SEMI ANNUAL REPORT
OPERATION AND MAINTENANCE
JANUARY 2005 TO JUNE 2005
PFOHL BROTHERS LANDFILL
CHEEKTOWAGA, NY

Submitted to:

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1.0 INTRODUCTION

1.1 Background

The Pfohl Brothers Landfill is located on Aero Drive in the Town of Cheektowaga, New York (Figure 1-1). The site is listed as site No. 9-15-043 on the New York State Department of Environmental Conservation's (NYSDEC's) Registry of Inactive Hazardous Waste Disposal Sites. A Consent Order between NYSDEC and potentially responsible parties (PRPs) for closure of the site was signed in 2001 and remedial construction commenced in 2001. The remedy included consolidation of waste material, capping of the waste disposal and consolidation areas, and encircling the landfill areas with a groundwater collection system to prevent off-site migration. The remedial action was completed in 2002.

Responsibility for implementing the remedy was divided between a "steering committee" of industrial PRPs and the Town of Cheektowaga. The steering committee responsibilities lay generally with the capital construction activities of the remedy including waste consolidation, cap and drainage system installation, etc. The Town of Cheektowaga, which was named as a PRP for disposal of municipal waste at the Pfohl Brothers Landfill when it was operating, is performing the operation and maintenance (O&M) activities at the landfill, pursuant to a settlement agreement between the Town and the steering committee.

1.2 Operation and Maintenance Activities

While construction of the remedy was substantially complete by late 2002, the final O&M manual has not yet been approved by NYSDEC and complete operational responsibilities have not yet been transferred to the Town of Cheektowaga. However, the Town and its consultant (URS Corporation) have assumed an increasing level of the operational responsibilities since 2002. This includes a variety of general maintenance activities as outlined in Section 2 and sampling and other monitoring activities outlined in Section 3.

Although complete O&M responsibilities have not yet been transferred, the Town and NYSDEC agreed, during a December 3, 2003 meeting, to begin implementing all of the O&M activities described in the latest draft of the O&M manual. This report is the third semi-annual report as called for by Section 3.6 of the draft O&M manual.

2.0 GENERAL MAINTENANCE ACTIVITIES

Since completion of construction activities in 2002, personnel from the Town of Cheektowaga Engineering Department have performed general activities to ensure the physical operation of the landfill as intended by the design. The various O&M activities performed by the Town from January 2005 through June 2005 include the following actions.

- The amount of groundwater discharged through the collection system was recorded on a daily basis. The flow rate displayed by each wet well pump at the time of daily inspection and the total cumulative volume of flow was recorded for each wet well on daily inspection sheets. An example of a daily inspection sheet is attached in Appendix A.

- Total cumulative effluent flow rates and volumes were summarized on a monthly basis starting in February 2003. The monthly totals for the period of January 2005 through June 2005, including graphs showing daily total discharge (gallons) as a function of calendar day, are presented in Appendix B.

- Remotely activated the pump station shutdown during wet weather flow conditions throughout the year as necessary.

- Snow was plowed, as needed, to allow access to the site control building.

- Performed repairs to wet well level control instrumentation, electrical equipment repair/ replacement/ calibration, and replacement of surge suppressors.

- CIR Electrical Contracting and Conestoga-Rovers and Associates (CRA) assisted in the replacement of the main disconnect fuse.

- The computer equipment was sent out for repairs to Allen Bradley (May 2005).

- The pump in Wet Well No. 4 was replaced (January 2005).

- The pump in Wet Well No. 6 was replaced (April 2005).

- The discharge piping of Wet Well No. 5 was replaced with a flexible hose (January 2005).

- The discharge piping of Wet Wells No. 3 and No. 6 was replaced with a flexible hose (April 2005).

- Wildlife control was performed, which included the removal of a dead deer in March 2005 and the trapping of woodchucks.

A review of the total cumulative effluent flow rates and volumes presented in Appendix B indicates that discharge did not occur on numerous days between January and June 2005. The lack of discharge was attributed to level sensor instrumentation failures, which required operating the pumps in manual mode. Problems with the computer equipment prohibited the retrieval of any flow data from May 1 to May 24, 2005.

3.0 MONITORING ACTIVITIES

The Town retained URS Corporation to perform monitoring activities as outlined in Section 3.1 of the draft O&M plan. During the period of January 2004 through the present, URS performed groundwater hydraulic monitoring (Section 3.1.1.2 of the draft O&M plan) and effluent monitoring (Section 3.1.4 of the draft O&M plan) on a quarterly basis. URS also performed the second of two annual surface water and sediment monitoring events (Section 3.1.2 of the draft O&M plan) and the third semi-annual groundwater quality monitoring event (Section 3.1.1.3 of the draft O&M plan). A summary of the monitoring activities is presented in the following subsections. Hydraulic and

groundwater sampling locations are shown on Figure 3-1. Surface water/sediment sample locations are shown on Figure 3-2.

3.1 Groundwater Hydraulic Monitoring

Groundwater and surface water elevations were monitored on a quarterly basis at all locations listed in Table 3.1 of the O&M Plan except SG-02, which was not present. The hydraulic monitoring data tables and figures showing groundwater elevation contours are presented in Appendix C. Tables 1, 2, and 3 of this appendix list the measured elevations. Table 4 provides a comparison of the measured levels in the wells and corresponding manholes/wet wells. For the wet wells, where water elevations vary with pump activity, the water elevation is presented as the maximum possible elevation as set by the set point of the pump switch.

The data and figures presented in Appendix C indicate that groundwater levels outside the collection system were higher than the levels measured in the corresponding wet well or manhole for each measurement date. This data verifies that collection system is operating as designed.

3.2 Groundwater Quality Monitoring

The third semi-annual round of groundwater sampling was conducted during May 3, 2005 to May 5, 2005. All wells listed in Table 3.2 of the draft O&M manual were purged and sampled using dedicated equipment. Figure 3-1 shows the well locations. Purge logs and sampling summary sheets are provided in Appendix D. At GW-4D difficulty was encountered reaching the specified maximum turbidity of 50 NTUs. This was attributed to low well recharge rates (the well was pumped dry while purging), which required the sampling crew to return at a later time to collect adequate sample volume. Measurements of pH, specific conductivity, temperature, and turbidity taken during purging are provided in Appendix D. The samples were packed with ice in coolers and transported under chain-of-custody control to Waste Stream Technology, Inc. of Buffalo, New York (Waste Stream).

Groundwater samples were analyzed for the parameters listed in Table 3.2 of the draft O&M manual. Specifically, the following parameter classes were analyzed for: volatile organic compounds (VOCS), semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), Metals, Dioxins & Furans, Cyanide and Radiochemistry by Gamma Spectroscopy. Table 3-1 of this report presents a summary of detected parameters. No VOCs were detected above the Class GA water quality standards. One SVOC [bis(2-Ethylhexyl)phthalate] was detected slightly above its Class GA water quality standard [5 micrograms per liter (μg/L)] in background well GW-7D. This compound is commonly found as a laboratory contaminant. No PCBs, Dioxins & Furans, or Cyanide were detected above the Class GA water quality standards. No Radionuclides were detected above the EPA Maxium Contaminant Level (MCL) of 4 millirem/year exposure.

Among the metals, iron, magnesium, manganese, and sodium routinely exceed Class GA standards in most site wells. Sodium concentrations were higher in bedrock wells (GW-3D, GW-8D and GW-26D) and shallow wells adjacent to roads (GW-1S, GW-8SR and GW-30S). The higher sodium concentrations in the bedrock wells may be attributed to the local bedrock composition and the elevated concentration in the shallow wells may be the result of seasonal de-icing activities. The concentration of iron, magnesium, manganese, and sodium in most site wells was similar to the concentrations found during previous sampling events. Cadmium slightly exceeded its standard of 0.005 milligrams per liter (mg/L) at GW-30S with a concentration of 0.006 mg/L. Chromium exceeded its standard of 0.05 mg/L in wells GW-04D and GW-30S with concentrations of 0.175 mg/L and 0.139 mg/L respectively. Silver exceeded its standard of 0.05 mg/L at GW-29S with a concentration of 0.079 mg/L. The detection of silver in GW-29S is estimated and was biased low.

The groundwater analytical data package was prepared by Waste Stream in accordance with NYSDEC Category A deliverable requirements. It was reviewed for compliance with analytical method requirements and the following guidelines: United States Environmental Protection Agency (USEPA) *Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review*, EPA-540-R-99-008, October 1999; USEPA *CLP National Functional Guidelines for Inorganic Data Review*, EPA-540-R-01-008, July 2002; USEPA *Region II Data Validation SOP for EPA Method 1613, Revision A, Tetra- through Octa-chlorinated Dioxins and Furans by Isotopic Dilution (HRGC/HRMS)*, SOP No. 25, Revision 2, September 1999 and Science Applications International

Corporation (SAIC), *Laboratory Data Validation Guidelines for Evaluating Radionuclide Analyses*, Document No. 143.20020404.001, Revision 07, 04 April 2002. Qualifiers applied to the data include "R" (rejected), "J/UJ" (estimated concentration/ estimated quantitation limit), "J+" (estimated inorganic concentration with possible high bias), "J-" (estimated inorganic concentration with possible low bias), and "U" (not detected).

A Data Usability Summary Report (DUSR) was prepared following the guidelines provided in NYSDEC Division of Environmental Remediation *Guidance for the Development of Data Usability Summary Reports*, dated June 1999. The DUSR was submitted separately from this report.

3.3 Groundwater Discharge Monitoring

URS completed three quarterly sampling events (December 2004, March 2005 and June 2005) of the groundwater collection system discharge since the previous semi-annual report. The sampling was performed in accordance with the requirements of Discharge Permit No. 02-11-CH016 between the Buffalo Sewer Authority and the Town of Cheektowaga. A copy of Permit No. 02-11-CH016 is included as Appendix E.

During all sampling events, each regulated parameter was below the limits set by the permit. Copies of the data summary tables that were included with the monitoring reports are included as Appendix F.

3.4 Surface Water/ Sediment Sampling

The second round of the annual surface water and sediment sampling was conducted on May 3, 2005. Eight-paired surface water and sediment locations listed in the draft O&M manual (Table 3.3) and shown on Figure 3-2 were sampled. At each location the surface water sample was collected prior to the sediment sample by immersing pre-cleaned, laboratory grade sample bottles into the middle of the water body. Measurements of pH, specific conductivity, temperature, and turbidity were taken and recorded on sampling summary sheets, which are provided in Appendix G. Each

sediment sample was collected from the same location as its corresponding surface water sample. Descriptions of the sediment samples were also recorded on the sample summary sheets (Appendix G). The water and sediment samples were packed with ice in coolers and transported under chain-of-custody control to Waste Stream.

All surface water samples were analyzed for parameters listed in the draft O&M manual (Table 3.3). Table 3-2 presents a summary of detected parameters and provides comparison with Class B water quality standards. While the water bodies that surround the Pfohl Landfill are not designated in 6 NYCRR Part 825, these waters are within the Ellicott Creek drainage basin and are considered tributaries to the creek, which is designated as Class B in 6 NYCRR Part 825. Therefore, the water quality classification for Ellicott Creek is adopted in this semi-annual report to facilitate comparison and evaluation of the analytical results. As shown in Table 3-2, aluminum and iron exceeded the Class B standards at several sample locations. Concentrations of aluminum and iron were found to be generally lower than during the previous sampling event.

The sediment samples were analyzed for the parameters listed in the draft O&M manual (Table 3.3). Table 3-3 of this report presents a summary of all detected parameters.

The sediment and surface water analytical data package was prepared by Waste Stream in accordance with NYSDEC Category A deliverable requirements. It was reviewed for compliance with the analytical method requirements and the following guidelines: USEPA *CLP National Functional Guidelines for Organic Data Review,* EPA-540-R-99-008, October 1999; USEPA *CLP National Functional Guidelines for Inorganic Data Review,* EPA-540-R-01-008, July 2002; and Science Applications International Corporation (SAIC), *Laboratory Data Validation Guidelines for Evaluating Radionuclide Analyses,* Document No. 143.20020404.001, Revision 07, 04 April 2002. Qualifiers applied to the data include “R” (rejected), “J/UJ” (estimated concentration/ estimated quantitation limit), “J+” (estimated inorganic concentration with possible high bias), “J-” (estimated inorganic concentration with possible low bias), and “U” (not detected).

A DUSR was prepared by URS following the guidelines provided in NYSDEC Division of Environmental Remediation *Guidance for the Development of Data Usability Summary Reports*, dated June 1999. The DUSR was submitted separately from this report.

4.0 SUMMARY AND RECOMMENDATIONS

General Maintenance: The Town will continue to maintain mechanical equipment at the landfill on an as-needed basis and operate the groundwater collection and discharge system as designed. The Town will also continue regular inspections, mow the cap once per year, and plow access to the control building during winter months as necessary.

Groundwater Hydraulic Monitoring: Hydraulic monitoring has been performed on a quarterly basis in conjunction with the discharge monitoring. Water level measurement data demonstrates that the hydraulic gradient is from outside the landfill towards the collection trench. Continued quarterly monitoring is recommended.

Groundwater Quality Monitoring: Groundwater sample results indicate that only low levels of contamination are present. Similar concentrations of most contaminants were found during previous sampling events. Based on results of the three semi-annual sampling events, the analytical parameter list in Table 3.2 of the draft O&M manual may be revised pending consultation with the NYSDEC. The fourth round of groundwater sampling was conducted during the September of 2005, and analytical results were not available at the time of this report. The fifth round of groundwater sampling will be conducted during the Spring of 2005 and will include the annual radiochemistry sampling and analysis.

Groundwater Discharge Monitoring: Groundwater discharges remain within permit limits. Continued quarterly monitoring is recommended.

Surface Water and Sediment Sampling: The second of two scheduled surface water and sediment sampling events has been completed. The results of the two sampling events will be

compared to pre-Remedial Action sample to determine if post-Remedial Action activities have somehow impacted the quality of the surface water and sediments. If it is determined that no impacts have occurred between pre- Remedial Action activities and post- Remedial Action activities, the O&M manual indicates the termination of this sampling program. The NYSDEC will be consulted prior any termination of the sampling program.

TABLES

TABLE 3-1
DETECTED ANALYTES IN GROUNDWATER
PFOHL BROTHERS LANDFILL SITE
MAY 2005

Location ID				GW-01D	GW-01S	GW-03D	GW-03S	GW-04D
Sample ID				GW-1D	GW-1S	GW-3D	GW-3S	GW-4D
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				05/05/05	05/05/05	05/05/05	05/05/05	05/04/05
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,2-Dichloroethene (cis)	UG/L	5	-			2		
Acetone	UG/L	50	-					
Benzene	UG/L	1	-					
Vinyl chloride	UG/L	2	-			1		
Semivolatile Organic Compounds								
1,3-Dichlorobenzene	UG/L	3	-			2		
1,4-Dichlorobenzene	UG/L	3	-			3		
bis(2-Ethylhexyl)phthalate	UG/L	5	-		4			
Diethylphthalate	UG/L	50	-					
Dioxins/Furans								
1,2,3,4,6,7,8-HpCDF	NG/L	0.07	-					
2,3,7,8-TCDF	NG/L	0.007	-					
Metals								
Aluminum	MG/L	-	-		0.331		0.259	0.448
Arsenic	MG/L	0.025	-					
Barium	MG/L	1	-	0.054	0.310	0.143	0.177	0.061
Cadmium	MG/L	0.005	-		0.001			
Calcium	MG/L	-	-	101	196	138	91	120
Chromium	MG/L	0.05	-		0.037		0.006	0.175
Cobalt	MG/L	-	-					

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 Addendum). Class GA.

Criteria (2)- Derived from EPA Maximum Contaminant Level (MCL) of 4 millirem/year exposure.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

J - The analyte was positively identified, the quantitation is an estimation.
J+ - The analyte was positively identified, the quantitation is an estimation with psssible high bias.
J- - The analyte was positively identified, the quantitation is an estimation with psssible low bias.
Blank - not detected. - = No criteria.

Only Detected Results Reported.

TABLE 3-1
DETECTED ANALYTES IN GROUNDWATER
PFOHL BROTHERS LANDFILL SITE
MAY 2005

Location ID				GW-01D	GW-01S	GW-03D	GW-03S	GW-04D
Sample ID				GW-1D	GW-1S	GW-3D	GW-3S	GW-4D
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				05/05/05	05/05/05	05/05/05	05/05/05	05/04/05
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Metals								
Copper	MG/L	0.2	-	0.015	0.037		0.014	0.016
Iron	MG/L	0.3	-	0.456	16.6	3.1	16.2	2.56
Lead	MG/L	0.025	-					
Magnesium	MG/L	35	-	39.4	35	26.2	75.5	56.0
Manganese	MG/L	0.3	-	0.020	1.17	1.31	0.348	0.053
Nickel	MG/L	0.1	-		0.026	0.007	0.051	0.072
Potassium	MG/L	-	-	2.54	2.84	5.48	2.62	4.41
Silver	MG/L	0.05	-					
Sodium	MG/L	20	-	81.3	565	306	27.1	63.0
Vanadium	MG/L	-	-					
Zinc	MG/L	2	-		0.05 J+		0.028 J+	
Radionuclides								
Bismuth 214 (Soluble)	PCi/L	-	18900					3.43E+01
Lead 214 (Soluble)	PCi/L	-	11800					1.72E+01
Thorium 234 (Insoluble)	PCi/L	-	401		8.01E+01			
Uranium 235 (Insoluble)	PCi/L	-	-					

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 Addendum). Class GA.

Criteria (2)- Derived from EPA Maximum Contaminant Level (MCL) of 4 millirem/year exposure.

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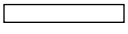
Concentration Exceeds Criteria (1)



Concentration Exceeds Criteria (2)

J - The analyte was positively identified, the quantitation is an estimation.
J+ - The analyte was positively identified, the quantitation is an estimation with psssible high bias.
J- - The analyte was positively identified, the quantitation is an estimation with psssible low bias.
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Only Detected Results Reported.

TABLE 3-1
DETECTED ANALYTES IN GROUNDWATER
PFOHL BROTHERS LANDFILL SITE
MAY 2005

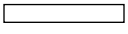
Location ID				GW-04S	GW-07D	GW-07S	GW-08D	GW-08SR
Sample ID				GW-4S	GW-7D	GW-7S	GW-8D	GW-8SR
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				05/04/05	05/04/05	05/04/05	05/05/05	05/05/05
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,2-Dichloroethene (cis)	UG/L	5	-				3	1
Acetone	UG/L	50	-		14			
Benzene	UG/L	1	-					
Vinyl chloride	UG/L	2	-				2	1
Semivolatile Organic Compounds								
1,3-Dichlorobenzene	UG/L	3	-					
1,4-Dichlorobenzene	UG/L	3	-					
bis(2-Ethylhexyl)phthalate	UG/L	5	-		11		2	
Diethylphthalate	UG/L	50	-		3			
Dioxins/Furans								
1,2,3,4,6,7,8-HpCDF	NG/L	0.07	-	0.015 J				
2,3,7,8-TCDF	NG/L	0.007	-		3.40E-03 J			
Metals								
Aluminum	MG/L	-	-		0.086	0.190		3.22
Arsenic	MG/L	0.025	-	0.009				0.011
Barium	MG/L	1	-	0.096	0.028	0.209	0.109	0.423
Cadmium	MG/L	0.005	-					0.001
Calcium	MG/L	-	-	36.7	28.7	30.9	105	117
Chromium	MG/L	0.05	-		0.018			0.012
Cobalt	MG/L	-	-					0.008

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 Addendum). Class GA.

Criteria (2)- Derived from EPA Maximum Contaminant Level (MCL) of 4 millirem/year exposure.

Flags assigned during chemistry validation are shown.


Concentration Exceeds Criteria (1)


Concentration Exceeds Criteria (2)

J - The analyte was positively identified, the quantitation is an estimation.

J+ - The analyte was positively identified, the quantitation is an estimation with psssible high bias.

J- - The analyte was positively identified, the quantitation is an estimation with psssible low bias.

Blank - not detected. - = No criteria.

Only Detected Results Reported.

TABLE 3-1
DETECTED ANALYTES IN GROUNDWATER
PFOHL BROTHERS LANDFILL SITE
MAY 2005

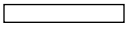
Location ID				GW-04S	GW-07D	GW-07S	GW-08D	GW-08SR
Sample ID				GW-4S	GW-7D	GW-7S	GW-8D	GW-8SR
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				05/04/05	05/04/05	05/04/05	05/05/05	05/05/05
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Metals								
Copper	MG/L	0.2	-				0.009	0.019
Iron	MG/L	0.3	-	2.35	0.379	0.707	6.2	15.1
Lead	MG/L	0.025	-		0.020			0.004
Magnesium	MG/L	35	-	22.0	7.25	24.6	20.8	44.3
Manganese	MG/L	0.3	-	0.286	0.008	0.157	2.22	0.817
Nickel	MG/L	0.1	-	0.013	0.016	0.01	0.006	0.019
Potassium	MG/L	-	-	3.05	8.10	2.84	3.98	4.08
Silver	MG/L	0.05	-					
Sodium	MG/L	20	-	32.8	81.7	57.6	279	201
Vanadium	MG/L	-	-					0.012
Zinc	MG/L	2	-	0.057	0.015	0.022	0.03 J+	0.027 J+
Radionuclides								
Bismuth 214 (Soluble)	PCi/L	-	18900	4.55E+01		3.27E+01		
Lead 214 (Soluble)	PCi/L	-	11800	2.14E+01				
Thorium 234 (Insoluble)	PCi/L	-	401					
Uranium 235 (Insoluble)	PCi/L	-	-					

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 Addendum). Class GA.

