANA

POTENTIOMETRIC SURFACE - SHALLOW SAND AND GRAVEL UNIT - October 2012

ARCADIS

DRAWING 4



RACER Trust
INDIANAPOLIS, INDIANA

POTENTIOMETRIC SURFACE - LOWER SAND AND GRAVEL UNIT - OCTOBER 2012

ARCADIS

DRAWING
6

ARCADIS

Appendix A

Permit Modification Summary

Table A-1. Permit Application and Modification Summary.

Permit Type	Date Permit Application Submitted	Date of IDEM Notification of Deficiency (NOD)	Date of IDEM Approval	Date Notification letter Submitted to Distribution List	Description of Submittal
Post-Closure Permit Application	11/17/1997	9/23/1998	NA	NA	Required Post-Closure Permit Application as required in IDEM's closure approval.
Revised Post-Closure Permit Application	4/26/1999	10/7/1999	NA	NA	Response to NOD dated 9/23/98.
Revised Post-Closure Permit Application	12/20/1999	3/6/2000	NA	NA	Respose to NOD dated 10/7/99.
Revised Post-Closure Permit Application	3/1/2000	NA	6/29/2001	NA	Response to NOD dated 3/6/00.
Class 1 Permit Modificaiton	NA	NA	9/2/2001	NA	Modification of the groundwater sampling procedure.
Renewal Permit Application	1/23/2006	3/21/2006	NA	NA	The Permit Application Renewal submitted.
Renewal Permit Application	5/5/2006	6/22/2006	NA	NA	The Permit Application Renewal re-submitted based on IDEMs NOD provided on 3/21/2006.

Table A-1. Permit Application and Modification Summary.

Permit Type	Date Permit Application Submitted	Date of IDEM Notification of Deficiency (NOD)	Date of IDEM Approval	Date Notification letter Submitted to Distribution List	Description of Submittal
Renewal Permit Application	8/3/2006	NA	1/26/2007	NA	The Permit Application Renewal re-submitted based on IDEMs NOD provided on 6/22/2006.
Class 1 Permit Modification	8/8/2007	NA	9/26/2007	10/9/2007	The permit modification letter requested to update the financial assurance from a 'surety bond' to a 'certificate of insurance' (Attachments C-5, C-6 and Appendix B of the Post Closure Permit Renewal).
Class 1 Permit Modification	8/8/2007	NA	9/26/2007	10/9/2007	The permit modificaiton letter requested to update minor issues concerning the table of contents and scheduled maintenance activities (Table 5a).
Class 1 Permit Modification	7/29/2008	NA	8/22/2008	8/27/2008	This permit modification letter requested to update the financial assurance from a 'certificate of insurance' to a 'performance bond' (Attachments C-5, C-6 and Appendix B of the Post Closure Permit Renewal).
Class 1 Permit Modification	4/23/2009	NA	6/17/2009	7/22/2009	The permit modification letter requested to amend Appendix H, Sampling and Analysis Plan, Section 4.3 (Data Analysis).
Class 1 Permit Modification	1/27/2010	NA	2/18/2010	5/3/2010	The permit modification letter requested to change the responsible party from General Motors Corporation to Motors Liquidation Compnay (MLC).
Class 1 Permit Modification with Prior Approval	2/28/2012	NA	3/26/2012	6/15/2012	The permit modification letter requested to change the sampling regime from semi-annual to an annual event.

NOTES:
NA - Not Applicable

ARCADIS

Appendix B

Monitoring Well and Groundwater Monitoring Data Sheets

WELL PURGING FIELD INFORMATION FORM

JOB# 1N0000-297

SITE/PROJECT NAME: ~~GM-Rolls Royce~~ AGT Surface Impoundment PP / WELL# MW201B

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	WATER VOL. IN CASING (LITRES/GALLONS)	ACTUAL VOLUME PURGED (LITRES/GALLONS)
10 17 12	10 17 12	12.58 TPP	2.38 TPP

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED Y (N) (CIRCLE ONE)

SAMPLING EQIPMENT.....DEDICATED (Y) N (CIRCLE ONE) TPP

PURGING DEVICE	A	A - SUBMERSIBLE PUMP B - PERISTALTIC PUMP	D - GAS LIFT PUMP E - PURGE PUMP	G - BAILER H - WATERRA®	X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	C	C - BLADDER PUMP	F - DIPPER BOTTLE		X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	B	A - TEFLON B - STAINLESS STEEL	D - PVC E - POLYETHYLENE		X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	E	C - POLYPROPYLENE			X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	E	A - TEFLON B - TYGON	D - POLYPROPYLENE E - POLYETHYLENE	F - SILICONE G - COMBINATION	X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE		C - ROPE X- (SPECIFY)		TEFLON/POLYPROPYLENE	X- SAMPLING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A	A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

WELL ELEVATION	6936 (m/(ft))	GROUNDWATER ELEVATION	6716 (m/(ft))
DEPTH TO WATER	21.80 (m/(ft))	WELL DEPTH	375.5 (m/ft)

pH	TURBIDITY	CONDUCTIVITY	ORP	DO	SAMPLE TEMPERATURE
8.04 (std)	9.39 (ntu)	3916 (µm/cm) AT 25°C	96 (mV)	4.57 (mg/L)	21.0 (°C)
8.04 (std)	9.99 (ntu)	3917 (µm/cm) AT 25°C	88 (mV)	4.45 (mg/L)	20.8 (°C)
8.04 (std)	8.52 (ntu)	3917 (µm/cm) AT 25°C	79 (mV)	4.39 (mg/L)	20.7 (°C)
8.04 (std)	8.53 (ntu)	3918 (µm/cm) AT 25°C	73 (mV)	4.35 (mg/L)	20.7 (°C)
8.04 (std)	8.55 (ntu)	3917 (µm/cm) AT 25°C	69 (mV)	4.36 (mg/L)	20.7 (°C)

FIELD COMMENTS

SAMPLE APPEARANCE: clear ODOR: no COLOR: clear TURBIDITY: clear

WEATHER CONDITIONS: WIND SPEED 20mph DIRECTION South PRECIPITATION Y (N) OUTLOOK rain possible

SPECIFIC COMMENTS

Field duplicate and equipment blank collected

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE GM PROTOCOLS

DATE	PRINT	SIGNATURE
10.17.12	Sarah Jonker	Sarah Jonker

FMG MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: ~~GM - Rolls Royce~~ Racer Trust - AGT S1
Ref. No.: IN000297.2011

Date: 10.17.12
Personnel: Sarah Jonker

Monitoring Well Data:

Well No.: MW-201B
Measurement Point: TOC 693.06'
Constructed Well Depth (ft): 38.51'
Measured Well Depth (ft): 37.55'
Depth of Sediment (ft): 0.96'

Screen Length (ft): 10'
Depth to Pump Intake (ft)[1]: 32'
Well Diameter, D (in): 2"
Well Screen Volume, V_s (mL)[2]: 6200
Initial Depth to Water (ft): 21.80

Time	*Pumping Rate (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level*[3] *(ft)*	*pH*	*Temperature °C*	*Conductivity ~~(mS/cm)~~ µS*	*ORP (mV)*	*DO (mg/L)*	*Turbidity (NTU)*	*Volume Purged, Vp (mL)*	*No. of Well Screen Volumes Purged*[4]
13:00			started pump								
13:05	~200ml/min	21.79 ❖	0.01	8.02	21.08	408.9	134	6.94	17.09	1000	0.16
13:10	~200	21.79	0.01	8.06	21.07	407.9	151	7.45	10.53	2000	0.16
13:15	~200	21.79	0.01	8.10	21.07	406.1	127	8.17	15.01	3000	0.16
13:20	~200	21.78	0.02	8.05	21.12	397.3	124	4.82	13.57	4000	0.16
13:25	~200	21.79	0.01	8.04	21.01	396.6	96	4.57	9.39	5000	0.16
13:30	~200	21.79	0.01	8.04	20.80	397.3	88	4.45	9.99	6000	0.16
13:35	~200	21.79	0.01	8.04	20.72	397.4	79	4.39	8.52	7000	0.16
13:40	~200	21.78	0.02	8.04	20.74	398.5	73	4.35	8.53	8000	0.16
13:45	~200	21.78	0.02	8.04	20.75	397.7	69	4.36	8.55	9000	~~2.5~~ 0.16
											total: 1.46

Sampled at 13:45

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

❖ Note: Once bladder pump and tubing deployed the water level was collected/recorded. The water level recorded was different than the initial depth to water collected.

WELL PURGING FIELD INFORMATION FORM

JOB# 1N000-297

SITE/PROJECT NAME: AGT Surface Impoundment

WELL# MW-202B

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	WATER VOL. IN CASING (LITRES/GALLONS)	ACTUAL VOLUME PURGED (LITRES/GALLONS)
10/17/12	10/17/12	21.66 PPP	2.38 PPP

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED Y N (CIRCLE ONE)

SAMPLING EQIPMENT.....DEDICATED Y N (CIRCLE ONE)

PURGING DEVICE	A	A - SUBMERSIBLE PUMP	D - GAS LIFT PUMP	G - BAILER	X- PURGING OTHER (SPECIFY)
		B - PERISTALTIC PUMP	E - PURGE PUMP	H - WATERRA®	
SAMPLING DEVICE	C	C - BLADDER PUMP	F - DIPPER BOTTLE		X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	B	A - TEFLON	D - PVC		X- PURGING OTHER (SPECIFY)
		B - STAINLESS STEEL	E - POLYETHYLENE		
SAMPLING DEVICE	E	C - POLYPROPYLENE			X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	E	A - TEFLON	D - POLYPROPYLENE	F - SILICONE	X- PURGING OTHER (SPECIFY)
		B - TYGON	E - POLYETHYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	
SAMPLING DEVICE		C - ROPE	X- (SPECIFY)		X- SAMPLING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A	A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

WELL ELEVATION	6914.43 (m/ft)	GROUNDWATER ELEVATION	6702.5 (m/ft)
DEPTH TO WATER	211.8 (m/ft)	WELL DEPTH	375.3 (m/ft)

pH	TURBIDITY	CONDUCTIVITY	ORP	DO	SAMPLE TEMPERATURE
7.78 (std)	40.35 (ntu)	656.4 (um/cm) AT 25°C	12 (mV)	1.70 (mg/L)	20.68 (°C)
7.77 (std)	27.15 (ntu)	656.8 (um/cm) AT 25°C	-16 (mV)	1.64 (mg/L)	20.54 (°C)
7.77 (std)	26.92 (ntu)	656.9 (um/cm) AT 25°C	-17 (mV)	1.62 (mg/L)	20.52 (°C)
7.77 (std)	26.90 (ntu)	656.9 (um/cm) AT 25°C	-18 (mV)	1.61 (mg/L)	20.53 (°C)
7.77 (std)	26.88 (ntu)	656.9 (um/cm) AT 25°C	-18 (mV)	1.60 (mg/L)	20.53 (°C)

FIELD COMMENTS

SAMPLE APPEARANCE: clear ODOR: no COLOR: clear TURBIDITY: clear

WEATHER CONDITIONS: WIND SPEED 20 mph DIRECTION South PRECIPITATION Y/N OUTLOOK rain

SPECIFIC COMMENTS

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE GM PROTOCOLS

DATE	PRINT	SIGNATURE
10.17.12	Sarah Jonker	Sarah Jonker

FMG MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: IN000297 ~~GM Rolls Royce~~ AGT Surface Impoundment TPP
Ref. No.: IN000297

Date: 10.17.12
Personnel: Sarah Jonker

Monitoring Well Data:

Well No.: MW-202B
Measurement Point: TOC - 691.43'
Constructed Well Depth (ft): 37.71'
Measured Well Depth (ft): 37.53'
Depth of Sediment (ft): 0.18'

Screen Length (ft): 10'
Depth to Pump Intake (ft)[1]: 32.5'
Well Diameter, D (in): 2"
Well Screen Volume, V_s (mL)[2]: 6200
Initial Depth to Water (ft): 21.18

Time	Pumping Rate (mL/min)	Depth to Water (ft) ★	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity ~~(mS/cm)~~ (uS/cm) TPP 12/21/12	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, Vp (mL)	No. of Well Screen Volumes Purged[4]
start 14:45	~200ml/min	21.21	0.03	7.80	20.47	644.6	134	1.78	336.9	100	0.16
14:50	~200	21.20	0.02	7.80	20.52	647.5	142	1.65	343.8	1100	0.16
14:55	~200	21.20	0.02	7.80	20.64	642.8	123	2.40	212.0	2100	0.16
15:00	~200	21.19	0.01	7.79	20.63	648.3	60	1.79	145.4	3100	0.16
15:05	~200	21.19	0.01	7.78	20.65	653.1	22	1.64	74.68	4100	0.16
15:10	~200	21.20	0.02	7.78	20.68	656.4	12	1.70	40.35	5100	0.16
15:15	~200	21.19	0.01	7.77	20.54	658.5	-5	1.64	27.15	6100	0.16
15:20	~200	21.19	0.01	7.77	20.52	659.1	-7	1.62	26.92	7100	0.16
15:25	~200	21.19	0.01	7.77	20.53	660.9	-8	1.61	26.90	8100	0.16
15:30	~200	21.19	0.01	7.77	20.53	660.6	-8	1.60	26.88	9100	0.16 ~~1.5~~ TPP 12/21/12
											total: 1.46
											TPP 12/21/12

Sampled @ 15:30

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

★ Note: Once bladder pump and tubing deployed the water level was collected/recorded. The water level recorded was different than the initial depth to water collected

WELL PURGING FIELD INFORMATION FORM

JOB# 1N000-297

SITE/PROJECT NAME: ~~GM-Rolls Royce~~ AGT Surface Impoundment WELL# MW-203B

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	WATER VOL. IN CASING (LITRES/GALLONS)	ACTUAL VOLUME PURGED (LITRES/GALLONS)
10 17 12	10 17 12	24	~~8~~ 2.32

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED Y N (CIRCLE ONE)

SAMPLING EQIPMENT.....DEDICATED Y N (CIRCLE ONE)

PURGING DEVICE	A	A - SUBMERSIBLE PUMP B - PERISTALTIC PUMP	D - GAS LIFT PUMP E - PURGE PUMP	G - BAILER H - WATERRA®	X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	C	C - BLADDER PUMP	F - DIPPER BOTTLE		X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	B	A - TEFLON B - STAINLESS STEEL	D - PVC E - POLYETHYLENE		X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	E	C - POLYPROPYLENE			X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	E	A - TEFLON B - TYGON	D - POLYPROPYLENE E - POLYETHYLENE	F - SILICONE G - COMBINATION TEFLON/POLYPROPYLENE	X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE		C - ROPE X- (SPECIFY)			X- SAMPLING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A	A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

WELL ELEVATION	691656 (m/ft)	GROUNDWATER ELEVATION	671444 (m/ft)
DEPTH TO WATER	19.21 (m/ft)	WELL DEPTH	339.5 (m/ft)

pH	TURBIDITY	CONDUCTIVITY	ORP	DO	SAMPLE TEMPERATURE
7.1 (std)	4.77 (ntu)	1260 (µm/cm) AT 25°C	417 (mV)	0.54 (mg/L)	16.13 (°C)
7.1 (std)	3.72 (ntu)	1262 (µm/cm) AT 25°C	410 (mV)	0.50 (mg/L)	16.1 (°C)
7.1 (std)	3.66 (ntu)	1263 (µm/cm) AT 25°C	399 (mV)	0.50 (mg/L)	16.1 (°C)
7.1 (std)	3.59 (ntu)	1263 (µm/cm) AT 25°C	398 (mV)	0.50 (mg/L)	16.1 (°C)
7.1 (std)	3.53 (ntu)	1264 (µm/cm) AT 25°C	397 (mV)	0.50 (mg/L)	16.1 (°C)

FIELD COMMENTS

SAMPLE APPEARANCE: clear ODOR: no COLOR: clear TURBIDITY: clear

WEATHER CONDITIONS: WIND SPEED 20 mph DIRECTION South PRECIPITATION (Y) N OUTLOOK Rain

SPECIFIC COMMENTS

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE GM PROTOCOLS

DATE	PRINT	SIGNATURE
10.17.12	Sarah Jonker	Sarah Jonker

FMG MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: ~~GM-Rolls Royce TP~~ AGT Surface Impoundment
Ref. No.: IN000297

Date: 10.17.12
Personnel: Sarah Jonker

Monitoring Well Data:

Well No.: MW-203B
Measurement Point: TOC - 691.65
Constructed Well Depth (ft): 34.30'
Measured Well Depth (ft): 33.95'
Depth of Sediment (ft): 0.35'

Screen Length (ft): 10'
Depth to Pump Intake (ft)[1]: 28'
Well Diameter, D (in): 2"
Well Screen Volume, V_s (mL)[2]: 6200
Initial Depth to Water (ft): 19.21

Time	*Pumping Rate (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level[3] (ft)*	*pH*	*Temperature °C*	*Conductivity* ~~(mS/cm)~~ TP 12/21/12 (uS/cm)	*ORP (mV)*	*DO (mg/L)*	*Turbidity (NTU)*	*Volume Purged, Vp (mL)*	*No. of Well Screen Volumes Purged[4]*
15:51			started pump								
15:55	~200 ml/min	19.23*	0.02	7.12	16.83	1213	147	2.20	28.03	800	0.16
16:00	~200	19.22	0.01	7.11	16.47	1234	81	1.05	19.34	1800	0.16
16:05	~200	19.20	-0.01	7.11	16.24	1251	66	0.73	11.98	2800	0.16
16:10	~200	19.20	-0.01	7.11	16.14	1257	57	0.58	7.95	3800	0.16
16:15	~200	19.21	-0.0	7.11	16.13	1260	47	0.54	4.77	4800	0.16
16:20	~200	19.21	0.0	7.11	16.15	1262	40	0.50	3.72	5800	0.16
16:25	~200	19.20	-0.01	7.11	16.15	1263	39	0.50	3.66	6800	0.16
16:30	~200	19.20	-0.01	7.11	16.16	1263	38	0.50	3.59	7800	0.16 ~~TP~~ 12/21/12
16:35	~200	19.20	-0.01	7.11	16.15	1264	37	0.50	3.53	8800	~~21.4~~ 0.16
											total: 1.43
											TP 12/21/12

Notes: Sampled @ 16:35

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s=p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

* Note: Once the bladder pump and tubing deployed, the water level was collected/recorded. The water level recorded was different than the initial depth to water collected.

