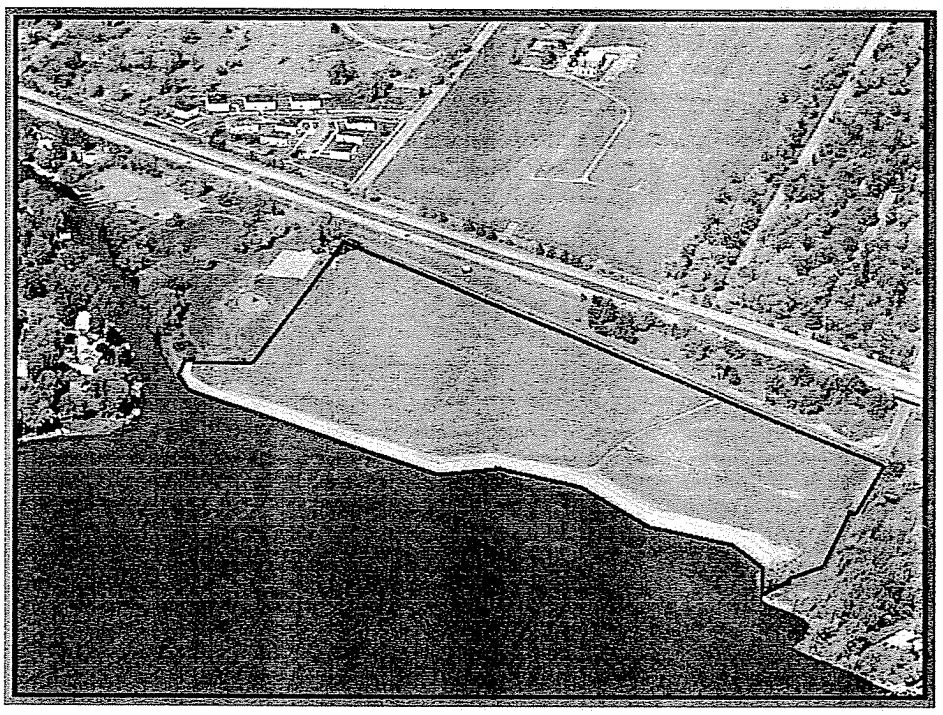
102ND STREET LANDFILL SITE
NIAGARA FALLS, NEW YORK

ANNUAL REPORT 2003



Miller Springs Remediation Management, Inc and Olin Corporation

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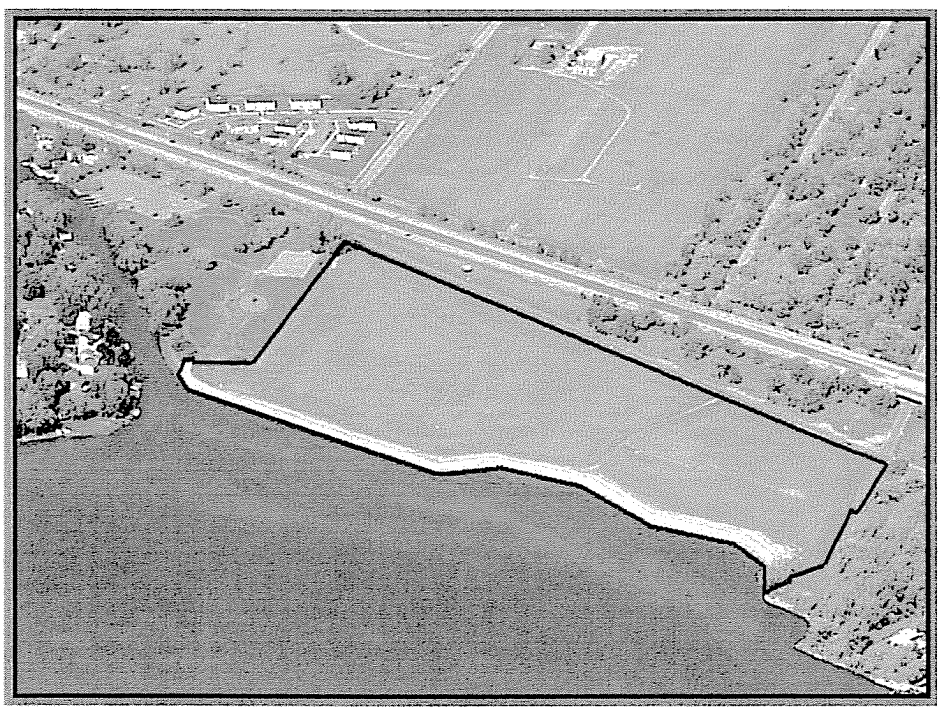

Miller Springs Remediation Management, Inc and Olin Corporation

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EXECUTIVE SUMMARY

The following report describes the Operation and Maintenance (O&M) activities for 2003 for the 102nd Street Landfill Site (Site) located in Niagara Falls, New York. The Site covers approximately 22.1 acres and consists of two separate properties owned by Occidental Chemical Corporation (OxyChem) (15.6 acres) and Olin Corporation (6.5 acres). Both OxyChem's and Olin's responsibilities at the Site are currently handled by Miller Springs Remediation Management, Inc. (MSRM), an affiliate of OxyChem.

During 2003, the Remedial Action System Components at 102nd Street performed very well. The leachate collection system removed 580,170 gallons of APL from the site. Water level monitoring showed that an inward gradient was maintained for 100% of the time at seven of the well pairs and nearly 80% of the time at two other well pairs. Only one well pair (PCM-07/PZ-07) on the north side of the site indicated that an inward gradient was not being maintained (10 of the 12 monthly monitorings) in that location. However, analytical results indicate no site parameters above the survey levels (Site base line guidance values from Table 2.1 of the Sites O&M Manual, 2001) outside of the slurry wall at PCM-07.

It should also be noted that the Buffalo Avenue storm sewer immediately adjacent to PCM-07 has an invert elevation of 563.5 above mean sea level (AMSL) which is below the average water level in PCM-07 (approximately 565 AMSL). It is possible that groundwater infiltration into the sewer at this location is depressing the groundwater elevations outside of the slurry wall.

In 2003, 1,440 gallons of NAPL were recovered from the Site NAPL Recovery Wells. The recovered NAPL was then sent to an off Site incinerator (CleanHarbors Deer Park, TX) for final destruction.

1.0 INTRODUCTION

This report describes the Operation and Maintenance (O&M) Activities for 2003 for the 102nd Street Landfill Site (Site) located in Niagara Falls, New York. The Site covers approximately 22.1 acres and consists of two separate properties owned by Occidental Chemical Corporation (15.6 acres) and Olin Corporation (6.5 acres). The Site is bordered by the Niagara River to the south, Buffalo Avenue to the north, Griffon Park to the west, and privately owned land to the east. A perimeter fence restricts Site access. Authorized vehicular traffic access is provided from Buffalo Avenue by fence gates.

The RA system components at the Site that have associated O&M activities are as follows (see figure 1 for the site layout):

- a landfill cap;
- a perimeter slurry wall;
- an aqueous phase liquid (APL) collection and discharge system;
- a non-aqueous phase liquid (NAPL) recovery system;
- post-RA system performance monitoring;
- a perimeter fence; and
- shallow water environment monitoring.

Remedial construction at the site was completed in 1999 and groundwater pumping began March of the same year. Although groundwater pumping was not required to begin until the remedial work was approved by the United States Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (DEC), the owners agreed that dewatering of the site would be advantageous and began voluntarily pumping from the Wet Wells.

The Final Close Out Report for the site was issued on August 13, 1999 and comments were received on July 11, 2000. Final responses to the comments were submitted to the agencies on September 22, 2000.

Final revisions to the Operations and Maintenance Manual were submitted to the agencies on August 17, 2001 and final approval of the manual was received on October 24, 2001.

The Certificate of Completion for the site was submitted to the agencies on January 14, 2002 and was accepted by the agencies on March 13, 2002, signifying that all remedial work had been completed. As a result, the formal initiation of O&M for the site occurred in April 2002.

This report is the second Annual Report for the Site, covering all O&M activities for the calendar year of 2003.

2.0 MONITORING AND TESTING

2.1 MONITORING PLAN

2.1.1 WATER LEVEL MONITORING

Water levels in the piezometers and monitoring wells were taken monthly throughout 2003 in accordance with the O&M Plan. A plan view of the well pair locations is attached as figure 2

Water level data have been converted to elevations and are listed on the Annual Report Forms, in ***Appendix A***. The data for 2001 through 2003 have also been graphed to show the groundwater elevation trends. Graphs are also included in ***Appendix A***. Additionally ***Table 2.1*** shows the elevations for each of the pairings and the gradients achieved for the monthly events through out the year.

The hydraulic monitoring program currently consists of monthly measurements (for the first 2 years of O&M, quarterly thereafter) of water levels in 20 monitoring wells located outside (10, PCM series) and inside (10, PZ series) of the slurry wall. Listed below and shown in ***Figure 2*** are the pairings that are used to monitor the gradients in and around the slurry wall.

Pair	Outside	Inside	Location
1	PCM-01	PZ-01	West Side
2	PCM-02	PZ-02	Southwest Side
3	PCM-03	PZ-03	South Side
4	PCM-04	PZ-04	South Side
5	PCM-05	PZ-05	Southeast Side
6	PCM-06	PZ-06	Northeast Side
7	PCM-07	PZ-07	North Side
8	PCM-08	PZ-08	North Side
9	PCM-09	PZ-09	North Side
10	PCM-10	PZ-10	Northwest Side

Inward gradients towards the landfill were prevalent at following well pairs:

- West-Side pairs 1 and 2 had shown inward gradients during for all monitoring events.
- East Side of the site, well pair 6 showed a consistent inward gradient for all monitoring events.

- South Side of the site, along the Niagara River, well pairs 3 and 5 consistently showed an inward gradient; however well pair 4 showed an inward gradient about three-quarters (9 out of 12 months) of the time.
- North Side of the site, along Buffalo Avenue, well pair 8 showed an inward gradient for all the monitoring events; well pair 7 showed an inward gradient for only 2 of the 12 events. The storm sewer immediately adjacent to PCM-07 on Buffalo Avenue is believed to be influencing PCM-07. It appears from the available data that groundwater infiltration into the sewer at this location is depressing the groundwater elevations outside of the slurry wall. Well pair 10 showed an inward gradient greater more than eighty percent (10 of 12 events) of the time, and well pair 9 while detecting as "Dry" for many of the events showed an inward gradients for all six (6) events where water was detected in PCM-09. For the purposes of graphing, the water level in either PCM-09 or PZ-09 was generally considered to be just below the bottom of the well when monitoring indicated the well was "Dry".

Wells PZ-08, PZ-09, and PCM-09 along the Northern side of the Site have detected "Dry" almost regularly. These wells are quite shallow and are presently are equipped with 4' long screens. When constructed, these wells were drilled six (6) inches in the confining layer below the landfill (clay or till). Therefore, the fact that these wells are dry indicates that the overburden above the confining layer has been dewatered and containment in this area is assured.

2.1.2 GROUNDWATER QUALITY MONITORING

The groundwater quality monitoring program consists of ten (10) Overburden Monitoring Wells (OMWS) PCM-01 – PCM-10 and three (3) Bedrock Wells PCBM-01 – PCBM-03 sampled quarterly for the first 2 years, semi-annual for 8 years and annually thereafter.

Groundwater quality monitoring events for 2003 occurred quarterly; March-April for the first quarter in which NYSDEC split samples at wells PCM-03, PCM-04 and PCM-05; second quarter was completed in June; third quarter was completed in September-October and the fourth quarter was completed in December ***Table*** 2.2 shows the results from each of the monitoring events.

Concentrations, which are above survey levels are being monitored and graphed to determine if any of the levels are increasing. To date no substantial increases have been observed. Graphs are attached in Appendix B.

2.1.3 NAPL PRESENCE MONITORING

NAPL presence monitoring of the eight NAPL Recovery (NR) wells (NR-1, NR-2, NR-3, NR-4, NR-5, NR-7, NR-8 and NR-10) began in April 2002 immediately after the EPA approved the Certificate of Completion. Per the O&M Manual, NAPL presence is to be checked each month for the first three months (fulfilled in 2002) and quarterly after. The results of this monitoring are presented in the Annual Report Form, which are attached as part of *Appendix A*.

As part of the O&M of the Site, a semi-annual inspection was completed on April 24, 2003 with the NYSDEC. A follow up letter was issued by the NYSDEC on May 07, 2003. One of the comments from the inspection was that "NAPL recharge rate in NR-02 is much higher than expected; a more concerted NAPL recovery effort at this well is warranted".

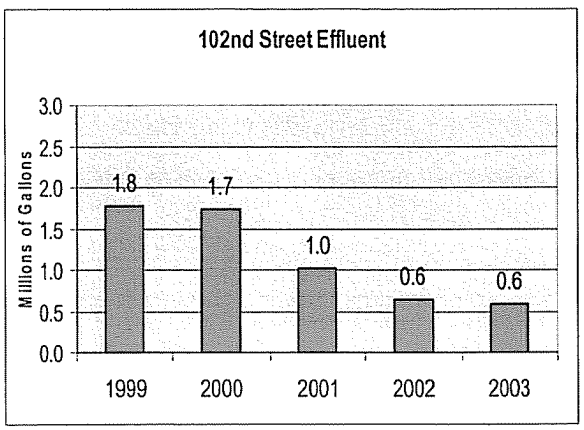
MSRM proposed and the NYSDEC accepted a recommendation to initiate NAPL presence monitoring at NR-2 on a monthly basis during the seasonal period during which monitoring and recovery could be accomplished. The proposed period would run from April through October annually. NAPL recovery from November through March is very difficult at this site due to the extreme weather conditions along the Niagara River. The remaining seven (7) wells would be monitored on the same seasonal schedule (April-October) but remain on a quarterly interval (as per the O&M), which would allow for three (3) events throughout the year.

3.0 OPERATION OF 102ND STREET LANDFILL SYSTEMS

3.1 APL COLLECTION AND DISCHARGE SYSTEM OPERATION

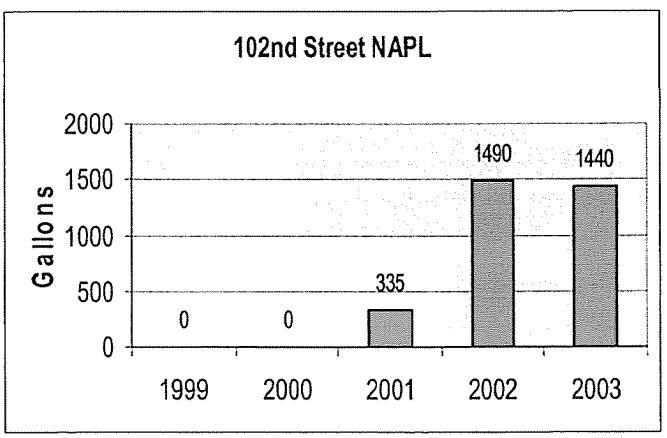
The individual APL pumps in the APL collection wet wells operated throughout 2003 on level control. All well pumps were set to start up at an elevation of 562.1 AMSL (one foot below the average Niagara River water level) and shut down when elevations in the wells reached 561.8 AMSL.

A total of 580,170 gallons of APL were removed from the site and pumped to the Love Canal Treatment Facility (LCTF). There the APL was treated and released to the City of Niagara Falls Sanitary Sewer System. A total of 5.7 million gallons have been removed from the Site since pumping was initiated in March of 1999.



3.2 NAPL COLLECTION SYSTEM OPERATION

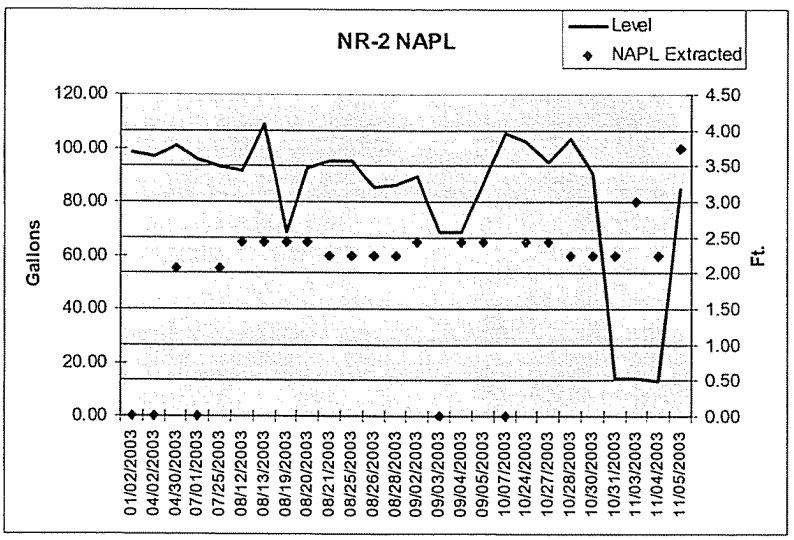
A total of 2,180 gallons of material (APL/NAPL) were removed from the NAPL Recovery Wells at the site in 2003. This material was transported to the Love Canal Facility where 740 gallons of APL were decanted from the drums and introduced into Love Canal collection system for treatment at the LCTF. The remaining 1,440 gallons of NAPL were shipped to the Clean Harbors Facility in Deer Park, Texas for incineration.