Criteria (2)- Derived from EPA Maximum Contaminant Level (MCL) of 4 millirem/year exposure.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)



Concentration Exceeds Criteria (2)

J - The analyte was positively identified, the quantitation is an estimation.
J+ - The analyte was positively identified, the quantitation is an estimation with psssible high bias.
J- - The analyte was positively identified, the quantitation is an estimation with psssible low bias.
Blank - not detected. - = No criteria.

Only Detected Results Reported.

TABLE 3-1
DETECTED ANALYTES IN GROUNDWATER
PFOHL BROTHERS LANDFILL SITE
MAY 2005

Location ID				GW-26D	GW-26D	GW-28S	GW-29S	GW-30S
Sample ID				GW-26D	GW-27D	GW-28S	GW-29S	GW-30S
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				05/04/05	05/04/05	05/05/05	05/04/05	05/04/05
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**		Field Duplicate (1-1)			
Volatile Organic Compounds								
1,2-Dichloroethene (cis)	UG/L	5	-	2	2			
Acetone	UG/L	50	-					
Benzene	UG/L	1	-			1		
Vinyl chloride	UG/L	2	-	2	2			
Semivolatile Organic Compounds								
1,3-Dichlorobenzene	UG/L	3	-					
1,4-Dichlorobenzene	UG/L	3	-					
bis(2-Ethylhexyl)phthalate	UG/L	5	-					
Diethylphthalate	UG/L	50	-					
Dioxins/Furans								
1,2,3,4,6,7,8-HpCDF	NG/L	0.07	-					
2,3,7,8-TCDF	NG/L	0.007	-					
Metals								
Aluminum	MG/L	-	-			3.58	0.462	0.219
Arsenic	MG/L	0.025	-				0.021	
Barium	MG/L	1	-	0.117	0.118	0.169	0.212	0.489
Cadmium	MG/L	0.005	-					0.006
Calcium	MG/L	-	-	116	117	190	156	202
Chromium	MG/L	0.05	-			0.017	0.005	0.139
Cobalt	MG/L	-	-			0.015		

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 Addendum). Class GA.

Criteria (2)- Derived from EPA Maximum Contaminant Level (MCL) of 4 millirem/year exposure.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

J - The analyte was positively identified, the quantitation is an estimation.
J+ - The analyte was positively identified, the quantitation is an estimation with psssible high bias.
J- - The analyte was positively identified, the quantitation is an estimation with psssible low bias.
Blank - not detected. - = No criteria.

Only Detected Results Reported.

TABLE 3-1
DETECTED ANALYTES IN GROUNDWATER
PFOHL BROTHERS LANDFILL SITE
MAY 2005

Location ID				GW-26D	GW-26D	GW-28S	GW-29S	GW-30S
Sample ID				GW-26D	GW-27D	GW-28S	GW-29S	GW-30S
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				05/04/05	05/04/05	05/05/05	05/04/05	05/04/05
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**		Field Duplicate (1-1)			
Metals								
Copper	MG/L	0.2	-			0.019		0.015
Iron	MG/L	0.3	-	4.50	4.53	10.6	7.35	21.8
Lead	MG/L	0.025	-			0.007		
Magnesium	MG/L	35	-	20.2	20.3	77.3	65.1	45.4
Manganese	MG/L	0.3	-	1.01	1.02	1.96	0.596	2.20
Nickel	MG/L	0.1	-			0.026	0.012	0.012
Potassium	MG/L	-	-	4.88	5.08	18.6	1.07	9.31
Silver	MG/L	0.05	-				0.079 J-	0.038 J-
Sodium	MG/L	20	-	188	192	73.1	21.3	882
Vanadium	MG/L	-	-			0.011		
Zinc	MG/L	2	-			0.045 J+		0.025
Radionuclides								
Bismuth 214 (Soluble)	PCi/L	-	18900	14.76				
Lead 214 (Soluble)	PCi/L	-	11800					
Thorium 234 (Insoluble)	PCi/L	-	401					
Uranium 235 (Insoluble)	PCi/L	-	-					2.42E+00

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 Addendum). Class GA.

Criteria (2)- Derived from EPA Maximum Contaminant Level (MCL) of 4 millirem/year exposure.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

J - The analyte was positively identified, the quantitation is an estimation.
J+ - The analyte was positively identified, the quantitation is an estimation with psssible high bias.
J- - The analyte was positively identified, the quantitation is an estimation with psssible low bias.
Blank - not detected. - = No criteria.

Only Detected Results Reported.

TABLE 3-1
DETECTED ANALYTES IN GROUNDWATER
PFOHL BROTHERS LANDFILL SITE
MAY 2005

Location ID				GW-31S	GW-32S	GW-33S	GW-34S	GW-35S
Sample ID				GW-31S	GW-32S	GW-33S	GW-34S	GW-35S
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				05/04/05	05/04/05	05/04/05	05/04/05	05/04/05
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,2-Dichloroethene (cis)	UG/L	5	-					
Acetone	UG/L	50	-					
Benzene	UG/L	1	-					
Vinyl chloride	UG/L	2	-					
Semivolatile Organic Compounds								
1,3-Dichlorobenzene	UG/L	3	-					
1,4-Dichlorobenzene	UG/L	3	-					
bis(2-Ethylhexyl)phthalate	UG/L	5	-			3		
Diethylphthalate	UG/L	50	-					
Dioxins/Furans								
1,2,3,4,6,7,8-HpCDF	NG/L	0.07	-	0.02 J			0.022 J	
2,3,7,8-TCDF	NG/L	0.007	-					
Metals								
Aluminum	MG/L	-	-	4.86	0.824	1.14	0.240	1.16
Arsenic	MG/L	0.025	-					
Barium	MG/L	1	-	0.070	0.038	0.027	0.119	0.034
Cadmium	MG/L	0.005	-	0.001				
Calcium	MG/L	-	-	198	86.1	180	175	98.4
Chromium	MG/L	0.05	-	0.015	0.011	0.007		0.005
Cobalt	MG/L	-	-	0.006				

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 Addendum). Class GA.

Criteria (2)- Derived from EPA Maximum Contaminant Level (MCL) of 4 millirem/year exposure.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

J - The analyte was positively identified, the quantitation is an estimation.
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Blank - not detected. - = No criteria.

Only Detected Results Reported.

TABLE 3-1
DETECTED ANALYTES IN GROUNDWATER
PFOHL BROTHERS LANDFILL SITE
MAY 2005

Location ID				GW-31S	GW-32S	GW-33S	GW-34S	GW-35S
Sample ID				GW-31S	GW-32S	GW-33S	GW-34S	GW-35S
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				05/04/05	05/04/05	05/04/05	05/04/05	05/04/05
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Metals								
Copper	MG/L	0.2	-	0.020				
Iron	MG/L	0.3	-	6.88	1.50	1.26	0.668	2.03
Lead	MG/L	0.025	-	0.011	0.003			0.003
Magnesium	MG/L	35	-	59.1	45.0	46.2	58.7	37.1
Manganese	MG/L	0.3	-	1.40	0.191	0.931	0.305	1.00
Nickel	MG/L	0.1	-	0.016	0.011	0.008	0.012	0.005
Potassium	MG/L	-	-	16.9	3.39	3.67	9.73	3.74
Silver	MG/L	0.05	-					
Sodium	MG/L	20	-	9.15	8.83	13.5	53.4	6.06
Vanadium	MG/L	-	-	0.009				
Zinc	MG/L	2	-	0.071	0.034	0.332		0.153
Radionuclides								
Bismuth 214 (Soluble)	PCi/L	-	18900					
Lead 214 (Soluble)	PCi/L	-	11800					
Thorium 234 (Insoluble)	PCi/L	-	401					
Uranium 235 (Insoluble)	PCi/L	-	-					

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 Addendum). Class GA.

Criteria (2)- Derived from EPA Maximum Contaminant Level (MCL) of 4 millirem/year exposure.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

J - The analyte was positively identified, the quantitation is an estimation.
J+ - The analyte was positively identified, the quantitation is an estimation with psssible high bias.
J- - The analyte was positively identified, the quantitation is an estimation with psssible low bias.
Blank - not detected. - = No criteria.

Only Detected Results Reported.

TABLE 3-2
DETECTED ANALYTES IN SURFACE WATER
PFOHL BROOTHERS LANDFILL SITE
MAY 2005

Location ID			SW-01	SW-02	SW-03	SW-04	SW-05
Sample ID			SW-1	SW-2	SW-3	SW-4	SW-5
Matrix			WS	WS	WS	WS	WS
Date Sampled			5/3/2005	5/3/2005	5/3/2005	5/3/2005	5/3/2005
Parameter	Units	Criteria					
Volatile Organic Compounds							
Acetone	UG/L	-			20		
Bromodichloromethane	UG/L	-			1		
Chloroform	UG/L	-		2	2		
Metals							
Aluminum	MG/L	0.1	**0.295 J+**	0.056 J+	**0.151 J+**		0.056 J+
Barium	MG/L	-	0.055	0.048	0.051	0.038	0.015
Calcium	MG/L	-	70.2	67.8	72.9	77.3	62.6
Copper	MG/L	( )					
Iron	MG/L	0.3	**1.06**	0.258	0.299	**0.33**	0.114
Lead	MG/L	( )					
Magnesium	MG/L	-	15.5	15	15.9	17	20.8
Manganese	MG/L	-	0.09	0.032	0.038	0.056	0.053
Potassium	MG/L	-	3.76	3.62	3.65	2.75	3.31
Silver	MG/L	0.1					0.084 J-
Sodium	MG/L	-	219	190	207	153	18.5
Zinc	MG/L	( )	0.039 (15)		0.017 (15)		0.014 (15)
Hardness (calculated)	MG/L		239	231	248	263	242

Criteria - NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 Addendum). Class B.

( ) criteria caculated based on hardness

Concentration exceeds Criteria

J+ - The analyte was positively identified, the concentration is an estimation with possible high bias.

J- - The analyte was positively identified, the concentration is an estimation with possible low bias.

TABLE 3-2
DETECTED ANALYTES IN SURFACE WATER
PFOHL BROOTHERS LANDFILL SITE
MAY 2005

Location ID			SW-06	SW-06	SW-07	SW-08
Sample ID			SW-6	SW-9	SW-7	SW-8
Matrix			WS	WS	WS	WS
Date Sampled			5/3/2005	5/3/2005	5/3/2005	5/3/2005
Parameter	Units	Criteria		Field Duplicate		
Volatile Organic Compounds						
Acetone	UG/L	-				
Bromodichloromethane	UG/L	-				
Chloroform	UG/L	-				
Metals						
Aluminum	MG/L	0.1	**0.119 J+**	**0.123 J+**		0.069 J+
Barium	MG/L	-	0.034	0.035	0.038	0.052
Calcium	MG/L	-	131	131	86.6	94.6
Copper	MG/L	( )	0.015 (1.7)	0.011 (1.7)		
Iron	MG/L	0.3	0.268	0.255	**0.308**	**2.02**
Lead	MG/L	( )				0.003 (0.37)
Magnesium	MG/L	-	35.6	35.4	20.5	22
Manganese	MG/L	-	0.155	0.172	0.128	0.188
Potassium	MG/L	-	7.15	7.27	2.13	1.7
Silver	MG/L	0.1				
Sodium	MG/L	-	38.8	40.1	94.4	94.6
Zinc	MG/L	( )			0.019 (17)	0.02 (17)
Hardness (calculated)	MG/L		474	473	301	327

Criteria - NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 Addendum). Class B.

( ) criteria caculated based on hardness

Concentration exceeds Criteria

J+ - The analyte was positively identified, the concentration is an estimation with possible high bias.

Blank - Not Detected

TABLE 3-3
DETECTED ANALYTES IN SEDIMENT
PFOHL BROTHERS LANDFILL SITE
MAY 2005

Location ID		SW-01	SW-02	SW-03	SW-04	SW-05
Sample ID		SED-1	SED-2	SED-3	SED-4	SED-5
Matrix		Sediment	Sediment	Sediment	Sediment	Sediment
Depth Interval (ft)		-	-	-	-	-
Date Sampled		05/03/05	05/03/05	05/03/05	05/03/05	05/03/05
Parameter	**Units**					
Volatile Organic Compounds						
Acetone	UG/KG	489	164	126	37	39
Chlorobenzene	UG/KG		9			
Methyl ethyl ketone (2-Butanone)	UG/KG	100	33	29	14	
Semivolatile Organic Compounds						
Benzo(a)anthracene	UG/KG	804	415	417		
Benzo(a)pyrene	UG/KG	1,690	758	622	97	
Benzo(b)fluoranthene	UG/KG	2,310	1,080	847		
Benzo(g,h,i)perylene	UG/KG	863	349	251		
Benzo(k)fluoranthene	UG/KG	2,100	916	641	101	
bis(2-Ethylhexyl)phthalate	UG/KG	1,680	1,010	1,060	135	135
Chrysene	UG/KG	1,290	719	665		
Dibenz(a,h)anthracene	UG/KG	243				
Fluoranthene	UG/KG	2,000	1,330	1,450	128	
Indeno(1,2,3-cd)pyrene	UG/KG	787	311	241		
Phenanthrene	UG/KG	528	419	576		
Pyrene	UG/KG	3,270	1,270	1,200	146	
Polychlorinated Biphenyls						
Aroclor 1248	UG/KG		102			
Aroclor 1254	UG/KG		62			
Aroclor 1260	UG/KG	37.1	30.7	3.52		
Metals						
Aluminum	MG/KG	10,600	9,700	14,800	4,240	9,140
Arsenic	MG/KG	13.4	5.70	8.43	1.56	3.48

Flags assigned during chemistry validation are shown.

J- - The analyte was positively identified, the quantitation is an estimation with psssible low bias.
Blank - not detected. - = No criteria.

Only Detected Results Reported.

TABLE 3-3
DETECTED ANALYTES IN SEDIMENT
PFOHL BROTHERS LANDFILL SITE
MAY 2005

Location ID		SW-01	SW-02	SW-03	SW-04	SW-05
Sample ID		SED-1	SED-2	SED-3	SED-4	SED-5
Matrix		Sediment	Sediment	Sediment	Sediment	Sediment
Depth Interval (ft)		-	-	-	-	-
Date Sampled		05/03/05	05/03/05	05/03/05	05/03/05	05/03/05
Parameter	**Units**					
Metals						
Barium	MG/KG	241 J-	123 J-	106 J-	24.5 J-	46.6 J-
Beryllium	MG/KG			0.57		
Cadmium	MG/KG	5.15	2.86	1.99		
Calcium	MG/KG	29,700	49,100	22,200	66,100	3,710
Chromium	MG/KG	31.6	31.4	27.8	7.86	14.6
Cobalt	MG/KG	8.73	9.26	7.07	2.48	4.96
Copper	MG/KG	72.6	67.7	43.6	12.4	21.4
Iron	MG/KG	51,000	21,100	17,900	5,990	12,500
Lead	MG/KG	302 J-	94.8 J-	68.8 J-	36.5 J-	25.3 J-
Magnesium	MG/KG	6,970	17,900	6,640	8,970	2,900
Manganese	MG/KG	2,500	543	331	144	570
Mercury	MG/KG	0.127	0.118	0.137	0.021	0.05
Nickel	MG/KG	25.5	29.1	22.1	10.3	10.9
Potassium	MG/KG	1,500	2,140	1,200	574	983
Selenium	MG/KG	5.34	4.58	2.86	4.15	
Silver	MG/KG	1.35	0.52			
Sodium	MG/KG	777	513	1,440	258	117
Thallium	MG/KG	1.72				
Vanadium	MG/KG	29.6	21.9	27.0	18.3	18.8
Zinc	MG/KG	560	424	331	78.1	124
Miscellaneous Parameters						
Cyanide	MG/KG	1.73	1.88			

Flags assigned during chemistry validation are shown.

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Blank - not detected. - = No criteria.

Only Detected Results Reported.

TABLE 3-3
DETECTED ANALYTES IN SEDIMENT
PFOHL BROTHERS LANDFILL SITE
MAY 2005

Location ID		SW-06	SW-06	SW-07	SW-08
Sample ID		SED-6	SED-9	SED-7	SED-8
Matrix		Sediment	Sediment	Sediment	Sediment
Depth Interval (ft)		-	-	-	-
Date Sampled		05/03/05	05/03/05	05/03/05	05/03/05
Parameter	Units		Field Duplicate (1-1)		
Volatile Organic Compounds					
Acetone	UG/KG	22	48	105	75
Chlorobenzene	UG/KG				
Methyl ethyl ketone (2-Butanone)	UG/KG			22	
Semivolatile Organic Compounds					
Benzo(a)anthracene	UG/KG				225
Benzo(a)pyrene	UG/KG				284
Benzo(b)fluoranthene	UG/KG				346
Benzo(g,h,i)perylene	UG/KG				
Benzo(k)fluoranthene	UG/KG				329
bis(2-Ethylhexyl)phthalate	UG/KG	115	136	159	649
Chrysene	UG/KG				264
Dibenz(a,h)anthracene	UG/KG				
Fluoranthene	UG/KG	135			416
Indeno(1,2,3-cd)pyrene	UG/KG				
Phenanthrene	UG/KG	112			227
Pyrene	UG/KG				755
Polychlorinated Biphenyls					
Aroclor 1248	UG/KG			118	
Aroclor 1254	UG/KG				
Aroclor 1260	UG/KG				
Metals					
Aluminum	MG/KG	8,300	10,500	5,510	11,900
Arsenic	MG/KG	5.11	6.07	4.34	8.21

Flags assigned during chemistry validation are shown.

J- - The analyte was positively identified, the quantitation is an estimation with psssible low bias.
Blank - not detected. - = No criteria.

Only Detected Results Reported.

TABLE 3-3
DETECTED ANALYTES IN SEDIMENT
PFOHL BROTHERS LANDFILL SITE
MAY 2005

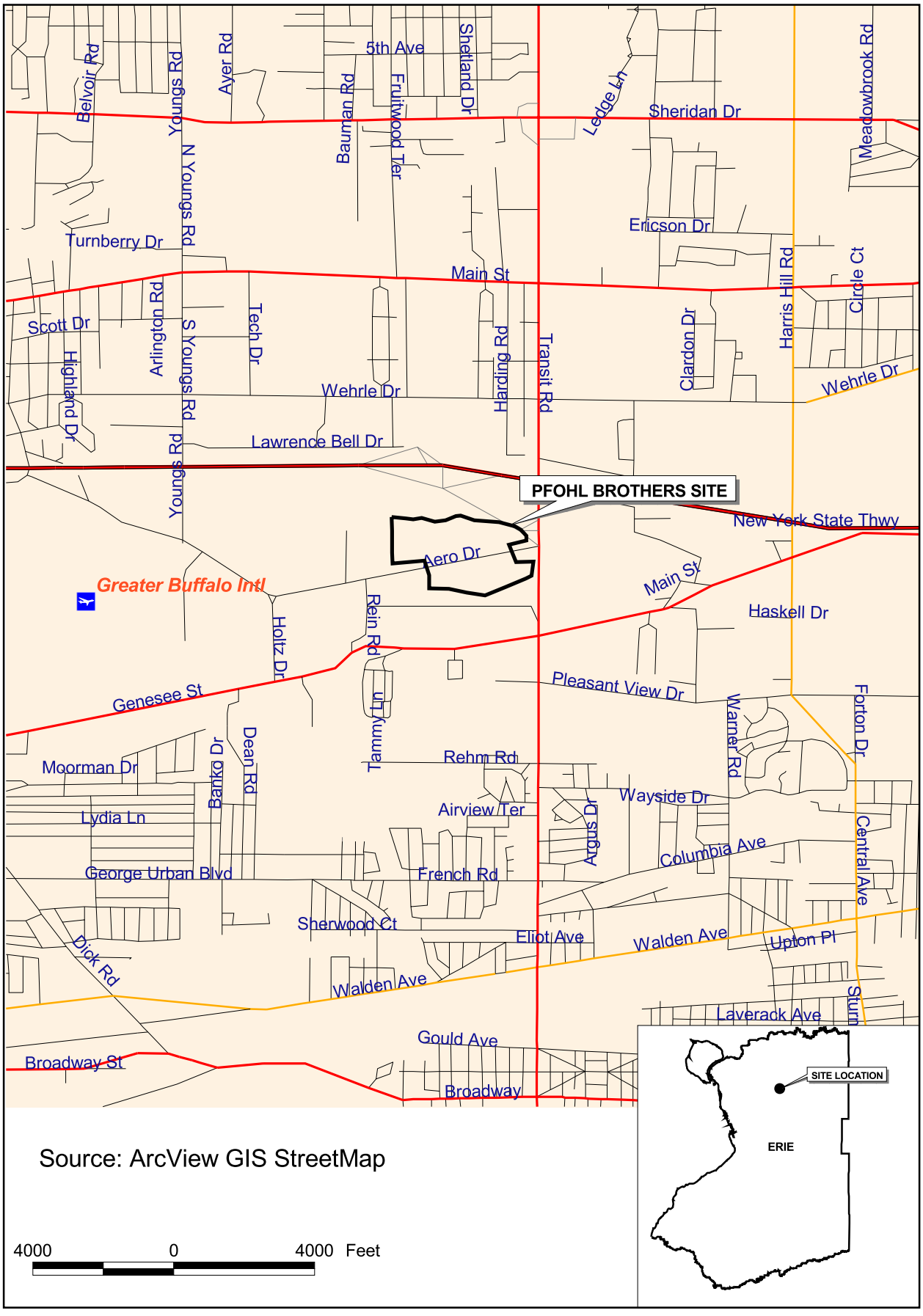
Location ID		SW-06	SW-06	SW-07	SW-08
Sample ID		SED-6	SED-9	SED-7	SED-8
Matrix		Sediment	Sediment	Sediment	Sediment
Depth Interval (ft)		-	-	-	-
Date Sampled		05/03/05	05/03/05	05/03/05	05/03/05
Parameter	Units		Field Duplicate (1-1)		
Metals					
Barium	MG/KG	64.9 J-	81.6 J-	61.5 J-	115 J-
Beryllium	MG/KG				0.51
Cadmium	MG/KG				1.52
Calcium	MG/KG	40,700	43,500	32,100	1.07E+05
Chromium	MG/KG	14.1	17.3	9.95	23.7
Cobalt	MG/KG	9.31	9.55	5.55	7.09
Copper	MG/KG	34.3	36.5	21.3	62.2
Iron	MG/KG	16,300	18,200	17,000	36,200
Lead	MG/KG	22.4 J-	22.4 J-	22.6 J-	69.1 J-
Magnesium	MG/KG	18,200	19,100	12,400	30,400
Manganese	MG/KG	539	629	1,240	1,440
Mercury	MG/KG	0.035	0.021	0.022	0.073
Nickel	MG/KG	10.8	21.5	12.0	23.2
Potassium	MG/KG	1,280	1,870	901	2,110
Selenium	MG/KG	4.22	3.81	3.52	8.29
Silver	MG/KG		0.64		5.20
Sodium	MG/KG	209	241	241	1,180
Thallium	MG/KG			1.14	1.47
Vanadium	MG/KG	18.2	22.4	13.4	28.6
Zinc	MG/KG	145	149	124	316
Miscellaneous Parameters					
Cyanide	MG/KG			2.86	1.91

Flags assigned during chemistry validation are shown.