WELL PURGING FIELD INFORMATION FORM

JOB# I N 0 0 0 - 2 9 7

SITE/PROJECT NAME: ~~GM - Rolls Royce~~ AGT Surface Impoundment WELL# M W - 2 0 6 B

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	WATER VOL. IN CASING (LITRES/GALLONS)	ACTUAL VOLUME PURGED (LITRES/GALLONS)
10 17 12	10 17 12	28	96

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED Y N (CIRCLE ONE)

SAMPLING EQIPMENT.....DEDICATED Y N (CIRCLE ONE)

PURGING DEVICE	A	A - SUBMERSIBLE PUMP	D - GAS LIFT PUMP	G - BAILER	X- PURGING OTHER (SPECIFY)
		B - PERISTALTIC PUMP	E - PURGE PUMP	H - WATERRA®	
SAMPLING DEVICE	C	C - BLADDER PUMP	F - DIPPER BOTTLE		X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	B	A - TEFLON	D - PVC		X- PURGING OTHER (SPECIFY)
		B - STAINLESS STEEL	E - POLYETHYLENE		
SAMPLING DEVICE	E	C - POLYPROPYLENE			X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	E	A - TEFLON	D - POLYPROPYLENE	F - SILICONE	X- PURGING OTHER (SPECIFY)
		B - TYGON	E - POLYETHYLENE	G - COMBINATION	
SAMPLING DEVICE		C - ROPE X- (SPECIFY)		TEFLON/POLYPROPYLENE	X- SAMPLING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A	A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

WELL ELEVATION	6934.46 (m/ft)	GROUNDWATER ELEVATION	673.31 (m/ft)
DEPTH TO WATER	20.15 (m/ft)	WELL DEPTH	37.47 (m/ft)

pH	TURBIDITY	CONDUCTIVITY	ORP	DO	SAMPLE TEMPERATURE
7.13 (std)	0.47 (ntu)	1191 (µm/cm) AT 25°C	31 (mV)	0.06 (mg/L)	17.46 (°C)
7.13 (std)	0.60 (ntu)	1191 (µm/cm) AT 25°C	19 (mV)	0.10 (mg/L)	17.32 (°C)
7.13 (std)	0.40 (ntu)	1191 (µm/cm) AT 25°C	14 (mV)	0.03 (mg/L)	17.38 (°C)
7.13 (std)	0.44 (ntu)	1191 (µm/cm) AT 25°C	14 (mV)	0.04 (mg/L)	17.38 (°C)
7.13 (std)	0.41 (ntu)	1191 (µm/cm) AT 25°C	13 (mV)	0.04 (mg/L)	17.38 (°C)

FIELD COMMENTS

SAMPLE APPEARANCE: clear ODOR: no COLOR: clear TURBIDITY: clear

WEATHER CONDITIONS: WIND SPEED 20 mph DIRECTION South PRECIPITATION Y N OUTLOOK Rain

SPECIFIC COMMENTS

MS/MSD collected

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE GM PROTOCOLS

DATE	PRINT	SIGNATURE
10.17.12	Sarah Jonker	Sarah Jonker

FMG MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: ~~GM-Rolls Royce~~ TPP AGT Surface Impoundment
Ref. No.: 1N000297.0001

Date: 10.17.12
Personnel: Sarah Jonker

Monitoring Well Data:

Well No.: MW-206B
Measurement Point: TOC-693.46'
Constructed Well Depth (ft): 37.73'
Measured Well Depth (ft): 37.47'
Depth of Sediment (ft): 0.26'

Screen Length (ft): 10'
Depth to Pump Intake (ft)[1]: 32.5'
Well Diameter, D (in): 2"
Well Screen Volume, V_s (mL)[2]: 6200
Initial Depth to Water (ft): 20.15

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity ~~(mS/cm)~~ (uS/cm) TPP 12/21/12	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V_p (mL)	No. of Well Screen Volumes Purged[4]
1702	200				Started pump						
1705	200 mL/min	20.17	0.02	7.15	17.34	1189	79	0.42	18.64	600	0.10
1710	200	20.17	0.02	7.14	17.34	1189	54	0.16	13.47	1600	0.16
1715	200	20.16	0.01	7.14	17.38	1190	45	0.07	5.33	2600	0.16
1720	200	20.16	0.01	7.14	17.40	1190	40	0.05	3.78	3600	0.16
1725	200	20.17	0.02	7.13	17.40	1190	37	0.05	1.60	4600	0.16
1730	200	20.16	0.01	7.13	17.40	1191	31	0.06	0.47	5600	0.16
1735	200	20.16	0.01	7.13	17.39	1191	19	0.10	0.60	6600	0.16
1740	200	20.16	0.01	7.13	17.38	1191	14	0.03	0.40	7600	0.16
1745	200	20.16	0.01	7.13	17.38	1191	14	0.04	0.44	8600	0.16
1750	200	20.16	0.01	7.13	17.38	1191	13	0.04	0.41	9600	~~1.5~~ TPP 12/21/12 0.16
											total: 1.55

TPP 12/21/12

Sampled at 1750

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

* Note: Once bladder pump and tubing deployed, the water level was collected/recorded. The water level recorded was different from the initial depth to water collected.

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Appendix C

Water Budget Calculations

RACER Trust
INDIANAPOLIS, INDIANA

WATER BUDGET CALCULATIONS FROM FIELD DATA
CLOSED HAZARDOUS WASTE SURFACE IMPOUNDMENT AREA

- Surface Area (A) of Surface Impoundment = 8.1 Acres

  8.1 Acres * 43,560 ft^2/Acre = 352,836 ft^2

- The Average Rise Rate represents the combined inflow to the Surface Impoundment due to (1) infiltration through the cover system, (2) leakage through the cutoff wall, and (3) seepage through the lower confining layer.

- Average Rise Rate in interior hydraulic monitoring wells from field data is 0.00272 ft/day. The minimum Rise Rate is 0.00262 ft/day in monitoring well MW 202A and the maximum Rise Rate is 0.00280 ft/day in monitoring wells MW-201A, MW-207A, and MW-208A.

- Assumed average specific yields (S_y) for natural sand/gravel and sediment in impoundment is 10-20 %.

- Rise Rates are based on data from November 4, 2011, through October 16, 2012.

Case 1: S_y = 10%

Average flow rate (Q) into Surface Impoundment: Q = A*R* Sy

Q = 352,836 ft^2 * 0.00272 ft/day * 10%

Q = 95.97 ft^3/day = 0.498gal/min

Minimum flow rate (Q) into Surface Impoundment: Q = A*R* Sy

Q = 352,836 ft^2 * 0.00262 ft/day * 10%

Q = 92.44 ft^3/day = 0.480 gal/min

Maximum flow rate (Q) into Surface Impoundment: $Q = A*R*S_y$

$Q = 352{,}836\ ft^2 * 0.00280\ ft/day * 10\%$

$Q = 98.79 ft^3/day = 0.513\ gal/min$

Case 2: $S_y = 20\%$

Average flow rate (Q) into Surface Impoundment: $Q = A*R*S_y$

$Q = 352{,}836\ ft^2 * 0.00272\ ft/day * 20\%$

$Q = 191.94\ ft^3/day = 0.996\ gal/min$

Minimum flow rate (Q) into Surface Impoundment: $Q = A*R*S_y$

$Q = 352{,}836\ ft^2 * 0.00262\ ft/day * 20\%$

$Q = 184.89\ ft^3/day = 0.960\ gal/min$

Maximum flow rate (Q) into Surface Impoundment: $Q = A*R*S_y$

$Q = 352{,}836\ ft^2 * 0.00280\ ft/day * 20\%$

$Q = 197.59\ ft^3/day = 1.025\ gal/min$

Calculation of Specific Yield

- Calculation based on average rise rate from November 4, 2011 through October 16, 2012.
- Minimal (Negligible) pumping from the extraction wells occurred during this period.
- During the period of May 12, 1998, through November 3, 1998, 1,274,237 gallons were pumped from within the cutoff wall. The average change in elevation within the cutoff wall during this period was —3.07 feet including combined inflow. The decrease in elevation would have been greater except for the combined inflow within the cutoff wall. The rise in elevation was 0.56 feet. Therefore, the change in elevation within the cutoff wall is 3.63 feet.

The average increase in groundwater elevation is:

Rise rate * number of days

= 0.00229 ft/day * 560 days

= 1.2824 feet

Calculating the number of gallons that would infiltrate the impoundment using a ratio comparing the amount of gallons pumped with the total change in elevation to the amount of gallons infiltrated (X) to the average rise over the period of pumping.

$$\frac{1{,}274{,}237 \text{ gallons}}{3.63 \text{ feet}} \qquad \frac{(X) \text{ gallons}}{1.2824 \text{ feet}}$$

X = 450,160 gallons would seep into the contained area of the impoundment over 560 days at 0.00229 ft/day

Q = Combined inflow within the cutoff wall

Q = 450,160 gallons / 560 days

Q = 803.86 gallons/day = 107.48 ft^3/day

$$Sy = Q/AR$$

$$S_y = (107.48 \text{ ft}^3/\text{day}) / (352{,}836 \text{ ft}^2)\ (0.00229 \text{ ft/day})$$

$$Sy = .133 = 13.3\%$$

Case 3: $S_y = 13.3\%$

Average flow rate (Q) into Surface Impoundment: $Q = A*R*S_y$

$Q = 352{,}836 \text{ ft}^2 * 0.00272 \text{ ft/day} * 13.3\%$

$Q = 127.64 \text{ ft}^3/\text{day} = 0.662 \text{ gal/min}$

Minimum flow rate (Q) into Surface Impoundment: $Q = A*R*S_y$

$Q = 352{,}836\ ft^2 * 0.00262\ ft/day * 13.3\%$

$Q = 122.95\ ft^3/day = 0.638\ gal/min$

Maximum flow rate (Q) into Surface Impoundment: $Q = A*R*S_y$

$Q = 352{,}836\ ft^2 * 0.00280\ ft/day * 13.3\%$

$Q = 131.40\ ft^3/day = 0.682\ gal/min$

Estimated Date To Turn Pumps On

- Average groundwater elevation for the interior wells on October 16, 2012, is 665.38 ft. Groundwater elevations in monitoring wells that have the minimum and maximum Rise Rates are 664.26 ft (MW-205A) and 666.27. ft (MW-206A), respectively.

- The Closure Plan states the pumps should turn on when the level inside the cutoff wall is within one foot of the lower or upper sand and gravel unit. The estimated dates for the pumps to turn on based on the rise rates are:

Average R: = ((667.43-1)-665.38)ft / 0.00272 ft/day
= 384 days

10/16/12 + 384 days = 11/4/2013

Minimum R: = ((667.43-1)-664.26)ft / 0.00262 ft/day
= 827 days

10/16/12 + 827 days = 1/21/2015

Maximum R: = ((667.43-1)-666.27)ft / 0.00280 ft/day
= 56 days

10/16/12 + 57 days = 12/11/2012

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Appendix D

Original Water Budget Calculations

I-1 DEWATERING ASSUMPTIONS

Closure will require dewatering within the intragradient cutoff wall to maintain an inward hydraulic gradient during post-closure. For the purposes of completing calculations for dewatering, the following assumptions have been made. These assumptions pertain to the previously measured and current in-situ Site conditions to estimate the amount of groundwater that will require removal during post-closure.

- The intragradient cutoff wall surrounds an area of approximately 8.1 acres. The average hydraulic conductivity ("K") of the cutoff wall is 2×10^{-5} cm/s. (GZA, 1993).

- The cutoff wall is keyed into the underlying clay layer at a depth of approximately 55 feet below ground surface. The linear distance of the wall is 2219 ft. (Paul I. Cripe, Inc., 1992). The thickness of the cutoff wall is 3 feet (GZA, 1993).

- The underlying clay layer displays a "K" value of approximately 6.1×10^{-7} cm/s. The elevations of the top of the clay layer vary from 638 ft MSL to 646 ft MSL with an average of 641 ft MSL. This clay unit is averagely 15 feet thick (Geraghty & Miller, 1991).

- Below the clay unit is the lower sand/gravel unit, which extends to the top of bedrock shale layer and has an average thickness of 35 feet. The static groundwater levels in this unit were measured in 1991 at approximately 660 ft MSL (Geraghty & Miller, 1991). Recent data from Reilly Industries, Inc. suggests the groundwater elevation in the lower sand and gravel may range from about 665 ft., MSL to 670 ft., MSL.

- Based on 1985-1990 groundwater elevations in RCRA wells (see Attachment 1), static groundwater elevations outside the cutoff wall are approximately 670 ft MSL and 20 feet below ground surface. Static groundwater elevations within the cutoff wall will be maintained between approximately 663 and 659 ft MSL.

- Calculations include:

  (1) Infiltration calculation.
  (2) Horizontal leakage through the cutoff wall; and,
  (3) Vertical leakage through the underlying clay layer.

- The average daily precipitation and infiltration through the final cover are unchanged from the averages used in the development of the Closure Plan.

I-2 INFILTRATION CALCULATIONS

Infiltration calculations are made for the average daily precipitation after final cover installation:

- Calculations are based on an average annual precipitation equally distributed over 365 days (0.1 inches per day). Evaporation, transpiration, and surface runoff were considered. The calculations will give the average expected daily infiltration over a one-year period. Infiltration through the final cover system is considered to be 0.1 percent.