As outlined in the above section **2.1.3 NAPL Presence Monitoring**, a concentrated effort was implemented to monitor and extract NAPL in the most efficient manner as possible in 2003. This task was achieved by concentrating on the known quick-recharge well,

NR-02 in 2003 NAPL was recovered from NR-02 twenty-one times for a total NAPL recovery of 1,355 gallons (Net; Less-APL) for 2003 with a grand total of 3,265 gallons. A summary of the NAPL monitoring and the extractions are outlined in ***Table 3.1.*** Presented below is a chart of the NAPL recoveries from the individual wells and the 2003 extractions for NR-02 in 2003 versus the level of NAPL.

Well	1999	2000	2001	2002	2003	Totals
NR-1	-	-	55	0	60	115
NR-2	-	-	200	1,490	1,355	3,045
NR-3	-	-	40	0	0	40
NR-4	-	-	0	0	0	0
NR-5	-	-	40	0	20	60
NR-7	-	-	0	0	0	0
NR-8	-	-	0	0	5	5
NR-10	-	-	0	0	0	0
Total			335	1,490	1,440	3,265



In order to increase the NAPL recovery from NR-02 further a work plan entitled "NAPL Extraction Program Work Plan for Accelerated Recovery" was submitted to NYSDEC in December 2003. The proposed scope of the plan was as follows:

> MSRM/Olin proposes to initiate a baseline-pumping program utilizing a low flow pump to determine the recharge rate at well NR-02. This program will operate for one week: five days, Monday through Friday, twenty-four hours a day. The recovered material will be pumped directly into a tanker trailer that will be staged adjacent to the well.
>
> A daily log of pumped quantities and water and NAPL depths will be maintained. Upon completion of the pumping test, the data will be compiled and

evaluated to determine whether any long-term NAPL recovery plan revision should be proposed. The evaluated data and proposal will then be submitted to the NYSDEC for review.

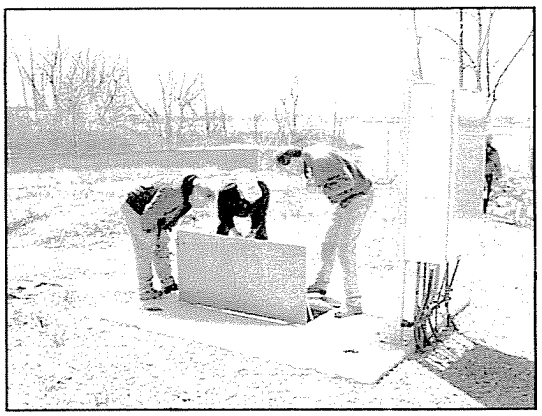
The loaded trailer will be transported back to the Love Canal Treatment Facility (LCTF) where the APL will be decanted into the Love Canal collection system (PC3A) for treatment at the LCTF. The remaining NAPL will be shipped out for incineration to an approved Treatment Storage Disposal Facility (TSDF).

Upon approval from NYSDEC, the work plan will be revised and/or implemented. The test program will be completed during the seasonal pumping period (April through October).

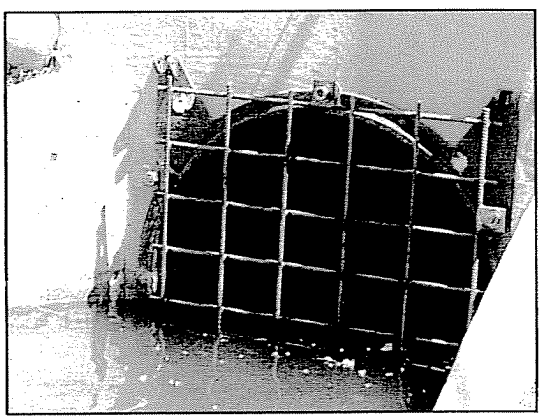
4.0 SITE MAINTENANCE AND INSPECTIONS

4.1 SITE INSPECTIONS

Semi-Annual Site Inspections were held April 23 and October 23, 2003 with representatives from NYSDEC.



The inspection covered all portions of the landfill remediation including the APL Collection System, APL Discharge System, Landfill Cap, Bulkhead, and Storm Sewer. A few items requiring maintenance were noted and are listed on the form.

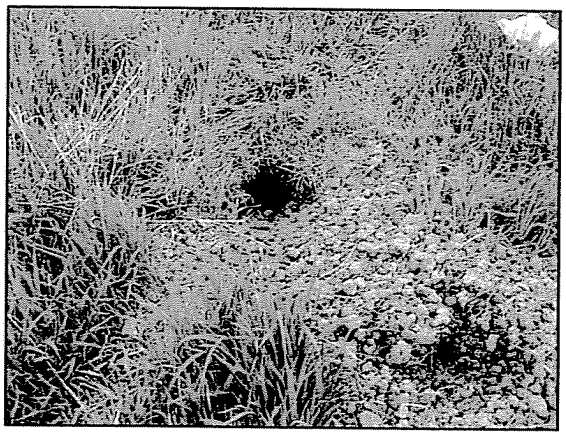


One major item of concern noted during the previous year inspections was that the ductile iron flap gate covering the end of the 48" diameter storm sewer had broken off and was lying in the river next to the shore. The original plan called for the gate to be reinstalled on the sewer but further study showed that the gate could possibly become jammed shut with ice and debris. It was agreed that the flap gate would not be reinstalled but a grate would be placed over the sewer outlet to prevent debris from entering the pipe. This grate has been installed (see photo). Sewer conditions would be monitored to determine if the reinstallation of the gate would be necessary.

Summarized below are items that were noted during semi annual inspections, and their status:

Item	Action	Date	Status
Repair 2 spots on crib-wall.	Repaired wall.	Mar-2003	Done.
Fill borrowing holes.	Holes filled and eradicated.	May-2003	Done, Check Semi-Annual
Fence Man-gate Latch.	Replace with heavier latch.	May-2003	Done.
Culvert pipe on access road.	Repair cover with stone and add markers.	Oct-2003.	Repair in Spring-2004.

4.2 MAINTENANCE



Partially collapsed culvert piping under the NAPL Well access roads was repaired and additional stone was added over the pipe to provide additional protection. Markers were installed to keep vehicles away from the culvert ends.

Maintenance included mowing the landfill vegetation to inhibit the growth of woody material and filling of holes found in the soil cover made by burrowing animals. MSRM eradicated the animals using commercially available gas/smoke delivery systems.

The perimeter fence was generally in good condition although the latch on the man-gate at Griffin Park had been damaged. MSRM had the latch replaced with a heavier locking latch. All monitoring wells, including surrounding concrete pads, were checked and found to be in very good condition, locked, and secure.

FIGURES

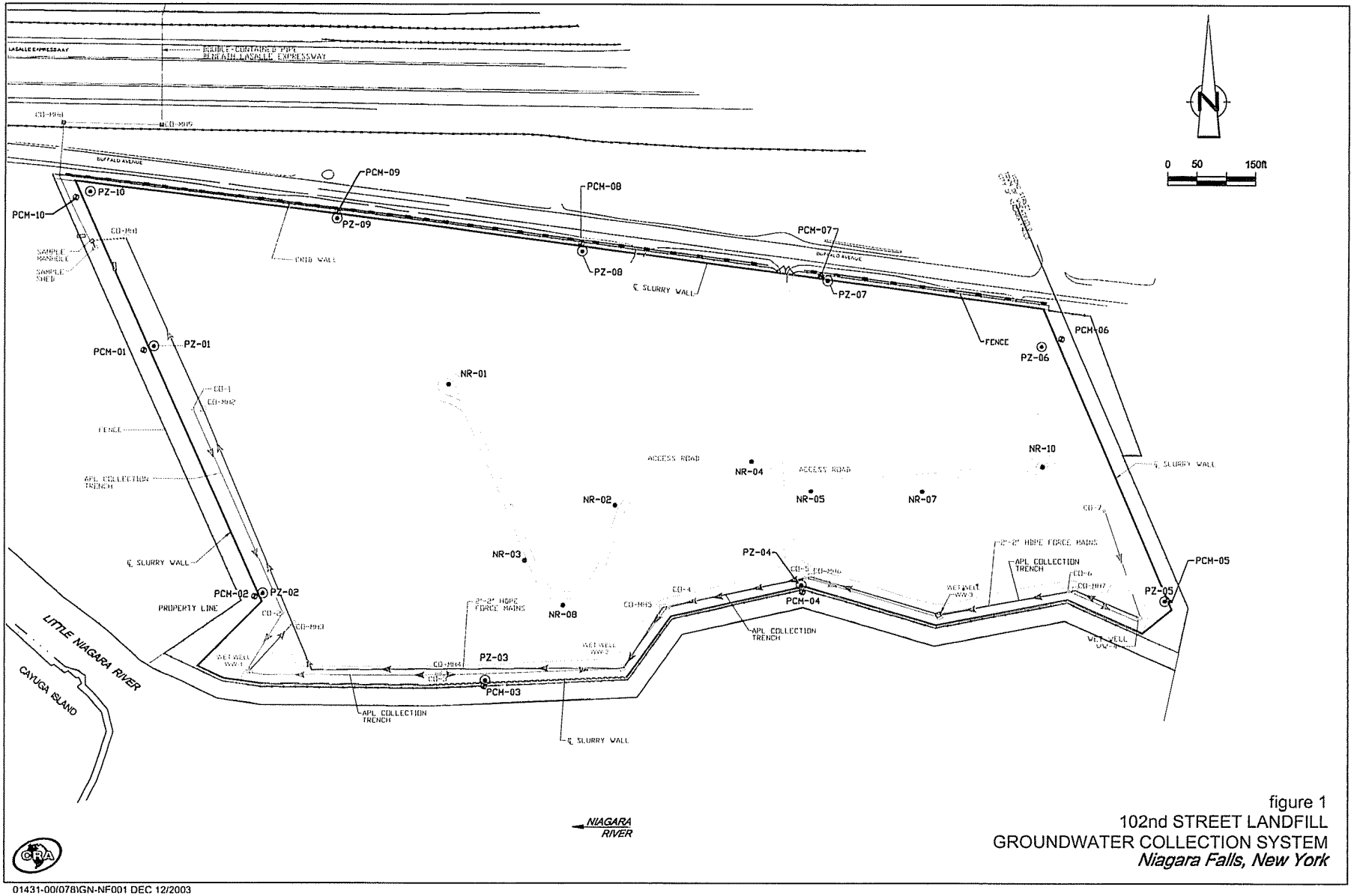


figure 1
102nd STREET LANDFILL
GROUNDWATER COLLECTION SYSTEM
Niagara Falls, New York

01431-00(078)GN-NF001 DEC 12/2003

TABLES

Table 2.1
102nd Street Site
Gradients PCM Wells (Outside) vs. PZ Wells (Inside) Elevations

Wells	Elevations TOC AMSL	Bottom AMSL	Depth ft.	1/2/03	2/4/03	3/5/03	4/2/03	5/5/03	6/6/03	7/1/03	8/4/03	9/3/03	10/7/03	11/4/03	12/2/03	Inward Gradients
PCM-01	578.24	549.05	29.19	565.91	566.44	566.34	566.78	566.94	566.83	566.62	565.39	565.92	565.74	565.94	566.09	
PZ-01	582.21	549.64	32.57	564.54	564.86	564.74	564.39	564.44	564.31	564.23	564.39	564.16	564.23	564.31	564.05	
Gradients				-1.37	-1.58	-1.6	-2.39	-2.5	-2.52	-2.39	-1	-1.76	-1.51	-1.63	-2.04	12
PCM-02	577.24	547.9	29.34	565.97	566.54	566.24	567.54	566.67	566.59	566.7	566.24	565.94	565.74	566.15	566.42	
PZ-02	577.92	548.43	29.49	562.71	562.75	562.92	562.53	562.58	562.3	562.57	562.54	562.63	562.54	562.53	562.54	
Gradients				-3.26	-3.79	-3.32	-5.01	-4.09	-4.29	-4.13	-3.7	-3.31	-3.2	-3.62	-3.88	12
PCM-03	576.81	545.15	31.66	562.69	563.52	562.56	562.79	563.34	563.76	563.73	563.84	563.62	563.5	562.66	563.09	
PZ-03	576.68	545.63	31.05	562.31	562.21	562.3	562.03	562.06	561.76	562.07	562.1	562.08	562.03	562.11	562.05	
Gradients				-0.38	-1.31	-0.26	-0.76	-1.28	-2	-1.66	-1.74	-1.54	-1.47	-0.55	-1.04	12
PCM-04	575.73	545.74	29.99	563.12	563.59	562.73	563.28	563.57	563.55	564.58	564.08	563.65	563.69	562.83	563.29	
PZ-04	576.96	545.63	31.33	563.14	563.31	563.39	562.91	562.78	562.57	562.82	562.8	562.92	562.81	562.85	562.76	
Gradients				0.02	-0.28	0.66	-0.37	-0.79	-0.98	-1.76	-1.28	-0.73	-0.88	0.02	-0.53	9
PCM-05	575.93	550	25.93	563.7	564.18	564.16	565.08	564.23	564.27	564.17	563.67	562.9	563.18	563.58	564.23	
PZ-05	576.87	550.5	26.37	562.1	561.97	562.01	561.92	561.82	561.75	562.02	562.02	561.71	561.99	561.97	562.04	
Gradients				-1.6	-2.21	-2.15	-3.16	-2.41	-2.52	-2.15	-1.65	-1.19	-1.19	-1.61	-2.19	12
PCM-06	580.25	566.5	13.75	568.25	567.25	567.15	567.05	567.15	567.25	567.33	567.41	567.26	567.59	567.64	567.61	
PZ-06	584.66	564.05	20.61	565.45	565.46	565.41	565.51	565.34	565.03	565.26	566.21	565.03	565.21	565.26	565.29	
Gradients				-2.8	-1.79	-1.74	-1.54	-1.81	-2.22	-2.07	-1.2	-2.23	-2.38	-2.38	-2.32	12
PCM-07	578.8	557.63	21.17	565.33	565.34	565.64	565.8	564.5	566.09	561.5	565.18	565.8	559.8	564.35	564.32	
PZ-07	579.1	564.8	14.3	566.28	566.04	565.98	565.18	565.9	566.12	566.25	566.39	564.09	566.5	566.35	566.4	
Gradients				0.95	0.7	0.34	-0.62	1.4	0.03	4.75	1.21	-1.71	6.7	2	2.08	2
PCM-08	579.32	564.43	14.89	569.3	567.89	569.12	569.02	569.07	569.5	568.08	569.17	569.1	569.99	570.27	569.52	
PZ-08	580.99	565.38	15.61	566.91	566.2	***566.19***	***566.19***	***566.19***	***566.19***	566.23	***566.19***	***566.19***	***566.19***	***566.18***	***566.18***	
Gradients				-2.39	-1.69	-2.93	-2.83	-2.88	-3.31	-1.85	-2.98	-2.91	-3.8	-4.09	-3.34	12
PCM-09	578.99	567.87	11.12	572.33	570.99	571.49	571.8	***571.04***	***570.79***	***570.96***	***570.96***	***571.47***	***570.99***	573.64	571.73	
PZ-09	580.67	566.28	14.39	***566.56***	566.56	***566.57***	***566.62***	***566.67***	***566.57***	***566.56***	***566.55***	***566.56***	***566.57***	***566.56***	***566.66***	
Gradients				-5.77	-4.43	-1.59	-1.59	-4.37	-1.59	-1.59	-1.59	-4.91	-1.59	-1.59	-1.59	12
PCM-10	579.4	556.39	23.01	566.25	567.69	566.4	567.4	567.1	567.02	566.73	566.31	563.8	565.8	566.45	566.68	
PZ-10	581.65	561.56	20.09	566.18	566.19	566.1	565.43	566.2	565.97	566.09	566.13	565.98	566.04	566.07	565.93	
Gradients				-0.07	-1.5	-0.3	-1.97	-0.9	-1.05	-0.64	-0.18	2.18	0.24	-0.38	-0.75	10

Notes:

TOC: Top of Casing
Bottom: Elevation at bottom of Well
Dry: No water level detected in well, depth elevation used in place of absent elevation. ***Number Italic and Bold***
Flooded: Water level detected to TOC in well, TOC elevation used in place of absent elevation.
Negative number indicates an inward gradients.