J- - The analyte was positively identified, the quantitation is an estimation with psssible low bias.
Blank - not detected. - = No criteria.

Only Detected Results Reported.

FIGURES

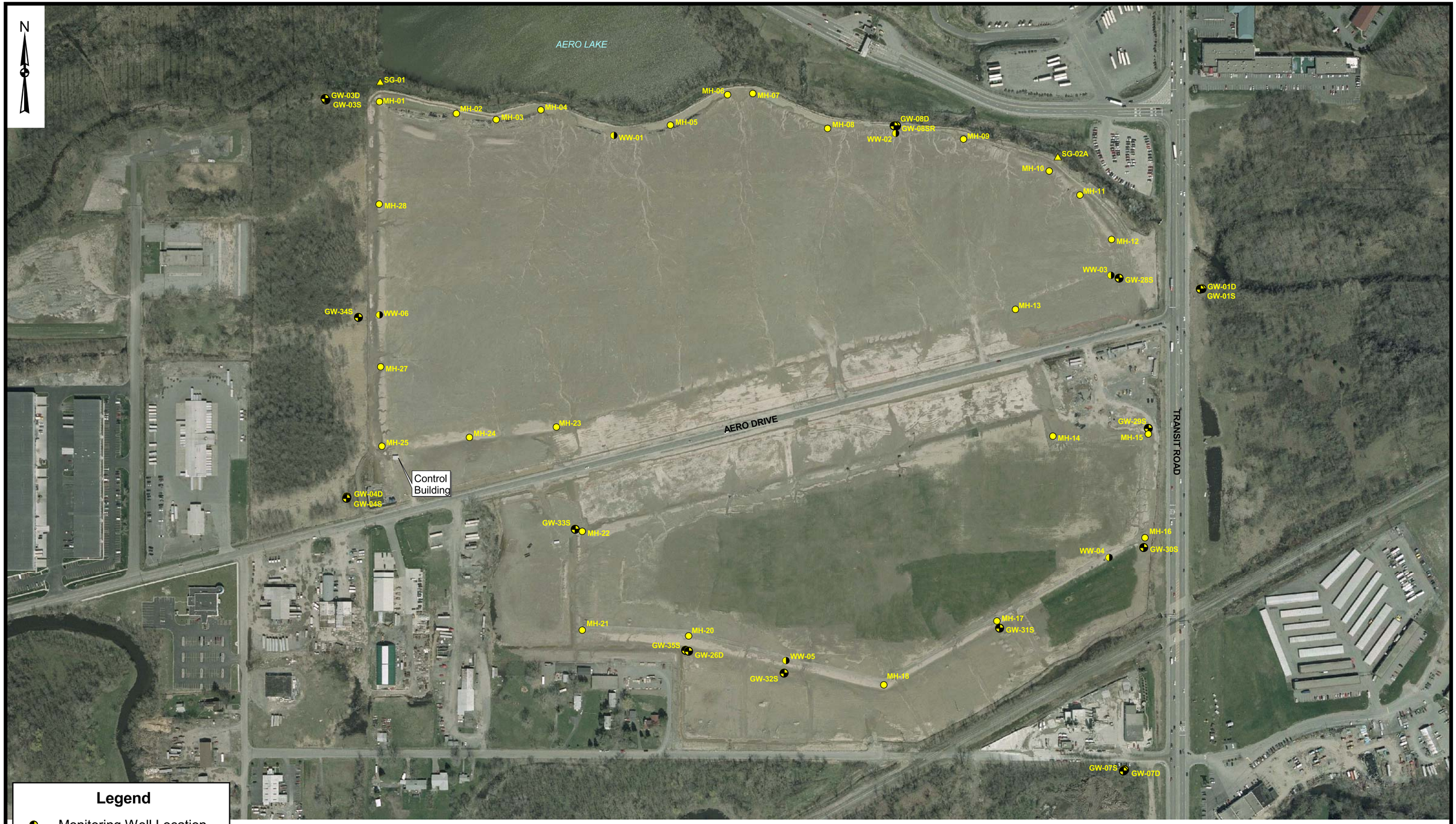


n:\111172700.00000\gis\arcview\pfohl_sitelocation.apr Pfohl Bros Location Map
1/1/20/2005

URS

PFOHL BROTHERS LANDFILL
SITE LOCATION MAP

FIGURE 1-1



Legend

- Monitoring Well Location
- Staff Gauge Location
- Manhole Location
- Wet Well Location

400 0 400 Feet

PFOHL BROTHERS LANDFILL
MONITORING LOCATIONS

URS

FIGURE 3-1

N:\11172700.00000\GIS\ArcView\pfhol.apr WELL LOCATIONS
11/20/2005

Legend

- Surface Water/Sediment Sample Location

350 0 350 Feet

PFOHL BROTHERS LANDFILL
SURFACE WATER/SEDIMENT SAMPLING LOCATIONS

URS

FIGURE 3-2

N:\11172700.00000\GIS\ArcView\pfhol.apr SURFACE WATER LOCATIONS
11/20/2005

APPENDIX A

EXAMPLE DAILY INSPECTION SHEET

Pfohl Brothers Landfill Site

Daily Logsheet — **Town of Cheektowaga**

Date 6/6/05 — Weather conditions P/Cy Cloudy

Time 23.19 — Read by: TWN

	Level of Water from bottom (ft.)	Flow gallons / minute	Flow Totals gallons	Pump Run Time Hrs.
WW-3	99.0	0	1304001	1904
WW-2	4.5	0	398600	33
WW-1	3.7	0	525179	291
WW-6	6.7	0	3343857	0
WW-4	5.1	0	3165999	1039
WW-5	3.4	0	5053239	1491

Flow Totalizer at Meter chamber 13791090

Heat Trace

Outside temp T = 69 — Set point SP = 40

Current A = 0

Surge Suppressor events 505257

Motor Control Center

Volts 480 volts — Which WW was running?

Amps 5 amps — 1☐ 2☐ 3☒ 4☐ 5☐ 6☐

Filter **Checked** ☒ **Changed** ☐

Comments and/or Current Conditions

WW-3 Level Invalid > Reset > Pump Activated

Turned "on" AC wall unit

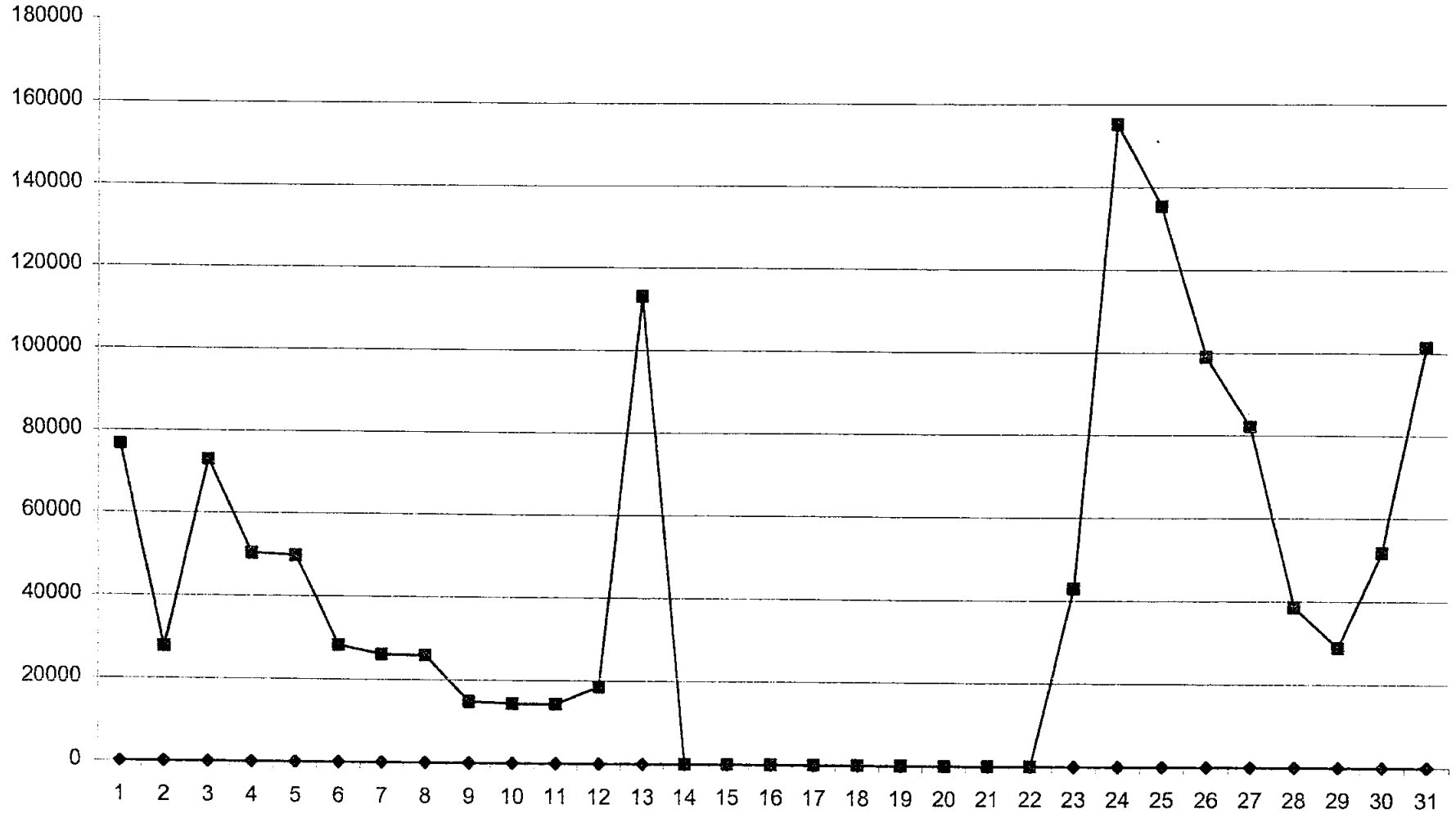
APPENDIX B

MONTHLY FLOW SUMMARIES
JANUARY 2005 – JUNE 2005

Direct Discharge Flow Data

12/31/04		7341224	14,849	7341247	
January-05	**Time; 11:58pm unless otherwise stated**	**Totalizer Reading (Gallons)**	**Daily Total Discharge (Gallons)**	**Total Direct Discharge (Gallons)**	**Notes**
1		7417801	76,577	7,417,824	
2		7445535	27,737	7,445,561	
3		7518276	72,739	7,518,300	
4		7568745	50,469	7,568,769	
5		7618698	49,954	7,618,723	
6		7646922	28,224	7,646,947	
7		7673006	26,084	7,673,031	
8		7698921	25,916	7,698,947	
9		7713774	14,853	7,713,800	
10		7728172	14,398	7,728,198	
11		7742567	14,395	7,742,593	
12		7761137	18,570	7,761,163	
13		7874358	113,222	7,874,385	
14		7874358	0	7,874,385	
15		7874358	0	7,874,385	
16		7874358	0	7,874,385	
17		7874358	0	7,874,385	
18		7874358	0	7,874,385	
19		7874358	0	7,874,385	
20		7874358	0	7,874,385	
21		7874358	0	7,874,385	
22		7874358	0	7,874,385	
23		7917222	42,864	7,917,249	
24		8072365	155,143	8,072,392	
25		8207743	135,378	8,207,770	
26		8306809	99,067	8,306,837	
27		8389071	82,262	8,389,099	
28		8427727	38,656	8,427,755	
29		8456517	28,790	8,456,545	
30		8508238	51721	8,508,266	
31		8609634	101,396	8,609,662	
		1,268,410	**1,268,415**	**1,268,415**	

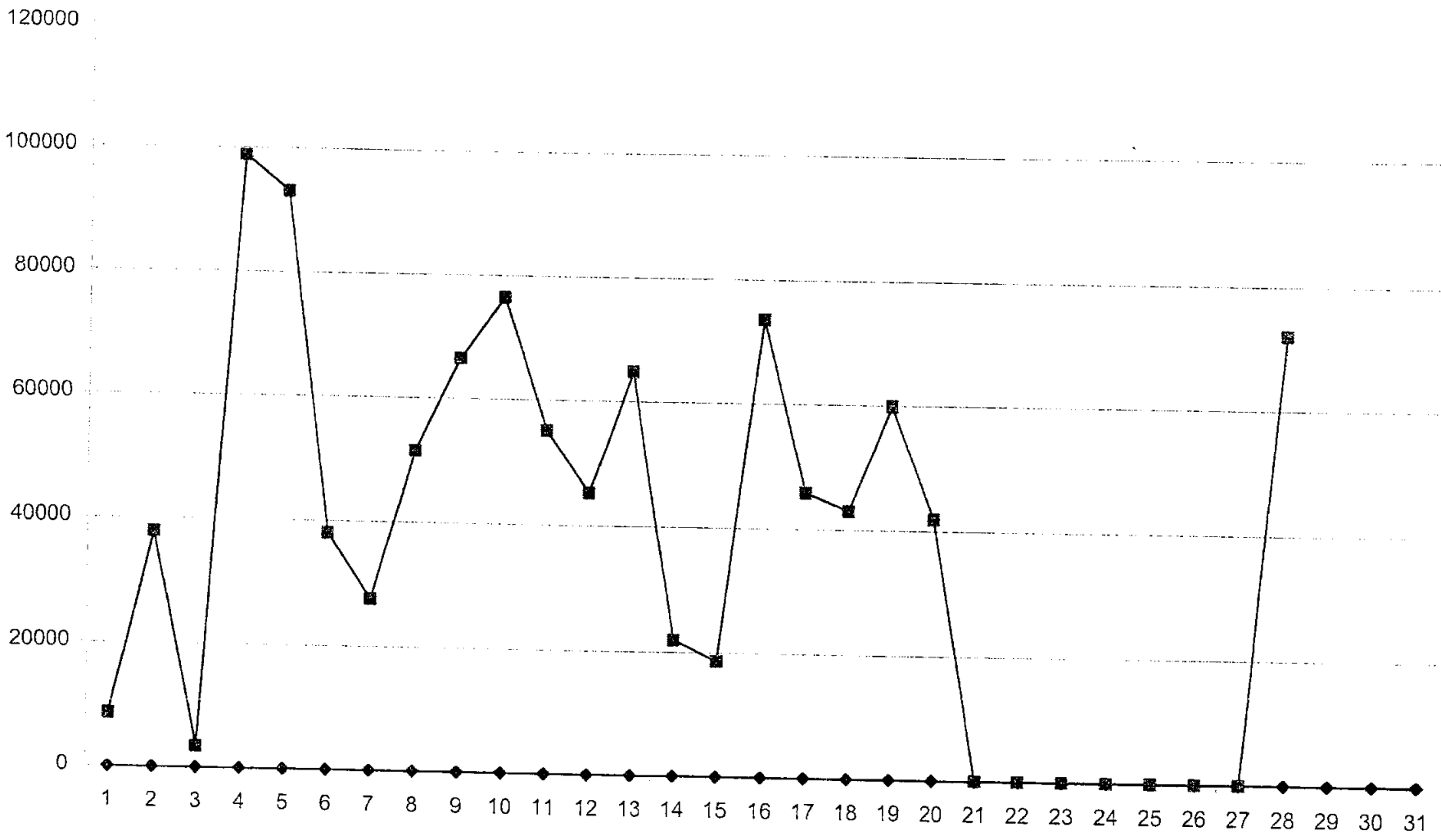
January
2005



Direct Discharge Flow Data

1/31/05		8609634	101,396	8609662	
February-05	**Time; 11:58pm unless otherwise stated**	**Totalizer Reading (Gallons)**	**Daily Total Discharge (Gallons)**	**Total Direct Discharge (Gallons)**	**Notes**
1		8618131	8,497	8,618,159	
2		8656038	37,907	8,656,066	
3		8659484	3,447	8,659,513	
4		.8758215	98,730	8,758,243	
5		8851181	92,966	8,851,209	
6		8889284	38,103	8,889,312	
7		8916841	27,557	8,916,869	
8		8968398	51,557	8,968,426	
9		9034838	66,440	9,034,866	
10		9111341	76,503	9,111,369	
11		9166521	55,180	9,166,549	
12		9211694	45,173	9,211,722	
13		9276362	64,668	9,276,390	
14		9298327	21,965	9,298,355	
15		9316922	18,595	9,316,950	
16		9390500	73,578	9,390,528	
17		9436261	45,761	9,436,289	
18		9479253	42,992	9,479,281	
19		9539097	59,844	9,539,125	
20		9580981	41,884	9,581,009	
21		9580981	0	9,581,009	
22		9580981	0	9,581,009	
23		9580981	0	9,581,009	
24		9580981	0	9,581,009	
25		9580981	0	9,581,009	
26		9580981	0	9,581,009	
27		9580981	0	9,581,009	
28		9653075	72,094	9,653,103	
29					
30					
31					
		1,043,441	**1,043,441**	**1,043,441**	

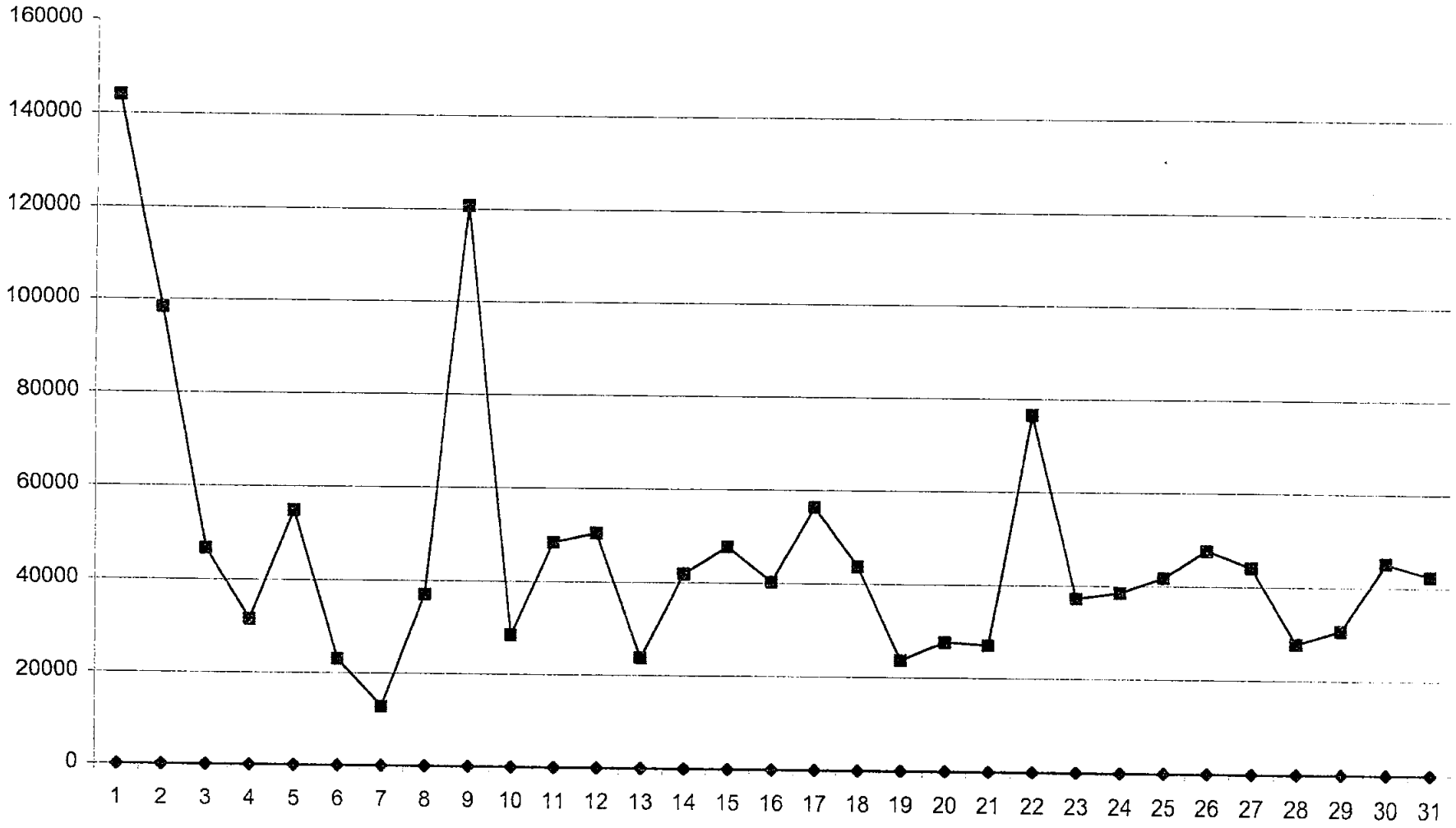
February
2005



Direct Discharge Flow Data

2/28/05		9653075	72,094	9653103	
March-05	**Time; 11:58pm unless otherwise stated**	**Totalizer Reading (Gallons)**	**Daily Total Discharge (Gallons)**	**Total Direct Discharge (Gallons)**	**Notes**
1		9796984	143,909	9,797,012	
2		9895341	98,357	9,895,369	
3		9941929	46,588	9,941,957	
4		9973533	31,604	9,973,561	
5		10028380	54,851	10,028,412	
6		10051440	23,052	10,051,464	
7		10064260	12,828	10,064,292	
8		10101330	37,066	10,101,358	
9		10222070	120,739	10,222,097	
10		10250600	28,526	10,250,623	
11		10299020	48,427	10,299,050	
12		10349520	50,501	10,349,551	
13		10373370	23,848	10,373,399	
14		10415280	41,905	10,415,304	
15		10463000	47,721	10,463,025	
16		10503350	40,351	10,503,376	
17		10559720	56,372	10,559,748	
18		10603480	43,755	10,603,503	
19		10627270	23,798	10,627,301	
20		10654990	27,720	10,655,021	
21		10682170	27,173	10,682,194	
22		10758760	76,597	10,758,791	
23		10796060	37,301	10,796,092	
24		10834600	38,533	10,834,625	
25		10876430	41,829	10,876,454	
26		10924060	47,635	10,924,089	
27		10968150	44,089	10,968,178	
28		10995960	27,810	10,995,988	
29		11026660	30,696	11,026,684	
30		11071840	45179	11,071,863	
31		11114220	42,385	11,114,248	
		1,461,145	**1,461,145**	**1,461,145**	