Surface area of cap	=	8.1 acres
Precipitation	=	0.1 inches per day
Infiltration	=	0.001
Average daily infiltration after final cover installation	=	22 gallons per day

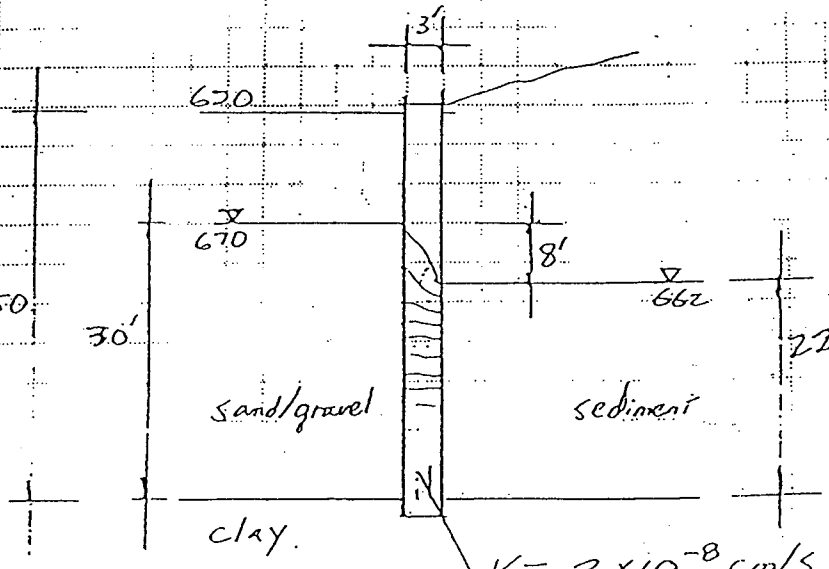
/60500/6051200/CORRES/CUTOFF/POST_DW.CAL

Project ALLISON ENGINE COMPANY — File No. 60512.00
Location INDIANAPOLIS, IN — Date — By J.CAI
Subject DEWATERING CALCULATION — Checked — By
Based on — Revised — By

I-3 HORIZONTAL LEAKAGE VIA CUT-OFF WALL

HEAD ELEVATION OUTSIDE THE WALL 670 FEET
HEAD ELEVATION INSIDE THE WALL 662 FEET

THICKNESS OF THE WALL = 3 FEET



$K = 2 \times 10^{-8}$ cm/s
$= 5.67 \times 10^{-5}$ ft/day

Assume: cut-off wall is isotropic
Homogeneous
Flow is steady-state

Using flow net (See NEXT PAGE)

$Q/ft = K \cdot H \frac{n_f}{n_d}$

K = hydraulic conductivity
H = Total Head difference
n_f = No. of flow channels
n_d = No. of Head drops

$n_f = 4.0$, $n_d = 5$ (from flow net)

$Q/ft = 5.67 \times 10^{-5}$ ft/day $\cdot 8$ ft $\cdot \frac{4.0}{5} = 3629 \times 10^{-5}$ ft^3/day-ft

Total length of the wall = 2210 ft

∴ Total leakage across the wall

$Q = Q/ft \times 2210$ ft $= 3629 \times 10^{-5} \times 2210 = 8.05$ ft^3/day $= 0.042$ gallons/min

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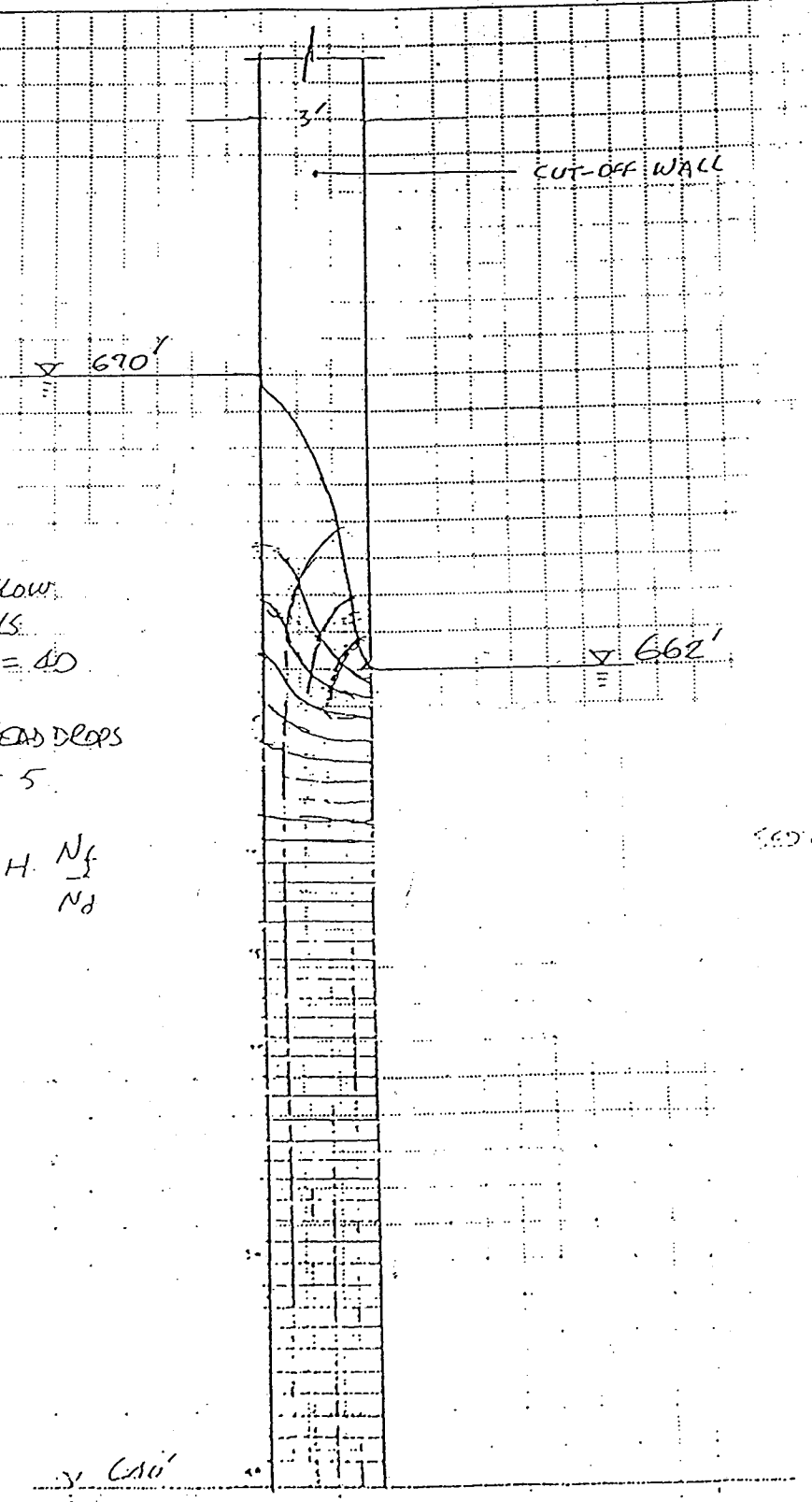
Engineers and Scientists

Project ALLISON PLANT #5 File No. 60512.00
Location INDIANAPOLIS, IN Date By JC
Subject FLOW NET FOR HORIZONTAL FLOW VIA CUT-OFF WALL Checked By JWK
Based on Revised By



TOTAL FLOW CHANNELS
$N_f = 4.0$

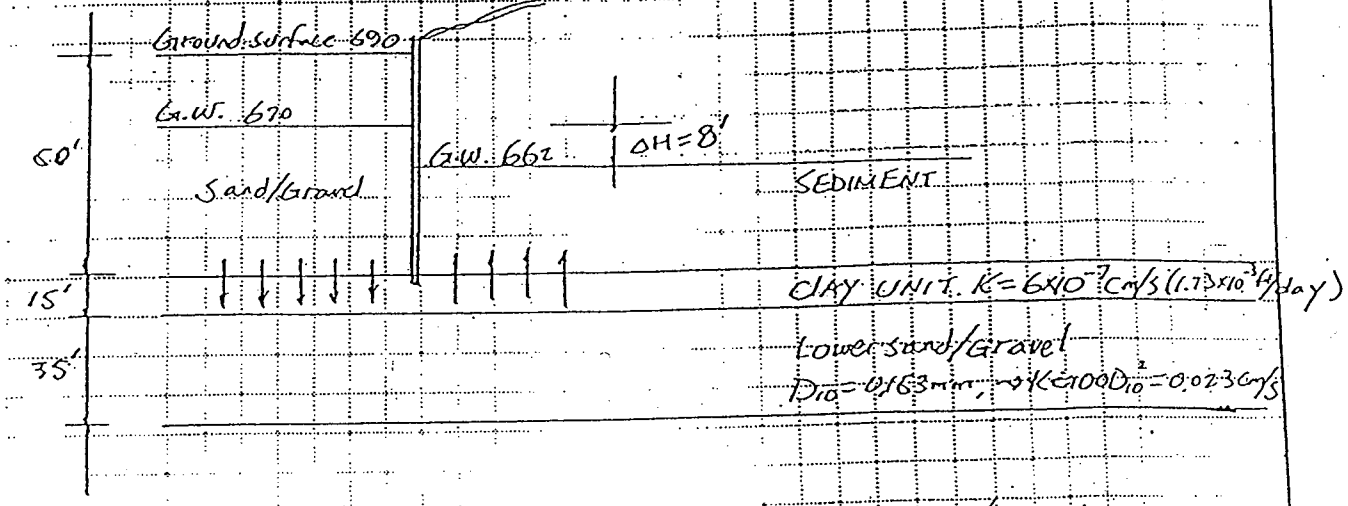
TOTAL HEAD DROPS
$N_d = 5$

$$\frac{Q}{\text{l.f.}} = K \cdot H \frac{N_f}{N_d}$$

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Project ALLISON ENGINE COMPANY #PLANTS 5 File No. 6a512.00
Location INDIANAPOLIS, IN. Date By J.C.
Subject DEWATERING CALCULATION Checked By
Based on Revised By

I-4 Vertical Leakage Via Underlying Clay Unit



Assume: ① No Head loss in the upper Sand/Gravel unit outside the cut-off wall.
② No head loss in the sediment inside the cut-off wall.
③ No head loss in the lower sand/Gravel unit therefore, the head elevation in the lower Sand/Gravel unit is 670-4' = 666'

The water elevation in the lower Sand/Gravel unit is 660 ft (USGS Datum), from 1991 Monitoring Well data.

When the water level outside the wall is 670, water will flow downward to the lower aquifer, recharging the lower aquifer. And, water in lower aquifer flow upward to the inside of the cap. The lower aquifer serves a conduit for water flowing from outside to inside vertically.

Neglecting the head loss in the lower aquifer, the flow path

$L = 15' + 15' = 30'$

$i = \frac{8'}{30'}$

$\Delta H = 8'$

Flow into the cap:

$$Q = KAi = 1.73 \times 10^{-3}\ ft/day \times 8\ acre \times 43560\ ft^2/acre \times \frac{1}{30'}$$

$$= 16.8\ ft^3/day = 1.2 \times 10^{2}\ gallons/day$$

$$= 0.083\ gallons/min$$

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Project ALLISON ENGINE COMPANY #PLANT 5 File No. 60512.00
Location INDIANAPOLIS, IN Date By J.S.
Subject DEWATERING CALCULATIONS Checked By WK
Based on Revised By

I-5 Post-closure Dewatering Budget

Total Leakage = Infiltration Rate through cap
+ horizontal leakage through cutoff wall
+ Vertical leakage through clay unit

$$Q_{total} = 22 \text{ gallons/day} \times \frac{1 \text{ day}}{24 \times 60 \text{ min}}$$

$$+ 0.042 \text{ gallons/min}$$

$$+ 0.834 \text{ gallons/min}$$

$$= 0.9 \text{ gallons/min}$$

Project	GM - ALLISON			File No.	60512
Location	INDIANAPOLIS, IN	Date	1-30-95	By	WTW
Subject	WATER Budget ESTIMATIONS	Checked		By	[illegible]
Based on		Revised		By	/

I-6 Dewatering Estimation From Field Data

- SURFACE AREA OF CAP ≅ 8 ACRES

$$8 \text{ ACRES} \times 43{,}560 \frac{ft^2}{ACRE} \cong 350{,}000\ ft^2$$

- Average RECOVERY RATE IN INTERIOR Hydraulic Head MONITORING wells After Removal of Temporary Groundwater extraction system : ≅ 0.01 ft/day (BASED ON [illegible] GROUNDWATER ELEVATIONS IN [illegible]-201A THROUGH MW-208?, SEE [illegible])
- Assumed average porosity of NATURAL SAND/GRAVEL AND SEDIMENT IN IMPOUNDMENT : n = 30% - [illegible]
- Assumed average specific yields for NATURAL SAND/GRAVEL AND SEDIMENT IN IMPOUNDMENT S_y = 10% - 20%

CASE 1 S_y = 10%

ESTIMATED flow RATE into CAP AREA =

$$350{,}000\ ft^2 \times 0.01 \frac{ft}{Day} \times 0.10 = 350\ ft^3/day$$

$$350\ ft^3/day \times 7.48\ gal/ft^3 = 2600\ gal/Day$$

$$2{,}600\ gal/Day \times 1\ Day/24\ hours \times 1\ hour/60\ min = 1.8\ gal/Minute$$

Project	GM - ALLISON			File No.	60512
Location	INDIANAPOLIS, IN	Date	1-30-95	By	[illegible]
Subject	WATER BUILDUP ESTIMATIONS	Checked		By	[illegible]
Based on		Revised		By	

CASE 2: $S_y = 15\%$

$350{,}000\ ft^2 \times 0.01\ ft/day \times 0.15 = 525\ ft^3/DAY$

$525\ ft^3/day \times 7.48\ \frac{gal}{ft^3} = 3{,}900\ gal/DAY$

$3{,}900\ gal/DAY \times 1\,DAY/24h \times 1\,hour/60\,min = \underline{2.7\ gal/minute}$

CASE 3: $S_y = 20\%$

$350{,}000\ ft^2 \times 0.01\ ft/day \times 0.20 = 700\ ft^3/DAY$

$700\ ft^3/day \times 7.48\ \frac{gal}{ft^3} = 5{,}200\ gal/DAY$

$5{,}200\ gal/DAY \times 1\,DAY/24\,hour \times 1\,hour/60\,min = \underline{3.6\ gal/minute}$

- Groundwater extraction wells will pump when elevation inside cap reaches 663.
- Average groundwater elevation inside cap as of [illegible]: [illegible]
- Estimated time [illegible] extraction wells begin pumping:

$(663 - 657.0\ ft) / 0.01\ ft/day = 600\ Days$

[illegible] + 600 days = July 1996

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Appendix E

Post-Closure Inspection Checklists

POST-CLOSURE INSPECTION CHECKLIST
CLOSED HAZARDOUS WAST SURFACE IMPOUNDMENT
RACER TRUST Surface Impoundment

This checklist will be used to document the findings of post-closure inspections. Post-closure inspections will be performed according to the frequency and procedures described in the approved post-closure permit application for this unit. When appropriate, the approximate location of notable conditions will be identified on the figure of the surface impoundment area that is included as Page 2 of 2 of this inspection checklist.

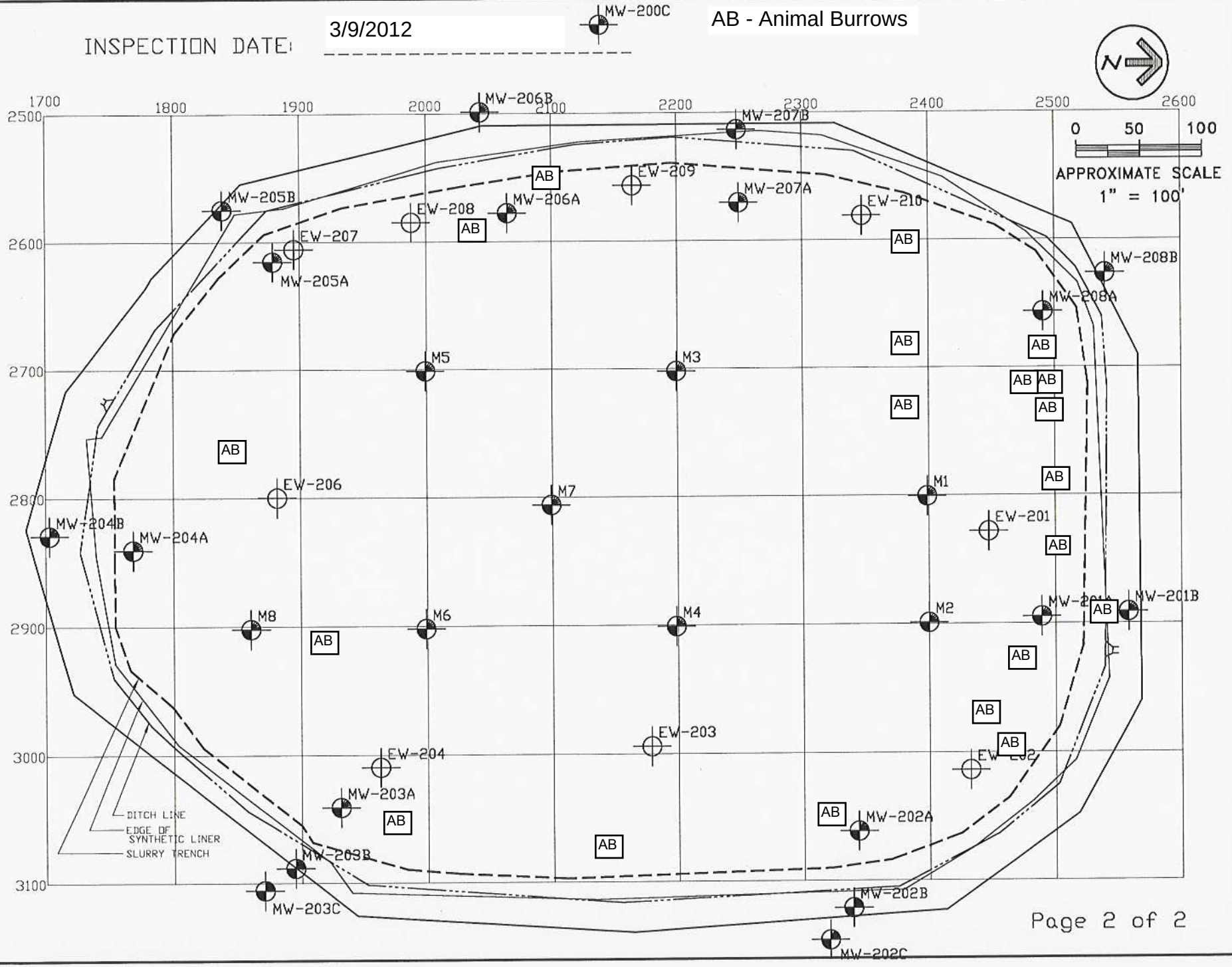
Inspector: Chad Butrum Time: 12:00 PM

Weather: sunny, 40 degrees F Date: 3/09/2012

Inspection Activity	Condition	Action to be Taken
1. Security Control Devices - Inspect fencing around closed unit for damage and "Warning" signs for proper posting.	Ok	None
2. Erosion Damage - Inspect final cover area extending to the centerline of the perimeter ditch for erosion damage. Stake gullies exceeding 3 inches in depth for future repair.	Ok	None
3. Cover Settlement, Subsidence, and Displacement - Inspect benchmarks for unusual settlement or damage, and the final cover system for obvious low spots and animal burrows and mark for repair.	Ok – many burrows See attached Drawing.	Continue rodenticide placement and rodent monitoring program.
4. Vegetative Cover Condition - Inspect final cover system for bare areas and quality of vegetation. Mark bare areas for reseeding.	Ok	None
5. Integrity of Run-on and Run-off Controls - Inspect culverts and perimeter drainage ditch for hindrances to flow. Mark any areas needing maintenance.	Ok	None
6. Integrity of Cover Drainage and Gas Venting Systems - Inspect discharge points of cover drainage and gas venting systems for blockage.	Ok	None
7. Integrity of Cut-off Wall - *Semi-annually* - Measure water levels in all monitoring wells and calculate the rise rate of water within the slurry wall and compare to previous rise rates (completed as part of groundwater sampling).	Not part of inspection.	None
8. Monitoring Well Condition - Inspect locks for proper operation, protective casings for integrity, and labels for readability. *Semi-annually* - Measure total well depth to check for siltation (completed during groundwater sampling).	Ok Not part of inspection.	None
9. Extraction Well System Functionality - Quarterly - Inspect groundwater extraction system control building for proper functioning. *Annually* – Turn on extraction wells.	Ok Not part of inspection.	None