Table 2.2
102nd Street Site
Historical Analytical Results
Bedrock (PCBM) and Overburden (PCM)

Parameter	NYSDEC Class GA GW Criteria	Survey Level	Unit	Well / Sample ID: / Date:	PCBM-01 / PCBM-01-303 / 3/31/2003	PCBM-01 / PCBM-01-603 / 6/23/2003	PCBM-01 / PCBM-01-903 / 9/29/2003	PCBM-01 / PCBM-01-1203 / 12/23/2003
Volatiles								
1,2,3-Trichlorobenzene	5	10	µg/L		1.00 U	1.00 U	1.00 U	1.00 U
1,2,4-Trichlorobenzene	5	10	µg/L		1.00 U	1.00 U	1.00 U	1.00 U
1,2-Dichlorobenzene	3	10	µg/L		1.00 U	1.00 U	1.00 U	1.00 U
1,4-Dichlorobenzene	3	10	µg/L		1.00 U	1.00 U	1.00 U	1.00 U
2-Chlorotoluene	5	5	µg/L		1.00 U	1.00 U	1.00 U	1.00 U
Benzene	1	5	µg/L		1.00 U	1.00 U	1.00 U	1.00 U
Chlorobenzene	5	5	µg/L		1.00 U	1.00 U	1.00 U	1.00 U
Semi-Volatiles								
1,2,4,5-Tetrachlorobenzene	5	10	µg/L		4.72 U	4.67 U	4.72 U	4.72 U
2,4,5-Trichlorophenol	1	50	µg/L		9.43 U	9.35 U	9.43 U	9.43 U
2,4-Dichlorophenol	1	10	µg/L		9.43 U	9.35 U	9.43 U	9.43 U
2,5-Dichlorophenol	1	10	µg/L		9.43 U	9.35 U	9.43 U	9.43 U
2-Chlorophenol	1	10	µg/L		9.43 U	9.35 U	9.43 U	9.43 U
4-Chlorophenol	1	10	µg/L		9.43 U	9.35 U	9.43 U	9.43 U
Phenol	1	10	µg/L		9.43 U	9.35 U	9.43 U	9.43 U
Pesticides								
alpha-BHC	0.01	10	µg/L		0.0467 U	0.0467 U	0.0467 U	0.0377 U
beta-BHC	0.04	10	µg/L		0.0467 U	0.0467 U	0.0467 U	0.0472 U
delta-BHC	0.04	10	µg/L		0.0467 U	0.0467 U	0.0467 U	0.0566 U
gamma-BHC (Lindane)	0.05	10	µg/L		0.0467 U	0.0467 U	0.0467 U	0.0377 U
Metals								
Arsenic	25	50	µg/L		27.7	10.0 U	10.0 U	10.0 U

Notes:
- \- Not Applicable
- BHC Benzene Hexachlororide
- J Estimated
- U Non-Detected at associated value.

Table 2.2
102nd Street Site
Historical Analytical Results
Bedrock (PCBM) and Overburden (PCM)

Parameter	NYSDEC Class GA GW Criteria	Survey Level	Unit	Well Sample ID: PCBM-02 Date: PCBM-02-303 3/31/2003	PCBM-02 PCBM-02-603 6/26/2003	PCBM-02 PCBM-02-903 9/30/2003	PCBM-02 PCBM-02-1203 12/29/2003
Volatiles							
1,2,3-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
1,2,4-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
1,2-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
1,4-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
2-Chlorotoluene	5	5	µg/L	1.00 U	1.00 U	1.00 U	0.513 J
Benzene	1	5	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
Chlorobenzene	5	5	µg/L	1.00 U	1.00 U	1.00 U	0.855 J
Semi-Volatiles							
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	4.72 U	4.67 U	4.72 U	4.76 U
2,4,5-Trichlorophenol	1	50	µg/L	9.43 U	9.35 U	9.43 U	9.52 U
2,4-Dichlorophenol	1	10	µg/L	9.43 U	9.35 U	9.43 U	9.52 U
2,5-Dichlorophenol	1	10	µg/L	9.43 U	9.35 U	9.43 U	9.52 U
2-Chlorophenol	1	10	µg/L	9.43 U	9.35 U	9.43 U	9.52 U
4-Chlorophenol	1	10	µg/L	9.43 U	9.35 U	9.43 U	9.52 U
Phenol	1	10	µg/L	9.43 U	9.35 U	9.43 U	9.52 U
Pesticides							
alpha-BHC	0.01	10	µg/L	0.0467 U	0.0467 U	0.0467 U	0.0374 U
beta-BHC	0.04	10	µg/L	0.0467 U	0.0467 U	0.0467 U	0.0467 U
delta-BHC	0.04	10	µg/L	0.0467 U	0.0467 U	0.0467 U	0.0561 U
gamma-BHC (Lindane)	0.05	10	µg/L	0.0467 U	0.0467 U	0.0467 U	0.0374 U
Metals							
Arsenic	25	50	µg/L	30.7	4.39 J	10.0 U	10.0 U

Notes:
- Not Applicable
BHC Benzene Hexachlororide
J Estimated
U Non-Detected at associated value.

Table 2.2
102nd Street Site
Historical Analytical Results
Bedrock (PCBM) and Overburden (PCM)

Parameter	NYSDEC Class GA GW Criteria	Survey Level	Unit	Well: PCBM-03	PCBM-03	PCBM-03	PCBM-03
				Sample ID: PCBM-03-303	PCBM-03-603	PCBM-03-1003	PCBM-03-1203
				Date: 4/1/2003	6/24/2003	10/1/2003	12/30/2003
Volatiles							
1,2,3-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
1,2,4-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U	1.24 U	1.00 U
1,2-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
1,4-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
2-Chlorotoluene	5	5	µg/L	1.00 U	1.00 U	3.54 U	1.00 U
Benzene	1	5	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
Chlorobenzene	5	5	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
Semi-Volatiles							
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	4.67 U	4.67 U	4.67 U	4.67 U
2,4,5-Trichlorophenol	1	50	µg/L	9.35 U	9.35 U	9.35 U	9.35 U
2,4-Dichlorophenol	1	10	µg/L	9.35 U	9.35 U	9.35 U	9.35 U
2,5-Dichlorophenol	1	10	µg/L	9.35 U	9.35 U	9.35 U	9.35 U
2-Chlorophenol	1	10	µg/L	9.35 U	9.35 U	9.35 U	9.35 U
4-Chlorophenol	1	10	µg/L	9.35 U	9.35 U	9.35 U	9.35 U
Phenol	1	10	µg/L	9.35 U	9.35 U	9.35 U	9.35 U
Pesticides							
alpha-BHC	0.01	10	µg/L	0.0476 U	0.0467 U	0.0467 U	0.0374 U
beta-BHC	0.04	10	µg/L	0.0476 U	0.0467 U	0.0467 U	0.0467 U
delta-BHC	0.04	10	µg/L	0.0476 U	0.0467 U	0.0467 U	0.0561 U
gamma-BHC (Lindane)	0.05	10	µg/L	0.0590	0.0467 U	0.0467 U	0.0374 U
Metals							
Arsenic	25	50	µg/L	31.1	10.0 U	10.0 U	10.0 U

Notes:
- \- Not Applicable
- BHC Benzene Hexachlororide
- J Estimated
- U Non-Detected at associated value.

Table 2.2
102nd Street Site
Historical Analytical Results
Bedrock (PCBM) and Overburden (PCM)

Parameter	NYSDEC Class GA GW Criteria	Survey Level	Unit	Well: PCM-01 Sample ID: PCM-01-303 Date: 4/1/2003	PCM-01 PCM-01-603 6/27/2003	PCM-01 PCM-01-1003 10/1/2003	PCM-01 PCM-01-1203 12/31/2003
Volatiles							
1,2,3-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
1,2,4-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
1,2-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
1,4-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
2-Chlorotoluene	5	5	µg/L	1.00 U	1.00 U	1.00 U	0.751 J
Benzene	1	5	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
Chlorobenzene	5	5	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
Semi-Volatiles							
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	4.67 U	4.67 U	4.67 U	4.72 U
2,4,5-Trichlorophenol	1	50	µg/L	9.35 U	9.35 U	9.35 U	9.43 U
2,4-Dichlorophenol	1	10	µg/L	9.35 U	9.35 U	9.35 U	9.43 U
2,5-Dichlorophenol	1	10	µg/L	9.35 U	9.35 U	9.35 U	9.43 U
2-Chlorophenol	1	10	µg/L	9.35 U	9.35 U	9.35 U	9.43 U
4-Chlorophenol	1	10	µg/L	9.35 U	9.35 U	9.35 U	9.43 U
Phenol	1	10	µg/L	9.35 U	9.35 U	9.35 U	9.43 U
Pesticides							
alpha-BHC	0.01	10	µg/L	0.0623	0.0467 U	0.0467 U	0.0374 U
beta-BHC	0.04	10	µg/L	0.0472 U	0.0467 U	0.0467 U	0.0467 U
delta-BHC	0.04	10	µg/L	0.0613	0.0467 U	0.0467 U	0.0561 U
gamma-BHC (Lindane)	0.05	10	µg/L	0.0472 U	0.0467 U	0.0467 U	0.0374 U
Metals							
Arsenic	25	50	µg/L	20.0 U	7.45 J	10.0 U	10.0 U

Notes:
- Not Applicable
BHC Benzene Hexachlororide
J Estimated
U Non-Detected at associated value.

Table 2.2
102nd Street Site
Historical Analytical Results
Bedrock (PCBM) and Overburden (PCM)

Parameter	NYSDEC Class GA GW Criteria	Survey Level	Unit	Well: PCM-02 Sample ID: PCM-02-303 Date: 3/31/2003	PCM-02 PCM-02-603 6/26/2003	PCM-02 PCM-02-1003 10/2/2003	PCM-02 PCM-02-1203 12/30/2003
Volatiles							
1,2,3-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
1,2,4-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
1,2-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
1,4-Dichlorobenzene	3	10	µg/L	1.00 U	0.246 J	1.00 U	0.221 J
2-Chlorotoluene	5	5	µg/L	1.00 U	1.00 U	1.00 U	0.639 J
Benzene	1	5	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
Chlorobenzene	5	5	µg/L	1.00 U	0.178 J	1.00 U	1.00 U
Semi-Volatiles							
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	4.72 U	4.67 U	4.67 U	4.72 U
2,4,5-Trichlorophenol	1	50	µg/L	9.43 U	9.35 U	9.35 U	9.43 U
2,4-Dichlorophenol	1	10	µg/L	9.43 U	9.35 U	9.35 U	9.43 U
2,5-Dichlorophenol	1	10	µg/L	9.43 U	9.35 U	9.35 U	9.43 U
2-Chlorophenol	1	10	µg/L	9.43 U	9.35 U	9.35 U	9.43 U
4-Chlorophenol	1	10	µg/L	9.43 U	9.35 U	9.35 U	9.43 U
Phenol	1	10	µg/L	9.43 U	9.35 U	9.35 U	9.43 U
Pesticides							
alpha-BHC	0.01	10	µg/L	0.0660	0.0467 U	0.0541 U	0.0374 U
beta-BHC	0.04	10	µg/L	0.0472 U	0.0467 U	0.0748 J	0.0467 U
delta-BHC	0.04	10	µg/L	0.0783	0.0467 U	0.0991 J	0.0561 U
gamma-BHC (Lindane)	0.05	10	µg/L	0.0472 U	0.0467 U	0.0467 U	0.0374 U
Metals							
Arsenic	25	50	µg/L	10.0 U	10.0 U	12.1 U	10.0 U

Notes:
- \- Not Applicable
- BHC Benzene Hexachlororide
- J Estimated
- U Non-Detected at associated value.

Table 2.2
102nd Street Site
Historical Analytical Results
Bedrock (PCBM) and Overburden (PCM)

Parameter	NYSDEC Class GA GW Criteria	Survey Level	Unit	Well Sample ID: PCM-03 Date: PCM-03-303 3/28/2003	PCM-03 PCM-12-303 3/28/2003 Duplicate	PCM-03 PCM-03-603 6/18/2003	PCM-03 PCM-03-903 9/29/2003	PCM-03 PCM-03-1203 12/23/2003
Volatiles								
1,2,3-Trichlorobenzene	5	10	µg/L	1.00 U	20.0 U	1.00 U	1.00 U	1.00 U
1,2,4-Trichlorobenzene	5	10	µg/L	1.00 U	20.0 U	1.00 U	1.00 U	0.412 J
1,2-Dichlorobenzene	3	10	µg/L	99.8	79.0	95.4	99.9	117
1,4-Dichlorobenzene	3	10	µg/L	280	273	267	252	250
2-Chlorotoluene	5	5	µg/L	11.4	20.0 U	8.93	10.4 U	12.5
Benzene	1	5	µg/L	131	105	107	94.2	141
Chlorobenzene	5	5	µg/L	3860	3830	3540	3640	3550
Semi-Volatiles								
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	4.72 U	4.72 U	4.72 U	4.72 U	4.76 U
2,4,5-Trichlorophenol	1	50	µg/L	9.43 U	9.43 U	9.43 U	9.43 U	9.52 U
2,4-Dichlorophenol	1	10	µg/L	15.3	7.25 J	15.2 J	10.8	22.6
2,5-Dichlorophenol	1	10	µg/L	9.43 U	9.43 U	9.43 U	9.43 U	9.52 U
2-Chlorophenol	1	10	µg/L	12.8	7.40 J	27.4 J	10.9	34.2
4-Chlorophenol	1	10	µg/L	28.9	17.0	53.5 J	21.9	70.6
Phenol	1	10	µg/L	9.43 U	9.43 U	3.79 J	9.43 U	4.32 J
Pesticides								
alpha-BHC	0.01	10	µg/L	0.0688	0.0685	0.0469 U	0.0509 U	0.0377 U
beta-BHC	0.04	10	µg/L	0.133	0.130	3.75 J	0.0467 U	0.126
delta-BHC	0.04	10	µg/L	1.28	1.25	1.13 J	0.848	1.16
gamma-BHC (Lindane)	0.05	10	µg/L	0.0472 U	0.0472 U	0.0469 U	0.0467 U	0.0377 U
Metals								
Arsenic	25	50	µg/L	10.0 U	20.0 U	10.0 U	7.34 J	8.61 J

Notes:
- - Not Applicable
- BHC Benzene Hexachlororide
- J Estimated
- U Non-Detected at associated value.

Table 2.2
102nd Street Site
Historical Analytical Results
Bedrock (PCBM) and Overburden (PCM)

Parameter	NYSDEC Class GA GW Criteria	Survey Level	Unit	Well Sample ID: PCM-04 Date: 3/28/2003	PCM-04 PCM-04-303 6/23/2003	PCM-04 PCM-04-603 6/23/2003 Duplicate	PCM-04 PCM-12-603 9/30/2003	PCM-04 PCM-04-903 12/29/2003	PCM-04 PCM-04-1203
Volatiles									
1,2,3-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	
1,2,4-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	
1,2-Dichlorobenzene	3	10	µg/L	53.4	50.0	48.7	41.7 J	31.1	
1,4-Dichlorobenzene	3	10	µg/L	269	259	266	267 J	240	
2-Chlorotoluene	5	5	µg/L	2.73	1.57 U	1.61 U	3.25 U	3.17	
Benzene	1	5	µg/L	225	204	202	185 J	161	
Chlorobenzene	5	5	µg/L	6210	6870	6760	7010 J	6470	
Semi-Volatiles									
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	4.72 U	4.67 U	4.67 U	4.72 U	4.76 U	
2,4,5-Trichlorophenol	1	50	µg/L	9.43 U	9.35 U	9.35 U	9.43 U	9.52 U	
2,4-Dichlorophenol	1	10	µg/L	6.48 J	4.15 J	3.79 J	4.20 J	9.52 U	
2,5-Dichlorophenol	1	10	µg/L	9.43 U	9.35 U	9.35 U	9.43 U	9.52 U	
2-Chlorophenol	1	10	µg/L	23.5	20.4	20.1	18.0	11.4	
4-Chlorophenol	1	10	µg/L	45.2	38.0	38.4	35.4	27.9	
Phenol	1	10	µg/L	3.91 J	9.35 U	9.35 U	9.43 U	9.52 U	
Pesticides									
alpha-BHC	0.01	10	µg/L	0.0642	0.0467 U	0.0467 U	0.0479 U	0.0374 U	
beta-BHC	0.04	10	µg/L	0.0361 J	0.0467 U	0.0467 U	0.0467 U	0.0467 U	
delta-BHC	0.04	10	µg/L	0.0472 U	0.0467 U	0.0467 U	1.38	0.895	
gamma-BHC (Lindane)	0.05	10	µg/L	0.0472 U	0.0467 U	0.0467 U	0.0467 U	0.0374 U	
Metals									
Arsenic	25	50	µg/L	20.0 U	10.0 U	10.0 U	12.8	7.61 J	

Notes:
- \- Not Applicable
- BHC Benzene Hexachlororide
- J Estimated
- U Non-Detected at associated value.