March
2005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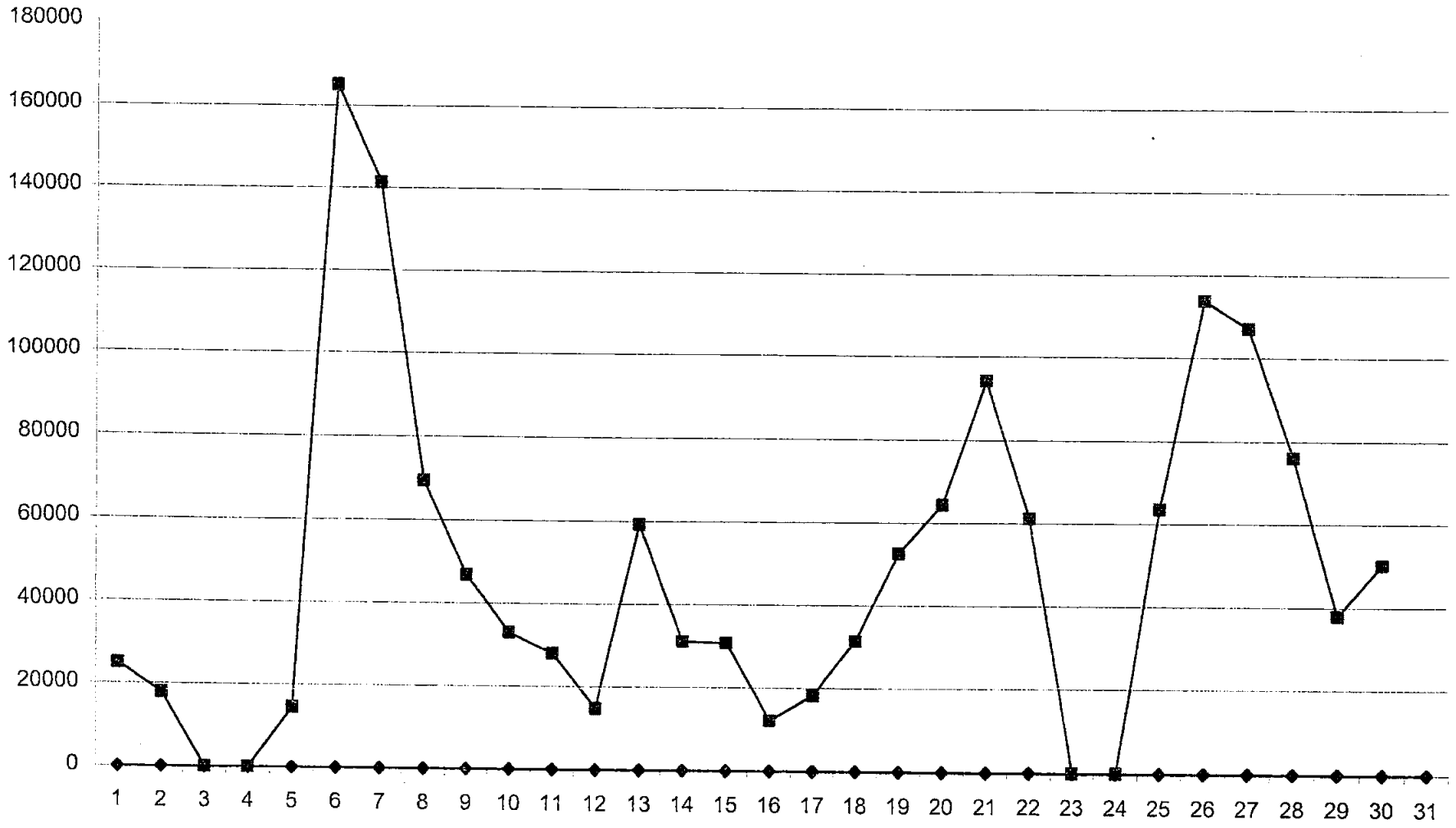
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Direct Discharge Flow Data

3/31/05		11114220	42,385	11114248	
April-05	**Time; 11:58pm unless otherwise stated**	**Totalizer Reading (Gallons)**	**Daily Total Discharge (Gallons)**	**Total Direct Discharge (Gallons)**	**Notes**
1		11139160	24,938	11,139,186	
2		11157140	17,985	11,157,171	
3		11157140	0	11,157,171	
4		11157140	0	11,157,171	
5		11171780	14,634	11,171,805	
6		11336770	164,997	11,336,802	
7		11478100	141,329	11,478,131	
8		11547540	69,441	11,547,572	
9		11594350	46,806	11,594,378	
10		11627420	33,074	11,627,452	
11		11655340	27,919	11,655,371	
12		11670140	14,794	11,670,165	
13		11729370	59,233	11,729,398	
14		11760500	31,129	11,760,527	
15		11791270	30,769	11,791,296	
16		11803470	12,203	11,803,499	
17		11821760	18,291	11,821,790	
18		11853190	31,424	11,853,214	
19		11905850	52,660	11,905,874	
20		11970230	64,388	11,970,262	
21		12064410	94,172	12,064,434	
22		12125630	61,222	12,125,656	
23		12125630	0	12,125,656	
24		12125630	0	12,125,656	
25		12189170	63,539	12,189,195	
26		12302920	113,756	12,302,951	
27		12410020	107,101	12,410,052	
28		12486160	76,139	12,486,191	
29		12524110	37,945	12,524,136	
30		12574350	50243	12,574,379	
31					
		1,460,130	**1,460,131**	**1,460,131**	

April
2005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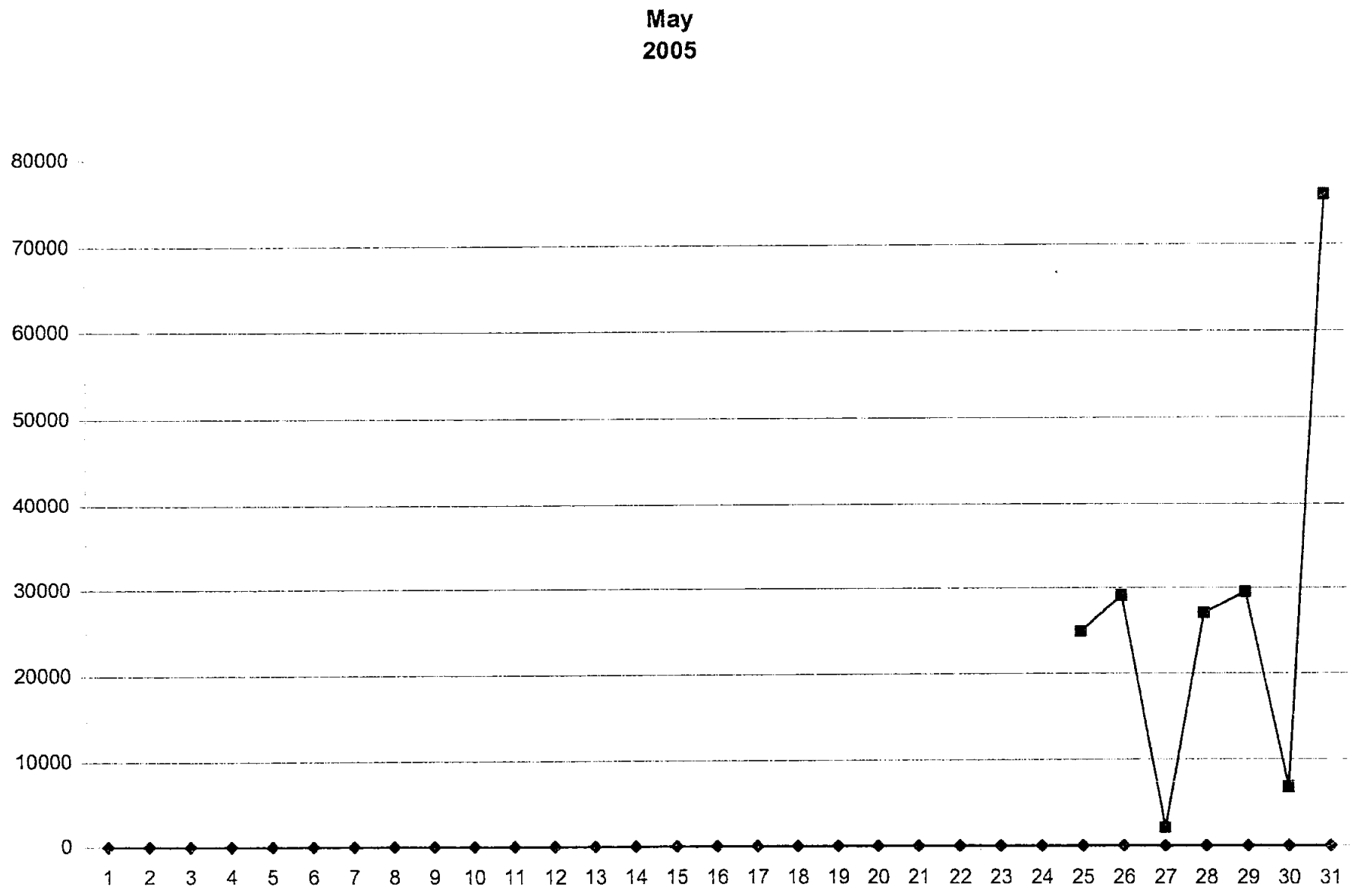
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Direct Discharge Flow Data

4/30/05		12,574,350	50,243	12574379	
May-05	**Time; 11:58pm unless otherwise stated**	**Totalizer Reading (Gallons)**	**Daily Total Discharge (Gallons)**	**Total Direct Discharge (Gallons)**	**Notes**
1		*		12,574,379	
2				12,574,379	
3				12,574,379	
4				12,574,379	
5				12,574,379	
6				12,574,379	
7				12,574,379	
8				12,574,379	
9				12,574,379	
10				12,574,379	
11				12,574,379	
12				12,574,379	
13				12,574,379	
14				12,574,379	
15				12,574,379	
16				12,574,379	
17				12,574,379	
18				12,574,379	
19				12,574,379	
20				12,574,379	
21				12,574,379	
22				12,574,379	
23				12,574,379	
24				12,574,379	
25		13,332,950	24,933	12,599,312	
26		13,362,100	29,150	12,628,462	
27		13,364,250	2,151	12,630,613	
28		13,391,300	27,056	12,657,669	
29		13,420,840	29,540	12,687,209	
30		13,427,710	6,865	12,694,074	
31		13,503,520	75,814	12,769,888	***Adjusted Direct Discharge13,503,549***
		929,170	**195,509**	**195,509**	

*** Faulty PC , unable to retrieve any flow data, May 1st thru May 24th 2005**


May
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50000
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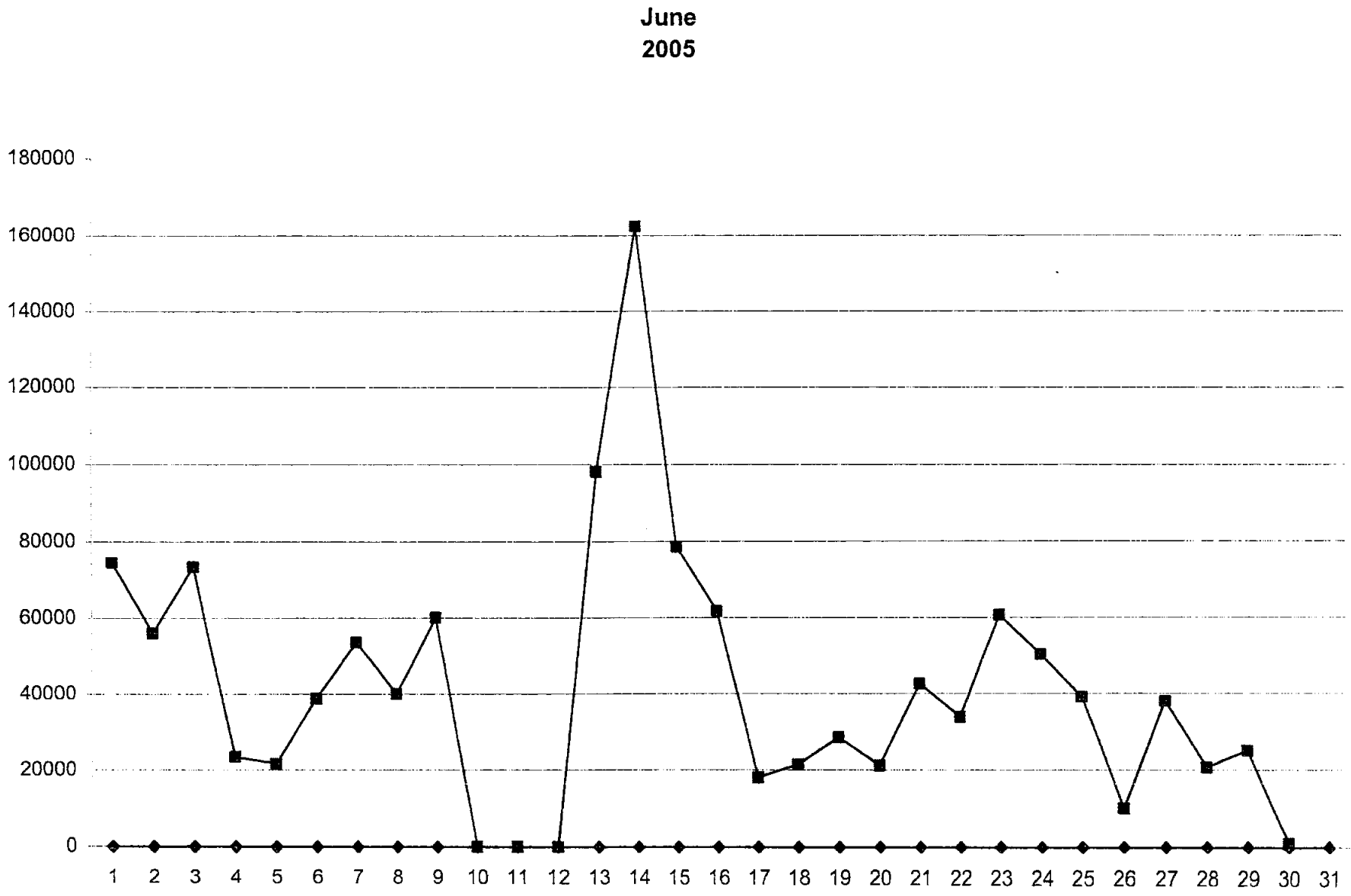
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Direct Discharge Flow Data

5/31/05		13,503,520	75,814	13503549	
June-05	**Time; 11:58pm unless otherwise stated**	**Totalizer Reading (Gallons)**	**Daily Total Discharge (Gallons)**	**Total Direct Discharge (Gallons)**	**Notes**
1		13578120	74,597	13,578,146	
2		13634180	56,063	13,634,209	
3		13707560	73,384	13,707,593	
4		13731120	23,558	13,731,151	
5		13752780	21,664	13,752,815	
6		13791630	38,846	13,791,661	
7		13845300	53,676	13,845,337	
8		13885290	39,981	13,885,318	
9		13945440	60,158	13,945,476	
10		13945440	0	13,945,476	
11		13945440	0	13,945,476	
12		13945440	0	13,945,476	
13		14043590	98,150	14,043,626	
14		14206120	162,523	14,206,149	
15		14284800	78,682	14,284,831	
16		14346590	61,791	14,346,622	
17		14364710	18,123	14,364,745	
18		14386150	21,439	14,386,184	
19		14414660	28,512	14,414,696	
20		14435820	21,155	14,435,851	
21		14478440	42,617	14,478,468	
22		14512250	33,816	14,512,284	
23		14572950	60,702	14,572,986	
24		14623280	50,324	14,623,310	
25		14662430	39,149	14,662,459	
26		14672650	10,221	14,672,680	
27		14710660	38,015	14,710,695	
28		14731410	20,745	14,731,440	
29		14756410	25,005	14,756,445	
30		14757350	941	14,757,386	
31					
		1,253,830	**1,253,837**	**1,253,837**	


June
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

APPENDIX C

HYDRAULIC MONITORING TABLES AND FIGURES

TABLE 1
PFOHL BROTHERS LANDFILL SITE
GROUNDWATER ELEVATIONS
DECEMBER 2004

Location ID / Type	Northing	Easting	Ground Elevation (ft)	Casing Elevation (ft)	Meas.point (Riser)Elev.(ft)	Geol. Zone	Specific Gravity	Date / Time	Depth to Water (ft)	Water Elev. (ft)	Product Thick. (ft)	Corrected Water Elev. (ft)	Remark
GW-03S MNW	1073812.622	1114605.762	692.61	NA	693.80	S	1	12/21/2004 0914	2.45	691.35	0.00	691.35	
GW-04S MNW	1072284.456	1114685.127	690.76	NA	692.72	S	1	12/21/2004 1051	4.28	688.44	0.00	688.44	
GW-07S MNW	1071238.157	1117666.265	697.47	NA	699.51	S	1	12/21/2004 1042	4.98	694.53	0.00	694.53	
GW-08SR MNW	1073714.172	1116786.343	695.08	NA	697.50	S	1	12/21/2004 0935	5.44	692.06	0.00	692.06	
GW-28S MNW	1073129.479	1117648.927	698.60	NA	700.95	S	1	12/21/2004 0947	5.55	695.40	0.00	695.40	
GW-29S MNW	1072552.638	1117761.993	697.50	NA	699.63	S	1	12/21/2004 1027	5.63	694.00	0.00	694.00	
GW-30S MNW	1072096.109	1117743.563	693.67	NA	696.58	S	1	12/21/2004 1024	6.63	689.95	0.00	689.95	
GW-31S MNW	1071786.280	1117191.441	695.84	NA	698.62	S	1	12/21/2004 0000	NM	-	NM	-	Bailer frozen in well
GW-32S MNW	1071613.793	1116364.200	696.19	NA	698.37	S	1	12/21/2004 1034	2.76	695.61	0.00	695.61	
GW-33S MNW	1072165.625	1115561.866	695.94	NA	698.24	S	1	12/21/2004 0959	4.26	693.98	0.00	693.98	
GW-34S MNW	1072979.205	1114730.200	692.51	NA	694.77	S	1	12/21/2004 0902	3.18	691.59	0.00	691.59	

NM - No Measurement

The value noted in the column labeled Specific Gravity is an assumed value for free product, if found.