INSPECTION DATE: 3/9/2012

AB - Animal Burrows



POST-CLOSURE INSPECTION CHECKLIST
CLOSED HAZARDOUS WAST SURFACE IMPOUNDMENT
GM FORMER AGT DIVISION
GENERAL MOTORS CORPORATION

This checklist will be used to document the findings of post-closure inspections. Post-closure inspections will be performed according to the frequency and procedures described in the approved post-closure permit application for this unit. When appropriate, the approximate location of notable conditions will be identified on the figure of the surface impoundment area that is included as Page 2 of 2 of this inspection checklist.

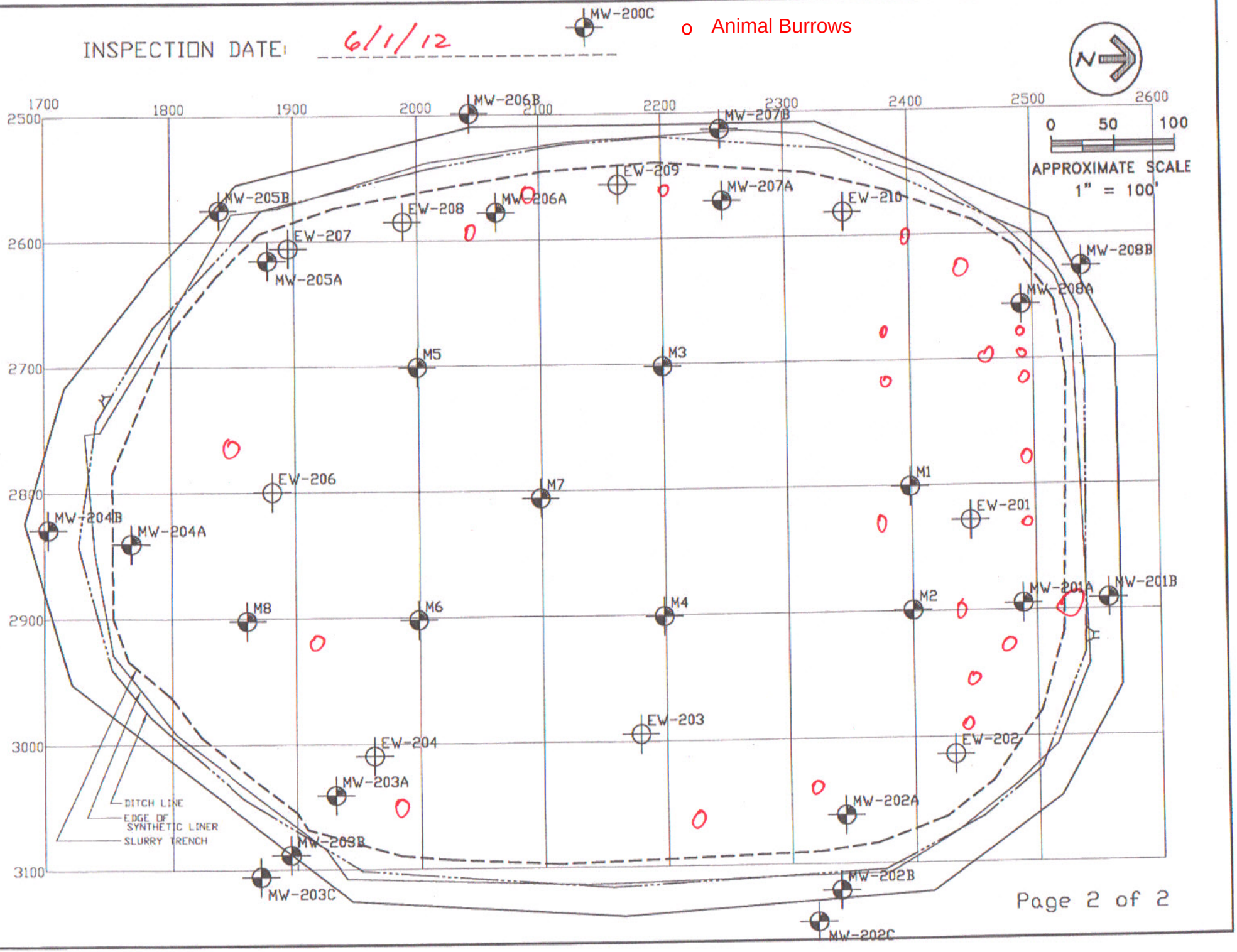
Inspector: Chad Butrum Time: 2:00 PM

Weather: cloudy, 51 degrees F Date: 6/1/12

Inspection Activity	Condition	Action to be Taken
1. Security Control Devices - Inspect fencing around closed unit for damage and "Warning" signs for proper posting.	Ok	None
2. Erosion Damage - Inspect final cover area extending to the centerline of the perimeter ditch for erosion damage. Stake gullies exceeding 3 inches in depth for future repair.	Ok	None
3. Cover Settlement, Subsidence, and Displacement - Inspect benchmarks for unusual settlement or damage, and the final cover system for obvious low spots and animal burrows and mark for repair.	Ok – some burrows See attached Drawing.	Continue rodenticide placement and rodent monitoring program.
4. Vegetative Cover Condition - Inspect final cover system for bare areas and quality of vegetation. Mark bare areas for reseeding.	Ok	None Grass needs cut
5. Integrity of Run-on and Run-off Controls - Inspect culverts and perimeter drainage ditch for hindrances to flow. Mark any areas needing maintenance.	Ok	None
6. Integrity of Cover Drainage and Gas Venting Systems - Inspect discharge points of cover drainage and gas venting systems for blockage.	Ok	None
7. Integrity of Cut-off Wall - *Semi-annually* - Measure water levels in all monitoring wells and calculate the rise rate of water within the slurry wall and compare to previous rise rates (completed as part of groundwater sampling).	Not part of inspection.	None
8. Monitoring Well Condition - Inspect locks for proper operation, protective casings for integrity, and labels for readability. *Semi-annually* - Measure total well depth to check for siltation (completed during groundwater sampling).	Ok Not part of inspection.	None
9. Extraction Well System Functionality - Quarterly - Inspect groundwater extraction system control building for proper functioning. *Annually* – Turn on extraction wells.	Ok Not part of inspection.	None

INSPECTION DATE: 6/1/12

o Animal Burrows



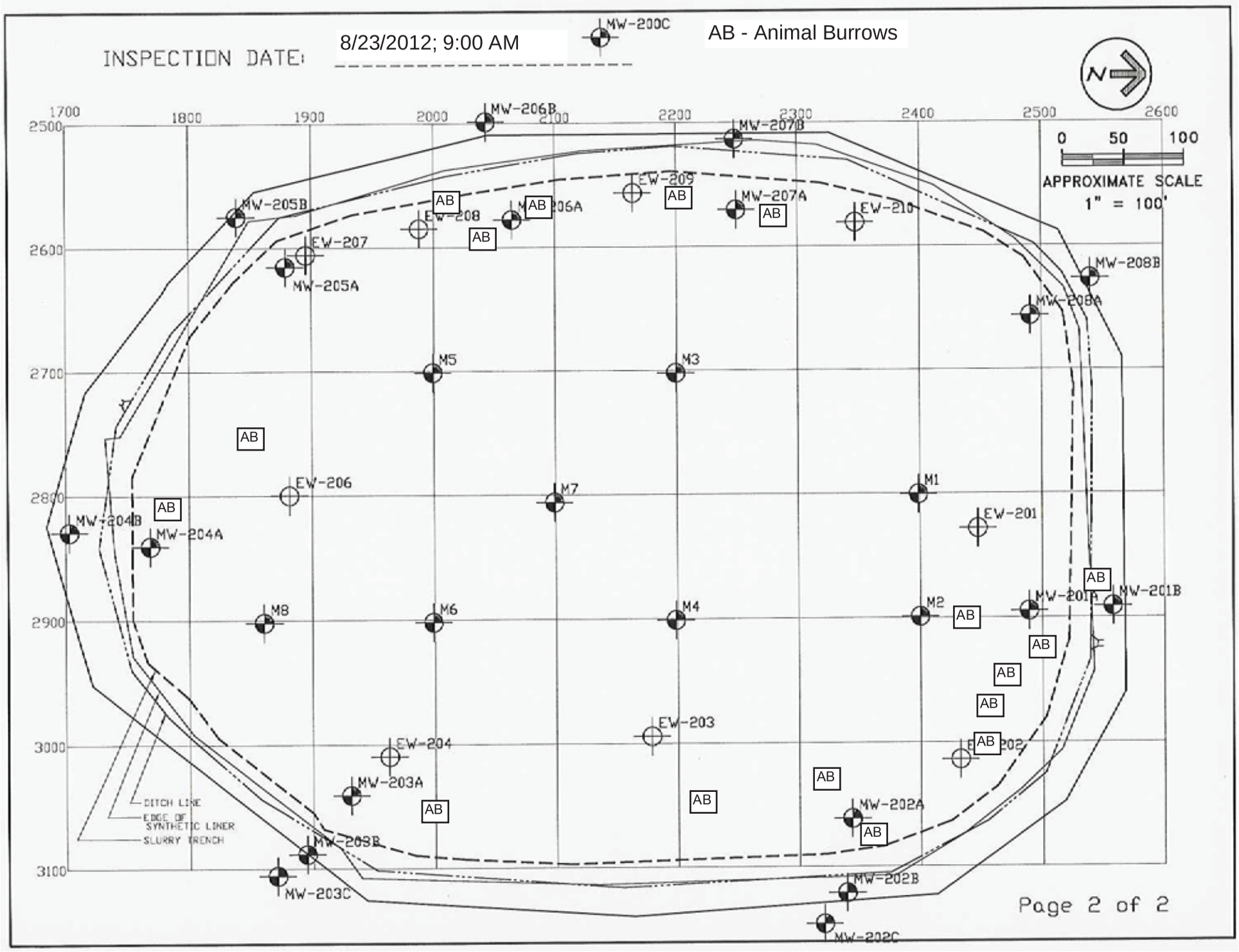
POST-CLOSURE INSPECTION CHECKLIST
CLOSED HAZARDOUS WAST SURFACE IMPOUNDMENT
RACER Trust Surface Impoundment

This checklist will be used to document the findings of post-closure inspections. Post-closure inspections will be performed according to the frequency and procedures described in the approved post-closure permit application for this unit. When appropriate, the approximate location of notable conditions will be identified on the figure of the surface impoundment area that is included as Page 2 of 2 of this inspection checklist.

Inspector: Heather Gastineau-Lyons Time: 9:00 AM

Weather: sunny, 75 degrees F Date: 8/23/12

Inspection Activity	Condition	Action to be Taken
1. Security Control Devices - Inspect fencing around closed unit for damage and "Warning" signs for proper posting.	Ok	None
2. Erosion Damage - Inspect final cover area extending to the centerline of the perimeter ditch for erosion damage. Stake gullies exceeding 3 inches in depth for future repair.	Ok	None
3. Cover Settlement, Subsidence, and Displacement - Inspect benchmarks for unusual settlement or damage, and the final cover system for obvious low spots and animal burrows and mark for repair.	Ok – some burrows See attached Drawing.	Continue rodenticide placement and rodent monitoring program.
4. Vegetative Cover Condition - Inspect final cover system for bare areas and quality of vegetation. Mark bare areas for reseeding.	Ok	None
5. Integrity of Run-on and Run-off Controls - Inspect culverts and perimeter drainage ditch for hindrances to flow. Mark any areas needing maintenance.	Ok	None
6. Integrity of Cover Drainage and Gas Venting Systems - Inspect discharge points of cover drainage and gas venting systems for blockage.	Ok	None
7. Integrity of Cut-off Wall - *Semi-annually* - Measure water levels in all monitoring wells and calculate the rise rate of water within the slurry wall and compare to previous rise rates (completed as part of groundwater sampling).	Not part of inspection.	None
8. Monitoring Well Condition - Inspect locks for proper operation, protective casings for integrity, and labels for readability. *Semi-annually* - Measure total well depth to check for siltation (completed during groundwater sampling).	Following labels to be replaced: 205A, 205B, 205C, 203A and 204A (only '2' to be replaced. New locks needed on the following: MW-203C, MW-201C. Not Part of Inspection.	Labels and locks to be replaced in 10-2012 during Annual Inspection.
9. Extraction Well System Functionality - Quarterly - Inspect groundwater extraction system control building for proper functioning. *Annually* – Turn on extraction wells.	Ok Not part of inspection.	None


INSPECTION DATE: 8/23/2012; 9:00 AM
AB - Animal Burrows
MW-200C
MW-206B
MW-207B
MW-205B
MW-205A
MW-206A
MW-207A
EW-207
EW-208
EW-209
EW-210
MW-208B
MW-208A
M5
M3
M7
M1
EW-206
EW-201
MW-204B
MW-204A
M8
M6
M4
M2
MW-201A
MW-201B
EW-203
EW-204
MW-203A
MW-202A
MW-203B
MW-203C
MW-202B
MW-202C
AB
DITCH LINE
EDGE OF SYNTHETIC LINER
SLURRY TRENCH
APPROXIMATE SCALE
1" = 100'
0 50 100
1700 1800 1900 2000 2100 2200 2300 2400 2500 2600
2500 2600 2700 2800 2900 3000 3100
N
Page 2 of 2