Table 2.2
102nd Street Site
Historical Analytical Results
Bedrock (PCBM) and Overburden (PCM)

Parameter	*NYSDEC Class GA GW Criteria*	*Survey Level*	Unit	*Well Sample ID: PCM-05 Date: PCM-05-303 3/28/2003*	*PCM-05 PCM-05-603 6/24/2003*	*PCM-05 PCM-05-903 9/30/2003*	*PCM-05 PCM-12-903 9/30/2003 Duplicate*	*PCM-05 PCM-12-903 12/29/2003*
Volatiles								
1,2,3-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,2,4-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,2-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,4-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
2-Chlorotoluene	5	5	µg/L	1.00 U	1.00 U	1.13 U	1.01 U	1.00 U
Benzene	1	5	µg/L	3.79	4.44	1.39	1.22	0.690 J
Chlorobenzene	5	5	µg/L	56.2	76.2	49.7	45.3	49.6
Semi-Volatiles								
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	4.72 U	4.67 U	4.72 U	4.72 U	4.81 U
2,4,5-Trichlorophenol	1	50	µg/L	9.43 U	9.35 U	9.43 U	9.43 U	9.62 U
2,4-Dichlorophenol	1	10	µg/L	9.43 U	9.35 U	9.43 U	9.43 U	9.62 U
2,5-Dichlorophenol	1	10	µg/L	9.43 U	9.35 U	9.43 U	9.43 U	9.62 U
2-Chlorophenol	1	10	µg/L	9.43 U	9.35 U	9.43 U	9.43 U	9.62 U
4-Chlorophenol	1	10	µg/L	9.43 U	9.35 U	9.43 U	9.43 U	9.62 U
Phenol	1	10	µg/L	9.43 U	9.35 U	9.43 U	9.43 U	9.62 U
Pesticides								
alpha-BHC	0.01	10	µg/L	0.0613	0.0472 U	0.0511 U	0.0471 U	0.0374 U
beta-BHC	0.04	10	µg/L	0.0472 U	0.0472 U	0.0467 U	0.0467 U	0.0467 U
delta-BHC	0.04	10	µg/L	0.0472 U	0.0472 U	0.0467 U	0.0467 U	0.0561 U
gamma-BHC (Lindane)	0.05	10	µg/L	0.0472 U	0.0472 U	0.0467 U	0.0467 U	0.0374 U
Metals								
Arsenic	25	50	µg/L	10.0 U	10.0 U	15.4	18.5	7.09 J

Notes:
- Not Applicable
BHC Benzene Hexachlororide
J Estimated
U Non-Detected at associated value.

Table 2.2
102nd Street Site
Historical Analytical Results
Bedrock (PCBM) and Overburden (PCM)

Parameter	*NYSDEC Class GA GW Criteria*	*Survey Level*	Unit	*Well Sample ID: Date:* PCM-06 Dry Apr-2003	PCM-06 Dry Jun-2003	PCM-06 Dry Sep-2003
Volatiles						
1,2,3-Trichlorobenzene	5	10	µg/L	-	-	-
1,2,4-Trichlorobenzene	5	10	µg/L	-	-	-
1,2-Dichlorobenzene	3	10	µg/L	-	-	-
1,4-Dichlorobenzene	3	10	µg/L	-	-	-
2-Chlorotoluene	5	5	µg/L	-	-	-
Benzene	1	5	µg/L	-	-	-
Chlorobenzene	5	5	µg/L	-	-	-
Semi-Volatiles						
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	-	-	-
2,4,5-Trichlorophenol	1	50	µg/L	-	-	-
2,4-Dichlorophenol	1	10	µg/L	-	-	-
2,5-Dichlorophenol	1	10	µg/L	-	-	-
2-Chlorophenol	1	10	µg/L	-	-	-
4-Chlorophenol	1	10	µg/L	-	-	-
Phenol	1	10	µg/L	-	-	-
Pesticides						
alpha-BHC	0.01	10	µg/L	-	-	-
beta-BHC	0.04	10	µg/L	-	-	-
delta-BHC	0.04	10	µg/L	-	-	-
gamma-BHC (Lindane)	0.05	10	µg/L	-	-	-
Metals						
Arsenic	25	50	µg/L	-	-	-

Notes:
- Not Applicable
BHC Benzene Hexachlororide
J Estimated
U Non-Detected at associated value.

Table 2.2
102nd Street Site
Historical Analytical Results
Bedrock (PCBM) and Overburden (PCM)

Parameter	NYSDEC Class GA GW Criteria	Survey Level	Unit	Well Sample ID: PCM-07 Date: PCM-07-303 4/3/2003	PCM-07 PCM-07-603 6/27/2003	PCM-07 PCM-07-1003 10/6/2003	PCM-07 PCM-07-1203 12/31/2003
Volatiles							
1,2,3-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
1,2,4-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
1,2-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
1,4-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
2-Chlorotoluene	5	5	µg/L	1.00 U	1.00 U	2.32 U	0.490 J
Benzene	1	5	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
Chlorobenzene	5	5	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
Semi-Volatiles							
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	5.81 U	4.67 U	4.67 U	4.67 U
2,4,5-Trichlorophenol	1	50	µg/L	11.6 U	9.35 U	9.35 U	9.35 U
2,4-Dichlorophenol	1	10	µg/L	11.6 U	9.35 U	9.35 U	9.35 U
2,5-Dichlorophenol	1	10	µg/L	11.6 U	9.35 U	9.35 U	9.35 U
2-Chlorophenol	1	10	µg/L	11.6 U	9.35 U	9.35 U	9.35 U
4-Chlorophenol	1	10	µg/L	11.6 U	9.35 U	9.35 U	9.35 U
Phenol	1	10	µg/L	11.6 U	9.35 U	3.49 J	9.35 U
Pesticides							
alpha-BHC	0.01	10	µg/L	0.0642	0.0467 U	0.0467 U	0.0374 U
beta-BHC	0.04	10	µg/L	0.0472 U	0.0467 U	0.0467 U	0.0467 U
delta-BHC	0.04	10	µg/L	0.0472 U	0.0467 U	0.0561 U	0.0664
gamma-BHC (Lindane)	0.05	10	µg/L	0.0575	0.0467 U	0.0374 U	0.0374 U
Metals							
Arsenic	25	50	µg/L	10.0 U	4.61 J	25.4	19.8

Notes:
- Not Applicable
BHC Benzene Hexachlororide
J Estimated
U Non-Detected at associated value.

Table 2.2
102nd Street Site
Historical Analytical Results
Bedrock (PCBM) and Overburden (PCM)

Parameter	*NYSDEC Class GA GW Criteria*	*Survey Level*	Unit	*Well Sample ID:* PCM-08 *Date:* Apr-2003	PCM-08 Dry Jun-2003	PCM-08 Dry Sep-2003
Volatiles						
1,2,3-Trichlorobenzene	5	10	µg/L	-	-	-
1,2,4-Trichlorobenzene	5	10	µg/L	-	-	-
1,2-Dichlorobenzene	3	10	µg/L	-	-	-
1,4-Dichlorobenzene	3	10	µg/L	-	-	-
2-Chlorotoluene	5	5	µg/L	-	-	-
Benzene	1	5	µg/L	-	-	-
Chlorobenzene	5	5	µg/L	-	-	-
Semi-Volatiles						
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	-	-	-
2,4,5-Trichlorophenol	1	50	µg/L	-	-	-
2,4-Dichlorophenol	1	10	µg/L	-	-	-
2,5-Dichlorophenol	1	10	µg/L	-	-	-
2-Chlorophenol	1	10	µg/L	-	-	-
4-Chlorophenol	1	10	µg/L	-	-	-
Phenol	1	10	µg/L	-	-	-
Pesticides						
alpha-BHC	0.01	10	µg/L	-	-	-
beta-BHC	0.04	10	µg/L	-	-	-
delta-BHC	0.04	10	µg/L	-	-	-
gamma-BHC (Lindane)	0.05	10	µg/L	-	-	-
Metals						
Arsenic	25	50	µg/L	-	-	-

Notes:
- \- Not Applicable
- BHC Benzene Hexachlororide
- J Estimated
- U Non-Detected at associated value.

Table 2.2
102nd Street Site
Historical Analytical Results
Bedrock (PCBM) and Overburden (PCM)

Parameter	*NYSDEC Class GA GW Criteria*	*Survey Level*	Unit	*Well Sample ID: Date:* PCM-09 Dry Apr-2003	PCM-09 Dry Jun-2003	PCM-09 Dry Sep-2003
Volatiles						
1,2,3-Trichlorobenzene	5	10	µg/L	-	-	-
1,2,4-Trichlorobenzene	5	10	µg/L	-	-	-
1,2-Dichlorobenzene	3	10	µg/L	-	-	-
1,4-Dichlorobenzene	3	10	µg/L	-	-	-
2-Chlorotoluene	5	5	µg/L	-	-	-
Benzene	1	5	µg/L	-	-	-
Chlorobenzene	5	5	µg/L	-	-	-
Semi-Volatiles						
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	-	-	-
2,4,5-Trichlorophenol	1	50	µg/L	-	-	-
2,4-Dichlorophenol	1	10	µg/L	-	-	-
2,5-Dichlorophenol	1	10	µg/L	-	-	-
2-Chlorophenol	1	10	µg/L	-	-	-
4-Chlorophenol	1	10	µg/L	-	-	-
Phenol	1	10	µg/L	-	-	-
Pesticides						
alpha-BHC	0.01	10	µg/L	-	-	-
beta-BHC	0.04	10	µg/L	-	-	-
delta-BHC	0.04	10	µg/L	-	-	-
gamma-BHC (Lindane)	0.05	10	µg/L	-	-	-
Metals						
Arsenic	25	50	µg/L	-	-	-

Notes:
- Not Applicable
BHC Benzene Hexachlororide
J Estimated
U Non-Detected at associated value.

Table 2.2
102nd Street Site
Historical Analytical Results
Bedrock (PCBM) and Overburden (PCM)

Parameter	NYSDEC Class GA GW Criteria	Survey Level	Unit	Well Sample ID: PCM-10 PCM-10-303 Date: 4/2/2003	PCM-10 PCM-10-603 6/24/2003	PCM-10 PCM-10-1003 10/2/2003	PCM-10 PCM-10-1203 12/31/2003
Volatiles							
1,2,3-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
1,2,4-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
1,2-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
1,4-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
2-Chlorotoluene	5	5	µg/L	1.00 U	1.00 U	1.16 U	0.805 J
Benzene	1	5	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
Chlorobenzene	5	5	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
Semi-Volatiles							
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	4.95 U	4.67 U	4.67 U	4.67 U
2,4,5-Trichlorophenol	1	50	µg/L	9.90 U	9.35 U	9.35 U	9.35 U
2,4-Dichlorophenol	1	10	µg/L	9.90 U	9.35 U	9.35 U	9.35 U
2,5-Dichlorophenol	1	10	µg/L	9.90 U	9.35 U	9.35 U	9.35 U
2-Chlorophenol	1	10	µg/L	9.90 U	9.35 U	9.35 U	9.35 U
4-Chlorophenol	1	10	µg/L	9.90 U	9.35 U	9.35 U	9.35 U
Phenol	1	10	µg/L	9.90 U	9.35 U	9.35 U	9.35 U
Pesticides							
alpha-BHC	0.01	10	µg/L	0.0791	0.0472 U	0.0837 U	0.0374 U
beta-BHC	0.04	10	µg/L	0.122	0.138	0.126	0.0467 U
delta-BHC	0.04	10	µg/L	0.0640	0.0472 U	0.0467 U	0.0561 U
gamma-BHC (Lindane)	0.05	10	µg/L	0.0594	0.0472 U	0.0467 U	0.0374 U
Metals							
Arsenic	25	50	µg/L	8.98 J	5.48 J	10.0 U	23.5

Notes:
- \- Not Applicable
- BHC Benzene Hexachlororide
- J Estimated
- U Non-Detected at associated value.

Table 3.1
102nd St. Extractions
NR NAPL Recovery Wells

Well ID	NAPL Height (ft)	Extracted (Gals)	YTD APL/NAPL	Date
NR-4	0.00			
	0.00	-	-	10/07/2003
	0.00	-	-	09/03/2003
	0.00	-	-	07/01/2003
	0.00	-	-	04/30/2003
	0.00	-	-	04/02/2003
	0.00	-	-	01/02/2003
NR-5	2.85			
	3.05	0.00	20.0	10/07/2003
	3.45		20.0	09/03/2003
	1.13	5.00	20.0	08/25/2003
	1.15		15.0	07/01/2003
	3.95	15.00	15.0	04/30/2003
	3.80		0.0	04/02/2003
	3.44		0.0	01/02/2003
NR-7				
	No NAPL	-	-	10/07/2003
	No NAPL	-	-	09/03/2003
	No NAPL	-	-	07/01/2003
	No NAPL	-	-	04/30/2003
	No NAPL	-	-	04/02/2003
	No NAPL	-	-	01/02/2003
NR-8				
	2.43	0.00	5.0	10/07/2003
	2.33		5.0	09/03/2003
	2.52	5.00	5.0	09/02/2003
	1.76		0.0	07/01/2003
	2.43		0.0	04/30/2003
	1.43	0.00	0.0	04/02/2003
	0.00		0.0	01/02/2003

Total Extracted from Site **1440.0**
Estimated
(Actual Shipped Maybe Different)

Note: Extracted material is a mixture of APL & NAPL. The APL is decanted and returned to the collection system and the NAPL is then drummed and sent out for incineration. The "Extracted Gallons" is the NET amount of NAPL recovered after dewatering has occurred.

Table 3.1
102nd St. Extractions
NR NAPL Recovery Wells

Well ID	NAPL Height (ft)	Extracted (Gals)	YTD APL/NAPL	Date
NR-1	1.38			
	1.58	0.00	60.0	10/07/2003
	0.28	0.00	60.0	09/03/2003
	0.35	5.00	60.0	08/25/2003
	0.00		55.0	08/19/2003
	0.32	0.00	55.0	07/01/2003
	4.13	55.00	55.0	04/30/2003
	2.23	0.00	0.0	04/02/2003
	2.14	0.00	0.0	01/02/2003
NR-10	0.00			
	0.00	-	-	10/07/2003
	0.00	-	-	09/03/2003
	0.00	-	-	07/01/2003
	0.00	-	-	04/30/2003
	0.00	-	-	04/02/2003
	0.00			01/02/2003
NR-2	3.09			
	3.18	100.00	1355.0	11/05/2003
	0.49	60.00	1255.0	11/04/2003
	0.53	80.00	1195.0	11/03/2003
	0.52	60.00	1115.0	10/31/2003
	3.38	60.00	1055.0	10/30/2003
	3.88	60.00	995.0	10/28/2003
	3.54	65.00	935.0	10/27/2003
	3.84	65.00	870.0	10/24/2003
	3.96	0.00	805.0	10/07/2003
	3.26	65.00	805.0	09/05/2003
	2.58	65.00	740.0	09/04/2003
	2.58	0.00	675.0	09/03/2003
	3.36	65.00	675.0	09/02/2003
	3.23	60.00	610.0	08/28/2003
	3.20	60.00	550.0	08/26/2003
	3.56	60.00	490.0	08/25/2003
	3.56	60.00	430.0	08/21/2003
	3.46	65.00	370.0	08/20/2003
	2.58	65.00	305.0	08/19/2003
	4.08	65.00	240.0	08/13/2003
	3.43	65.00	175.0	08/12/2003
	3.48	55.00	110.0	07/25/2003
	3.58	0.00	55.0	07/01/2003
	3.78	55.00	55.0	04/30/2003
	3.63	0.00	0.0	04/02/2003
	3.69	0.00	0.0	01/02/2003
NR-3	0.23			
	0.23	0.00	0.0	10/07/2003
	0.41		0.0	09/03/2003
	0.23		0.0	07/01/2003
	0.00		0.0	04/30/2003
	0.49		0.0	04/02/2003
	0.03		0.0	01/02/2003

APPENDIX A

ANNUAL OPERATION AND MAINTENANCE REPORT

102ND STREET LANDFILL SITE

NIAGARA FALLS, NEW YORK

YEAR: 2003

MONITORING - Water Level Measurements

Month	*Day*	*Inspector*	*PCM-01*	*PZ-01*	*PCM-02*	*PZ-02*	*PCM-03*	*PZ-03*	*PCM-04*
January	2	T. Blackmon	565.91	564.54	565.97	562.71	562.69	562.31	563.12
February	4	T. Blackmon	566.44	564.86	566.54	562.75	563.52	562.21	563.59
March	5	T. Blackmon	566.34	564.74	566.24	562.92	562.56	562.30	562.73
April	2	T. Blackmon	566.78	564.39	567.54	562.53	562.79	562.03	563.28
May	5	T. Blackmon	566.94	564.44	566.67	562.58	563.34	562.06	563.57
June	6	T. Blackmon	566.83	564.31	566.59	562.30	563.76	561.76	563.55
July	1	T. Blackmon	566.62	564.23	566.70	562.57	563.73	562.07	564.58
August	4	T. Blackmon	565.39	564.39	566.24	562.54	563.84	562.10	564.08
September	3	T. Blackmon	565.92	564.16	565.94	562.63	563.62	562.08	563.65
October	7	T. Blackmon	565.74	564.23	565.74	562.54	563.50	562.03	563.69
November	4	T. Blackmon	565.94	564.31	566.15	562.53	562.66	562.11	562.83
December	2	T. Blackmon	566.09	564.05	566.42	562.54	563.09	562.05	563.29