Type:

MH	Manhole Monitoring Point
MNW	Monitoring Well

Filter = ((tblGWD.LOGDATE Like "12/*/2004"))

Printed: 11/21/2005 10:50:18 AM
N:\11172700.00000\GIS\dB\Program\Program.mde/Groundwater Level

TABLE 1
PFOHL BROTHERS LANDFILL SITE
GROUNDWATER ELEVATIONS
DECEMBER 2004

Location ID / Type	Northing	Easting	Ground Elevation (ft)	Casing Elevation (ft)	Meas.point (Riser)Elev.(ft)	Geol. Zone	Specific Gravity	Date / Time	Depth to Water (ft)	Water Elev. (ft)	Product Thick. (ft)	Corrected Water Elev. (ft)	Remark
GW-35S MNW	1071701.925	1115985.585	696.19	NA	697.39	S	1	12/21/2004 1009	3.02	694.37	0.00	694.37	
MH-01 MH	1073806.665	1114810.501	698.62	NA	698.62	NA	1	12/21/2004 0906	12.02	686.60	0.00	686.60	
MH-03 MH	1073736.789	1115259.334	699.40	NA	699.40	NA	1	12/21/2004 0918	11.17	688.23	0.00	688.23	
MH-07 MH	1073838.229	1116243.757	696.82	NA	696.82	NA	1	12/21/2004 0924	9.38	687.44	0.00	687.44	
MH-10 MH	1073540.729	1117381.524	703.01	NA	703.01	NA	1	12/21/2004 0941	14.50	688.51	0.00	688.51	
MH-15 MH	1072531.567	1117761.125	699.02	NA	699.02	NA	1	12/21/2004 1028	14.27	684.75	0.00	684.75	
MH-16 MH	1072133.714	1117748.238	698.57	NA	698.57	NA	1	12/21/2004 1023	13.79	684.78	0.00	684.78	
MH-17 MH	1071813.137	1117180.019	702.16	NA	702.16	NA	1	12/21/2004 1017	17.48	684.68	0.00	684.68	
MH-20 MH	1071756.395	1115997.024	706.20	NA	706.20	NA	1	12/21/2004 1003	19.75	686.45	0.00	686.45	
MH-22 MH	1072158.023	1115589.309	698.05	NA	698.05	NA	1	12/21/2004 1000	9.09	688.96	0.00	688.96	
MH-25 MH	1072483.928	1114820.313	698.17	NA	698.17	NA	1	12/21/2004 0853	12.75	685.42	0.00	685.42	

NM - No Measurement

The value noted in the column labeled Specific Gravity is an assumed value for free product, if found.

Type:

MH	Manhole Monitoring Point
MNW	Monitoring Well

Filter = ((tblGWD.LOGDATE Like "12/*/2004"))

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TABLE 1
PFOHL BROTHERS LANDFILL SITE
GROUNDWATER ELEVATIONS
DECEMBER 2004

Location ID / Type	Northing	Easting	Ground Elevation (ft)	Casing Elevation (ft)	Meas.point (Riser)Elev.(ft)	Geol. Zone	Specific Gravity	Date / Time	Depth to Water (ft)	Water Elev. (ft)	Product Thick. (ft)	Corrected Water Elev. (ft)	Remark
SG-01 SG	1073882.887	1114813.101		NA	690.00	S	1	12/21/2004 0907	-1.95	691.95	0.00	691.95	Water surface frozen
SG-02	1073796.856	1115255.756						12/21/2004 0922	-2.20	-	0.00	-	Water surface frozen
WW-01 MH	1073676.903	1115710.476		NA	684.02		1	12/21/2004 0800	-4.10	688.12	0.00	688.12	
WW-02 MH	1073684.724	1116792.311		NA	684.18		1	12/21/2004 0800	-4.50	688.68	0.00	688.68	
WW-03 MH	1073140.339	1117618.499		NA	683.80		1	12/21/2004 0800	-5.70	689.50	0.00	689.50	
WW-05 MH	1071661.368	1116370.876		NA	676.14		1	12/21/2004 0800	-9.10	685.24	0.00	685.24	
WW-06 MH	1072988.420	1114811.518		NA	681.89		1	12/21/2004 0800	-4.10	685.99	0.00	685.99	

NM - No Measurement

The value noted in the column labeled Specific Gravity is an assumed value for free product, if found.

Type:
MH Manhole Monitoring Point
MNW Monitoring Well

Filter = ((tblGWD.LOGDATE Like "12/*/2004"))

Printed: 11/21/2005 10:50:18 AM
N:\11172700.00000\GIS\dB\Program\Program.mde/Groundwater Level

TABLE 2
PFOHL BROTHERS LANDFILL SITE
GROUNDWATER ELEVATIONS
MARCH 2005

Location ID / Type	Northing	Easting	Ground Elevation (ft)	Casing Elevation (ft)	Meas.point (Riser)Elev.(ft)	Geol. Zone	Specific Gravity	Date / Time	Depth to Water (ft)	Water Elev. (ft)	Product Thick. (ft)	Corrected Water Elev. (ft)	Remark
GW-03S MNW	1073812.622	1114605.762	692.61	NA	693.80	S	1	3/28/2005 0921	1.95	691.85	0.00	691.85	
GW-04S MNW	1072284.456	1114685.127	690.76	NA	692.72	S	1	3/28/2005 0955	3.98	688.74	0.00	688.74	
GW-07S MNW	1071238.157	1117666.265	697.47	NA	699.51	S	1	3/28/2005 1000	4.47	695.04	0.00	695.04	
GW-08SR MNW	1073714.172	1116786.343	695.08	NA	697.50	S	1	3/28/2005 0917	5.27	692.23	0.00	692.23	
GW-28S MNW	1073129.479	1117648.927	698.60	NA	700.95	S	1	3/28/2005 0905	5.15	695.80	0.00	695.80	
GW-29S MNW	1072552.638	1117761.993	697.50	NA	699.63	S	1	3/28/2005 1055	5.07	694.56	0.00	694.56	
GW-30S MNW	1072096.109	1117743.563	693.67	NA	696.58	S	1	3/28/2005 1052	6.61	689.97	0.00	689.97	
GW-31S MNW	1071786.280	1117191.441	695.84	NA	698.62	S	1	3/28/2005 1044	2.06	696.56	0.00	696.56	
GW-32S MNW	1071613.793	1116364.200	696.19	NA	698.37	S	1	3/28/2005 1039	2.32	696.05	0.00	696.05	
GW-33S MNW	1072165.625	1115561.866	695.94	NA	698.24	S	1	3/28/2005 1030	3.92	694.32	0.00	694.32	
GW-34S MNW	1072979.205	1114730.200	692.51	NA	694.77	S	1	3/28/2005 0936	2.34	692.43	0.00	692.43	

NM - No Measurement

The value noted in the column labeled Specific Gravity is an assumed value for free product, if found.

Type:
MH Manhole Monitoring Point
MNW Monitoring Well

Filter = ((tblGWD.LOGDATE=#3/28/2005#))

Printed: 11/21/2005 10:52:31 AM
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TABLE 2
PFOHL BROTHERS LANDFILL SITE
GROUNDWATER ELEVATIONS
MARCH 2005

Location ID / Type	Northing	Easting	Ground Elevation (ft)	Casing Elevation (ft)	Meas.point (Riser)Elev.(ft)	Geol. Zone	Specific Gravity	Date / Time	Depth to Water (ft)	Water Elev. (ft)	Product Thick. (ft)	Corrected Water Elev. (ft)	Remark
GW-35S MNW	1071701.925	1115985.585	696.19	NA	697.39	S	1	3/28/2005 1034	2.77	694.62	0.00	694.62	
MH-01 MH	1073806.665	1114810.501	698.62	NA	698.62	NA	1	3/28/2005 0920	9.92	688.70	0.00	688.70	
MH-03 MH	1073736.789	1115259.334	699.40	NA	699.40	NA	1	3/28/2005 0927	10.58	688.82	0.00	688.82	
MH-07 MH	1073838.229	1116243.757	696.82	NA	696.82	NA	1	3/28/2005 0915	8.80	688.02	0.00	688.02	
MH-10 MH	1073540.729	1117381.524	703.01	NA	703.01	NA	1	3/28/2005 0912	14.50	688.51	0.00	688.51	
MH-15 MH	1072531.567	1117761.125	699.02	NA	699.02	NA	1	3/28/2005 1055	15.12	683.90	0.00	683.90	
MH-16 MH	1072133.714	1117748.238	698.57	NA	698.57	NA	1	3/28/2005 1051	16.19	682.38	0.00	682.38	
MH-17 MH	1071813.137	1117180.019	702.16	NA	702.16	NA	1	3/28/2005 1043	18.40	683.76	0.00	683.76	
MH-20 MH	1071756.395	1115997.024	706.20	NA	706.20	NA	1	3/28/2005 1032	19.77	686.43	0.00	686.43	
MH-22 MH	1072158.023	1115589.309	698.05	NA	698.05	NA	1	3/28/2005 1030	9.11	688.94	0.00	688.94	
MH-25 MH	1072483.928	1114820.313	698.17	NA	698.17	NA	1	3/28/2005 0942	9.54	688.63	0.00	688.63	

NM - No Measurement

The value noted in the column labeled Specific Gravity is an assumed value for free product, if found.

Type:

MH	Manhole Monitoring Point
MNW	Monitoring Well

Filter = ((tblGWD.LOGDATE=#3/28/2005#))

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TABLE 2
PFOHL BROTHERS LANDFILL SITE
GROUNDWATER ELEVATIONS
MARCH 2005

Location ID / Type	Northing	Easting	Ground Elevation (ft)	Casing Elevation (ft)	Meas.point (Riser)Elev.(ft)	Geol. Zone	Specific Gravity	Date / Time	Depth to Water (ft)	Water Elev. (ft)	Product Thick. (ft)	Corrected Water Elev. (ft)	Remark
SG-01 SG	1073882.887	1114813.101		NA	690.00	S	1	3/28/2005 0920	-2.07	692.07	0.00	692.07	
SG-02	1073796.856	1115255.756						3/28/2005 0917	3.51	-	0.00	-	
WW-01 MH	1073676.903	1115710.476		NA	684.02		1	3/28/2005 0848	-4.7	688.72	0.00	688.72	
WW-02 MH	1073684.724	1116792.311		NA	684.18		1	3/28/2005 0847	-4.5	688.68	0.00	688.68	
WW-03 MH	1073140.339	1117618.499		NA	683.80		1	3/28/2005 0847	-5.7	689.50	0.00	689.50	
WW-04 MH	1072057.563	1117610.508		NA	676.62		1	3/28/2005 0848	-5.3	681.92	0.00	681.92	
WW-05 MH	1071661.368	1116370.876		NA	676.14		1	3/28/2005 0848	NM	-	NM	-	Incorrect Level
WW-06 MH	1072988.420	1114811.518		NA	681.89		1	3/28/2005 0848	-7.4	689.29	0.00	689.29	

NM - No Measurement

The value noted in the column labeled Specific Gravity is an assumed value for free product, if found.

Type:

MH	Manhole Monitoring Point
MNW	Monitoring Well

TABLE 3
PFOHL BROTHERS LANDFILL SITE
GROUNDWATER ELEVATIONS
JUNE 2005

Location ID / Type	Northing	Easting	Ground Elevation (ft)	Casing Elevation (ft)	Meas.point (Riser)Elev.(ft)	Geol. Zone	Specific Gravity	Date / Time	Depth to Water (ft)	Water Elev. (ft)	Product Thick. (ft)	Corrected Water Elev. (ft)	Remark
GW-03S MNW	1073812.622	1114605.762	692.61	NA	693.80	S	1	6/28/2005 0908	4.71	689.09	0.00	689.09	
GW-04S MNW	1072284.456	1114685.127	690.76	NA	692.72	S	1	6/28/2005 0929	5.88	686.84	0.00	686.84	
GW-07S MNW	1071238.157	1117666.265	697.47	NA	699.51	S	1	6/28/2005 0936	6.68	692.83	0.00	692.83	
GW-08SR MNW	1073714.172	1116786.343	695.08	NA	697.50	S	1	6/28/2005 0854	5.54	691.96	0.00	691.96	
GW-28S MNW	1073129.479	1117648.927	698.60	NA	700.95	S	1	6/28/2005 0844	8.31	692.64	0.00	692.64	
GW-29S MNW	1072552.638	1117761.993	697.50	NA	699.63	S	1	6/28/2005 0946	8.69	690.94	0.00	690.94	
GW-30S MNW	1072096.109	1117743.563	693.67	NA	696.58	S	1	6/28/2005 0950	8.67	687.91	0.00	687.91	
GW-31S MNW	1071786.280	1117191.441	695.84	NA	698.62	S	1	6/28/2005 0955	6.55	692.07	0.00	692.07	
GW-32S MNW	1071613.793	1116364.200	696.19	NA	698.37	S	1	6/28/2005 0959	5.90	692.47	0.00	692.47	
GW-33S MNW	1072165.625	1115561.866	695.94	NA	698.24	S	1	6/28/2005 1005	6.09	692.15	0.00	692.15	
GW-34S MNW	1072979.205	1114730.200	692.51	NA	694.77	S	1	6/28/2005 0922	5.80	688.97	0.00	688.97	

NM - No Measurement

The value noted in the column labeled Specific Gravity is an assumed value for free product, if found.

Type:
MH Manhole Monitoring Point
MNW Monitoring Well

Filter = ((tblGWD.LOGDATE Like "6/*/2005"))

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TABLE 3
PFOHL BROTHERS LANDFILL SITE
GROUNDWATER ELEVATIONS
JUNE 2005

Location ID / Type	Northing	Easting	Ground Elevation (ft)	Casing Elevation (ft)	Meas.point (Riser)Elev.(ft)	Geol. Zone	Specific Gravity	Date / Time	Depth to Water (ft)	Water Elev. (ft)	Product Thick. (ft)	Corrected Water Elev. (ft)	Remark
GW-35S MNW	1071701.925	1115985.585	696.19	NA	697.39	S	1	6/28/2005 1001	5.81	691.58	0.00	691.58	
MH-01 MH	1073806.665	1114810.501	698.62	NA	698.62	NA	1	6/28/2005 0905	11.89	686.73	0.00	686.73	
MH-03 MH	1073736.789	1115259.334	699.40	NA	699.40	NA	1	6/28/2005 0903	11.88	687.52	0.00	687.52	
MH-07 MH	1073838.229	1116243.757	696.82	NA	696.82	NA	1	6/28/2005 0858	9.83	686.99	0.00	686.99	
MH-10 MH	1073540.729	1117381.524	703.01	NA	703.01	NA	1	6/28/2005 0850	14.57	688.44	0.00	688.44	
MH-15 MH	1072531.567	1117761.125	699.02	NA	699.02	NA	1	6/28/2005 0946	14.94	684.08	0.00	684.08	
MH-16 MH	1072133.714	1117748.238	698.57	NA	698.57	NA	1	6/28/2005 0950	15.91	682.66	0.00	682.66	
MH-17 MH	1071813.137	1117180.019	702.16	NA	702.16	NA	1	6/28/2005 0956	18.67	683.49	0.00	683.49	
MH-20 MH	1071756.395	1115997.024	706.20	NA	706.20	NA	1	6/28/2005 1002	19.72	686.48	0.00	686.48	
MH-22 MH	1072158.023	1115589.309	698.05	NA	698.05	NA	1	6/28/2005 1006	8.93	689.12	0.00	689.12	
MH-25 MH	1072483.928	1114820.313	698.17	NA	698.17	NA	1	6/28/2005 1011	11.57	686.60	0.00	686.60	

NM - No Measurement

The value noted in the column labeled Specific Gravity is an assumed value for free product, if found.

Type:
MH Manhole Monitoring Point
MNW Monitoring Well

Filter = ((tblGWD.LOGDATE Like "6/*/2005"))

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TABLE 3
PFOHL BROTHERS LANDFILL SITE
GROUNDWATER ELEVATIONS
JUNE 2005

Location ID / Type	Northing	Easting	Ground Elevation (ft)	Casing Elevation (ft)	Meas.point (Riser)Elev.(ft)	Geol. Zone	Specific Gravity	Date / Time	Depth to Water (ft)	Water Elev. (ft)	Product Thick. (ft)	Corrected Water Elev. (ft)	Remark
SG-01 SG	1073882.887	1114813.101		NA	690.00	S	1	6/28/2005 0859	-2.1	692.10	0.00	692.10	
SG-02	1073796.856	1115255.756						6/28/2005 0854	-3.26	-	0.00	-	
WW-01 MH	1073676.903	1115710.476		NA	684.02		1	6/28/2005 0745	-2.8	686.82	0.00	686.82	
WW-02 MH	1073684.724	1116792.311		NA	684.18		1	6/28/2005 0745	-4.5	688.68	0.00	688.68	
WW-03 MH	1073140.339	1117618.499		NA	683.80		1	6/28/2005 0745	-4.8	688.60	0.00	688.60	
WW-04 MH	1072057.563	1117610.508		NA	676.62		1	6/28/2005 0745	-5.5	682.12	0.00	682.12	
WW-05 MH	1071661.368	1116370.876		NA	676.14		1	6/28/2005 0745	-4.6	680.74	0.00	680.74	
WW-06 MH	1072988.420	1114811.518		NA	681.89		1	6/28/2005 0745	-4.9	686.79	0.00	686.79	

NM - No Measurement

The value noted in the column labeled Specific Gravity is an assumed value for free product, if found.

Type:

MH	Manhole Monitoring Point
MNW	Monitoring Well

Filter = ((tblGWD.LOGDATE Like "6/*/2005"))

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TABLE 4
PFOHL BROTHERS LANDFILL SITE
OVERBURDEN HYDRAULIC GRADIENT

WELL PAIR:	WW-1		*		WW-2		GW-8SR		WW-3		GW-28S	
	Set Point	Water Level	Water Level	Gradient	Set Point	Water Level	Water Level	Gradient	Set Point	Water Level	Water Level	Gradient
DATE			---	---								
12/21/2004	689.02	688.12	---	---	689.18	688.68	692.06	3.38	688.80	689.50	695.40	5.90
3/28/2005	689.02	688.72	---	---	689.18	688.68	692.23	3.55	688.80	689.50	695.80	6.30
6/28/2005	689.02	686.82	---	---	689.18	688.68	691.96	3.28	688.80	688.60	692.64	4.04

WELL PAIR:	WW-4		*		WW-5		GW-32S		WW-6		GW-34S	
	Set Point	Water Level	Water Level	Gradient	Set Point	Water Level	Water Level	Gradient	Set Point	Water Level	Water Level	Gradient
DATE			---	---								
12/21/2004	681.62	**	---	---	681.14	685.24	695.61	10.37	686.89	685.99	691.59	5.6
3/28/2005	681.62	681.92	---	---	681.14	**	696.05	---	686.89	689.29	692.43	3.14
6/28/2005	681.62	682.12	---	---	681.14	680.74	692.47	11.73	686.89	686.79	688.97	2.18

WELL PAIR:	MH-1		SG-1		MH-15		GW-29S		MH-16		GW-30S	
	Set Point	Water Level	Water Level	Gradient	Set Point	Water Level	Water Level	Gradient	Set Point	Water Level	Water Level	Gradient
DATE												
12/21/2004	---	686.60	691.95	5.35	---	684.75	694.00	9.25	---	684.78	689.95	5.17
3/28/2005	---	688.70	692.07	3.37	---	683.9	694.56	10.66	---	682.38	689.97	7.59
6/28/2005	---	686.73	692.10	5.37	---	684.08	690.94	6.86	---	682.66	687.91	5.25

WELL PAIR:	MH-17		GW-31S		MH-20		GW-35S		MH-22		GW-33S	
	Set Point	Water Level	Water Level	Gradient	Set Point	Water Level	Water Level	Gradient	Set Point	Water Level	Water Level	Gradient
DATE												
12/21/2004	---	684.68	***	---	---	686.45	694.37	7.92	---	688.96	693.98	5.02
3/28/2005	---	683.76	696.56	12.80	---	686.43	694.62	8.19	---	688.94	694.32	5.38
6/28/2005	---	683.49	692.07	8.58	---	686.48	691.58	5.10	---	689.12	692.15	3.03

Notes:

` = No corresponding monitoring well.
** = No water level available from Programable Logic Controller (PLC).
*** = Water in well frozen, water level not available.

N

AERO LAKE

SG-01, 691.95

GW-03S, 691.35

MH-01, 686.60

SG-02

MH-03, 688.23

WW-01, 688.12

MH-07, 687.44

GW-08SR, 692.06

WW-02, 688.68

MH-10, 688.51

WW-03, 689.50

GW-28S, 695.40

GW-34S, 691.59

WW-06, 685.99

Control Building

MH-25, 685.42

AERO DRIVE

GW-29S, 694.00

MH-15, 684.75

GW-04S, 688.44

GW-33S, 693.98

MH-22, 688.96

MH-16, 684.78

GW-30S, 689.95

MH-17, 684.68

GW-31S

MH-20, 686.45

GW-35S, 694.37

WW-05, 685.24

GW-32S, 695.61

TRANSIT ROAD

GW-07S, 694.53

694.0 692.0 692.5 693.0 693.5 694.0 694.5 695.0 691.0 691.5 690.5 690.0 689.5 689.0 688.5

Legend

- Monitoring Well Location
- Staff Gauge Location
- Manhole Location
- Wet Well Location
- 692.5 Groundwater Elevation Contour
- Groundwater Flow Direction
- Drain Pipe

GW-04S, 688.44

Location ID

Groundwater Elevation (ft amsl)

NOTE:
Only Monitoring Wells used to generate groundwater elevation contours.