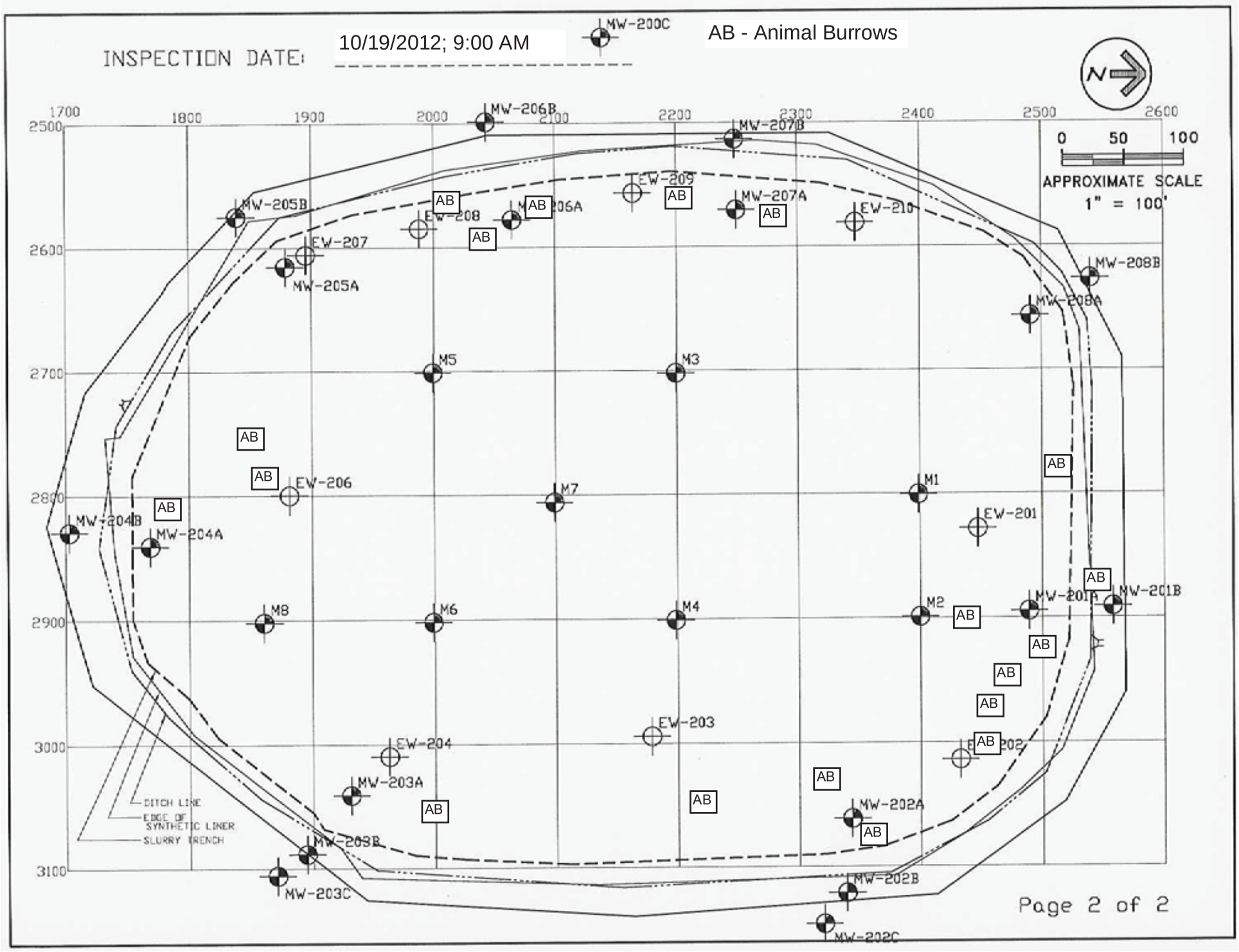
POST-CLOSURE INSPECTION CHECKLIST
CLOSED HAZARDOUS WAST SURFACE IMPOUNDMENT
RACER Trust Surface Impoundment

This checklist will be used to document the findings of post-closure inspections. Post-closure inspections will be performed according to the frequency and procedures described in the approved post-closure permit application for this unit. When appropriate, the approximate location of notable conditions will be identified on the figure of the surface impoundment area that is included as Page 2 of 2 of this inspection checklist.

Inspector: Rob Andrzejewski Time: 9:00 AM

Weather: sunny, 50 degrees F Date: 10/19/12

Inspection Activity	Condition	Action to be Taken
1. Security Control Devices - Inspect fencing around closed unit for damage and "Warning" signs for proper posting.	Ok	None
2. Erosion Damage - Inspect final cover area extending to the centerline of the perimeter ditch for erosion damage. Stake gullies exceeding 3 inches in depth for future repair.	Ok	None
3. Cover Settlement, Subsidence, and Displacement - Inspect benchmarks for unusual settlement or damage, and the final cover system for obvious low spots and animal burrows and mark for repair.	Ok – some burrows See attached Drawing.	Continue rodenticide placement and rodent monitoring program.
4. Vegetative Cover Condition - Inspect final cover system for bare areas and quality of vegetation. Mark bare areas for reseeding.	Ok	None
5. Integrity of Run-on and Run-off Controls - Inspect culverts and perimeter drainage ditch for hindrances to flow. Mark any areas needing maintenance.	Ok	None
6. Integrity of Cover Drainage and Gas Venting Systems - Inspect discharge points of cover drainage and gas venting systems for blockage.	Ok	None
7. Integrity of Cut-off Wall - *Semi-annually* - Measure water levels in all monitoring wells and calculate the rise rate of water within the slurry wall and compare to previous rise rates (completed as part of groundwater sampling).	Not part of inspection.	None
8. Monitoring Well Condition - Inspect locks for proper operation, protective casings for integrity, and labels for readability. *Semi-annually* - Measure total well depth to check for siltation (completed during groundwater sampling).	Some locks and labels replaced. Not part of inspection.	None
9. Extraction Well System Functionality - Quarterly - Inspect groundwater extraction system control building for proper functioning. *Annually* – Turn on extraction wells.	Ok Not part of inspection.	None


INSPECTION DATE: 10/19/2012; 9:00 AM
AB - Animal Burrows
MW-200C
N
0 50 100
APPROXIMATE SCALE
1" = 100'
1700 1800 1900 2000 2100 2200 2300 2400 2500 2600
2500 2600 2700 2800 2900 3000 3100
MW-206B
MW-207B
MW-205B
EW-208
MW-206A
EW-209
MW-207A
EW-210
EW-207
MW-205A
MW-208B
MW-208A
M5
M3
M7
M1
EW-206
EW-201
MW-204B
MW-204A
M8
M6
M4
M2
MW-201A
MW-201B
EW-203
EW-204
MW-203A
EW-202
MW-202A
MW-203B
MW-203C
MW-202B
MW-202C
AB
DITCH LINE
EDGE OF SYNTHETIC LINER
SLURRY TRENCH
Page 2 of 2

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Appendix F

Extraction System Documentation

Table 1. Extraction Well Status. Closed Hazardous Waste Surface Impoundment, GM Former AGT Division, Indianapolis, Indiana.

Extraction Well	Pump Status	Flow Meter Before Turning On	Flow Meter After Turning Off	Gallons Pumped	Flow Rate (GPM)	Comments	Recommendations	Work Completed
EW-201	operational	565515.0	565552.0	~~37~~				
EW-202	operational	190857	190865	8		high level indicator		
EW-203	operational	964115	964122	7				
EW-204	operational	92425	9245.5	3		water in basin	pumped out water 10/19	✓
EW-206	operational	287141	287144	3		high level indicator		
EW-207	operational	2760345	2760358	13				
EW-208	operational	606302	608306	4		~2" water in basin		
EW-209	operational	224.5	244	20		high level indicator water in basin, slow	pumped out water 10/19 scale-from union 1"x2" threaded bushing	✓
EW-210	operational	2683546	2683551	5				

Flow meter reading in Discharge Building before testing: 831148

Flow meter reading in Discharge Building after testing: 831148

Total Gallons Pumped in Discharge Building flow meter: 0

Date Completed: 10.19.12

Effluent Sample Collected: 10.19.12 @ 10:04

Notes: Discharge - 20121019

[1] Used good fuses to test extraction well during test. At end of test, changed out to original fuses which are not functional.

Gallons pumped from each individual extraction well flow meter may not equal that of total gallons pumped in Discharge Building flow meter for the following reasons: 1) individual and Discharge Building flow meters may need to be recalibrated and/or 2) water pumped from each individual extraction well may not have drained to the Discharge Building during the testing period.

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Appendix G

2013 Budget Authorization

Revitalizing Auto Communities Environmental Response Trust

Remediation Cost Estimate Modifications

and 2013 Budget Recommendations

Former AGT Surface Impoundment - Site 1325

Introduction

A Remediation Cost Estimate Summary ("RCES") was prepared for each of the former General Motors sites controlled by Motors Liquidation Company ("MLC"). When the Bankruptcy Court approved the formation of the Revitalizing Auto Communities Environmental Response Trust ("RACER") the budgets adopted by MLC provided the basis for the allocation of funding for each site listed on Attachment A to the Environmental Response Trust Consent Decree and Settlement Agreement ("Settlement Agreement"). The anticipated scope of work and the schedule for each site were also included in each RCES.

Under the Settlement Agreement RACER is obligated annually to prepare and review with the applicable lead agency a proposed budget and schedule. The budget must be approved by the lead agency.

This summary is intended to explain any adjustments to the scope of work or other modifications to the RCES to create an evolving record of the scope of work and budget for each site. Because the original RCES was based by necessity on a range of assumptions, as new and better information is developed for each site the scope of work and budgets must be refined accordingly. This cover memo highlights and documents those changes and explains how issues have evolved at the site based on new or better information. It is intended that this summary will be prepared for each site each year until the conclusion of the remedial work.

2013 Budget Request

The following highlights the primary budget components for 2013. Detailed backup summaries and explanation of work plan details are included in the 2013 budget request – attached (as Exhibit B) after the Revised May 2010 RCES (Exhibit A).

Task 1	Groundwater System O&M	$16,266.00
Task 2	Property O&M	$10,610.00
Task 3	Project Management	$8,147.00
	Totals	$35,023.00

Modifications from 2010 Edition of the RCES

1 RACER Trust plans to submit a Permit Modification in 2013 to update the ARCADIS office location in the Permit and the Contingency Plan.

2 Based on existing information, it is expected that groundwater pumping will be required in 2013.

Project Summary

The schedule and scope for 2013 include three tasks: Task 1: a) submit annual report summarizing activities performed at the site during 2013, b) annual groundwater sampling from four monitoring wells and report summarizing sampling results, c) collect groundwater elevation data from 19 monitoring wells semi-annually and evaluate the data to determine when it will be necessary to pump water from within the slurry wall, and d) complete the annual inspection and repair of the groundwater extraction pumps; Task 2: subcontract the trapping of rodents on the cap and mowing of the property within the fence line in 2013 and conduct quarterly visual site inspections required by the Permit and; Task 3: include administrative support (cost tracking, invoicing, communications with RACER Trust and/or IDEM, completion of quarterly certification reports, preparation of change orders and the 2014 budget authorization request) to RACER Trust during this project

Exhibit A

Remediation Cost Estimate Summary

Former Allison Gas Turbine (Plants 5 and 8)
MLC ID 1325

October 30, 2009
Updated May 2010

Table of Contents

Background Information

The Former Allison Gas Turbine (AGT) Surface Impoundment property (site) consists of an approximate 10-acre parcel that encompasses a former 8-acre hazardous waste surface impoundment area, and is located within the overall Former AGT facility located at 2701 West Raymond Street, Indianapolis, Indiana. The site is located within the property boundaries of Plant 5.

The overall Former AGT facility consists of two existing plants, Plants 5 and 8, with each plant occupying approximately 200 acres. Surrounding properties are used and zoned for heavy industrial businesses. The original facility at Plant 5 was constructed in 1942 for the production of aircraft engines, and General Motors Corporation (formerly GM, now Motors Liquidation Company [MLC]) operated the facility for the Department of Defense and eventually purchased the property in 1966. Former GM constructed Plant 8 in 1953. The Former AGT facility is now owned by Rolls-Royce Corporation (Rolls-Royce). To effectively fulfill its obligation for post-closure care of the closed surface impoundment, former GM purchased an approximate 10-acre parcel encompassing the former 8-acre surface impoundment area from Rolls-Royce in 1999. The surface impoundment is classified as a landfill for permitting purposes.

Selected background information is provided below:

- Site Location
  2701 West Raymond Street
  Indianapolis, Indiana.

- USEPA ID Numbers
  INR000021436

Real Estate Information

The following is a summary of selected real estate information for this site:

- Current Land Use – Vacant
- Zoning – Heavy industrial
- Building and Improvements – Small electrical and discharge buildings
- Size, Age, Condition – 10 acres
- Infrastructure – Groundwater extraction and discharge piping

Environmental History

The subject of the environmental liabilities for the site are related to the continued implementation of the post-closure care requirements (i.e., operation, maintenance, and monitoring [OMM] and reporting) for the former hazardous waste surface impoundment, as required by the Resource Conservation and Recovery Act (RCRA). The Indiana Department of Environmental Management (IDEM) has deemed that the post-closure care period for the impoundment area began on June 4, 1996, based on a September 16, 1997 letter from the IDEM.

The surface impoundment was formerly used as a wastewater treatment impoundment for approximately 40 years. Beginning in 1942, the surface impoundment began receiving effluent water from the wastewater treatment plant (WWTP). In 1992, the basins were decommissioned and a Closure Plan was approved by the IDEM. As provided in the RCRA Post-Closure Permit, the surface impoundment is classified as a hazardous waste impoundment due to its use as treatment for the following waste codes:

- F007 spent cyanide plating bath solutions
- F009 spent stripping and cleansing bath solutions

The impoundment was closed by encircling it with a slurry wall that is keyed into a till layer at a depth of approximately 50 to 55 feet below ground surface (bgs) and covering with a composite cap. Approximately 90 percent of the impoundment was capped with material comprised of approximately 3.5 feet of vegetative cover and topsoil, geotextile filter geo-netting, a 40-mil polyvinyl chloride liner over approximately a 2-foot soil barrier comprised of silty/sandy/clay soil, and the remaining 10 percent of the cap is comprised of a geosynthetic liner material.

Nine extraction wells were installed within the surface impoundment area to withdraw groundwater, as necessary, to confirm affected groundwater does not migrate from the former impoundment and groundwater flows inwards towards the impoundment. The groundwater extraction system began operation in November 1994. Groundwater is extracted from the surface impoundment approximately every 2 to 3 years, and the extracted groundwater is discharged to the sanitary sewer connected to a publicly owned treatment works (POTW) in accordance with an industrial waste discharge permit. The industrial waste discharge permit expires on July 31, 2013. The post-closure care period of the surface impoundment began in June 1996, and the RCRA Post-Closure Permit was issued on June 29, 2001. A renewal application was issued on January 26, 2007 and expires on February 16, 2017.

Current Environmental Issues

The only environmental issues identified for this site are the long-term OMM RCRA Post-Closure Care requirements in accordance with the RCRA Post-Closure Permit (30 years) associated with the closed surface impoundment which is administered by the IDEM. The OMM began in June 1996, based on a letter from the IDEM, dated September 16, 1997.

The current groundwater monitoring network consists of eight well pairs (16 wells) that are constructed both within the former impoundment and outside the slurry wall. Three more wells are completed in a deeper water-bearing zone. Water-level measurements are conducted on a semiannual basis to assess whether operation of the extraction system is necessary and confirm that groundwater is not migrating outside the slurry wall. Groundwater samples are collected on a semiannual basis to compare groundwater concentrations of select metals and cyanide outside the slurry wall to background concentrations in an upgradient monitoring well.

The current surface impoundment monitoring consists of the following:

- The existing storm sewer, drainage ditch, and two culverts that were constructed around the perimeter of the cap requires periodic inspections and maintenance to confirm that surface water does not pond on the capped area.

- The cap requires periodic inspections and maintenance to confirm that significant cracks do not develop in the capped area.

- The eight settlement monuments (benchmarks) that were previously installed across the capped area are surveyed on an annual basis to assess if the cap is settling. This requires periodic inspections and maintenance to confirm that significant settlement does not develop at the capped area.

- The vegetative cover is inspected for signs of stress or overgrowth and requires periodic maintenance to confirm that the vegetative cover is maintained within the capped area.

Remediation Scope of Work and Cost Estimate

This "Remediation Scope of Work and Cost Estimate" summarizes the discussions and agreements between MLC and applicable environmental regulatory agencies in connection with the confirmation of a plan of reorganization or liquidation for MLC, including the establishment of a post-confirmation trust to complete remediation. The objectives of this Remediation Scope of Work and Cost Estimate are to: i) describe activities and associated, assumed costs that are focused on MLC's goal of bringing the site to regulatory closure within the timeframes indicated in the accompanying "Project Schedule" table; and/or ii) describe any necessary long-term operation, maintenance, and monitoring tasks and associated, assumed costs that may be required for maintaining an environmentally protective remedy for the specified timeframe.

The scope of work presented below is based on the assumptions concerning conditions, rates, other costs, and other variables stated herein and in referenced documents. Significant variances from these assumptions may result, if more favorable, in reductions in scope and/or costs, and if less favorable, in increased or different scope and/or costs.

The anticipated work at the site will involve completing tasks outlined in the existing Post-Closure Permit, groundwater monitoring, and preparation and submittal of subsequent permit applications to continue with the project until final closure is achieved. Although the current Post-Closure Permit states the care period ends in 2026 (30 years), MLC has agreed to the State of

Indiana's request to extend the Post-Closure Care period for 100 years from 2010 (ending in year 2109). Therefore, for the purposes of this scope of work and cost estimate, it is assumed that final closure for the site will be achieved in 2109. The State of Indiana also requested an additional 17 years of groundwater monitoring from the original date specified in the Post-Closure Permit (2026). Therefore, groundwater monitoring has been extended through year 2043. This estimate assumes the surface impoundment, cap, and associated pumping system will remain structurally sound with the completion of the maintenance and repairs included in this cost estimate.

The remediation cost estimate for this site in current dollars (2010) is $3,924,653. This cost is based on a total Estimated Baseline/Engineering Cost of $3,397,968 plus a 10 percent contingency ($339,797), as well as an Agency Oversight cost of $186,888. The Remediation Cost Estimate Summary spreadsheet provides a year-by-year breakdown of costs for each task included in this estimate. In addition, Appendix A includes a more detailed cost breakdown that supports these estimates.