Month	*Day*	*Inspector*	*PZ-04*	*PCM-05*	*PZ-05*	*PCM-06*	*PZ-06*	*PCM-07*	*PZ-07*
January	2	T. Blackmon	563.14	563.70	562.10	568.25	565.45	565.33	566.28
February	4	T. Blackmon	563.31	564.18	561.97	567.25	565.46	565.34	566.04
March	5	T. Blackmon	563.39	564.16	562.01	567.15	565.41	565.64	565.98
April	2	T. Blackmon	562.91	565.08	561.92	567.05	565.51	565.80	565.18
May	5	T. Blackmon	562.78	564.23	561.82	567.15	565.34	564.50	565.90
June	6	T. Blackmon	562.57	564.27	561.75	567.25	565.03	566.09	566.12
July	1	T. Blackmon	562.82	564.17	562.02	567.33	565.26	561.50	566.25
August	4	T. Blackmon	562.80	563.67	562.02	567.41	566.21	565.18	566.39
September	3	T. Blackmon	562.92	562.90	561.71	567.26	565.03	565.80	564.09
October	7	T. Blackmon	562.81	563.18	561.99	567.59	565.21	559.80	566.50
November	4	T. Blackmon	562.85	563.58	561.97	567.64	565.26	564.35	566.35
December	2	T. Blackmon	562.76	564.23	562.04	567.61	565.29	564.32	566.40

Month	*Day*	*Inspector*	*PCM-08*	*PZ-08*	*PCM-09*	*PZ-09*	*PCM-10*	*PZ-10*
January	2	T. Blackmon	569.30	566.91	572.33	566.56	566.25	566.18
February	4	T. Blackmon	567.89	566.20	570.99	566.56	567.69	566.19
March	5	T. Blackmon	569.12	566.19	571.49	566.57	566.40	566.10
April	2	T. Blackmon	569.02	566.24	571.80	566.62	567.40	565.43
May	5	T. Blackmon	569.07	566.20	571.04	566.67	567.10	566.20
June	6	T. Blackmon	569.50	566.19	570.79	566.57	567.02	565.97
July	1	T. Blackmon	568.08	566.22	570.96	566.56	566.73	566.09
August	4	T. Blackmon	569.17	566.19	570.96	566.55	566.31	566.13
September	3	T. Blackmon	569.10	566.19	571.47	566.56	563.80	565.98
October	7	T. Blackmon	569.99	566.19	570.99	566.57	565.80	566.04
November	4	T. Blackmon	570.27	566.18	573.64	566.56	566.45	566.07
December	2	T. Blackmon	569.52	566.18	571.73	566.66	566.68	565.93

FORM 1

ANNUAL OPERATION AND MAINTENANCE REPORT

102ND STREET LANDFILL SITE
NIAGARA FALLS, NEW YORK

YEAR: 2003

GROUNDWATER - Quality Monitoring

Quarter	*Date Sample Taken*	*Inspector*	*Comments*
1st	Mar 28,31 April 1,2,3	T. Blackmon	
2nd	June 18,23,24, 26,27	T. Blackmon	
3rd	Sept 29,30 Oct 1,2,6	T. Blackmon	
4th	Dec. 23,29,30,31	T. Blackmon	

Results of analyses are attached.

NAPL PRESENCE - Monitoring

			NR-01		*NR-02*		*NR-03*	
	Date	*Inspector*	*Depth of NAPL*	*Gallons Removed*	*Depth of NAPL*	*Gallons Removed*	*Depth of NAPL*	*Gallons Removed*
1st Month	01/02/2003	T. Blackmon	2.14	0	3.69	0	-	0
2nd Month	-	-	-	-	-	-	-	-
3rd Month	-	-	-	-	-	-	-	-
2nd Quarter	04/30/2003	T. Blackmon	4.13	55	3.78	55	-	0
3rd Quarter	08/25/2003	T. Blackmon	0.35	5	3.56	50	0.41	0
4th Quarter	10/07/2003	T. Blackmon	1.58	0	3.96	0	0.23	0

			NR-04		*NR-05*		*NR-07*	
	Date	*Inspector*	*Depth of NAPL*	*Gallons Removed*	*Depth of NAPL*	*Gallons Removed*	*Depth of NAPL*	*Gallons Removed*
1st Month	01/02/2003	T. Blackmon	-	0	3.44	0	-	0
2nd Month	-	-	-	-	-	-	-	-
3rd Month	-	-	-	-	-	-	-	-
2nd Quarter	04/30/2003	T. Blackmon	-	0	3.95	15	-	0
3rd Quarter	08/25/2003	T. Blackmon	-	0	1.13	5	0.41	0
4th Quarter	10/07/2003	T. Blackmon	-	0	2.05	0	0.23	0

			NR-08		*NR-10*	
	Date	*Inspector*	*Depth of NAPL*	*Gallons Removed*	*Depth of NAPL*	*Gallons Removed*
1st Month	01/02/2003	T. Blackmon	-	0	-	0
2nd Month	-	-	-	-	-	-
3rd Month	-	-	-	-	-	-
2nd Quarter	04/30/2003	T. Blackmon	2.43	0	-	0
3rd Quarter	08/25/2003	T. Blackmon	2.52	5	-	0
4th Quarter	10/07/2003	T. Blackmon	2.43	0	-	0

FORM 1

ANNUAL OPERATION AND MAINTENANCE REPORT

102ND STREET LANDFILL SITE
NIAGARA FALLS, NEW YORK

YEAR: 2 0 0 3

OPERATION

APL COLLECTION AND DISCHARGE SYSTEM

APL Flow for Previous Year 2002 (gallons)	*APL Flow for Current Year 2003 (gallons)*
635,574	580,170

NAPL REMOVAL SYSTEM

	NAPL Removed for Previous Year (gallons)	*NAPL Removed for Current Year (gallons)*
NR-01	0	60
NR-02	1,490	1,355
NR-03	0	0
NR-04	0	0
NR-05	0	20
NR-07	0	0
NR-08	0	5
NR-10	0	0
Total	1,490	1,440

Where was NAPL treated/disposed?

Facility Clean Harbors Deer Park, Texas Date 5/2 through 11/25/2003
Facility _____ Date _____
Facility _____ Date _____
Facility _____ Date _____

FORM 1

ANNUAL OPERATION AND MAINTENANCE REPORT

102ND STREET LANDFILL SITE
NIAGARA FALLS, NEW YORK

YEAR: 2003

INSPECTION AND MAINTENANCE

Scheduled inspections performed:

	Date	*Inspector*
April	23	B. Downie (MSRM), J. Thornton (CRA),
October	23	B. Downie (MSRM), J. Thornton (CRA),

Was maintenance required?

	Yes	*No*
April	[X]	[ ]
October	[ ]	[X]

What maintenance was required?

Maintenance Required	Date Performed
Repair 2 spots on crib-wall.	March-2003
Fill borrowing holes.	May-2003
Fence Man-gate Latch.	May-2003
Replacement of storm sewer flapper gate with grating.	June-2003
Culvert pipe on access road Repair cover with stone and add markers.	Spring-2004

Attach additional sheets as necessary.

Describe any maintenance activity that required an activity specific work plan and health and safety plan.

Form Completed By:

Brian Downie — NAME

Brian Downie — SIGNATURE

12/10/2003 — DATE

FORM 1

ANNUAL OPERATION AND MAINTENANCE REPORT

102ND STREET LANDFILL SITE
NIAGARA FALLS, NEW YORK

YEAR: 2003

Send completed copies of this form to the following for review:

Don McLeod
Glenn Springs Holdings, Inc.
2480 Fortune Drive, Suite 300
Lexington, KY 40509

and

Lorraine Miller
Olin Corporation
P.O. Box 248
1186 Lower River Road
Charleston, TN 37310

and

Mike Bellotti
Olin Corporation
P.O. Box 248
1186 Lower River Road
Charleston, TN 37310

After review is complete, send 5 copies to the following:

Chief-New York Remedial Branch
Emergency and Remedial Response Divison
U.S. Environmental Protection Agency - Region II
290 Broadway, 20th Floor
New York, NY 10007-1866
Attn: 102nd Street Landfill Superfund Site Manager

and

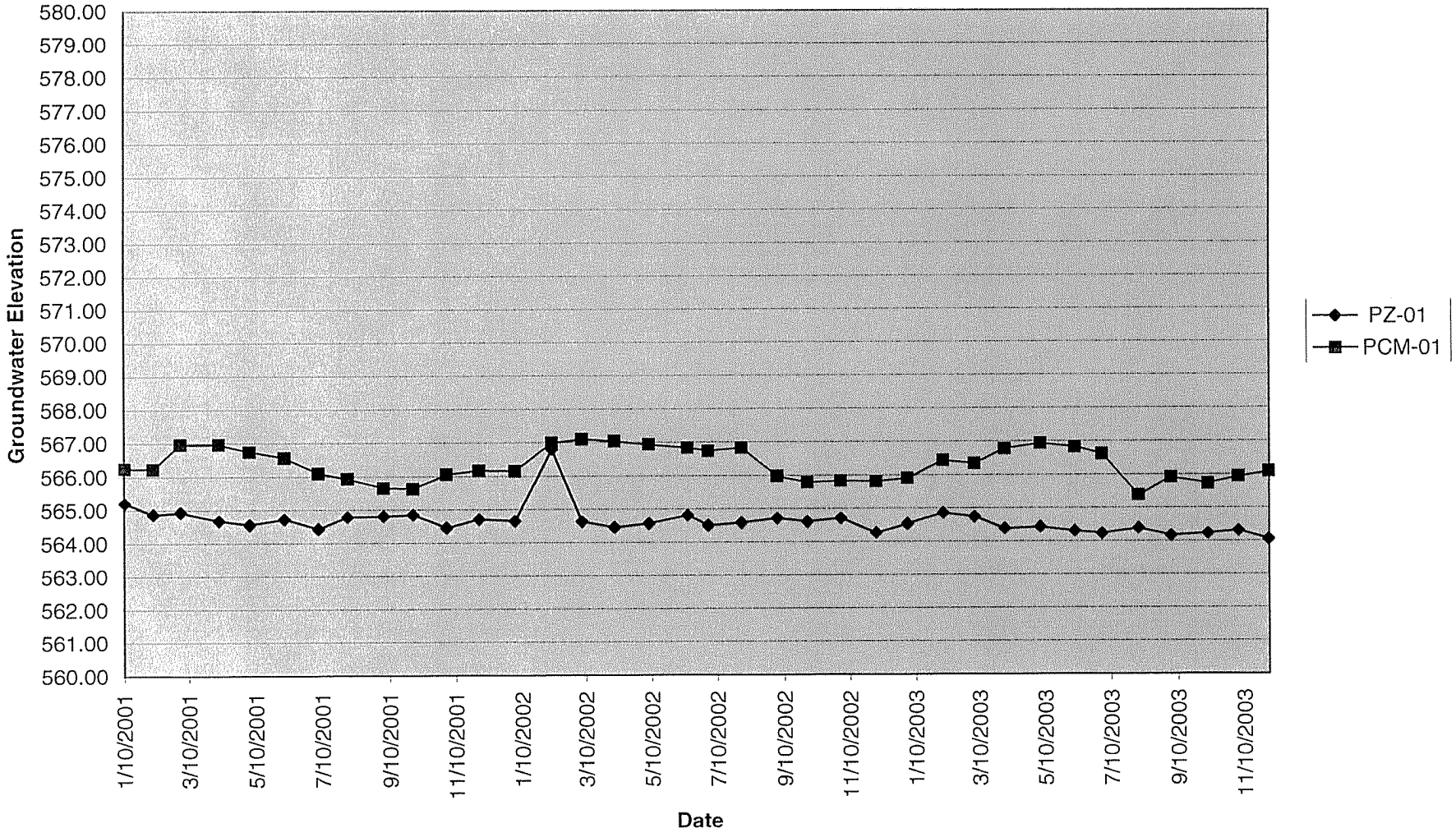
Director, Division of Environmental Remediation
New York State Dept. of Environmental Conservation
625 Broadway
8th Floor
Albany, NY 12233-7252

and

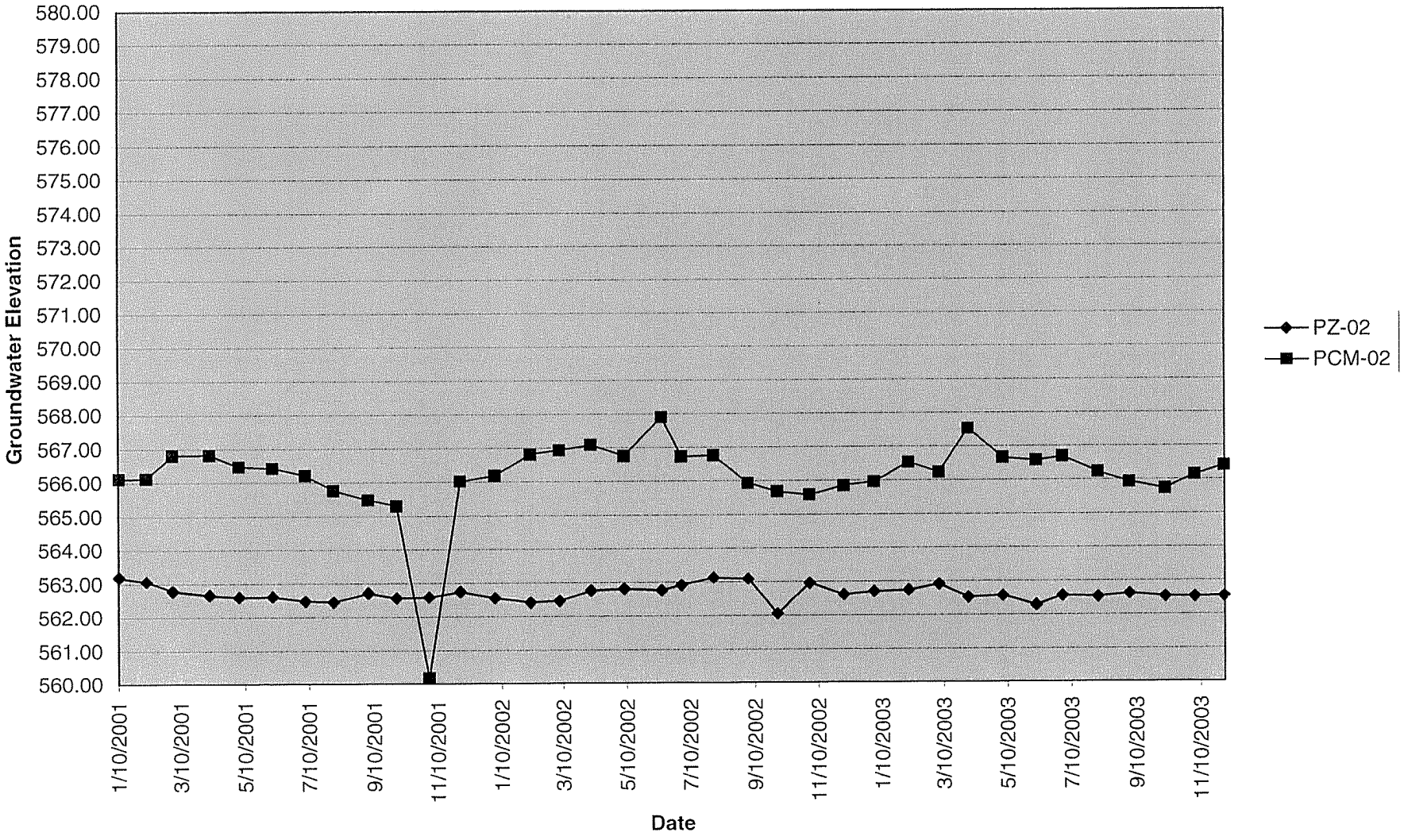
Regional Remediation Engineer
New York State Dept. of Environmental Conservation
270 Michigan Avenue
Buffalo, NY 14203-2999