350 0 350 Feet

PFOHL BROTHERS LANDFILL
GROUNDWATER ELEVATION CONTOUR MAP
12/21/04

URS

FIGURE 1

N:\11172700.00000\GIS\ArcView\pfhol.apr 12/22/04 Groundwater Elevation Contours
11/20/2005

N

AERO LAKE

SG-01, 692.07
GW-03S, 691.85
MH-01, 688.70
SG-02
MH-03, 688.82
WW-01, 688.72
MH-07, 688.02
GW-08SR, 692.23
WW-02, 688.68
MH-10, 688.51
WW-03, 689.50
GW-28S, 695.80
GW-34S, 692.43
WW-06, 689.29
Control Building
MH-25, 688.63
AERO DRIVE
GW-29S, 694.55
MH-15, 683.90
GW-04S, 688.74
GW-33S, 694.32
MH-22, 688.94
MH-16, 682.38
GW-30S, 689.97
WW-04, 681.92
MH-17, 683.76
GW-31S, 696.56
MH-20, 686.43
GW-35S, 694.62
WW-05
GW-32S, 696.05
TRANSIT ROAD
GW-07S, 695.04

692.0 692.5 693.0 693.5 694.0 694.5 695.0 695.5 696.0 691.5 691.0 690.5 690.0 689.5 689.0

Legend

- Monitoring Well Location
- Staff Gauge Location
- Manhole Location
- Wet Well Location
- 692.5 Groundwater Elevation Contour
- Groundwater Flow Direction
- Drain Pipe

GW-04S, 688.74
Location ID
Groundwater Elevation (ft amsl)

NOTE:
Only Monitoring Wells used to generate groundwater elevation contours.

350 0 350 Feet

PFOHL BROTHERS LANDFILL
GROUNDWATER ELEVATION CONTOUR MAP
3/28/05

URS

FIGURE 2

N:\11172700.00000\GIS\ArcView\pfhol.apr 03/29/05 Groundwater Elevation Contours
11/20/2005

N

AERO LAKE

SG-01, 692.10
MH-01, 686.73
GW-03S, 689.09
SG-02
MH-03, 687.52
WW-01, 686.82
MH-07, 686.99
GW-08SR, 691.96
WW-02, 688.68
MH-10, 688.44
WW-03, 688.60
GW-28S, 692.64
GW-34S, 688.97
WW-06, 686.79
MH-25, 686.60
Control Building
AERO DRIVE
GW-04S, 686.84
MH-22, 689.12
GW-33S, 692.15
GW-29S, 690.94
MH-15, 684.08
MH-16, 682.66
GW-30S, 687.91
WW-04, 682.12
MH-17, 683.49
GW-31S, 692.07
MH-20, 686.48
GW-35S, 691.58
WW-05, 680.74
GW-32S, 692.47
GW-07S, 692.83
TRANSIT ROAD

689.5 690.0 690.5 691.0 691.5 692.0 692.5

Legend

- Monitoring Well Location
- Staff Gauge Location
- Manhole Location
- Wet Well Location
- 692.5 Groundwater Elevation Contour
- Groundwater Flow Direction
- Drain Pipe

GW-04S, 686.84
Location ID
Groundwater Elevation (ft amsl)

NOTE:
Only Monitoring Wells used to generate groundwater elevation contours.

350 0 350 Feet

PFOHL BROTHERS LANDFILL
GROUNDWATER ELEVATION CONTOUR MAP
6/28/05

URS

FIGURE 3

N:\11172700.00000\GIS\ArcView\pfhol.apr 06/29/05 Groundwater Elevation Contours
11/20/2005

APPENDIX D

GROUNDWATER PURGE AND COLLECTION LOGS

WELL PURGING LOG

URS Corporation

SITE NAME: Pfohl Brothers Landfill WELL NO.: GW-1S

PROJECT NO.: 11172700.00003

STAFF: S. McCabe, A. Brayman

DATE(S): May 5, 2005

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	14.95	1"	0.040
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	2.60	2"	0.17
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	12.35	3"	0.38
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.17	4"	0.66
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	2.1	5"	1.04
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x 3)	=	6.3	6"	1.50
7. VOLUME OF WATER ACTUALLY REMOVED (GAL.)	=	8	8"	2.60

$V=0.0408 \times (\text{CASING DIAMETER [INCHES]})^2$

	ACCUMULATED VOLUME PURGED (GALLONS)											
PARAMETERS	0	1		2	3	5	6	7				
pH	7.10	7.05		7.06	7.01	6.91	6.95	7.10				
SPEC. COND. (umhos)	3,700	3,700		3,700	3,700	3,900	3,800	3,800				
TEMPERATURE (^{0}F)	50.0	48.0		47.6	46.9	46.6	46.8	46.9				
TURBIDITY (NTU)	22	145		75	33	4	9	8				

COMMENTS:

Purged using suction lift pump and dedicated tubing. Sampled with dedicated stainless steel bailer.

WELL PURGING LOG

URS Corporation

SITE NAME: Pfohl Brothers Landfill WELL NO.: GW-1D

PROJECT NO.: 11172700.00003

STAFF: S. McCabe, A. Brayman

DATE(S): May 5, 2005

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	39.61	1"	0.040
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	2.59	2"	0.17
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	37.02	3"	0.38
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.66	4"	0.66
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	24.4	5"	1.04
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x 3)	=	73.3	6"	1.50
7. VOLUME OF WATER ACTUALLY REMOVED (GAL.)	=	75	8"	2.60

$V=0.0408 \times (\text{CASING DIAMETER [INCHES]})^2$

	ACCUMULATED VOLUME PURGED (GALLONS)											
PARAMETERS	0	10		20	30	40	50	60	70			
pH	7.71	7.38		7.32	7.30	7.34	7.40	7.36	7.32			
SPEC. COND. (umhos)	1,400	1,400		1,400	1,400	1,400	1,400	1,400	1,400			
TEMPERATURE (^{0}F)	50.4	49.2		48.7	48.7	48.7	48.9	48.7	48.9			
TURBIDITY (NTU)	54	21		15	13	8	8	7	4			

COMMENTS:

Well purged and sampled with dedicated submersible pump & tubing, slight H2S odor. Matrix spkie and matrix spike duplicate taken from well.

WELL PURGING LOG

URS Corporation

SITE NAME: Pfohl Brothers Landfill WELL NO.: GW-3S

PROJECT NO.: 11172700.00003

STAFF: S. McCabe, A. Brayman

DATE(S): May 5, 2005

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	13.54	1"	0.040
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	2.33	2"	0.17
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	11.21	3"	0.38
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.17	4"	0.66
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	1.9	5"	1.04
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x 3)	=	5.7	6"	1.50
7. VOLUME OF WATER ACTUALLY REMOVED (GAL.)	=	6	8"	2.60

$V=0.0408 \times (\text{CASING DIAMETER [INCHES]})^2$

	ACCUMULATED VOLUME PURGED (GALLONS)											
PARAMETERS	0	1		2	3	4	5	6				
pH	7.44	7.35		7.38	7.42	7.44	7.40	7.44				
SPEC. COND. (umhos)	1,400	1,400		1,400	1,400	1,400	1,400	1,400				
TEMPERATURE (^{0}F)	55.2	52.1		50.4	50.1	49.7	48.8	49.1				
TURBIDITY (NTU)	>1000	449		181	31	11	2	2				

COMMENTS:

Purged using suction lift pump and dedicated tubing. Sampled with dedicated stainless steel bailer.

WELL PURGING LOG

URS Corporation

SITE NAME: Pfohl Brothers Landfill WELL NO.: GW-3D

PROJECT NO.: 11172700.00003

STAFF: S. McCabe, A. Brayman

DATE(S): May 5, 2005

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	35.99	1"	0.040
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	1.69	2"	0.17
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	34.30	3"	0.38
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.66	4"	0.66
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	22.6	5"	1.04
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x 3)	=	67.9	6"	1.50
7. VOLUME OF WATER ACTUALLY REMOVED (GAL.)	=	70	8"	2.60

$V=0.0408 \times (\text{CASING DIAMETER [INCHES]})^2$

	ACCUMULATED VOLUME PURGED (GALLONS)											
PARAMETERS	0	10		20	30	40	50	60	70			
pH	6.98	6.96		7.00	7.03	7.07	7.05	7.02	7.06			
SPEC. COND. (umhos)	2,600	2,600		2,500	2,500	2,500	2,500	2,500	2,500			
TEMPERATURE (^{0}F)	57.0	51.9		52.0	52.9	52.3	51.2	50.7	50.8			
TURBIDITY (NTU)	>1000	3		2	1	1	2	1	1			

COMMENTS:

Well purged using dedicated submersible pump and tubing.

WELL PURGING LOG

URS Corporation

SITE NAME: Pfohl Brothers Landfill WELL NO.: GW-4S

PROJECT NO.: 11172700.00003

STAFF: S. McCabe, A. Brayman

DATE(S): May 4, 2005

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	16.51	1"	0.040
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	4.33	2"	0.17
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	12.18	3"	0.38
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.17	4"	0.66
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	2.1	5"	1.04
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x 3)	=	6.2	6"	1.50
7. VOLUME OF WATER ACTUALLY REMOVED (GAL.)	=	7.0	8"	2.60

$V=0.0408 \times (\text{CASING DIAMETER [INCHES]})^2$

	ACCUMULATED VOLUME PURGED (GALLONS)											
PARAMETERS	0	2		3	5	6	Sample					
pH	7.15	7.66		7.69	7.82	7.88	8.19					
SPEC. COND. (umhos)	700	700		700	700	600	600					
TEMPERATURE (^{0}F)	46.3	46.4		46.6	47.2	46.5	47.7					
TURBIDITY (NTU)	136	46		10	6	154	10					

COMMENTS:

Purged using suction lift pump and dedicated tubing. Sampled with dedicated stainless steel bailer.
Well dry at 6.0 gallons removed. Return to collect sample.

WELL PURGING LOG

URS Corporation

SITE NAME: Pfohl Brothers Landfill WELL NO.: GW-4D

PROJECT NO.: 11172700.00003

STAFF: S. McCabe, A. Brayman

DATE(S): May 4, 2005

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	45.36	1"	0.040
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	12.69	2"	0.17
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	32.67	3"	0.38
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.66	4"	0.66
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	21.6	5"	1.04
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x 3)	=	64.7	6"	1.50
7. VOLUME OF WATER ACTUALLY REMOVED (GAL.)	=	35	8"	2.60

$V=0.0408 \times (\text{CASING DIAMETER [INCHES]})^2$

	ACCUMULATED VOLUME PURGED (GALLONS)											
PARAMETERS	0	5		10	20	25	30	35	Sample			
pH	7.35	7.45		7.43	7.45	7.37	7.79	7.94	7.25			
SPEC. COND. (umhos)	1,400	1,400		1,500	1,400	1,500	1,500	1,500	1,500			
TEMPERATURE (^{0}F)	48.7	48.2		48.2	48.4	49.2	48.7	48.1	48.7			
TURBIDITY (NTU)	52	21		81	148	128	>1000	>1000	51			

COMMENTS:

Well purged with dedicated submersible pump & tubing up to 25 gallons, slight H2S odor.
Purged remaining water using tubing with terminal foot valve after 16 gals. Evacuated. Water is black with organic matter.
Well dry after 35 gallons removed. Return and sample using dedicated stainless steel bailer

WELL PURGING LOG

URS Corporation

SITE NAME: Pfohl Brothers Landfill WELL NO.: GW-7S

PROJECT NO.: 11172700.00003

STAFF: S. McCabe, A. Brayman

DATE(S): May 3, 2005

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	35.30	1"	0.040
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	4.90	2"	0.17
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	30.40	3"	0.38
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.17	4"	0.66
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	5.2	5"	1.04
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x 3)	=	15.5	6"	1.50
7. VOLUME OF WATER ACTUALLY REMOVED (GAL.)	=	7	8"	2.60

$V=0.0408 \times (\text{CASING DIAMETER [INCHES]})^2$

	ACCUMULATED VOLUME PURGED (GALLONS)											
PARAMETERS	0	2		4	6	7	Sample					
pH	8.12	7.68		7.51	7.41	7.60	7.90					
SPEC. COND. (umhos)	480	430		420	440	420	600					
TEMPERATURE (^{0}F)	62.4	60.4		58.9	60.4	60.4	NM[1]					
TURBIDITY (NTU)	138	41.4		44.8	17.6	21.8	26					

COMMENTS:
Purged with suction lift pump followed by bailing, dry at 7.0 gals. removed. Return on 5/4/05 and sample with dedicated stainless steel bailer.

WELL PURGING LOG

URS Corporation

SITE NAME: Pfohl Brothers Landfill WELL NO.: GW-7D

PROJECT NO.: 11172700.00003

STAFF: S. McCabe, A. Brayman

DATE(S): May 3, 2005

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	60.95	1"	0.040
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	24.30	2"	0.17
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	36.65	3"	0.38
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.66	4"	0.66
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	24.2	5"	1.04
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x 3)	=	72.6	6"	1.50
7. VOLUME OF WATER ACTUALLY REMOVED (GAL.)	=	25	8"	2.60

$V=0.0408 \times (\text{CASING DIAMETER [INCHES]})^2$

	ACCUMULATED VOLUME PURGED (GALLONS)											
PARAMETERS	0	5		10	15	20	25	Sample				
pH	8.49	8.37		8.46	8.49	8.54	8.66	8.68				
SPEC. COND. (umhos)	800	800		800	800	800	800	800				
TEMPERATURE (^{0}F)	50.0	49.8		50.5	49.2	48.4	48.7	49.6				
TURBIDITY (NTU)	7	168		85	123	180	218	41				

COMMENTS:
Purged with dedicated pump followed by bailing, dry at 25 gals. removed. Return on 5/4/05 and sample with dedicated stainless steel bailer.

WELL PURGING LOG

URS Corporation

SITE NAME: Pfohl Brothers Landfill WELL NO.: GW-8SR

PROJECT NO.: 11172700.00003

STAFF: S. McCabe, A. Brayman

DATE(S): May 5, 2005

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	13.31	1"	0.040
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	5.35	2"	0.17
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	7.96	3"	0.38
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.17	4"	0.66
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	1.4	5"	1.04
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x 3)	=	4.1	6"	1.50
7. VOLUME OF WATER ACTUALLY REMOVED (GAL.)	=	6	8"	2.60

$V=0.0408 \times (\text{CASING DIAMETER [INCHES]})^2$

	ACCUMULATED VOLUME PURGED (GALLONS)											
PARAMETERS	0	1		2	3	4	5	6				
pH	6.93	6.94		6.83	7.22	7.38	7.32	7.34				
SPEC. COND. (umhos)	1,900	2,000		2,000	2,000	2,000	2,000	1,900				
TEMPERATURE (^{0}F)	58.1	52.7		51.3	50.7	49.8	49.7	49.3				
TURBIDITY (NTU)	353	281		197	394	115	65	40				

COMMENTS:

Purged using suction lift pump and dedicated tubing. Sampled with dedicated stainless steel bailer.

WELL PURGING LOG

URS Corporation

SITE NAME: Pfohl Brothers Landfill WELL NO.: GW-8D

PROJECT NO.: 11172700.00003

STAFF: S. McCabe, A. Brayman

DATE(S): May 5, 2005

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	36.89	1"	0.040
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	5.55	2"	0.17
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	31.34	3"	0.38
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.66	4"	0.66
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	20.7	5"	1.04
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x 3)	=	62.1	6"	1.50
7. VOLUME OF WATER ACTUALLY REMOVED (GAL.)	=	70	8"	2.60

$V=0.0408 \times (\text{CASING DIAMETER [INCHES]})^2$

	ACCUMULATED VOLUME PURGED (GALLONS)												
PARAMETERS	0	10		20	30	40	50	60	70				
pH	7.04	6.99		6.96	6.96	6.94	6.95	6.95	6.95				
SPEC. COND. (umhos)	2,300	2,200		2,200	2,200	2,200	2,200	2,200	2,200				
TEMPERATURE (^{0}F)	51.6	51.6		51.4	51.0	50.6	50.9	50.7	51.2				
TURBIDITY (NTU)	21	4.00		5.00	2.00	2	2	3	1				

COMMENTS:
Well purged and sampled with dedicated submersible pump & tubing, slight H2S odor.

WELL PURGING LOG

URS Corporation

SITE NAME: Pfohl Brothers Landfill WELL NO.: GW-26D

PROJECT NO.: 11172700.00003

STAFF: S. McCabe, A. Brayman

DATE(S): May 5, 2005

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	41.05	1"	0.040
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	6.43	2"	0.17
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	34.62	3"	0.38
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.66	4"	0.66
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	22.8	5"	1.04
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x 3)	=	68.5	6"	1.50
7. VOLUME OF WATER ACTUALLY REMOVED (GAL.)	=	70	8"	2.60

$V=0.0408 \times (\text{CASING DIAMETER [INCHES]})^2$

	ACCUMULATED VOLUME PURGED (GALLONS)											
PARAMETERS	0	10		20	30	40	50	60	70			
pH	6.97	7.05		6.99	7.02	7.03	7.02	7.00	7.02			
SPEC. COND. (umhos)	1,800	1,700		1,800	1,800	1,800	1,800	1,800	1,800			
TEMPERATURE (^{0}F)	59.0	55.9		53.1	53.0	52.3	51.8	52.0	51.8			
TURBIDITY (NTU)	11	19		1.00	1	3	1	2	1			

COMMENTS:

Well purged and sampled with dedicated submersible pump & tubing, slight H2S odor.

WELL PURGING LOG

URS Corporation

SITE NAME: Pfohl Brothers Landfill WELL NO.: GW-28S

PROJECT NO.: 11172700.00003

STAFF: S. McCabe, A. Brayman

DATE(S): May 5, 2005

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	15.88	1"	0.040
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	3.32	2"	0.17
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	12.56	3"	0.38
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.17	4"	0.66
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	2.1	5"	1.04
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x 3)	=	6.4	6"	1.50
7. VOLUME OF WATER ACTUALLY REMOVED (GAL.)	=	7	8"	2.60

$V=0.0408 \times (\text{CASING DIAMETER [INCHES]})^2$

	ACCUMULATED VOLUME PURGED (GALLONS)											
PARAMETERS	0	1		2	3	4	5	6	7			
pH	7.00	7.17		7.19	7.08	7.19	7.10	7.15	7.17			
SPEC. COND. (umhos)	160	1,500		1,500	1,800	1,900	1,900	1,900	1,900			
TEMPERATURE (^{0}F)	57.3	51.3		49.3	49.9	49.2	49.1	49.3	49.5			
TURBIDITY (NTU)	>1,000	224		287	385	38	18	13	7			

COMMENTS:

Purged using suction lift pump and dedicated tubing. Sampled with dedicated stainless steel bailer.

WELL PURGING LOG

URS Corporation

SITE NAME: Pfohl Brothers Landfill WELL NO.: GW-29S

PROJECT NO.: 11172700.00003

STAFF: S. McCabe, A. Brayman

DATE(S): May 4, 2005

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	20.32	1"	0.040
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	6.18	2"	0.17
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	14.14	3"	0.38
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.17	4"	0.66
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	2.4	5"	1.04
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x 3)	=	7.2	6"	1.50
7. VOLUME OF WATER ACTUALLY REMOVED (GAL.)	=	8	8"	2.60

$V=0.0408 \times (\text{CASING DIAMETER [INCHES]})^2$

	ACCUMULATED VOLUME PURGED (GALLONS)											
PARAMETERS	0	1		2	3	4	5	6	7	8		
pH	7.20	7.29		7.35	7.23	7.16	7.17	7.11	7.12	7.14		
SPEC. COND. (umhos)	1,500	1,500		1,400	1,400	1,400	1,400	1,300	1,300	1,300		
TEMPERATURE (^{0}F)	48.1	47.1		46.7	47.6	48.0	48.7	57.0	57.3	58.1		
TURBIDITY (NTU)	>1,000	202		178	144	128	61	19	14.0	9		

COMMENTS:

Purged using suction lift pump and dedicated tubing. Sampled with dedicated stainless steel bailer.
Well dry at 8.0 gallons removed. Return to collect sample.

WELL PURGING LOG

URS Corporation

SITE NAME: Pfohl Brothers Landfill WELL NO.: GW-30S

PROJECT NO.: 11172700.00003

STAFF: S. McCabe, A. Brayman

DATE(S): May 4, 2005

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	18.23	1"	0.040
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	7.37	2"	0.17
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	10.86	3"	0.38
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.17	4"	0.66
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	1.8	5"	1.04
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x 3)	=	5.5	6"	1.50
7. VOLUME OF WATER ACTUALLY REMOVED (GAL.)	=	7	8"	2.60

$V=0.0408 \times (\text{CASING DIAMETER [INCHES]})^2$

	ACCUMULATED VOLUME PURGED (GALLONS)											
PARAMETERS	0	1		2	3	4	5	6	7			
pH	6.86	6.83		6.86	6.91	6.94	6.93	6.99	6.98			
SPEC. COND. (umhos)	6,400	6,600		6,500	6,500	6,400	6,600	6,500	6,500			
TEMPERATURE (^{0}F)	56.5	51.5		49.7	49.5	49.4	48.4	48.2	48.1			
TURBIDITY (NTU)	180	7		11	6	3	2	5	3			

COMMENTS:

Purged using suction lift pump and dedicated tubing. Sampled with dedicated stainless steel bailer.

WELL PURGING LOG

URS Corporation

SITE NAME: Pfohl Brothers Landfill WELL NO.: GW-31S

PROJECT NO.: 11172700.00003

STAFF: S. McCabe, A. Brayman

DATE(S): May 4, 2005

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	9.86	1"	0.040
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	2.95	2"	0.17
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	6.91	3"	0.38
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.17	4"	0.66
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	1.2	5"	1.04
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x 3)	=	3.5	6"	1.50
7. VOLUME OF WATER ACTUALLY REMOVED (GAL.)	=	2.5	8"	2.60

$V=0.0408 \times (\text{CASING DIAMETER [INCHES]})^2$

	ACCUMULATED VOLUME PURGED (GALLONS)											
PARAMETERS	0	1		2	Sample							
pH	7.49	7.41		7.50	7.5							
SPEC. COND. (umhos)	1,200	1,400		1,500	1,600							
TEMPERATURE (^{0}F)	49.0	48.9		48.9	52.3							
TURBIDITY (NTU)	386	>1000		>1000	31							

COMMENTS:

Purged using suction lift pump and dedicated tubing. Sampled with dedicated stainless steel bailer.
Well dry at 2.5 gallons removed. Return to collect sample.