Groundwater Monitoring and Reporting

Groundwater monitoring will be performed on a semiannual basis and will consist of groundwater level measurements and groundwater sampling/analysis. Groundwater samples will be collected from four monitoring wells (one upgradient and three downgradient), and the samples will be analyzed for the eight RCRA metals and cyanide. The analytical results from the groundwater sampling will be reported to the IDEM in semiannual reports. The annual Estimated Baseline/Engineering Cost for this activity is $15,500 per year for the next 34 years.

The total undiscounted life cycle cost for this activity is $527,000 and is a planned activity between 2010 through 2043. The principal elements contained in this cost include labor, expenses, and analytical costs to conduct the semiannual monitoring events. Additional costs for this task may be incurred if groundwater monitoring shows a statistical increase from background.

Pump and Discharge Groundwater to Sanitary Sewer

This task includes the periodic operation (every 2 to 3 years) of the current groundwater extraction system and discharging the extracted groundwater to the sanitary sewer in accordance with the industrial waste discharge permit. The cost for this activity has been spread out over the 100 remaining years. As a result, the annual Estimated Baseline/Engineering Cost for this activity is $1,900 per year.

The total undiscounted life cycle cost for this activity is $190,000 and is a planned activity between 2010 and 2109. Additional costs for this task may be incurred if site closure is not achieved by 2109.

Miscellaneous Maintenance Activities

The miscellaneous maintenance activities that are included in this scope of work and cost estimate include the following:

- The site fence will be repaired as necessary. The annual Estimated Baseline/Engineering Cost for this task includes an allowance of $2,800 per year for the next 100 years. The total undiscounted life cycle cost for this activity is $280,000 and is a planned activity between 2010 and 2109.

- The soil cover will be maintained as necessary. For the purposes of this scope of work and cost estimate, this assumes that an area approximately 10,000-square feet will be replaced/repaired with topsoil, seed, and fertilizer. The annual Estimated Baseline/Engineering Cost for this task includes an allowance of $5,000 per year for the next 100 years. The total undiscounted life cycle cost for this activity is $500,000 and is a planned activity between 2010 and 2109.

- The landfill cover will be maintained through periodic mowing, which includes up to six mowing events per year. The annual Estimated Baseline/Engineering Cost for this task includes an allowance of $4,800 per year for the next 100 years. The total undiscounted life cycle cost for this activity is $480,000 and is a planned activity between 2010 and 2109.

- Site monitoring wells will be maintained/repaired, as necessary, which includes the installation of new locks and/or labels. The Estimated Baseline/Engineering Cost for this task includes an allowance of $500 per year for the first 5 years (2010 through 2014), $400 per year for 2015, $273 per year for 2016 and then $100 per year for the next 93 years. The total undiscounted life cycle cost for this activity is $12,473, and is a planned activity between 2010 and 2109.

- Groundwater monitoring wells will be replaced as necessary. For the purposes of this scope of work and cost estimate, this task includes the replacement of monitoring wells (including subcontractor, expenses and labor costs), and the cost for this activity was originally divided over the 30 years for the Post Closure Care period. The annual Estimated Baseline/Engineering Cost for this task includes an allowance of $2,100 per year for the next 100 years. The total undiscounted life cycle cost for this activity is $210,000 and is a planned activity between 2010 and 2109.

- For this task, it is assumed that the extraction wells will be redeveloped once during their operation; therefore, the cost for this activity was originally divided over the 30 years for the Post-Closure Care period. The annual Estimated Baseline/Engineering Cost for this task includes an allowance of $500 per year for the next 100 years. The total undiscounted life cycle cost for this activity is $50,000 and is a planned activity between 2010 and 2109.

- For this task, it is assumed that the extraction well pumps will require maintenance during their operation; therefore, the cost for this activity was originally divided over the 30 years for the Post-Closure Care period. The annual Estimated Baseline/Engineering Cost for this task includes an allowance of $800 per year for the next 100 years. The total undiscounted life cycle cost for this activity is $80,000 and is a planned activity between 2010 and 2109.

- For this task, it is anticipated that a culvert pipe would need to be installed during the project life cycle; therefore, the cost for this activity was originally divided over the 30 years for the

Post-Closure Care period. The annual Estimated Baseline/Engineering Cost for this task includes an allowance of $200 per year for the next 100 years. The total undiscounted life cycle cost for this activity is $20,000 and is a planned activity between 2010 and 2109.

- For this task, it was assumed that approximately 220 feet of the slurry wall would need to be replaced when determining the value for the Post-Closure Care permit; therefore, the cost for this activity was originally divided over the 30 years for the Post-Closure Care period. The annual Estimated Baseline/Engineering Cost for this task includes an allowance of $3,795 per year for the next 100 years. The total undiscounted life cycle cost for this activity is $379,500 and is a planned activity between 2010 and 2109.

The total undiscounted life cycle cost for all of the miscellaneous maintenance activities is $2,012,018, should this entire scope of work be implemented. It should be noted that these miscellaneous maintenance costs will only be incurred if it is determined to be necessary.

Miscellaneous Inspection Activities

The miscellaneous inspection activities that are included in this scope of work and cost estimate include the following:

- Quarterly routine inspections of the surface impoundment will be conducted to evaluate the following:

    - A storm sewer, drainage ditch, and two culverts have been constructed around the perimeter of the cap. This requires periodic inspections and maintenance to confirm that surface water does not pond on the capped area.

    - The soil cap will be inspected for signs of erosion, which includes periodic inspections to ensure that significant cracks do not develop in the capped area.

    - The vegetative cover will be inspected for signs of stress or overgrowth, which includes periodic inspections to confirm that vegetative cover is maintained at the capped area.

    The annual Estimated Baseline/Engineering Cost for this task includes an allowance of $600 per year for the next 100 years (it is assumed that $150 of this task has been completed in 2010). The total undiscounted life cycle cost for this activity is $59,850 ($450 for 2010, and $59,400 between 2011 and 2109) and is a planned activity between 2010 and 2109.

- Semiannually groundwater level measurements will be collected from the eight pairs of monitoring wells ("A," "B," and "C" series wells). The data from the inspection will be incorporated into the semiannual report for the site. The annual Estimated Baseline/Engineering Cost for this task includes an allowance of $1,500 per year for the next 100 years. The total undiscounted life cycle cost for this activity is $150,000 and is a planned activity between 2010 and 2109.

- Eight settlement monuments (benchmarks) have been installed across the capped area. These monuments were surveyed on a semiannual basis for the first 3 years and are now surveyed on an annual basis to assess if the cap is settling. This requires periodic inspections and maintenance to confirm that significant settlement does not develop at the capped area. The annual Estimated Baseline/Engineering Cost for this task includes an annual allowance of $1,000 per year for the next 100 years. The total undiscounted life cycle cost for this activity is $100,000, and is a planned activity between 2010 and 2109.

  The total undiscounted life cycle cost for all of the miscellaneous inspection activities is $309,850, should this entire scope of work be implemented. Additional costs for this task may be incurred if site closure is not achieved by 2109.

Administrative Fees

General administrative fees for this project are expected to consist of approximately 40 hours a year at a labor rate of $90 per hour. The annual Estimated Baseline/Engineering Cost for this task includes an annual allowance of $3,600 per year for the next 100 years (it is assumed that $900 of this task has been completed in 2010). The total undiscounted life cycle cost for this activity is $359,100 ($2,700 for 2010, and $356,400 between 2011 and 2109) and is a planned activity through 2109.

Regulatory Requirements

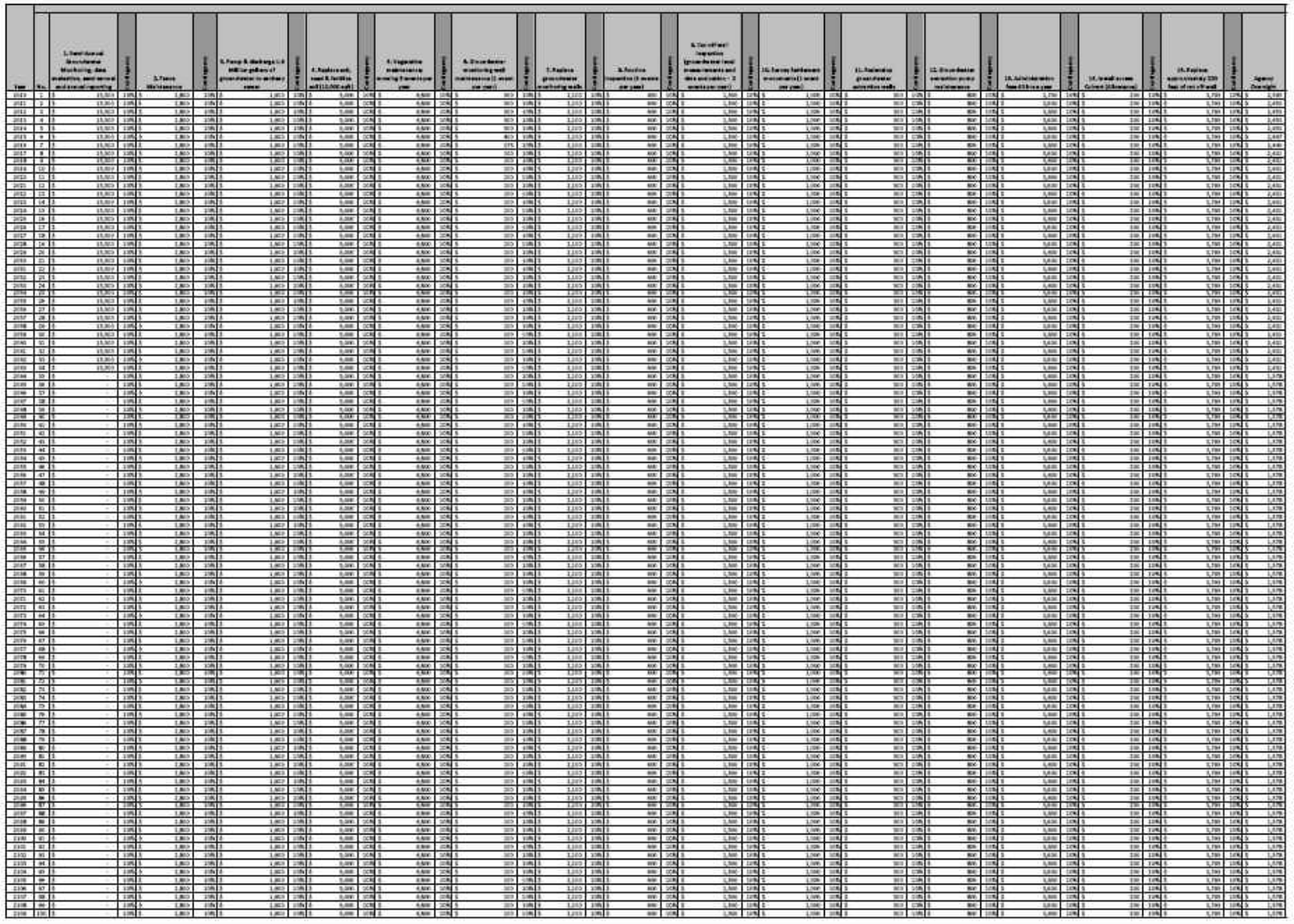
The regulatory requirements for the site include the RCRA Post-Closure Care requirements.

Project Schedule and Estimated Cost

The project schedule and estimated cost for the anticipated work to be performed is presented below.

Timeframe	Event	Responsibility	Estimated Baseline/Engineering Cost[1]
2010 to 2043	Groundwater Monitoring and Reporting	MLC	$527,000
2010 to 2109	Pump and Discharge Groundwater to Sanitary Sewer	MLC	$190,000
2010 to 2109	Miscellaneous Maintenance Activities	MLC	$2,012,018
2010 to 2109	Miscellaneous Inspection Activities	MLC	$309,850
2010 to 2109	Administrative Fees	MLC	$359,100

Notes:
1. Contingency not included in cost table.
2. Agency oversight cost not included. As shown below in the Remediation Cost Estimate Summary, the Agency oversight cost for each year assumed 5 percent of the sum of the total Estimated Baseline/Engineering Cost for the year and the specified contingency amount.



Appendix A

Notes and Calculations

APPENDIX A - Notes and Calculations
MLC Site 1325 - Former Surface Impoundment at the Allison Gas Plant Indianapolis, IN

Item	Estimated Occurrence Frequency	Unit Cost ($)	Annualized Cost ($)	No. Years	Total Cost
Semiannual Groundwater Monitoring and Reporting*	Semiannually	$7,750	$15,500	34	$527,000
Pump and Discharge Groundwater to Sanitary Sewer	Annually	$1,900	$1,900	100	$190,000
Replace (3000 ft) Security Fence	Annually	$2,800	$2,800	100	$280,000
Replace Soil, Seed and Fertilize Soil (10,000 square	Annually	$5,000	$5,000	100	$500,000
Vegetative maintenance: mowing	6 times per year	$800	$4,800	100	$480,000
Groundwater Monitoring Well Maintenance	2010 - 2014	$500	$500	5	$2,500
	2015	$400	$400	1	$400
	2016	$273	$273	1	$273
	2017 - 2109	$100*	$100	93	$9,300
Replace Groundwater Monitoring Wells*	Once	$35,700	$2,100	100	$210,000
Redevelop Groundwater Extraction Wells*	Once	$8,500	$500	100	$50,000
Replace Groundwater Extraction Well Pump	Once	$13,600	$800	100	$80,000
Install Access Culvert	Once	$3,400	$200	100	$20,000
Soil Bentonite Cut-off Wall (Replace approximately 220 linear feet (10% of 2,219 linear feet), 3 feet wide, and 55 feet deep)	Once	$64,523	$3,795	100	$379,545
Routine Inspections (assumes $450 for 2010)	2010	$600	$450	1	$450
	2011 - 2109	$600	$600	99	$59,400
Cut-off Wall Inspection (groundwater levels measurements and data evaluation)	Semiannually	$750	$1,500	100	$150,000
Surveying of Settlement Monuments	Annually	$1,000	$1,000	100	$100,000
Administrative Fees (assumes $2,700 for 2010)	2010	$3,600	$2,700	1	$2,700
	2011 - 2109	$3,600	$3,600	99	$356,400
			Total Estimated Baseline/Engineering Cost:		**3,397,968**

* - Breakdown costs provided on the next page.

APPENDIX A - Notes and Calculations
MLC Site 1325 - Former Surface Impoundment at the Allison Gas Plant Indianapolis, IN

Item	Estimated Occurrence Frequency	Unit Cost ($)	Annualized Cost ($)
Semi-annual groundwater monitoring, data evaluation, semi-annual and annual reporting:	**Semiannually**	**$7,750**	**$15,500**
Field Services	Semiannually	*$3,500*	$7,000
Analytical Services	Semiannually	*$2,250*	$4,500
Data Evaluation/Reporting Services	Semiannually	*$2,000*	$4,000
Groundwater monitoring well maintenance:	**Annually**	**$2,830**	**$100**
Field Staff Services (Redevelopment of wells) (21 wells: 42 hours @ $65/hour)	Once	*$1,560*	*$52*
Supplies (labels/locks)	Annually	*$15*	*$15*
Field Staff Services (Replace lock/labels) (1 hour @ $65 per hour)	Annually	*$33*	*$33*
Replace groundwater monitoring wells:	**Once**	**$35,700**	**$2,100**
Subcontractor Services	Once	*$30,700*	*$1,806*
Field Staff Services	Once	*$5,000*	*$294*
Redevelop groundwater extraction wells:	**Once**	**$8,500**	**$500**
Subcontractor Services	Once	*$7,500*	*$441*
Field Staff Services	Once	*$1,000*	*$59*

Exhibit B

Revitalizing Auto Communities Environmental Response Trust

FORMER AGT SURFACE IMPOUNDMENT (1325)
2013 ANNUAL ENVIRONMENTAL ACTION BUDGET AUTHORIZATION REQUEST
January 4, 2012

INTRODUCTION

This 2013 Annual Environmental Action (EA) Budget Authorization Request is submitted pursuant to Paragraph 49 of the Settlement Agreement and has been prepared under the supervision of Elliott Laws, Managing Member, EPLET, LLC, Administrative Trustee of the Revitalizing Auto Communities Environmental Response Trust.

OVERVIEW OF 2013 ANNUAL EA BUDGET AUTHORIZATION REQUEST

This 2013 Annual EA Budget Authorization Request is being submitted to request approval for activities anticipated to be completed in the 2013 calendar year. These activities include:

- Groundwater System O&M - Groundwater monitoring (includes data evaluation and reporting), electrical utility, cut-off wall inspection (groundwater level measurements and data evaluation), and groundwater extraction system inspection, operation maintenance.
- Property O&M - Rodent baiting and trapping, fence maintenance, routine inspection (quarterly), survey settlement monuments.
- Project Management – project management, permit modification and RCRA Permit fees.