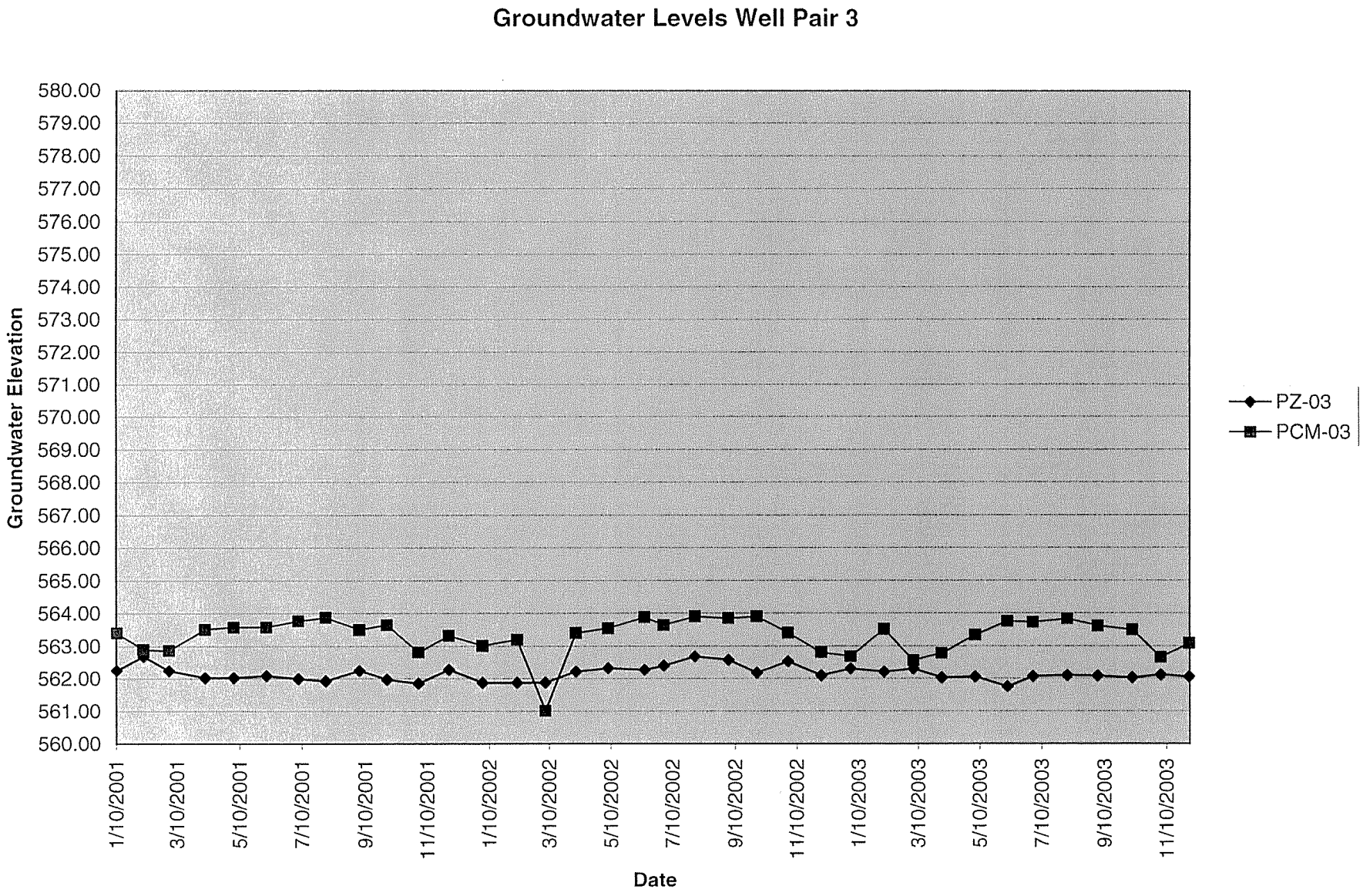
FORM 1

Groundwater Levels Well Pair 1

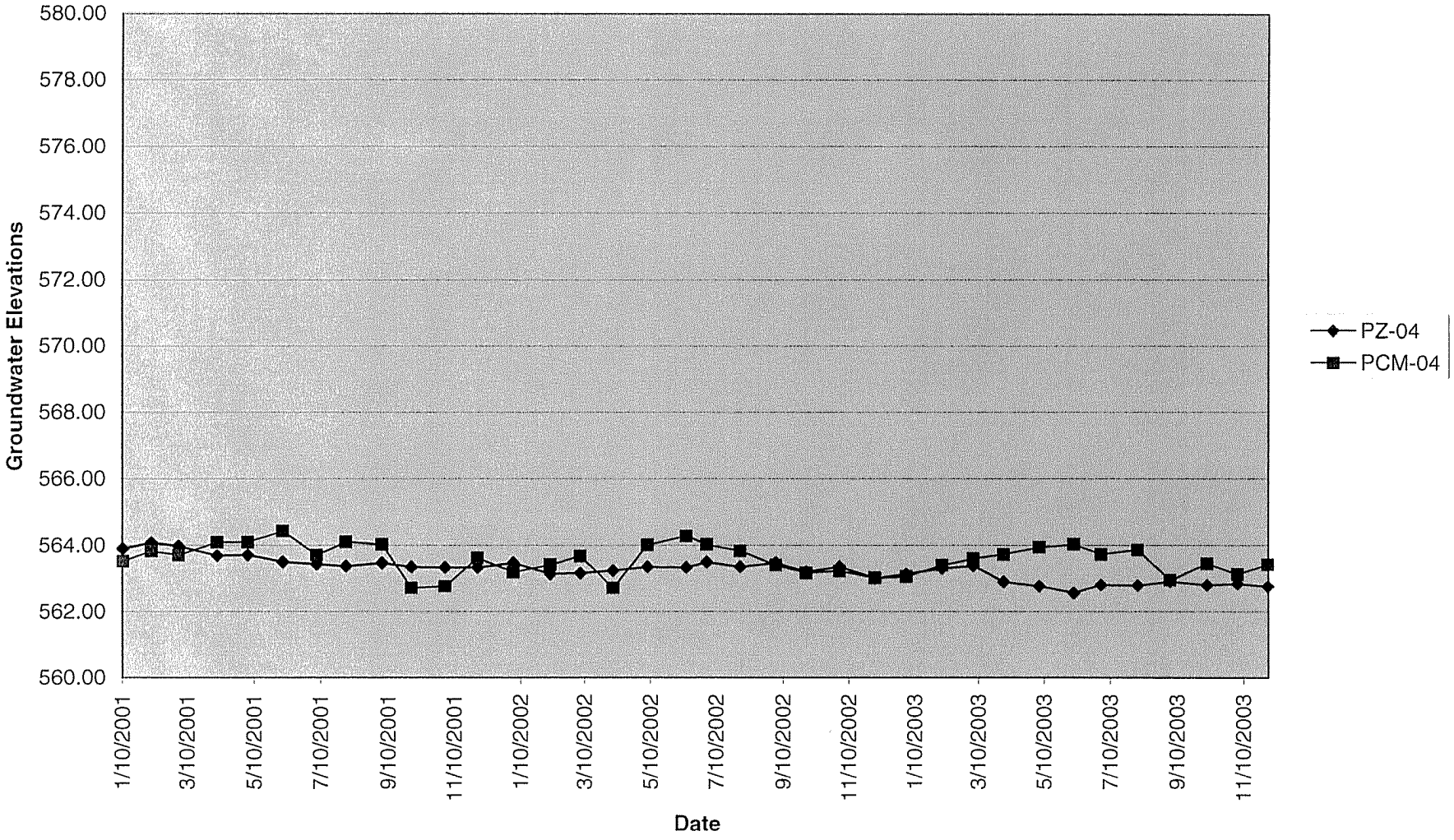


Groundwater Levels Well Pair 2

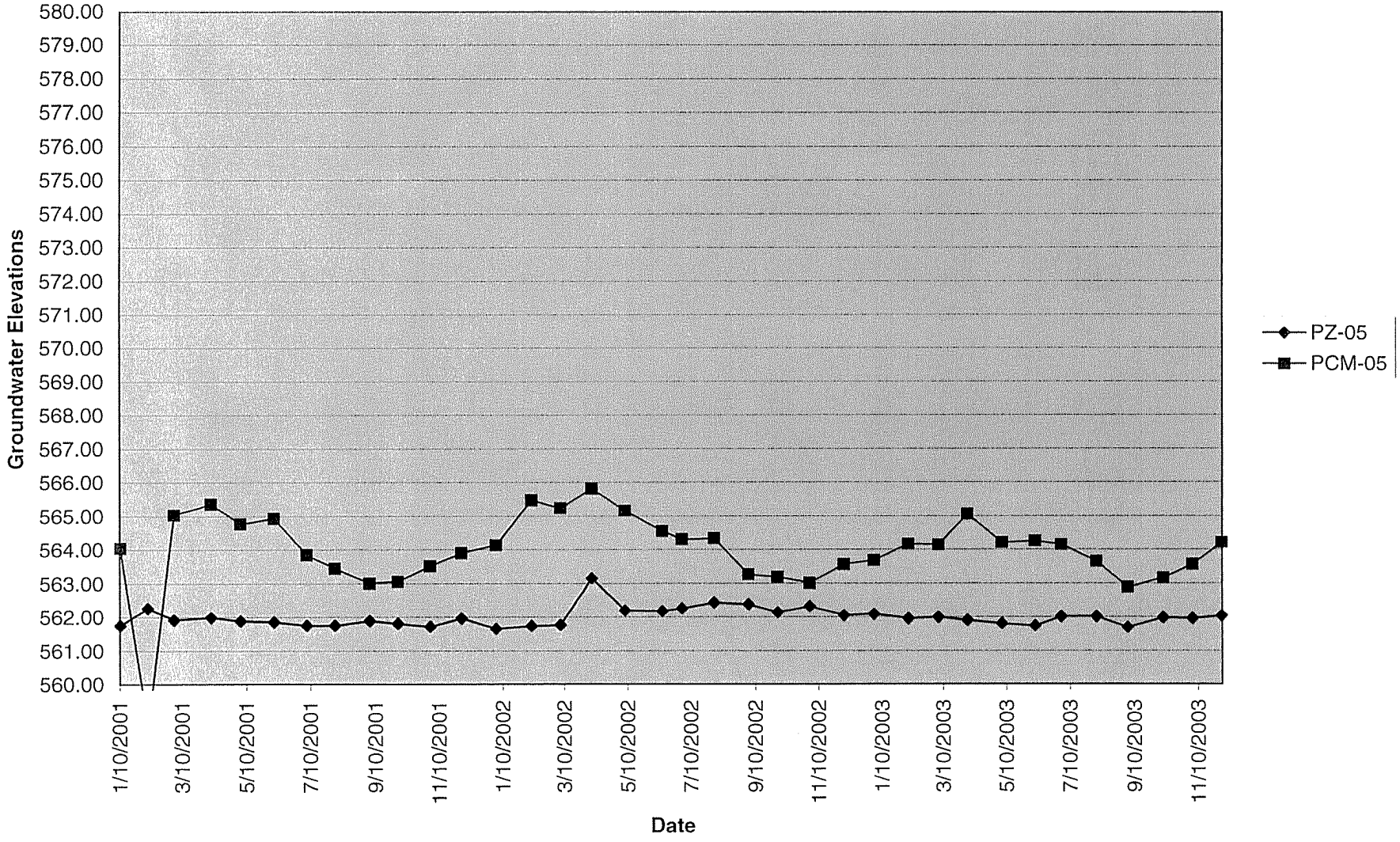



Groundwater Levels Well Pair 3
Groundwater Elevation
580.00
579.00
578.00
577.00
576.00
575.00
574.00
573.00
572.00
571.00
570.00
569.00
568.00
567.00
566.00
565.00
564.00
563.00
562.00
561.00
560.00
1/10/2001
3/10/2001
5/10/2001
7/10/2001
9/10/2001
11/10/2001
1/10/2002
3/10/2002
5/10/2002
7/10/2002
9/10/2002
11/10/2002
1/10/2003
3/10/2003
5/10/2003
7/10/2003
9/10/2003
11/10/2003
Date
PZ-03
PCM-03