WELL PURGING LOG

URS Corporation

SITE NAME: Pfohl Brothers Landfill WELL NO.: GW-32S

PROJECT NO.: 11172700.00003

STAFF: S. McCabe, A. Brayman

DATE(S): May 4, 2005

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	10.21	1"	0.040
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	3.34	2"	0.17
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	6.87	3"	0.38
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.17	4"	0.66
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	1.2	5"	1.04
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x 3)	=	3.5	6"	1.50
7. VOLUME OF WATER ACTUALLY REMOVED (GAL.)	=	4.5	8"	2.60

$V=0.0408 \times (\text{CASING DIAMETER [INCHES]})^2$

	ACCUMULATED VOLUME PURGED (GALLONS)											
PARAMETERS	0	0.5		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
pH	7.7	7.8		7.8	7.8	7.7	7.43	7.68	7.80	7.79	7.70	
SPEC. COND. (umhos)	1100	800		800	800	900	1,400	1,000	900	900	900	
TEMPERATURE (^{0}F)	48.3	47.4		47.1	46.9	46.8	46.8	46.5	46.0	46.0	46.0	
TURBIDITY (NTU)	>1000	348		101	55	112	175	125	45	18	10	

COMMENTS:

Purged using suction lift pump and dedicated tubing. Sampled with dedicated stainless steel bailer.

WELL PURGING LOG

URS Corporation

SITE NAME: Pfohl Brothers Landfill WELL NO.: GW-33S

PROJECT NO.: 11172700.00003

STAFF: S. McCabe, A. Brayman

DATE(S): May 4, 2005

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	8.47	1"	0.040
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	6.75	2"	0.17
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	1.72	3"	0.38
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.17	4"	0.66
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	0.3	5"	1.04
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x 3)	=	0.9	6"	1.50
7. VOLUME OF WATER ACTUALLY REMOVED (GAL.)	=	1	8"	2.60

$V=0.0408 \times (\text{CASING DIAMETER [INCHES]})^2$

	ACCUMULATED VOLUME PURGED (GALLONS)											
PARAMETERS	0	0.5		1.0	1.5							
pH	7.44	7.33		7.40	7.41							
SPEC. COND. (umhos)	1,500	1,100		1,600	1,500							
TEMPERATURE (^{0}F)	45.0	45.3		45.0	44.9							
TURBIDITY (NTU)	7	4		41	34							

COMMENTS:

Purged using suction lift pump and dedicated tubing. Sampled with dedicated stainless steel bailer.
Well dry at 1.5 gallons removed. Return to collect sample.

WELL PURGING LOG

URS Corporation

SITE NAME: Pfohl Brothers Landfill WELL NO.: GW-34S

PROJECT NO.: 11172700.00003

STAFF: S. McCabe, A. Brayman

DATE(S): May 4, 2005

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	10.30	1"	0.040
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	2.61	2"	0.17
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	7.69	3"	0.38
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.17	4"	0.66
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	1.3	5"	1.04
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x 3)	=	3.9	6"	1.50
7. VOLUME OF WATER ACTUALLY REMOVED (GAL.)	=	4.5	8"	2.60

$V=0.0408 \times (\text{CASING DIAMETER [INCHES]})^2$

	ACCUMULATED VOLUME PURGED (GALLONS)											
PARAMETERS	0	1		2	3	4						
pH	7.00	7.03		7.00	7.02	7.02						
SPEC. COND. (umhos)	2,000	2,000		2,000	2,000	2,000						
TEMPERATURE (^{0}F)	44.5	43.7		43.2	43.1	43.3						
TURBIDITY (NTU)	131	54		90	24	17						

COMMENTS:

Purged using suction lift pump and dedicated tubing. Sampled with dedicated stainless steel bailer.
Well dry at 4.5 gallons removed. Retrun to collect sample.

WELL PURGING LOG

URS Corporation

SITE NAME: Pfohl Brothers Landfill WELL NO.: GW-35S

PROJECT NO.: 11172700.00003

STAFF: S. McCabe, A. Brayman

DATE(S): May 4, 2005

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	7.75	1"	0.040
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	3.31	2"	0.17
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	4.44	3"	0.38
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.17	4"	0.66
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	0.8	5"	1.04
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x 3)	=	2.3	6"	1.50
7. VOLUME OF WATER ACTUALLY REMOVED (GAL.)	=	3	8"	2.60

$V=0.0408 \times (\text{CASING DIAMETER [INCHES]})^2$

	ACCUMULATED VOLUME PURGED (GALLONS)											
PARAMETERS	0	0.5		1	1.5	2	2.5	3				
pH	7.25	7.36		7.41	7.38	7.36	7.41	7.43				
SPEC. COND. (umhos)	800	800		800	900	1,000	900	900				
TEMPERATURE (^{0}F)	62.5	58.3		52.2	50.1	49.7	48.7	48.2				
TURBIDITY (NTU)	>1000	329		119	93	76	58	14	-			

COMMENTS:

Purged using suction lift pump and dedicated tubing. Sampled with dedicated stainless steel bailer.

APPENDIX E

BSA PERMIT NO. 02-11-CH016

AUTHORIZATION TO DISCHARGE UNDER THE BUFFALO POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT NO. 02-11-CH016

In accordance with the provisions of the Federal Water Pollution Control Act, as amended, and the Sewer Regulations of the Buffalo Sewer Authority, authorization is hereby granted to:

THE TOWN OF CHEEKTOWAGA

to discharge wastewater from a facility located at:

PFOHL BROTHERS LANDFILL REMEDIATION SITE
1000 AERO DRIVE
CHEEKTOWAGA, NEW YORK 14225

The wastewater permitted herein shall be discharged to the Town of Cheektowaga sewer system, which is connected to the Buffalo Municipal Sewer System and Treatment facilities, and which wastewater will be treated at the Buffalo Sewer Authority's Treatment Plant.

Issuance of this permit is based upon a permit application filed on **July 9, 2002** analytical data. This permit is granted in accordance with discharge limitations, monitoring requirements and other conditions set forth in Parts I and II hereof.

Effective this 15th day of January, 2003
To Expire the 14th day of January, 2006

General Manager

Signed this 15th day of Jan., 2003

PART I: SPECIFIC CONDITIONS

A. DISCHARGE LIMITATIONS & MONITORING REQUIREMENTS

During the period beginning the effective date of this Permit and lasting until the expiration date, discharge from the permitted facility outfall (see attached map) shall be limited and monitored **quarterly** by the permittee as specified below.

Sample Point	Parameter	Discharge Limitations[1] Daily Max	Sampling Requirements Period	Type
001	pH	5.0 – 12.0 S.U.	1 day	Composite[2]
	Total Cadmium	1.17 lbs.	1 day	Composite[2]
	Total Chromium	1.17 lbs.	1 day	Composite[2]
	Total Copper	3.74 lbs.	1 day	Composite[2]
	Total Lead	1.17 lbs.	1 day	Composite[2]
	Total Nickel	3.27 lbs.	1 day	Composite[2]
	Total Zinc	5.84 lbs.	1 day	Composite[2]
	Total Barium	2.34 lbs.	1 day	Composite[2]
	Total Suspended Solids[5]	250 mg/l	1 day	Composite[2]
	Total Flow	140,100 gallons[6]	1 day	Discharge meter reading

Footnotes are explained on page 6.

PART I: SPECIFIC CONDITIONS

A. DISCHARGE LIMITATIONS & MONITORING REQUIREMENTS

During the period beginning the effective date of this Permit and lasting until the expiration date, discharge from the permitted facility outfall (see attached map) shall be limited and monitored **once** by the permittee as specified below.

Sample Point	Parameter	Discharge Limitations[1] Daily Max	Sampling Requirements Period	Type
001	Total Mercury	0.001 lbs.	1 day	Composite[2]
	USEPA Test Method 608[4]	To be monitored	1 day	Grab[3]
	USEPA Test Method 624[4]	To be monitored	1 day	Grab[3]
	USEPA Test Method 625[4]	To be monitored	1 day	Grab[3]
	Radiochemistry	See page 4	1 day	

Footnotes are explained on page 6.

PART I: SPECIFIC CONDITIONS

A. DISCHARGE LIMITATIONS & MONITORING REQUIREMENTS cont'd.

RADIOCHEMISTRY

	Soluble	Insoluble	Period	Type
Radium-226	600 pci/L	6 pci/L	1 day	Grab
Thorium-228	2000 pci/L	20 pci/L	1 day	Grab
Thorium-230	1000 pci/L	10 pci/L	1 day	Grab
Thorium- 232	300 pci/L	3 pci/L	1 day	Grab
Total Uranium	3000 pci/L	30 pci/L	1 day	Grab

1. 6NYCRR Part 380 Rules and Regulations for Prevention and Control of Environmental Pollution by Radioactive Materials is hereby incorporated into this permit and the permittee shall comply with all of its terms as if fully set forth herein.

   a. Each sample for radiochemistry must be filtered by a NYSDOH approved laboratory to create a soluble (filtrate) and insoluble (filter) sample.

   b. Each fraction must be analyzed for gross alpha and gross beta using a seven (7) day TAT.

   c. If the concentration of the soluble (filtrate) exceeds 200 pci/L of gross alpha or gross beta, gamma spectrometry must be performed.

   d. If the concentration of the insoluble exceeds 10pci/L of gross alpha or 50 pci/L of gross beta, gamma spectrometry must be performed. The results must not exceed 1% of the values in -6 NYCRR Part 380 -- 11.7.

   e. A background value of 1 pci/L may be subtracted from the gamma spectrometry in the insoluble fraction for the thorium and uranium series.
   USEPA Method 900.0 (40 CFR Part 136) must be used. Any required gamma spectrometry must be performed using Method 901.1.

   f. If the results of gamma spectrometry for any sample exceed the above conditions, discharge is to cease immediately, until waste water treatment procedures are corrected so that the wastewater discharge will meet these conditions.

PART I: SPECIFIC CONDITIONS

B. DISCHARGE MONITORING REPORTING REQUIREMENTS

During the period beginning the effective date of this permit and lasting until the expiration date, discharge monitoring results shall be summarized and reported **quarterly** by the permittee on the days specified below:

Sample Point	Parameter	Reporting Requirements	
		Initial Report	**Subsequent Reports**
001	All except USEPA Test Methods 608, 624, 625 and Radiochemistry	December 31, 2002	Every March 31st, June 30th, September 30th and December 31st
	USEPA Test Methods 608, 624 and 625 and Radiochemistry[a]	March 31, 2005	

a. These parameters must be tested and reported at least once during the life of this permit but no later than March 31, 2005. If the report shows any exceedences, quarterly monitoring must commence according to the above schedule.

PART I: SPECIFIC CONDITIONS

C. SPECIAL REQUIREMENTS

1. Mass limits based on an average discharge of 140,100 gpd.

2. Composite samples may be time proportioned.

3. Four grab samples must be collected at equally spaced intervals throughout the sample day. The four (4) grab samples must be composited by a NYSDOH certified laboratory prior to analysis.

4. The permittee must report any compound whose concentration is equal to or greater than 0.01 mg/L. The permittee is not authorized to discharge any of the parameters evaluated by these test procedures which may cause or contribute to a violation of water quality standards or harm the sewerage system. Any parameter detected may, at the discretion of the BSA, be specifically limited and incorporated in this permit.

5. Surchargeable over 250 mg/L.

6. Flow is an action level only. If the permittee consistently exceeds this level, the BSA must be notified so that this permit can be modified.

BUFFALO POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PART II: GENERAL CONDITIONS

A. MONITORING AND REPORTING

1. Local Limits

Except as otherwise specified in this permit, the permit holder shall comply with all specific prohibitions, limits on pollutants or pollutant parameters set forth in the Buffalo Sewer Authority Sewer Use Regulations, as amended from time to time, and such prohibitions, limits and parameters shall be deemed pretreatment standards for purposes for the Clean Water Act.

2. Definitions

Definitions of terms contained in this permit are as defined in the Buffalo Sewer Authority Sewer Use Regulations and the Town of Cheektowaga Local Law No. 2.

3. Discharge Sampling Analysis

All Wastewater discharge samples and analyses and flow measurements shall be representative of the volume and character of the monitored discharge. Methods employed for flow measurements and sample collections and analyses shall conform to the Buffalo Sewer Authority "Sampling Measurement and Analytical Guidelines Sheet".

4. Recording of Results

For each measurement or sample taken pursuant to the requirements of the permit, the permittee shall record the information as required in the "Sampling Measurement and Analytical Guidelines Sheet".

5. Additional Monitoring by Permittee

If the permittee monitors any pollutants at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified in 40 CFR Part 136 the results of such monitoring shall be included in the calculation and reporting of values required under Part I, B. Such increased frequency shall also be indicated.

6. Reporting

All reports prepared in accordance with this Permit shall be submitted to:

Industrial Waste Section
Buffalo Sewer Authority Treatment Plant
90 West Ferry Street
Buffalo, New York 14213

All self-monitoring reports shall be prepared in accordance with the BSA "Sampling Measurement and Analytical Guidelines Sheet". These reporting requirements shall not relieve the permittee of any other reports, which may be required by the N.Y.S.D.E.C. or the U.S.E.P.A.

B. PERMITTEE REQUIREMENTS

1. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit and with the information contained in the BPDES permit application on which basis this permit is granted. In the event of any facility expansions, production increases, process modifications or the installation, modification or repair of any pretreatment equipment which may result in new, different or increased discharges of pollutants, a new BPDES Permit application must be submitted prior to any change. Following receipt of an amended application, the BSA may modify this permit to specify and limit any pollutants not previously limited. In the event that the proposed change will be covered under an applicable Categorical Standard, a Baseline Monitoring Report must be submitted at least ninety (90) days prior to any discharge.

2. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed, calibration and maintenance of instrumentation, and recordings from continuous monitoring instrumentation shall be retained at this facility for a minimum of three (3) years, or longer if requested by the General Manager.

3. Notification of Slug, Accidental Discharge or Spill

In the event that a slug, accidental discharge or any spill occurs at the facility for which this permit is issued, it is the responsibility of the permittee to immediately notify the B.S.A. Treatment Plant at 883-1820 of the quantity and character of such discharge. If requested by the B.S.A., within five (5) days following all such discharges, the permittee shall submit a report describing the character and duration of the discharge, the cause of the discharge, and measures taken or that will be taken to prevent a recurrence of such discharge.

4. **Noncompliance Notification**

If, for any reason, the permittee does not comply with or will be unable to comply with any discharge limitation specified in this permit, the permittee or their assigns must verbally notify the Industrial Waste Section at 883-1820 within twenty-four (24) hours of becoming aware of the violation. The permittee shall provide the Industrial Waste Section with the following information, in writing, within five (5) days of becoming aware of such condition:

a. a description of the discharge and cause of noncompliance and;

b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

5. **Adverse Impact**

The permittee shall take all reasonable steps to minimize any adverse impact to the Buffalo and Town Sewerage System resulting from noncompliance with any discharge limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

6. **Waste Residuals**

Solids, sludges, filter backwash or other pollutants removed in the course of treatment or control of wastewaters and/or the treatment of intake waters, shall be disposed of in a manner such as to prevent any pollutant from such materials from entering the Buffalo or Town Sewer System.

7. **Power Failures**

In order to maintain compliance with the discharge limitations and prohibitions of this permit, the permittee shall provide an alternative power source sufficient to operate the wastewater control facilities; or, if such alternative power source is not provided the permittee shall halt, reduce or otherwise control production and/or controlled discharges upon the loss of power to the wastewater control facilities.

8. **Treatment Upsets**

a. Any industrial user which experiences an upset in operations that places it in a temporary state of noncompliance, which is not the result of operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation, shall inform the Industrial Waste Section immediately upon becoming aware of the upset. Where such information is given verbally, a written report shall be filed by the user within five (5) days. The report shall contain:

(i) A description of the upset, its cause(s) and impact on the discharger's compliance status;

(ii) The duration of noncompliance, including exact dates and times of noncompliance, and if the non-compliance is continuing, the time by which compliance is reasonably expected to be restored;

(iii) All steps taken or planned to reduce, eliminate, and prevent recurrence of such an upset.

b. An industrial user which complies with the notification provisions of this Section in a timely manner shall have an affirmative defense to any enforcement action brought by the Industrial Waste Section for any noncompliance of the limits in this permit, which arises out of violations attributable to and alleged to have occurred during the period of the documented and verified upset.

9. **Treatment Bypasses**

a. A bypass of the treatment system is prohibited unless the following conditions are met:

(i) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; or

(ii) There was no feasible alternative to the bypass, including the use of auxiliary treatment or retention of the wastewater; and

(iii) The industrial user properly notified the Industrial Waste Section as described in paragraph b. below.

b. Industrial users must provide immediate notice to the Industrial Waste Section upon discovery of an unanticipated bypass. If necessary, the

Industrial Waste Section may require the industrial user to submit a written report explaining the cause(s), nature, and duration of the bypass, and the steps being taken to prevent it's recurrence.

c. An industrial user may allow a bypass to occur which does not cause pretreatment standards or requirements to be violated, but only if it is for essential maintenance to ensure efficient operation of the treatment system. Industrial users anticipating a bypass must submit notice to the Industrial Waste Section at least ten (10) days in advance. The Industrial Waste Section may only approve the anticipated bypass if the circumstances satisfy those set forth in paragraph a. above.

C. PERMITTEE RESPONSIBILITIES

1. Permit Availability

The originally signed permit must be available upon request at all times for review at the address stated on the first page of this permit.

2. Inspections

The permittee shall allow the General Manager of the Buffalo Sewer Authority and/or his authorized representatives, upon the presentation of credentials and during normal working hours or at any other reasonable times, to have access to and copy any records required in this permit; and to sample any discharge of pollutants.

3. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities for which this permit has been issued the permit shall become null and void. The succeeding owner shall submit a completed Buffalo Sewer Authority permit application prior to discharge to the sewer system.

D. PERMITTEE LIABILITIES

1. Permit Modification

After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to the following:

a. Violation of any terms or conditions of this permit,

b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts,

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

2. **Imminent Danger**

In the event there exists an imminent danger to health or property, the permitter reserves the right to take immediate action to halt the permitted discharge to the sewerage works.

3. **Civil and Criminal Liability**

Nothing in this permit shall relieve the permittee from any requirements, liabilities, or penalties under provisions of the Town of Cheektowaga Local Law No. 2, Sewer Regulations of the Buffalo Sewer Authority or any Federal, State and/or local laws or regulations.

E. NATIONAL PRETREATMENT STANDARDS

If a pretreatment standard or prohibition (including any Schedule of Compliance specified in such pretreatment standard or prohibition) is established under Section 307 (b) of the Act for a pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revised or modified in accordance with such pretreatment standard or prohibition.

F. PLANT CLOSURE

In the event of plant closure, the permittee is required to notify the Industrial Waste Section in writing as soon as an anticipated closure date is determined, but in no case later than five days of the actual closure.

G. CONFIDENTIALITY

Except for data determined to be confidential under Section 308 of the Act, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Buffalo Sewer Authority. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act.

H. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

APPENDIX F

DISCHARGE REPORT SUMMARY TABLES

SAMPLING FIELD SHEET

URS

Client Name: Pfohl Brothers Landfill

Address: Aero Drive, Cheektowaga, NY

Contact: Bill Pugh, P.E. Phone: 716-897-7288

Installation:

Sample Point: SP-001

Sample Location: Meter Chamber - ball valve on 6" HDPE forcemain

Date: 12/21/04 Crew: R. Murphy, A. Brayman, J. Stachowski

Weather: 28° F, overcast

Sampling Device: NA

Time of Installation: 08:30 Type of Sample: Grab directly into laboratory sample containers

Sample Interval: NA Sample Volume: NA

Comments and Observations: Wet wells #5 and #6 pumping at time of sample set-up.
PLC display volumes: WW-01 (38,182 gals), WW-02 (42,385 gals), WW-03 (694,533 gals),
WW-04 (624,155 gals), WW-05 (3,398,352 gals),WW-06 (1,817,876 gals) & MH-25 (6,847,134 gals).

Date: 12/22/04 Crew: R. Murphy, A. Brayman, S. McCabe

Weather: 36° F, overcast

Time of Collection: 08:30

Field Measurements:

_____ pH Calibration: Buffer 7- _____ Buffer 4- _____ Buffer 10- _____
(time/initial)

pH Measurement: 7.16 (measured at lab @ approx. 10:46 hrs)

Temperature: Not Measured

Identification: 4L22003-01

Physical Observations: None

Laboratory: Waste Stream Technology, Inc., Buffalo, NY

Comments: Wet wells #5 and #6 pumping at time of sample retrieval.
PLC display volumes: WW-01 (38,182 gals), WW-02 (42,385 gals), WW-03 (694,533 gals),
WW-04 (624,155 gals), WW-05 (3,486,630 gals), WW-06 (1,821,349 gals) & MH-25 (6,940,454 gals).