2013 Annual Budget Authorization Request Amount: $35,023

Please see Attachment 1 for a cost breakdown that resulted in the amounts included in the property specific funding for this Site as listed in Attachment A to the Settlement Agreement; Attachments 2 for estimated costs through December 31, 2012 and the property funding account balances; Attachment 3 for more details in support of the proposed 2013 EA budget; and Attachment 4 for a projected schedule and milestones; and Attachment 5 for cost reallocation for current and future years.

MODIFICATION OF REMEDIATION COST ESTIMATE SCOPE OF WORK AND BUDGET

Pursuant to Section X, Paragraph 34 of the executed RCRA Section 3008(h) Performance-based Administrative Order on Consent for this Site, Docket Number RCRA-05-2011-0025 (Order), the changes to the Remediation Cost Estimate Scope of Work and to the current budget that are included in this 2013 Annual Budget Authorization Request shall be

considered a modification to the above referenced Order that have been approved by the Parties, and is effective on the date of approval by U.S. EPA of this Budget Request, and are incorporated into the above referenced Order.

☒ This Annual Budget Authorization Request includes work and/or budget that varies from the most recent Remediation Cost Estimate Summary (dated May 2010) for the Site.

Brief Description (If checked):

- RACER Trust plans to submit a *Permit Modification* In 2013 to update the ARCADIS office location in the Permit and the Contingency Plan.
- Based on existing information, it is expected that groundwater pumping will be required in 2013.

APPROVALS

Revitalizing Auto Communities Environmental Response Trust

Robert Hare, Cleanup Manager (IL, IN, KS, MO, NJ, WI) Date 1-7-13

Elliott P. Laws, Managing Member of EPLET, LLC Date 1-7-13
Administrative Trustee for RACER Trust

Indiana Department of Environmental Management

By: Jeffrey L. Sewell Name — OLQ, Permits Branch Chief Title

Signature — 2-4-13 Date

DETAILED SUPPORT FOR THE 2013 ANNUAL EA BUDGET AUTHORIZATION REQUEST

Attachment 1 – Original Cost Breakdown
Attachment 2 – Cost to Date (since July 2010) and Property Funding Account Balances
Attachment 3 - Scope of Work and Detailed Budget Estimate for the 2013 Annual Budget Authorization Request
Attachment 4 – Projected 2013 Schedule and Milestones
Attachment 5 – Current and Future Years Cost Reallocation

ATTACHMENT 1

Original Cost Breakdown

Former AGT Surface Impoundment - 1325
Schedule of Cash Flows Established by MLC

| | Remediation Cost Estimate - Settlement Agreement | | |

ATTACHMENT 2

Cost to Date (since July 2010) and Property Funding Account Balances

Attachment 2 - Cost to Date (since July 1, 2010) and Comparison to Settlement Funding
2013 Annual Budget Authorization Request

Former AGT Surface Impoundment - 1325

			Estimated Cost			
Task	**Task Description**	**Consolidation Categories**	**2010 (1)**	**2011 (2)**	**2012 (3)**	**Cumulative**
Task 1	Semi-Annual Groundwater Monitoring, data evaluation, semi-annual and annual reporting	A	$ 11,927	$ 23,414		$ 35,341
Task 2	Fence Maintenance	B	$ -	$ -		$ -
Task 3	Pump & discharge 1.6 Million gallons of groundwater to sanitary sewer	A	$ -	$ 975		$ 975
Task 4	Replace soil, seed & fertilize soil (10,000 sqft)	B	$ 1,943	$ 3,751		$ 5,694
Task 5	Vegetative maintenance; mowing 6 events per year	B	$ 1,581	$ 2,305		$ 3,886
Task 6	Groundwater monitoring well maintenance (1 event per year)	A	$ -	$ -		$ -
Task 7	Replace groundwater monitoring wells	A	$ -	$ -		$ -
Task 8	Routine Inspection (4 events per year)	B	$ 265	$ 863		$ 1,128
Task 9	Cut-off wall Inspection (groundwater level measurements and data evaluation - 2 events per year)	A	$ 1,533	$ 126		$ 1,659
Task 10	Survey Settlement monuments (1 event per year)	B	$ 994	$ 325		$ 1,319
Task 11	Redevelop groundwater extraction wells	A	$ 286	$ -		$ 286
Task 12	Groundwater extraction pump maintenance	A	$ 780	$ 796		$ 1,576
Task 13	Administration fees 40 hrs a year	C	$ 2,734	$ 8,052		$ 10,786
Task 14	Install access Culvert (Allowance)	B	$ -	$ -		$ -
Task 15	Replace approximately 220 feet of cut off wall	B	$ -	$ -		$ -
Task 16	Agency Oversight	C	$ -	$ 1,500		$ 1,500
Task 17	Other	B	$ 1,250	$ -		$ 1,250
Category A	Groundwater System O&M				$ 16,200	$ 16,200
Category B	Property O&M				$ 8,756	$ 8,756
Category C	Project Management				$ 7,234	$ 7,234
	Total Cost		**$ 23,293**	**$ 42,107**	**$ 32,190**	**$ 97,590**

Total Estimated Cost **$ 97,590**

Notes

(1) July 2010 through December 2010
(2) January through December 2011
(3) January through October 2012 and estimated November and December

Attachment 2 - Allison Gas Turbines - 1325
2013 Annual Budget Authorization Request
Property Funding Accounts Balance

Property Funding Accounts Per Settlement Agreement	**7/1/2010**	**4/1/2011**	**12/31/2011**	**10/31/2012**
Minimum Estimated Property Funding	$416,235	$377,229	$372,369	$338,933
Reserve Property Funding	$73,453	$71,910	$73,074	$74,103
Long Term OMM Property Funding	$1,178,419	$1,153,672	$1,172,344	$1,188,847
Total Property Funding	$1,668,107	$1,602,811	$1,617,788	$1,601,883

Note: Balance reflect all costs and and all income as of the referenced date.

ATTACHMENT 3

Scope of Work and Detailed Budget Estimate
for the 2013 Annual Budget Authorization Request

2013 Budget Summary

Attachment 3 - Scope of Work and Detailed Budget Estimate for the 2013 Annual Budget Authorization Request

Former AGT Surface Impoundment - 1325

Summary by Task

Task Descriptions		2013 Annual Budget
Task 1	*Groundwater System O&M*	$16,266
Task 2	*Property O&M*	$10,610
Task 3	*Project Management*	$8,147
Totals		$35,023

Scope of Work (SOW)

This attachment provides a scope of work (SOW) for the $35,023.00 of funds being sought for approval for additional scope through December 31, 2013. The table presented in this attachment details the budget breakdown for the following tasks:

Task 1 – Groundwater System O&M - ($16,266)

Groundwater Monitoring - ARCADIS will submit an annual report to IDEM, per the Permit, summarizing activities performed at the site during 2012. The work for this report was partially completed in 2012; therefore, only budget for finalizing the report is being requested for 2013. Per the March 26, 2012 permit modification, RACER will sample four monitoring wells, MW-201B, MW-202B, MW-203B, and MW-206B, on an annual basis and will report the results as outlined in the permit. ARCADIS will subcontract SampleServe to collect groundwater samples in the spring of 2013, via low-flow sampling techniques, from monitoring wells MW-201B, MW-202B, MW-203B, and MW-206B plus three quality assurance/quality control samples (field duplicate, equipment blank and matrix spike/matrix spike duplicate). These samples will be analyzed for arsenic, barium, cadmium, chromium, lead, mercury, silver, selenium and cyanide. Per the permit, within 60 days of receiving the final results from the sampling event, ARCADIS will submit a report to the Indiana Department of Environmental Management (IDEM) evaluating whether a statistically significant increase in concentrations has occurred. ARCADIS will submit an annual report to IDEM, per the Permit, summarizing activities performed at the site during 2013; however, this task will be partially completed in 2013 and finalizing the report will be completed in 2014.

Per the permit, RACER will measure and evaluate the water levels in the 19 monitoring wells on a semi-annual basis. ARCADIS will subcontract SampleServe to gauge nineteen monitoring wells associated with the Surface Impoundment during the spring. ARCADIS will complete this same task in the fall. ARCADIS will evaluate the groundwater level data to determine when it will be necessary to pump water from within the slurry wall. ARCADIS will include the results from the inspection in the annual report to be submitted to IDEM in 2014, as required by the Post-Closure Permit.

Extraction System – Per the permit, RACER will inspect and maintain the extraction system. ARCADIS will inspect (fall 2013) and repair the groundwater extraction pumps, as needed and able to be completed within budget. Based on the 2012 inspection, no repairs to the extraction system were needed in 2012. Per the permit, RACER will evaluate the groundwater levels and determine if it is necessary to pump water from within the slurry wall to maintain an inward hydraulic gradient. Based on the 2012 fall gauging data, it is estimated that it may be necessary to pump water from within the slurry wall in 2013. Budget to cover the utility costs, analysis of groundwater discharged during the extraction event and discharge fees are included.

Task 2 – Property O&M ($10,610)

ARCADIS will subcontract the trapping of rodents on the cap and mowing of the property within the fence line in 2013. ARCADIS will also provide necessary assistance to the subcontractors in the field, as needed. It is assumed that the trapping will occur once per month throughout the year and mowing will occur once per month for six months (April through September).

ARCADIS will conduct a visual inspection the Surface Impoundment on a quarterly basis as required by the Post-Closure Permit. ARCADIS will fill out the necessary forms to document the inspection and place a copy of the inspection in the file cabinet to be located at the discharge building north of the Surface Impoundment.

Task 3 – Project Management ($8,147)

ARCADIS will provide administrative support to RACER Trust during this project. Costs included in this task include, but are not limited to cost tracking, invoicing, communications with RACER Trust and/or IDEM, completion of quarterly certification reports, preparation of change orders and the 2014 budget authorization request. RACER Trust is required to pay an annual RCRA Permit Fee of $1,500, which will be included in this task.

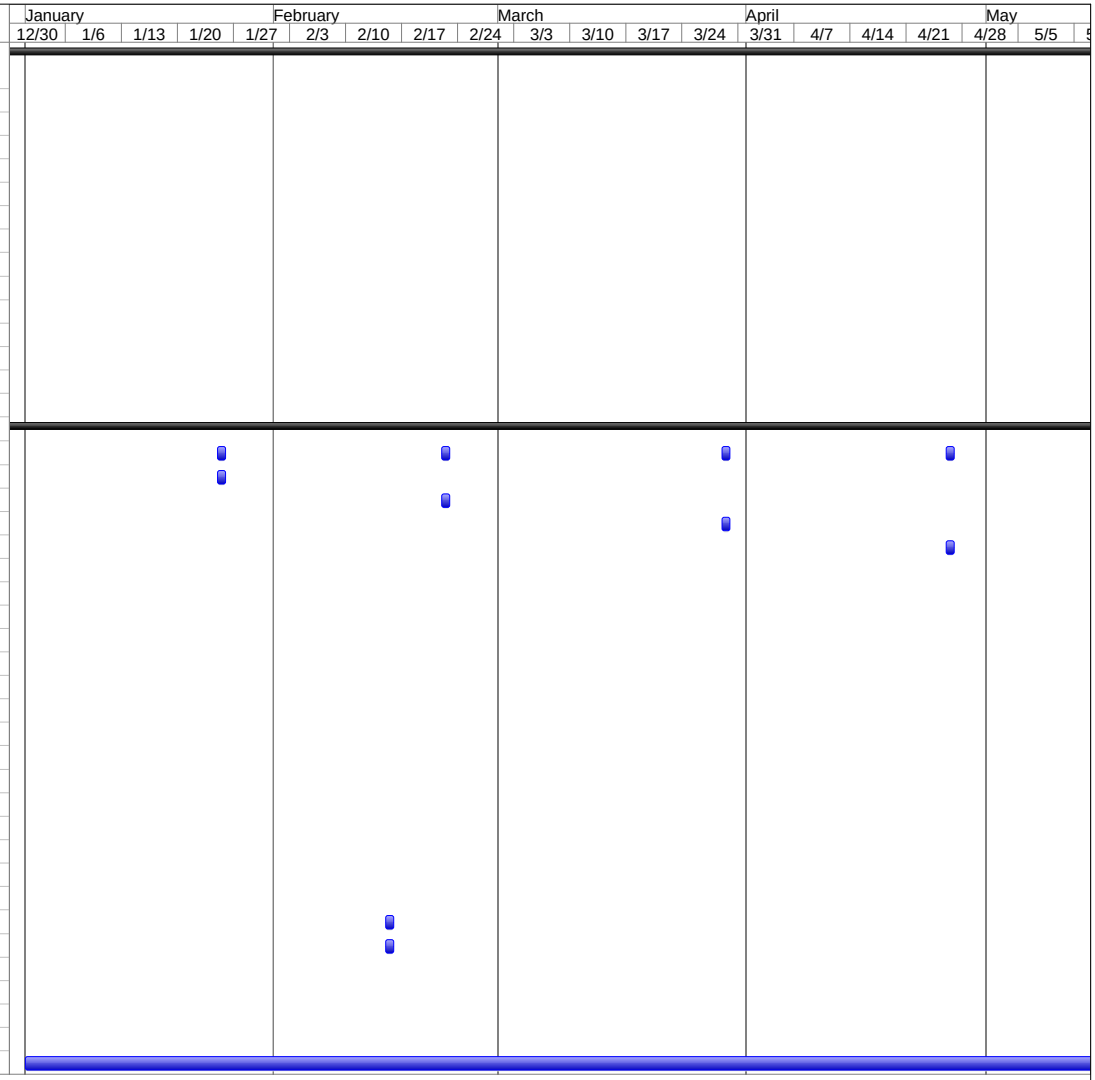
BUDGET BREAKDOWN WORKSHEET AGT SI	Budget Information		
	Rate	**Units**	**Total Cost**
Task 1 - Groundwater System O&M			
Finalize 2012 Annual Report			
Sr. Engineer I	$124.00	1.00	$124.00
Sr Project Engineer/Scientist II	$108.00	2.00	$216.00
Project Engineer/Scientist	$89.00	8.00	$712.00
Drafter	$53.00	2.00	$106.00
Document Technician II	$57.00	1.00	$57.00
Supplies/Expenses	$1.00	150.00	$150.00
Subtotal			***$1,365.00***
Groundwater Monitoring			
Sr. Engineer I	$124.00	0.50	$62.00
Sr Project Engineer/Scientist II	$108.00	1.00	$108.00
Sr. Project Engineer/Scientist I (database)	$98.00	2.00	$196.00
Sr. Project Engineer/Scientist I (validation)	$98.00	5.00	$490.00
Project Engineer/Scientist (coord.)	$98.00	2.00	$196.00
Document Technician II	$57.00	0.50	$28.50
Subcontractor - SampleServe	$1.10	844.00	$928.40
Analytical (5% markup)	$1.05	546.00	$573.30
Subtotal			***$2,582.20***
Reporting			
Sr. Engineer II	$131.00	0.50	$65.50
Sr. Engineer I	$124.00	2.00	$248.00
Sr Project Engineer/Scientist II	$108.00	8.00	$864.00
Project Engineer/Scientist	$89.00	20.00	$1,780.00
Document Technician II	$57.00	2.00	$114.00
Supplies/Expenses	$1.00	151.00	$151.00
Subtotal			***$3,222.50***
Cut-off wall Inspection			
Spring Event			
Sr. Engineer I	$124.00	0.50	$62.00
Sr Project Engineer/Scientist II	$108.00	3.00	$324.00
Document Technician II	$57.00	0.50	$28.50
Subcontractor - SampleServe	$1.10	342.00	$376.20
Spring Event			***$790.70***
Fall Event			
Sr. Engineer I	$124.00	0.50	$62.00
Sr Project Engineer/Scientist II	$108.00	3.00	$324.00
Technician 2	$59.00	4.00	$236.00
Document Technician II	$57.00	0.50	$28.50
Equipment	$1.00	50.00	$50.00
Supplies/Expenses (gloves, mileage)	$1.00	28.00	$28.00
Fall Event			***$728.50***
Subtotal			***$1,519.20***