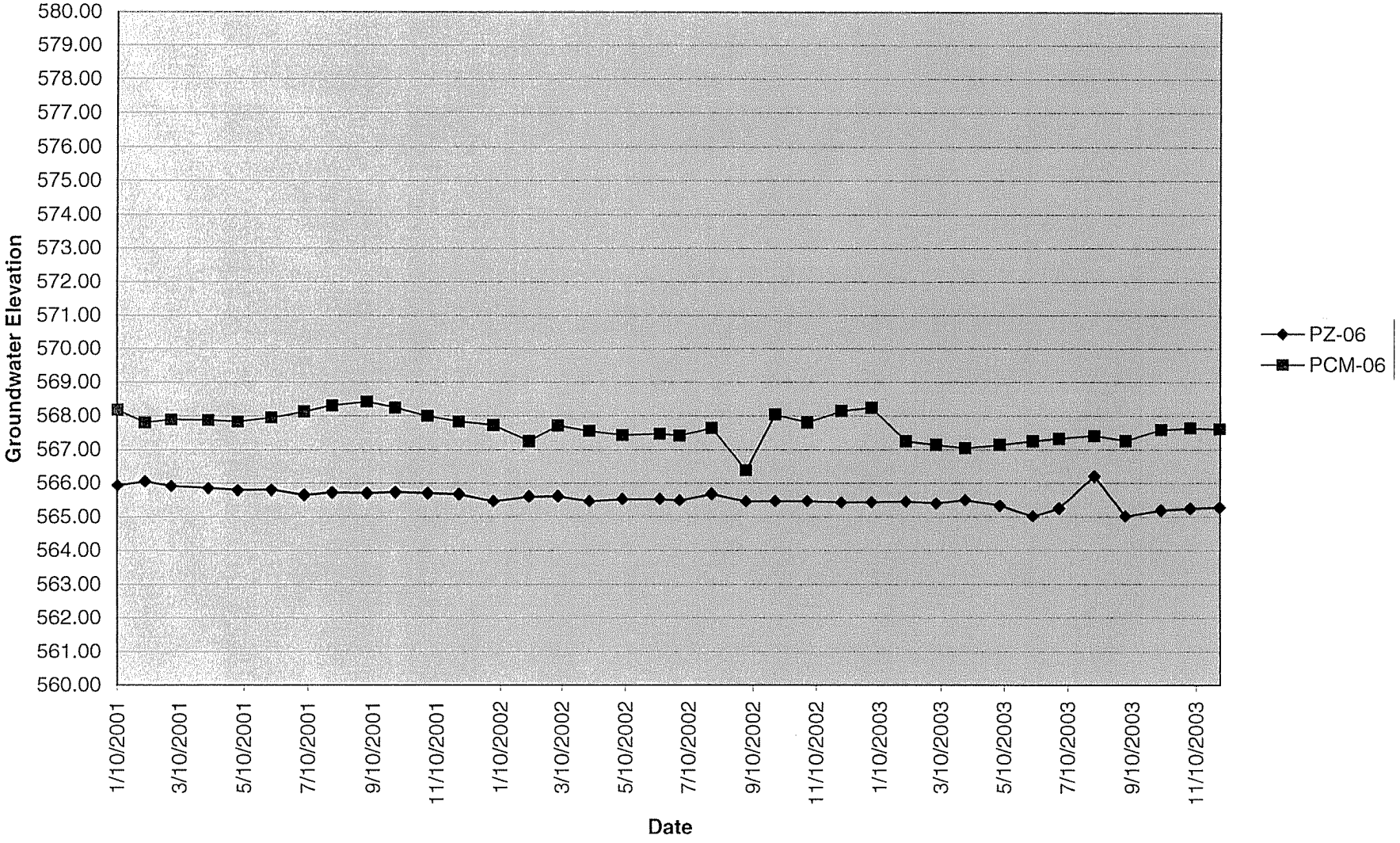
Groundwater Levels Well Pair 4



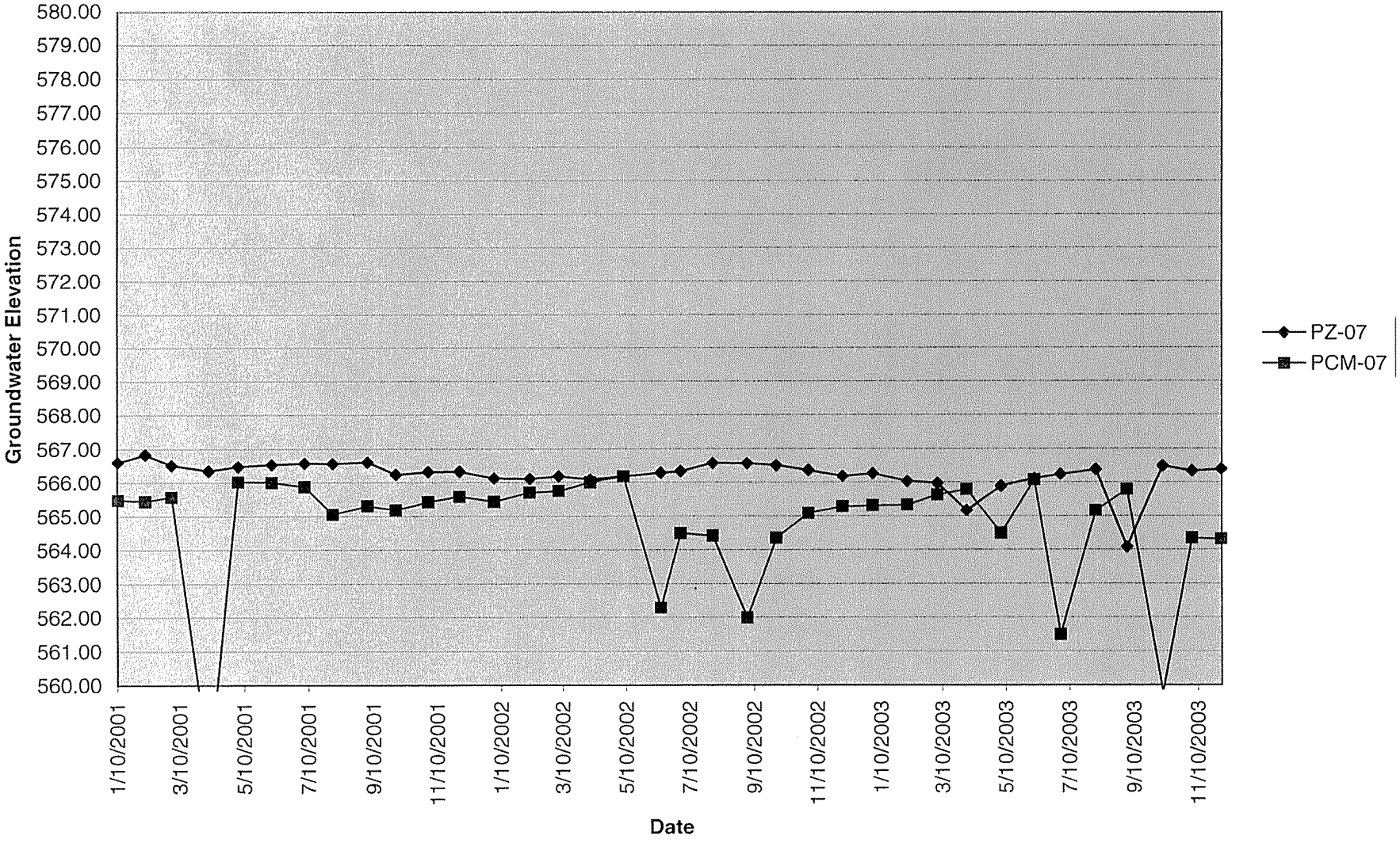
Groundwater Levels Well Pair 5



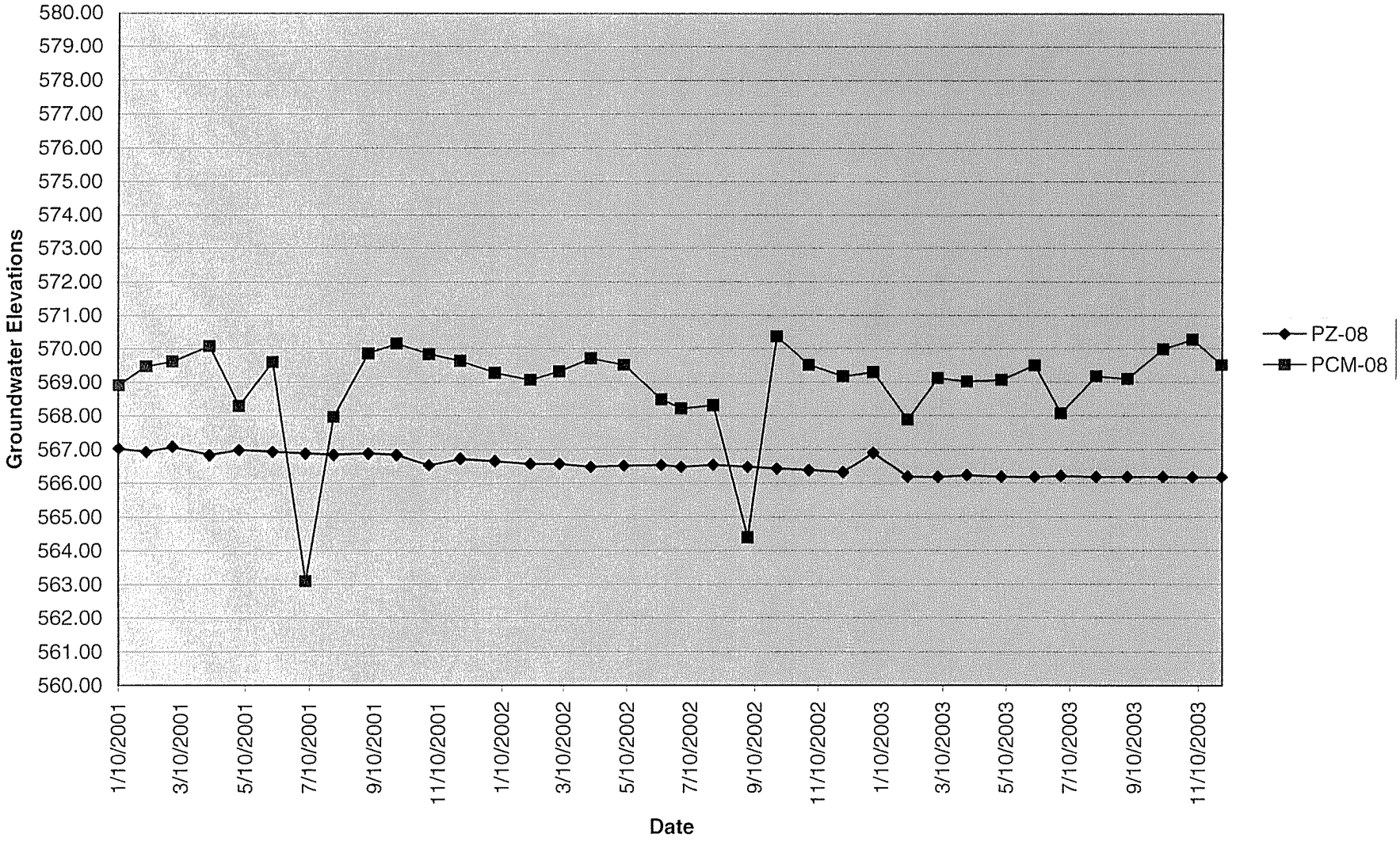
Groundwater Levels Well Pair 6



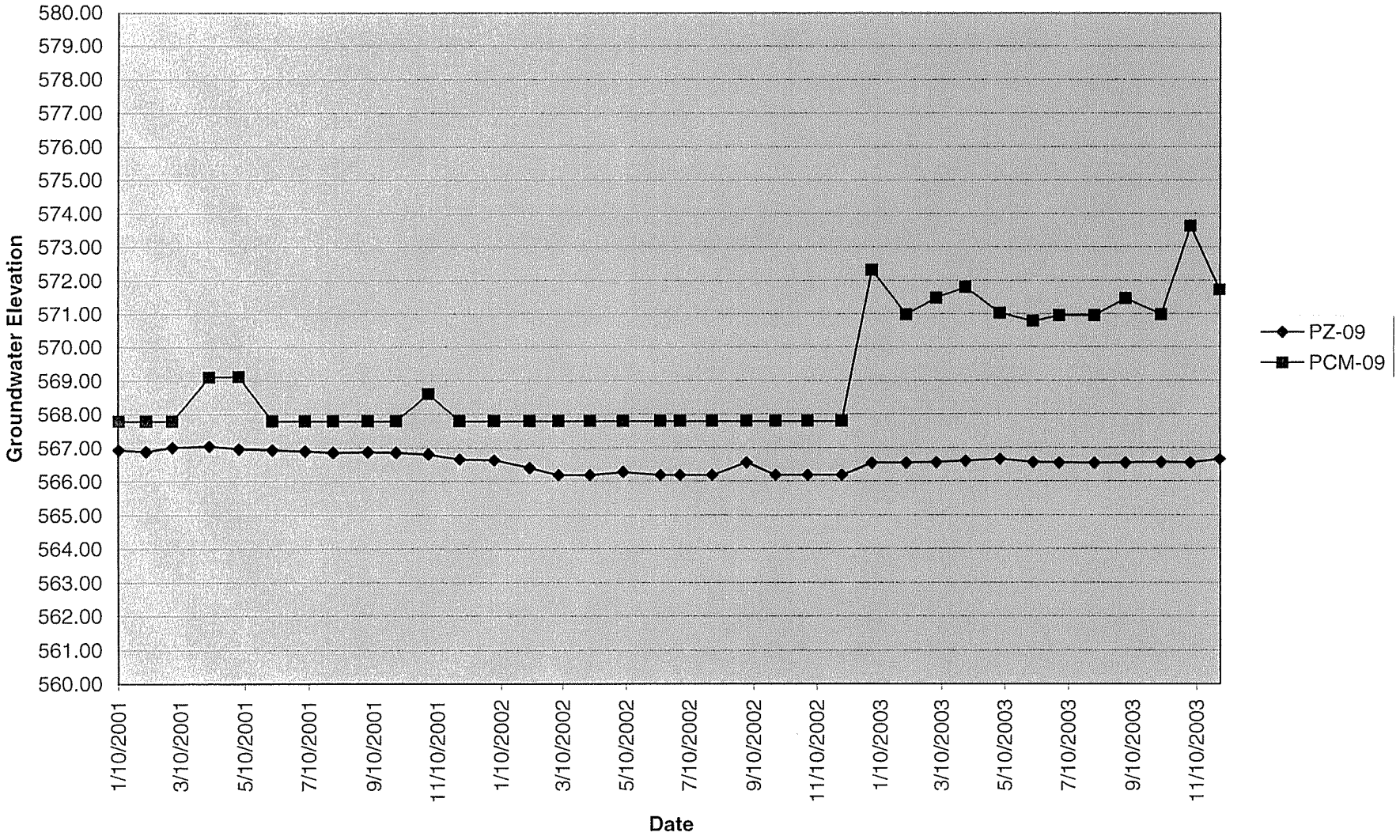
Groundwater Levels Well Pair 7



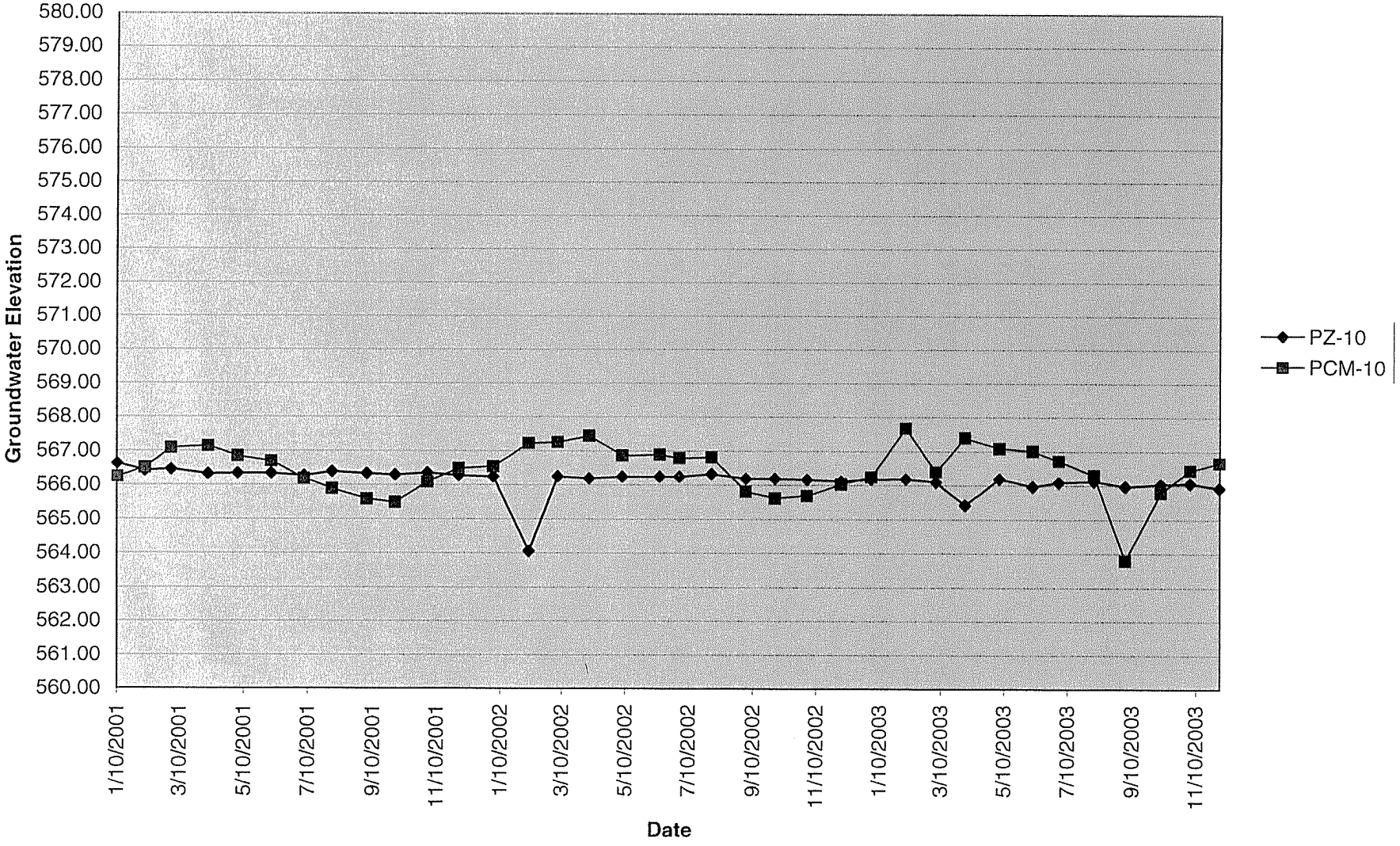
Groundwater Levels Well Pair 8



Groundwater Levels Well Pair 9



Groundwater Levels - Well Pair 10



APPENDIX B

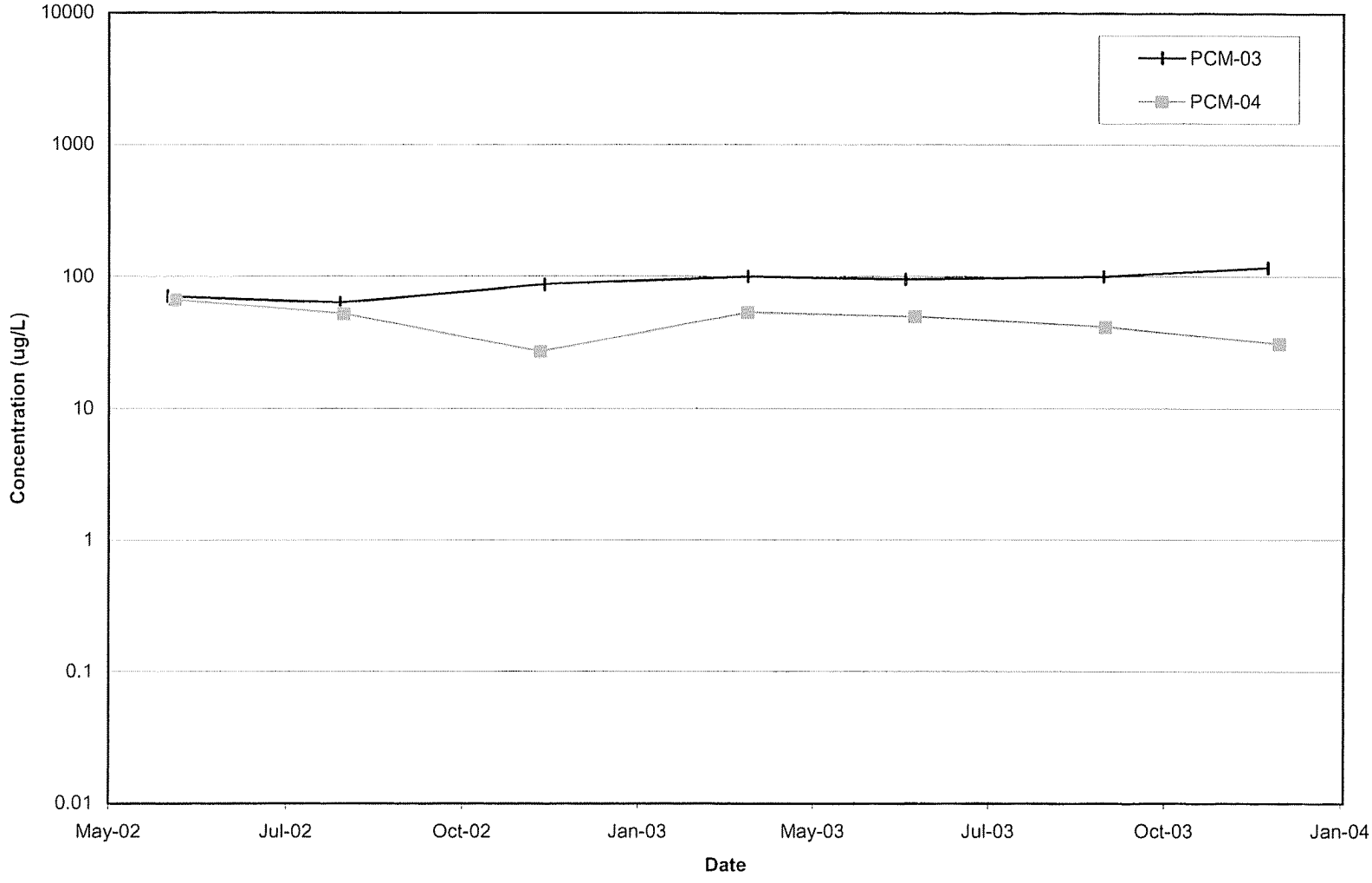


figure 1