Reviewed By: _____ Date: 01/11/05
(Supervisor)

TABLE 1

PFOHL BROTHERS LANDFILL - EFFLUENT MONITORING ANALYTICAL RESULTS, TOTAL FLOW, AND MASS LOADINGS DECEMBER 2004

Sample ID	**4L22003-01**			
Matrix	**Effluent Water**			
Date Sampled	**12/22/2004**			
Parameter	**Result**	**Mass Loading**	**Discharge Limitation**	**Violations**
	(mg/L)	**(lbs/day)**	**(lbs/day)**	**(Y/N)**
Total Barium	0.339	0.264	2.34	No
Total Cadmuim	ND(1)	NA(2)	1.17	No
Total Chromium	ND	NA	1.17	No
Total Copper	ND	NA	3.74	No
Total Lead	ND	NA	1.17	No
Total Nickel	0.008	0.006	3.27	No
Total Zinc	0.027	0.021	5.84	No
Total Suspended Solids	16.8	13.082	250 (3)	No
pH (4)	7.16	NA	5.0 - 12.0	No
Total Flow (5)	93,320	NA	140,000	No

Notes:

(1) ND = Not Detected
(2) NA = Not Applicable
(3) Discharge Limitation in units of mg/L
(4) pH measurement and Discharge Limitation in Standard Units
(5) Total Flow reported in gallons

Calculation: $\left(\frac{x\ mg}{L}\right)\left(\frac{y\ gal}{day}\right)\left(\frac{1\ lb}{453{,}600\ mg}\right)\left(\frac{3.785\ L}{gal}\right) = \frac{x \times y}{119{,}841}\ \frac{lb}{day}$

SAMPLING FIELD SHEET

URS

Client Name: Pfohl Brothers Landfill

Address: Aero Drive, Cheektowaga, NY

Contact: Bill Pugh, P.E. Phone: 716-897-7288

Installation:

Sample Point: SP-001

Sample Location: Meter Chamber - ball valve on 6" HDPE forcemain

Date: 3/28/05 Crew: J. Doerr, S. McCabe, J. Stachowski

Weather: 41° F, overcast

Sampling Device: Glass container

Time of Installation: 8:40 Type of Sample: 24 hr. composite

Sample Interval: NA Sample Volume: NA

Comments and Observations: Wet well #6 pumping.
PLC display volumes: WW-06 = 2,940,366 gals., Totalizer = 10,968,150 gals.

Collection:

Date: 3/29/05 Crew: J. Doerr, S. McCabe, J. Stachowski

Weather: Not recorded.

Time of Collection: 8:30

Field Measurements:

08:30/SM
(time/initial)

pH Calibration: Buffer 7-____ Buffer 4-____ Buffer 10-____

pH Measurement: 6.93

Temperature: 8.61° C

Identification: PB-050329

Physical Observations: Clear liquid, trace iron floc

Laboratory: Waste Stream Technology, Inc., Buffalo, NY

Comments: PLC display volumes: WW-06= 2,991,130 gals. Totalizer = 11,019,214
Specific Conductivity = 3.40 Ms

Reviewed By: _____ Date: 3/29/05
(Supervisor)

TABLE 1

PFOHL BROTHERS LANDFILL - EFFLUENT MONITORING ANALYTICAL RESULTS, TOTAL FLOW, AND MASS LOADINGS MARCH 2005

Sample ID	**PB-050329**			
Matrix	**Effluent Water**			
Date Sampled	**3/29/2005**			
Parameter	**Result**	**Mass Loading**	**Discharge Limitation**	**Violations**
	(mg/L)	**(lbs/day)**	**(lbs/day)**	**(Y/N)**
Total Barium	0.402	0.171	2.34	No
Total Cadmuim	ND[1]	NA[2]	1.17	No
Total Chromium	ND	NA	1.17	No
Total Copper	ND	NA	3.74	No
Total Lead	ND	NA	1.17	No
Total Nickel	ND	NA	3.27	No
Total Zinc	ND	NA	5.84	No
Total Suspended Solids	21.6	9.204	250 [3]	No
pH [4]	6.93	NA	5.0 - 12.0	No
Total Flow [5]	51,064	NA	140,000	No

Notes:

(1) ND = Not Detected
(2) NA = Not Applicable
(3) Discharge Limitation in units of mg/L
(4) pH measurement and Discharge Limitation in Standard Units
(5) Total Flow reported in gallons

Calculation: $\left(\frac{x\ mg}{L}\right)\left(\frac{y\ gal}{day}\right)\left(\frac{1\ lb}{453{,}600\ mg}\right)\left(\frac{3.785\ L}{gal}\right) = \frac{x \times y}{119{,}841}\ \frac{lb}{day}$

SAMPLING FIELD SHEET

URS

Client Name: Pfohl Brothers Landfill

Address: Aero Drive, Cheektowaga, NY

Contact: Bill Pugh, P.E. Phone: 716-897-7288

Installation:

Sample Point: SP-001

Sample Location: Meter Chamber - ball valve on 6" HDPE forcemain

Date: 6/28/05 Crew: J. Doerr, A. Brayman, J. Stachowski

Weather: 60° F, overcast

Sampling Device: NA

Time of Installation: 08:25 Type of Sample: Grab directly into laboratory sample containers

Sample Interval: NA Sample Volume: NA

Comments and Observations: No wet wells were pumping at time of sample set-up.
PLC display volumes: WW-01 (711,849 gals), WW-02 (66,675 gals), WW-03 (1,357,836 gals),
WW-04 (3,525,612 gals), WW-05 (5,180,180 gals),WW-06 (3,501,122 gals) & MH-25 (14,712,591 gals).

Date: 6/29/05 Crew: J. Doerr, A. Brayman, S. McCabe

Weather: 64 ° F, overcast

Time of Collection: 08:20

Field Measurements:

08:25/JD
(time/initial)

pH Calibration: Buffer 7- X Buffer 4- Buffer 10-

pH Measurement: 6.73

Temperature: 17.9°C

Identification: PB-062905

Physical Observations: None

Laboratory: Severn Trent, Buffalo, NY

Comments: No wet wells were pumping at time of sample set-up.
PLC display volumes: WW-01 (720,323 gals), WW-02 (66,675 gals), WW-03 (1,357,836 gals),
WW-04 (3,555,274 gals), WW-05 (5,180,180 gals), WW-06 (3,501,122 gals) & MH-25 (14,747,922 gals).

Reviewed By: Date: 08/03/05
(Supervisor)

TABLE 1

PFOHL BROTHERS LANDFILL - EFFLUENT MONITORING ANALYTICAL RESULTS, TOTAL FLOW, AND MASS LOADINGS JUNE 2005

Sample ID	**PB-062905**			
Matrix	**Effluent Water**			
Date Sampled	**6/29/2005**			
Parameter	**Result**	**Mass Loading**	**Discharge Limitation**	**Violations**
	(mg/L)	**(lbs/day)**	**(lbs/day)**	**(Y/N)**
Total Barium	0.44	0.13	2.34	No
Total Cadmuim	ND(1)	NA(2)	1.17	No
Total Chromium	ND	NA	1.17	No
Total Copper	ND	NA	3.74	No
Total Lead	ND	NA	1.17	No
Total Nickel	ND	NA	3.27	No
Total Zinc	0.03	0.01	5.84	No
Total Suspended Solids	ND	NA	250 (3)	No
pH (4)	6.73	NA	5.0 - 12.0	No
Total Flow (5)		35,331	140,000	No

Notes:

(1) ND = Not Detected
(2) NA = Not Applicable
(3) Discharge Limitation in units of mg/L
(4) pH measurement and Discharge Limitation in Standard Units
(5) Total Flow reported in gallons

Calculation: $$\left(\frac{x\ mg}{L}\right)\left(\frac{y\ gal}{day}\right)\left(\frac{1\ lb}{453{,}600\ mg}\right)\left(\frac{3.785\ L}{gal}\right) = \frac{x \times y}{119{,}841}\ \frac{lb}{day}$$

APPENDIX G

SURFACE WATER AND SEDIMENT SAMPLE COLLECTION LOGS

SURFACE WATER AND SEDIMENT SAMPLING - SAMPLE COLLECTION DATA SHEET

Project Name: *Pfohl Brothers Landfill* Project Number: *11172700.00003*

Sampling Crew Members: *S. McCabe, A. Brayman* Supervisor: *S. McCabe*

Date of Sample Collection: *3-May-05*

Sample I.D. Number	Sample Location	Est. Stream Width	Est. Stream Depth	Est. Stream Velocity	Field pH	Field Temp. (^{o}F)	Field Turb. (NTU)	Field Cond. (mS)	Time	Sample Analysis	Sample Description
SW-6	SW-6	5'	.33'	none	7.13	47.5	4	1.20	9:50	VOC/SVOC/PCB/Metals/Cyanide/Gamma spec	Surface water:Clear, no odor, no sheen
SED-6	SED-6	---	---	---	---	---	---	---	10:05	VOC/SVOC/PCB/Metals/Cyanide	Sediment: Brown, silty clay, organics
SW-9 (Dup)	SW-6 (Dup)	5'	.33'	none	7.13	47.5	4	1.20	9:50	VOC/SVOC/PCB/Metals/Cyanide/Gamma spec	Duplicate Sample
SED-9 (Dup)	SED-6 (Dup)	---	---	---	---	---	---	---	10:05	VOC/SVOC/PCB/Metals/Cyanide	Duplicate Sample
SW-7	SW-7	10'	0.5	0.2 fps	7.8	52.8	2	1.00	10:30	VOC/SVOC/PCB/Metals/Cyanide/Gamma spec	Surface water:Clear, no odor, no sheen
SED-7	SED-7	---	---	---	---	---	---	---	10:35	VOC/SVOC/PCB/Metals/Cyanide	Sediment: Brown to gray , silty clay, organics
SW-8	SW-8	20'	0.5'	1.0 fps	7.51	52.7	3	1.20	11:10	VOC/SVOC/PCB/Metals/Cyanide/Gamma spec	Surface water:Clear, no odor, slight sheen
SED-8	SED-8	---	---	---	---	---	---	---	11:15	VOC/SVOC/PCB/Metals/Cyanide	Sediment: Black, silt some organics, iron floc

Additional Comments:

SURFACE WATER AND SEDIMENT SAMPLING - SAMPLE COLLECTION DATA SHEET

Project Name: *Pfohl Brothers Landfill* Project Number: *11172700.00003*

Sampling Crew Members: *S. McCabe, A. Brayman* Supervisor: *S. McCabe*

Date of Sample Collection: *3-May-05*

Sample I.D. Number	Sample Location	Est. Stream Width	Est. Stream Depth	Est. Stream Velocity	Field pH	Field Temp. (^{o}F)	Field Turb. (NTU)	Field Cond. (mS)	Time	Sample Analysis	Sample Description
SW-4	SW-4	30'	0.7'	1.0 fps	7.58	53.9	2	1.30	11:35	VOC/SVOC/PCB/Metals/Cyanide/Gamma spec	Surface water:Clear, no odor, no sheen
SED-4	SED-4	---	---	---	---	---	---	---	11:38	VOC/SVOC/PCB/Metals/Cyanide	Sediment: Brown to gray, sandy silt some organics
SW-5	SW-5	6'	0.1'	none	8.5	60.6	4	0.60	11:55	VOC/SVOC/PCB/Metals/Cyanide/Gamma spec	Surface water:Clear, no odor, no sheen
SED-5	SED-5	---	---	---	---	---	---	---	11:57	VOC/SVOC/PCB/Metals/Cyanide	Sediment: Brown, silty clay, trace sand and gravel
SW-3	SW-3	30'	3.0'	none	7.83	55	4	1.50	13:20	VOC/SVOC/PCB/Metals/Cyanide/Gamma spec	Surface water:Clear, no odor, no sheen
SED-3	SED-3	---	---	---	---	---	---	---	13:22	VOC/SVOC/PCB/Metals/Cyanide	Sediment: Dark gray, silt some organics trace sand
SW-2	SW-2	20'	2.0'	none	8.12	56.4	2	1.40	13:42	VOC/SVOC/PCB/Metals/Cyanide/Gamma spec	Surface water:Clear, no odor, slight sheen
SED-2	SED-2	---	---	---	---	---	---	---	13:44	VOC/SVOC/PCB/Metals/Cyanide	Sediment: Dark gray, silt some organics trace sand

Additional Comments:

SURFACE WATER AND SEDIMENT SAMPLING - SAMPLE COLLECTION DATA SHEET

Project Name: *Pfohl Brothers Landfill* Project Number: *11172700.00003*

Sampling Crew Members: *S. McCabe, A. Brayman* Supervisor: *S. McCabe*

Date of Sample Collection: *3-May-05*

Sample I.D. Number	Sample Location	Est. Stream Width	Est. Stream Depth	Est. Stream Velocity	Field pH	Field Temp. (^{o}F)	Field Turb. (NTU)	Field Cond. (mS)	Time	Sample Analysis	Sample Description
SW-1	SW-1	30'	3.0'	none	7.76	56.3	5	1.30	14:30	VOC/SVOC/PCB/Metals/Cyanide/Gamma spec	Surface water:Clear, no odor, no sheen
SED-1	SED-1	---	---	---	---	---	---	---	14:40	VOC/SVOC/PCB/Metals/Cyanide	Sediment: Dark gray, silt some organics trace sand
SW-1 MS	SW-1	30'	3.0'	none	7.76	56.3	5	1.30	14:30	VOC/SVOC/PCB/Metals/Cyanide/Gamma spec	Surface water:Clear, no odor, no sheen
SED-1 MS	SED-1	---	---	---	---	---	---	---	14:40	VOC/SVOC/PCB/Metals/Cyanide	Sediment: Dark gray, silt some organics trace sand
SW-1 MSD	SW-1	30'	3.0'	none	7.76	56.3	5	1.30	14:30	VOC/SVOC/PCB/Metals/Cyanide/Gamma spec	Surface water:Clear, no odor, no sheen
SED-1 MSD	SED-1	---	---	---	---	---	---	---	14:40	VOC/SVOC/PCB/Metals/Cyanide	Sediment: Dark gray, silt some organics trace sand

Additional Comments:

WELL INSPECTION SUMMARY

Project Name: *Pfohl Brothers Landfill* Project Number: *11172700.00003*

Inspection Crew Members: *S. McCabe, A. Brayman* Supervisor: *S. McCabe*

Date(s) of Inspection: *May 3, 2005*

Well I.D. Number	***Lock***	***Surface Seal***	***Protective Casing***	***Riser***	***Water Level (ft. BTOC)***	***Well Depth (ft. BTOC)***	***Other Comments***
GW-07S	missing	OK	lid broken	OK	4.9	35.3	
GW-7D	OK	OK	OK	bent at ground level, 2" of clearance	24.30	60.95	

Additional Comments: _____

WELL INSPECTION SUMMARY

Project Name: *Pfohl Brothers Landfill* Project Number: *11172700.00003*

Inspection Crew Members: *S. McCabe, A. Brayman* Supervisor: *S. McCabe*

Date of Inspection: *May 4, 2005*

Well I.D. Number	***Lock***	***Surface Seal***	***Protective Casing***	***Riser***	***Water Level (ft. BTOC)***	***Well Depth (ft. BTOC)***	***Other Comments***
GW-4S	OK	OK	OK	OK	4.33	16.51	
GW-4D	OK	OK	OK	OK	12.69	45.36	
GW-34S	OK	OK	OK	OK	2.61	10.30	
GW-33S	OK	OK	OK	OK	6.75	8.47	
GW-31S	OK	OK	OK	OK	2.95	9.86	
GW-29S	OK	OK	OK	OK	6.18	20.32	
GW-30S	OK	OK	OK	OK	7.37	18.23	
GW-35S	OK	OK	OK	OK	3.31	7.75	

Additional Comments: _____

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WELL INSPECTION SUMMARY

Project Name: *Pfohl Brothers Landfill* Project Number: *11172700.00003*

Inspection Crew Members: *S. McCabe, A. Brayman* Supervisor: *S. McCabe*

Date of Inspection: *May 4, 2005*

Well I.D. Number	***Lock***	***Surface Seal***	***Protective Casing***	***Riser***	***Water Level (ft. BTOC)***	***Well Depth (ft. BTOC)***	***Other Comments***
GW-32S	OK	OK	OK	OK	3.34	10.21	

Additional Comments: _____

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WELL INSPECTION SUMMARY

Project Name: *Pfohl Brothers Landfill* Project Number: *11172700.00003*

Inspection Crew Members: *S. McCabe, A. Brayman* Supervisor: *S. McCabe*

Date of Inspection: *May 5, 2005*

Well I.D. Number	***Lock***	***Surface Seal***	***Protective Casing***	***Riser***	***Water Level (ft. BTOC)***	***Well Depth (ft. BTOC)***	***Other Comments***
GW-1S	missing	OK	rotted	OK	2.6	14.95	no J-plug
GW-1D	missing	OK	rotted	OK	2.59	39.61	no J-plug
GW-28S	OK	OK	OK	OK	3.32	15.88	
GW-8SR	OK	OK	OK	OK	5.35	13.31	no J-plug
GW-8D	OK	OK	OK	OK	5.55	36.89	no J-plug
GW-3D	missing	broken	OK	OK	1.69	35.99	no J-plug
GW-3S	OK	broken	OK	OK	2.33	13.54	no J-plug
GW-26D	OK	OK	OK	OK	6.43	41.05	

Additional Comments: _____

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GROUNDWATER SAMPLING - SAMPLE COLLECTION DATA SHEET

Project Name: *Pfohl Brothers Landfill* Project Number: *11172700.00003*

Sampling Crew Members: *S. McCabe, A. Brayman* Supervisor: *S. McCabe*

Date of Inspection: *May 4, 2005*

Sample I.D. Number	*Well Number*	*Well Volume (gal.)*	*Volume Purged (gal.)*	*Sample Time*	*Sample Description*	*Analysis Required*	*Chain-of-Custody Number*
GW-30S	GW-30S	1.85	7	12:55	Groundwater	VOCs/SVOCs/ PCBs/Metals/ Dioxins & Furans/Cyanide/ Gamma Spec.	
GW-29S	GW-29S	2.4	8	13:07	Groundwater		
GW-31S	GW-31S	1.2	2.5	13:16	Groundwater		
GW-34S	GW-34S	1.3	4.5	13:39	Groundwater		
GW-33S	GW-33S	0.3	1	13:55	Groundwater		
GW-26D	GW-26D	22	70	15:15	Groundwater		
GW-27D	GW-26D	22	70	15:15	Field Replicate		
GW-35S	GW-35S	0.75	3	15:20	Groundwater		
GW-32S	GW-32S	1.17	4.5	15:50	Groundwater		

Additional Comments: _____

GROUNDWATER SAMPLING - SAMPLE COLLECTION DATA SHEET

Project Name: *Pfohl Brothers Landfill* Project Number: *11172700.00003*

Sampling Crew Members: *S. McCabe, A. Brayman* Supervisor: *S. McCabe*

Date of Inspection: *May 4, 2005*

Sample I.D. Number	***Well Number***	***Well Volume (gal.)***	***Volume Purged (gal.)***	***Sample Time***	***Sample Description***	***Analysis Required***	***Chain-of-Custody Number***
GW-7S	GW-7S	5.2	7	16:15	Groundwater	VOCs/SVOCs/ PCBs/Metals/ Dioxins & Furans/Cyanide/ Gamma Spec.	
GW-7D	GW-7D	24.2	26	16:20	Groundwater		
GW-4S	GW-4S	2.1	7	17:05	Groundwater		
GW-4D	GW-4D	21.6	35	17:12	Groundwater		
TB-050405	---	---	---	---	Trip Blank	VOCs	

Additional Comments: _____

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GROUNDWATER SAMPLING - SAMPLE COLLECTION DATA SHEET

Project Name: *Pfohl Brothers Landfill* Project Number: *11172700.00003*

Sampling Crew Members: *S.McCabe, A. Brayman* Supervisor: *S. McCabe*

Date of Inspection: *May 5, 2005*

Sample I.D. Number	***Well Number***	***Well Volume (gal.)***	***Volume Purged (gal.)***	***Sample Time***	***Sample Description***	***Analysis Required***	***Chain-of-Custody Number***
GW-1S	GW-1S	2.1	8	10:32	Groundwater	VOCs/SVOCs/ PCBs/Metals/ Dioxins & Furans/Cyanide/ Gamma Spec.	
GW-1D	GW-1D	24.4	75	10:22	Groundwater		
GW-1D-MS	GW-1D	24.4	75	10:22	Matrix Spike		
GW-1D-MSD	GW-1D	24.4	75	10:22	Matrix Spike Duplicate		
GW-28S	GW-28S	2.1	7	12:05	Groundwater		
GW-8SR	GW-08SR	1.4	6	13:35	Groundwater		
GW-8D	GW-8D	20.7	70	13:30	Groundwater		
GW-3D	GW-3D	22.6	70	15:35	Groundwater		
GW-3S	GW-3S	1.9	6	15:40	Groundwater		

Additional Comments: _____

GROUNDWATER SAMPLING - SAMPLE COLLECTION DATA SHEET

Project Name: *Pfohl Brothers Landfill* Project Number: *11172700.00003*

Sampling Crew Members: *S.McCabe, A. Brayman* Supervisor: *S. McCabe*

Date of Inspection: *May 5, 2005*

Sample I.D. Number	***Well Number***	***Well Volume (gal.)***	***Volume Purged (gal.)***	***Sample Time***	***Sample Description***	***Analysis Required***	***Chain-of-Custody Number***
TB-050505	---	---	---	---	Trip Blank	VOCs	

Additional Comments: _____

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