BUDGET BREAKDOWN WORKSHEET AGT SI	Budget Information		
	Rate	**Units**	**Total Cost**
Extraction System (inspection/pump out)			
Sr Project Engineer/Scientist II	$108.00	1.00	$108.00
Technician 3 (annual inspection)	$74.00	9.00	$666.00
Technician 3 (operate pumps)	$74.00	6.00	$444.00
Technician 2 (annual inspection)	$59.00	9.00	$531.00
Equipment	$1.00	850.00	$850.00
Analytical (5% markup)	$1.05	55.00	$57.75
Electrical Utilities (est $30/mo, plus pump out)	$1.00	480.00	$480.00
Discharge Utilities	$1.00	1000.00	$1,000.00
Supplies/Expenses	$1.00	100.35	$100.35
Subtotal			***$4,237.10***
Initiate 2013 Annual Report			
Sr. Engineer I	$124.00	1.00	$124.00
Sr Project Engineer/Scientist II	$108.00	8.00	$864.00
Project Engineer/Scientist	$89.00	24.00	$2,136.00
Drafter	$53.00	3.00	$159.00
Document Technician II	$57.00	1.00	$57.00
Subtotal			***$3,340.00***
Task 1 Total			***$16,266.00***
Task 2 - Property O&M			
Sr Project Engineer/Scientist II	$108.00	10.00	$1,080.00
Subcontractor (animal burrows) (15% markup)	$345.00	12.00	$4,140.00
Subcontractor (mowing) (15% markup)	$759.00	6.00	$4,554.00
Subtotal			***$9,774.00***
Quarterly Inspections			
Sr Project Engineer/Scientist II	$108.00	2.00	$216.00
Technician 3	$57.00	10.00	$570.00
Supplies/Expenses	$1.00	50.00	$50.00
Subtotal			***$836.00***
Task 2 Total			***$10,610.00***
Task 3 - Project Management			
Sr. Engineer II	$129.00	1.00	$129.00
Sr. Engineer I	$124.00	12.00	$1,488.00
Sr Project Engineer/Scientist II	$108.00	30.00	$3,240.00
Document Technician II	$57.00	12.00	$684.00
RCRA Fees	$1.00	1500.00	$1,500.00
Supplies/Expenses	$1.00	120.00	$120.00
Subtotal			***$7,161.00***
Permit Mod			
Sr. Engineer I	$124.00	1.00	$124.00
Sr Project Engineer/Scientist II	$108.00	6.00	$648.00
Document Technician II	$57.00	2.00	$114.00
Supplies	$1.00	100.00	$100.00
Subtotal			***$986.00***
Task 3 Total			***$8,147.00***

ATTACHMENT 4

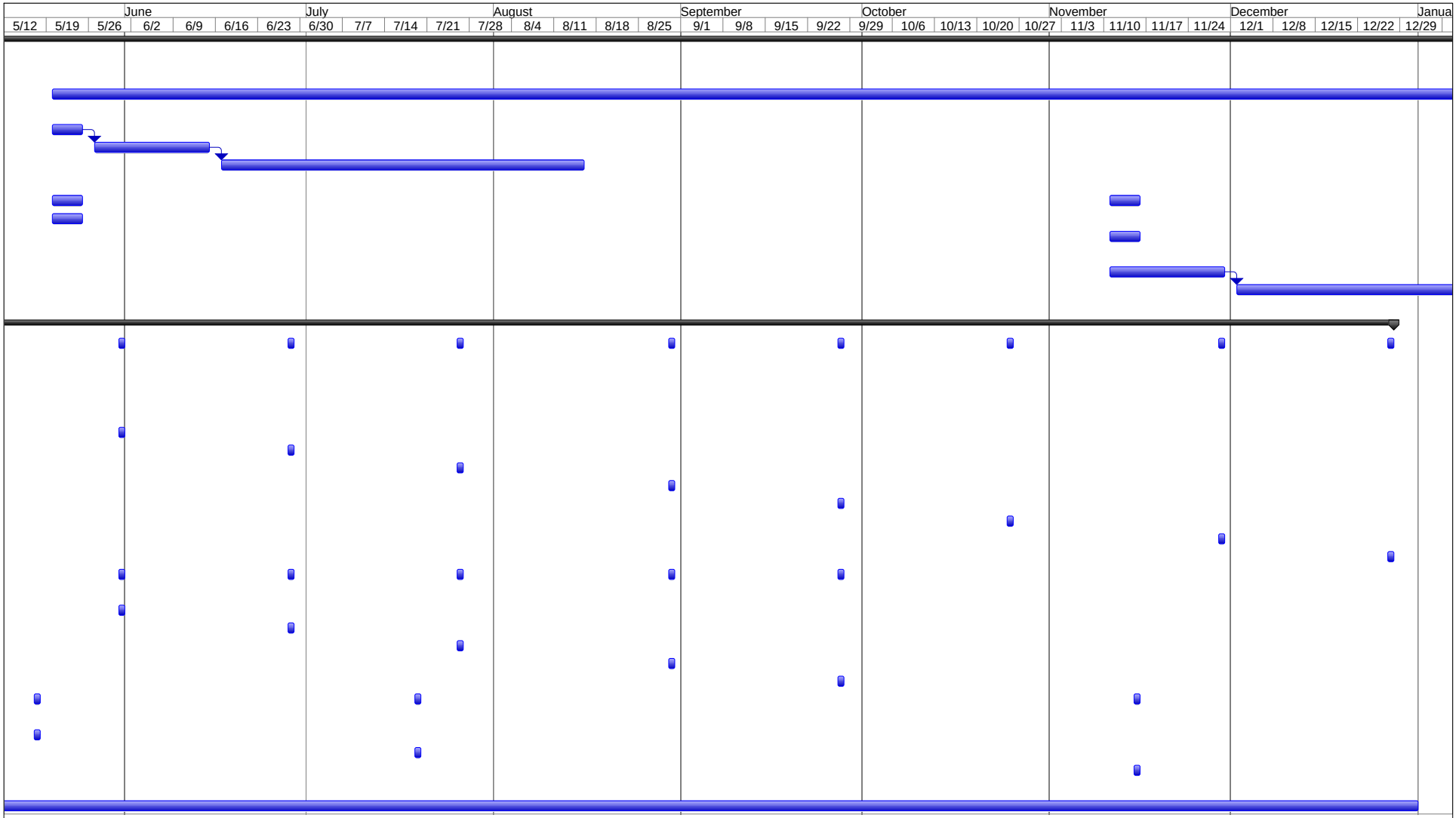
Projected 2013 Schedule and Milestones

ID	Task Name	Duration	Start	Finish	Predecessors
1	**Task 1 - Groundwater System O&M**	**590 days?**	**Mon 1/2/12**	**Fri 4/4/14**	
2	2012 Annual Report	44 days?	Mon 1/2/12	Thu 3/1/12	
3	2013 Annual Report	205 days	Mon 5/20/13	Fri 2/28/14	
4					
5	Groundwater Monitoring	5 days	Mon 5/20/13	Fri 5/24/13	
6	Groundwater Analysis	15 days	Mon 5/27/13	Fri 6/14/13	5
7	Groundwater Statistical Report	44 days	Mon 6/17/13	Thu 8/15/13	6
8					
9	**Groundwater Gauging**	**130 days**	**Mon 5/20/13**	**Fri 11/15/13**	
10	Groundwater Gauging 1	5 days	Mon 5/20/13	Fri 5/24/13	
11	Groundwater Gauging 2	5 days	Mon 11/11/13	Fri 11/15/13	
12					
13	Extraction System Inspection	15 days	Mon 11/11/13	Fri 11/29/13	
14	Repair Extraction System	90 days	Mon 12/2/13	Fri 4/4/14	13
15					
16	**Task 2 - Property O&M**	**437 days**	**Thu 4/26/12**	**Fri 12/27/13**	
17	**Rodent Trapping**	**241 days**	**Fri 1/25/13**	**Fri 12/27/13**	
18	Rodent Trapping 1	1 day	Fri 1/25/13	Fri 1/25/13	
19	Rodent Trapping 2	1 day	Fri 2/22/13	Fri 2/22/13	
20	Rodent Trapping 3	1 day	Fri 3/29/13	Fri 3/29/13	
21	Rodent Trapping 4	1 day	Fri 4/26/13	Fri 4/26/13	
22	Rodent Trapping 5	1 day	Fri 5/31/13	Fri 5/31/13	
23	Rodent Trapping 6	1 day	Fri 6/28/13	Fri 6/28/13	
24	Rodent Trapping 7	1 day	Fri 7/26/13	Fri 7/26/13	
25	Rodent Trapping 8	1 day	Fri 8/30/13	Fri 8/30/13	
26	Rodent Trapping 9	1 day	Fri 9/27/13	Fri 9/27/13	
27	Rodent Trapping 10	1 day	Fri 10/25/13	Fri 10/25/13	
28	Rodent Trapping 11	1 day	Fri 11/29/13	Fri 11/29/13	
29	Rodent Trapping 12	1 day	Fri 12/27/13	Fri 12/27/13	
30	**Mowing Property**	**372 days**	**Thu 4/26/12**	**Fri 9/27/13**	
31	Mowing Property 1	1 day	Thu 4/26/12	Thu 4/26/12	
32	Mowing Property 2	1 day	Fri 5/31/13	Fri 5/31/13	
33	Mowing Property 3	1 day	Fri 6/28/13	Fri 6/28/13	
34	Mowing Property 4	1 day	Fri 7/26/13	Fri 7/26/13	
35	Mowing Property 5	1 day	Fri 8/30/13	Fri 8/30/13	
36	Mowing Property 6	1 day	Fri 9/27/13	Fri 9/27/13	
37	**Quarterly Inspection**	**196 days**	**Fri 2/15/13**	**Fri 11/15/13**	
38	Quarterly Inspection 1	1 day	Fri 2/15/13	Fri 2/15/13	
39	Quarterly Inspection 2	1 day	Fri 5/17/13	Fri 5/17/13	
40	Quarterly Inspection 3	1 day	Fri 7/19/13	Fri 7/19/13	
41	Quarterly Inspection 4	1 day	Fri 11/15/13	Fri 11/15/13	
42					
43	Task 3 - Project Management	261 days?	Tue 1/1/13	Tue 12/31/13	



Project: Former AGT Surface Impound
Date: Tue 11/27/12

Task	External Tasks	Manual Task	Finish-only
Split	External Milestone	Duration-only	Progress
Milestone	Inactive Task	Manual Summary Rollup	Deadline
Summary	Inactive Milestone	Manual Summary	
Project Summary	Inactive Summary	Start-only	



Project: Former AGT Surface Impound
Date: Tue 11/27/12

Task		External Tasks		Manual Task		Finish-only	
Split		External Milestone		Duration-only		Progress	
Milestone		Inactive Task		Manual Summary Rollup		Deadline	
Summary		Inactive Milestone		Manual Summary			
Project Summary		Inactive Summary		Start-only			

ATTACHMENT 5

Current and Future Years Cost Reallocation

Former AGT Surface Impoundment - 1325
Future Projections

Year	Expected Cost	Groundwater System O&M (A)	Property O&M (B)	Project Management (C)
2009	$ -	$ -	$ -	$ -
2010(1) - estimated costs	$ 23,293	$ 15,775	$ 4,784	$ 2,734
2011(2) - estimated costs	$ 42,107	$ 25,311	$ 7,244	$ 9,552
2012(3) - estimated costs	$ 32,190	$ 16,200	$ 8,756	$ 7,234
2013	$ 35,023	$ 16,266	$ 10,610	$ 8,147
2014	$ 36,198	$ 17,452	$ 10,862	$ 7,884
2015	$ 34,998	$ 16,252	$ 10,862	$ 7,884
2016	$ 45,550	$ 26,804	$ 10,862	$ 7,884
2017	$ 36,198	$ 17,452	$ 10,862	$ 7,884
2018	$ 34,998	$ 16,252	$ 10,862	$ 7,884
2019	$ 45,550	$ 26,804	$ 10,862	$ 7,884
Subtotal	$ 366,103	$ 194,566	$ 96,566	$ 74,971
Subtotal From Original Cost Breakdown (4)	$ 467,502	$ 225,525	$ 180,150	$ 61,827
Variance	$ 101,399	$ 30,959	$ 83,584	$ (13,144)
2020	$ 116,198	$ 27,452	$ 80,862	$ 7,884
2021	$ 34,998	$ 16,252	$ 10,862	$ 7,884
2022	$ 45,550	$ 26,804	$ 10,862	$ 7,884
2023	$ 36,198	$ 17,452	$ 10,862	$ 7,884
2024	$ 34,998	$ 16,252	$ 10,862	$ 7,884
2025	$ 45,550	$ 26,804	$ 10,862	$ 7,884
2026	$ 36,198	$ 17,452	$ 10,862	$ 7,884
2027	$ 34,998	$ 16,252	$ 10,862	$ 7,884
2028	$ 45,550	$ 26,804	$ 10,862	$ 7,884
2029	$ 36,198	$ 17,452	$ 10,862	$ 7,884
2030	$ 114,998	$ 26,252	$ 80,862	$ 7,884
2031	$ 45,550	$ 26,804	$ 10,862	$ 7,884
2032	$ 36,198	$ 17,452	$ 10,862	$ 7,884
2033	$ 34,998	$ 16,252	$ 10,862	$ 7,884
2034	$ 45,550	$ 26,804	$ 10,862	$ 7,884
2035	$ 36,198	$ 17,452	$ 10,862	$ 7,884
2036	$ 34,998	$ 16,252	$ 10,862	$ 7,884
2037	$ 45,550	$ 26,804	$ 10,862	$ 7,884
2038	$ 36,198	$ 17,452	$ 10,862	$ 7,884
2039	$ 34,998	$ 16,252	$ 10,862	$ 7,884
2040	$ 125,550	$ 36,804	$ 80,862	$ 7,884
2041	$ 36,198	$ 17,452	$ 10,862	$ 7,884
2042	$ 34,998	$ 16,252	$ 10,862	$ 7,884
2043	$ 26,414	$ 11,052	$ 10,862	$ 4,500
2044	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2045	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2046	$ 26,414	$ 11,052	$ 10,862	$ 4,500
2047	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2048	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2049	$ 26,414	$ 11,052	$ 10,862	$ 4,500
2050	$ 100,362	$ 15,000	$ 80,862	$ 4,500
2051	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2052	$ 26,414	$ 11,052	$ 10,862	$ 4,500
2053	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2054	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2055	$ 26,414	$ 11,052	$ 10,862	$ 4,500
2056	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2057	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2058	$ 26,414	$ 11,052	$ 10,862	$ 4,500
2059	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2060	$ 100,362	$ 15,000	$ 80,862	$ 4,500
2061	$ 26,414	$ 11,052	$ 10,862	$ 4,500
2062	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2063	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2064	$ 26,414	$ 11,052	$ 10,862	$ 4,500
2065	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2066	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2067	$ 26,414	$ 11,052	$ 10,862	$ 4,500
2068	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2069	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2070	$ 106,414	$ 21,052	$ 80,862	$ 4,500
2071	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2072	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2073	$ 26,414	$ 11,052	$ 10,862	$ 4,500
2074	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2075	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2076	$ 26,414	$ 11,052	$ 10,862	$ 4,500
2077	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2078	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2079	$ 26,414	$ 11,052	$ 10,862	$ 4,500
2080	$ 100,362	$ 15,000	$ 80,862	$ 4,500
2081	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2082	$ 26,414	$ 11,052	$ 10,862	$ 4,500
2083	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2084	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2085	$ 26,414	$ 11,052	$ 10,862	$ 4,500
2086	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2087	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2088	$ 26,414	$ 11,052	$ 10,862	$ 4,500
2089	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2090	$ 100,362	$ 15,000	$ 80,862	$ 4,500
2091	$ 26,414	$ 11,052	$ 10,862	$ 4,500
2092	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2093	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2094	$ 26,414	$ 11,052	$ 10,862	$ 4,500
2095	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2096	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2097	$ 26,414	$ 11,052	$ 10,862	$ 4,500
2098	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2099	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2100	$ 106,414	$ 21,052	$ 80,862	$ 4,500
2101	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2102	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2103	$ 26,414	$ 11,052	$ 10,862	$ 4,500
2104	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2105	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2106	$ 26,414	$ 11,052	$ 10,862	$ 4,500
2107	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2108	$ 20,362	$ 5,000	$ 10,862	$ 4,500
2109	$ 26,414	$ 11,052	$ 10,862	$ 4,500
Totals	$ 3,477,960	$ 1,216,011	$ 1,704,146	$ 557,803
Original Cost Breakdown	$ 3,603,585	$ 1,236,525	$ 1,817,740	$ 549,320
Variance	$ 125,624	$ 20,514	$ 113,594	$ (8,484)

(Value in parenthesis donates cost is greater than in original cost breakdown)

Notes
(1) July 2010 through December 2010
(2) January through December 2011
(3) Actual Costs for January through October 2012, estimated for November and December
(4) The original cost breakdown and schedule of cash flow as established by MLC persuant to the May 2010 RCES.
(A) Includes Tasks 1, 3, 6, 7, 9, 11 and 12 from Original RCES
(B) Includes Tasks 2, 4, 5, 8, 10, 14 and 15 from Original RCES
(C) Includes Tasks 13 and 16 (Agency Oversight) from Original RCES
Assumes pumping 3 million gallons every three years starting in 2013
Assumes survey settlement monuments every three years starting in 2014
Distributes $10,000 of budget for well replacement every 10 years starting in 2020
Distributes $70,000 of budget for fence, slurry wall and/or culvert replacement every 10 years starting in 2020