CONCENTRATION OF 1,2-DICHLOROBENZENE vs. TIME
102ND STREET LANDFILL

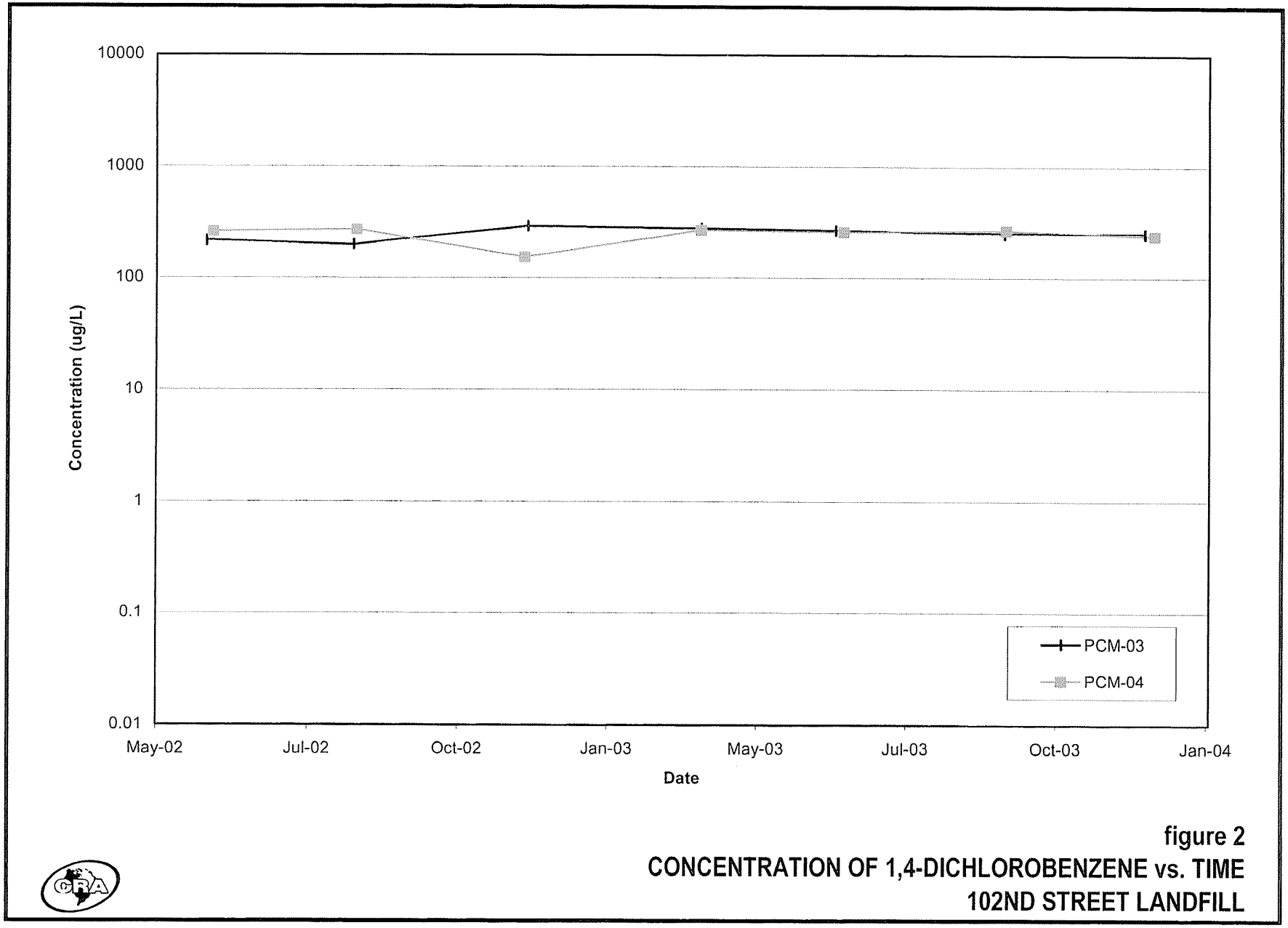


figure 2
CONCENTRATION OF 1,4-DICHLOROBENZENE vs. TIME
102ND STREET LANDFILL

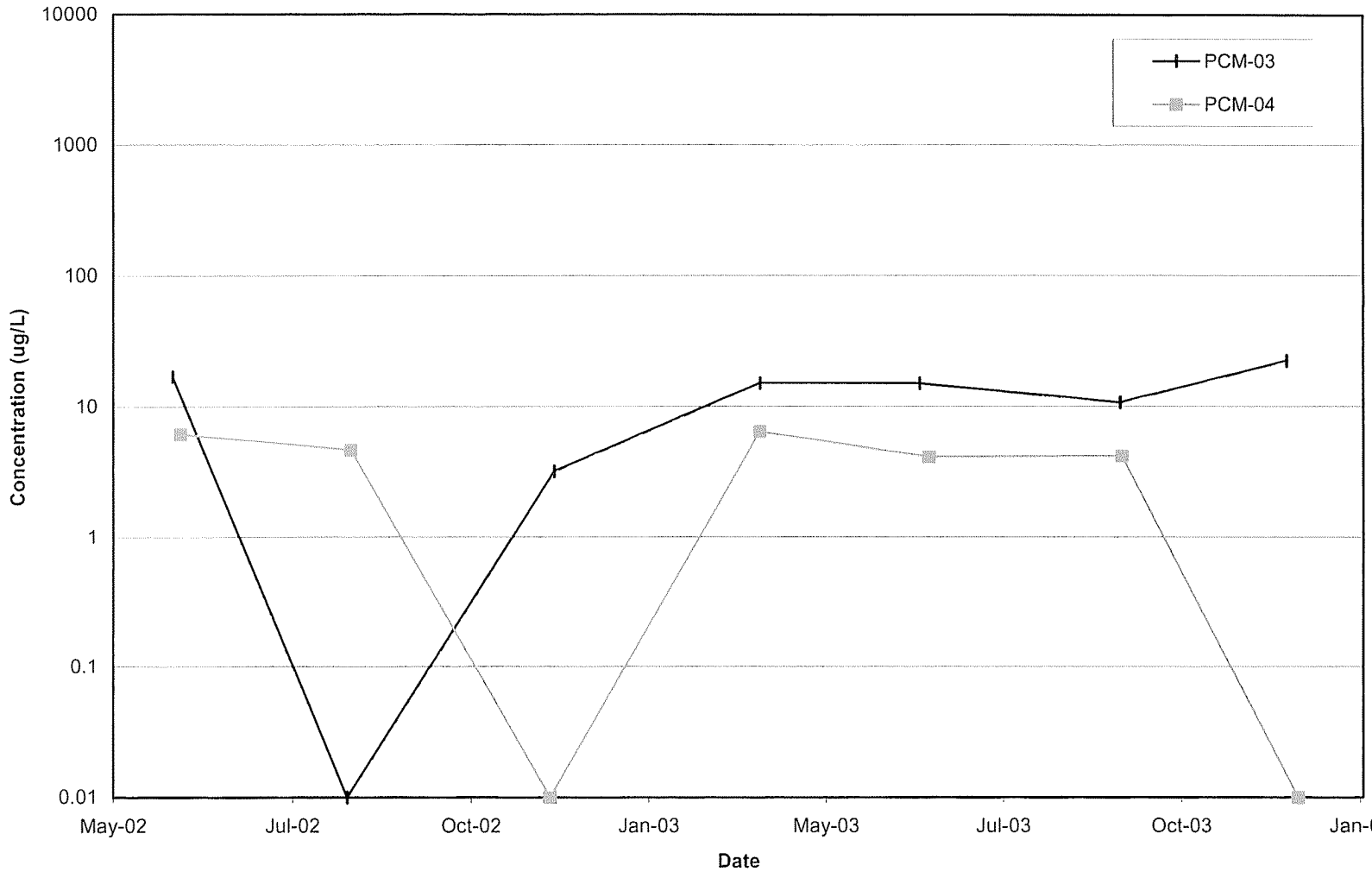


figure 3
CONCENTRATION OF 2,4-DICHLOROPHENOL vs. TIME
102ND STREET LANDFILL

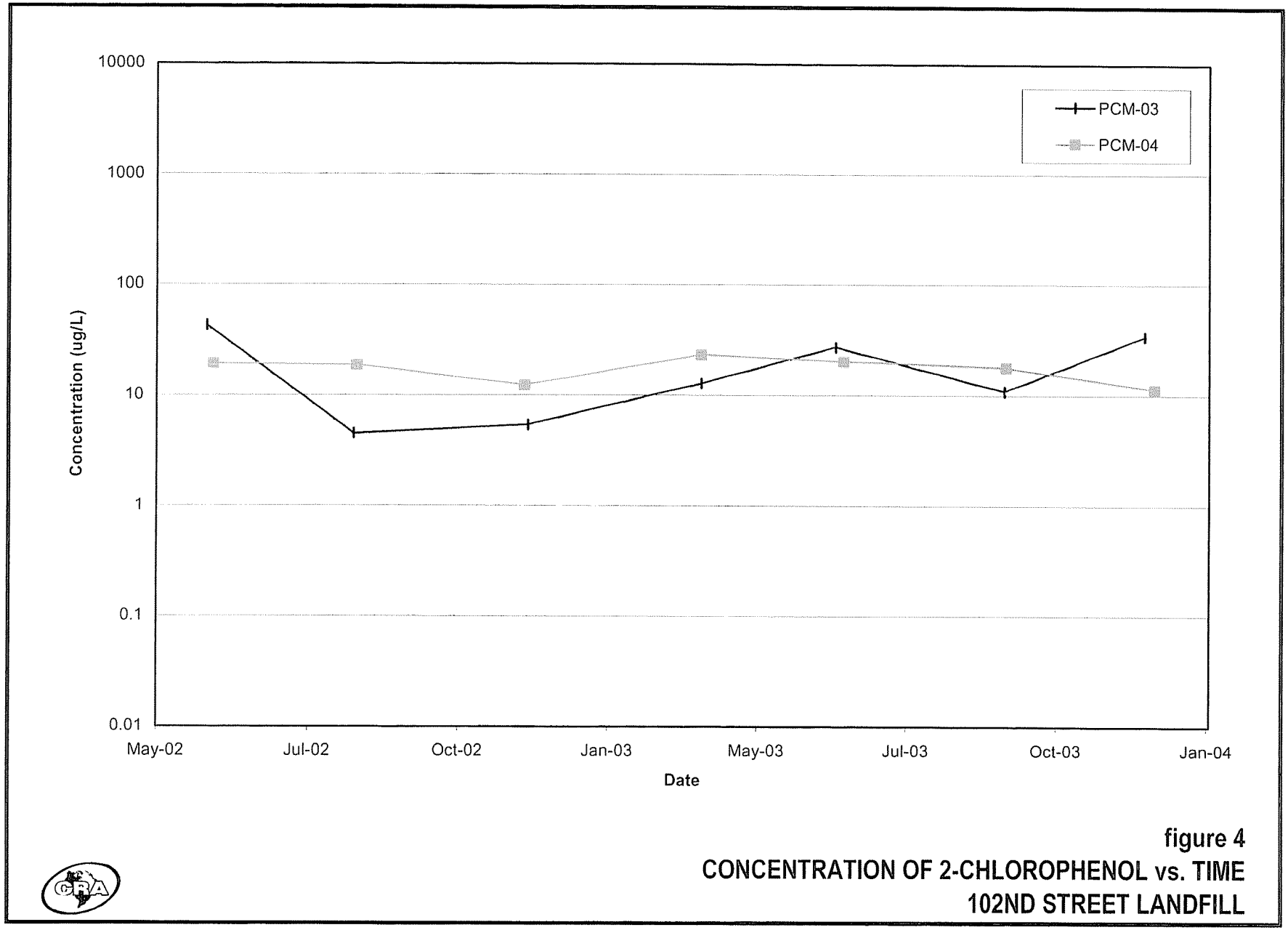


figure 4
CONCENTRATION OF 2-CHLOROPHENOL vs. TIME
102ND STREET LANDFILL

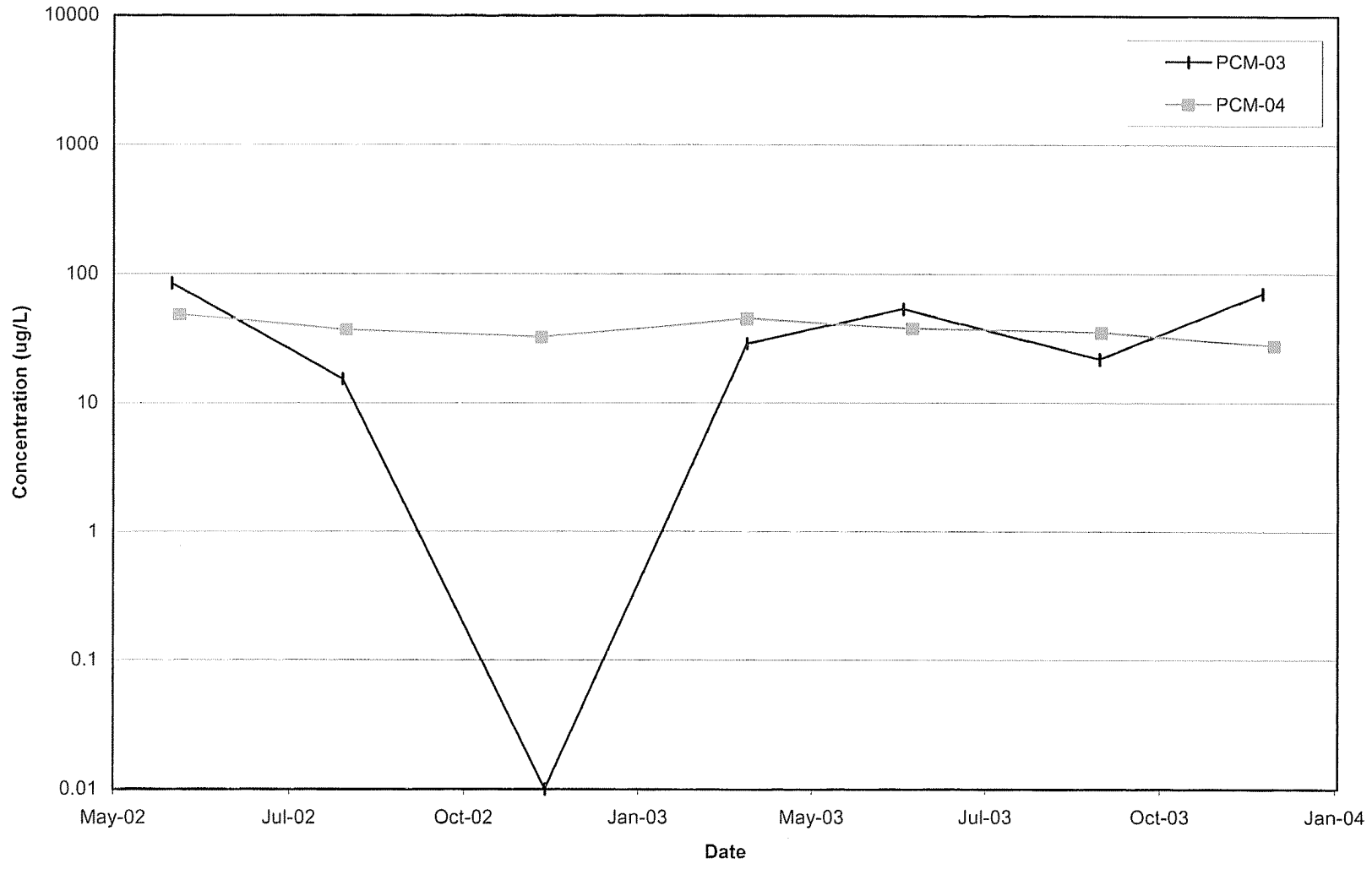


figure 5
CONCENTRATION OF 4-CHLOROPHENOL vs. TIME
102ND STREET LANDFILL

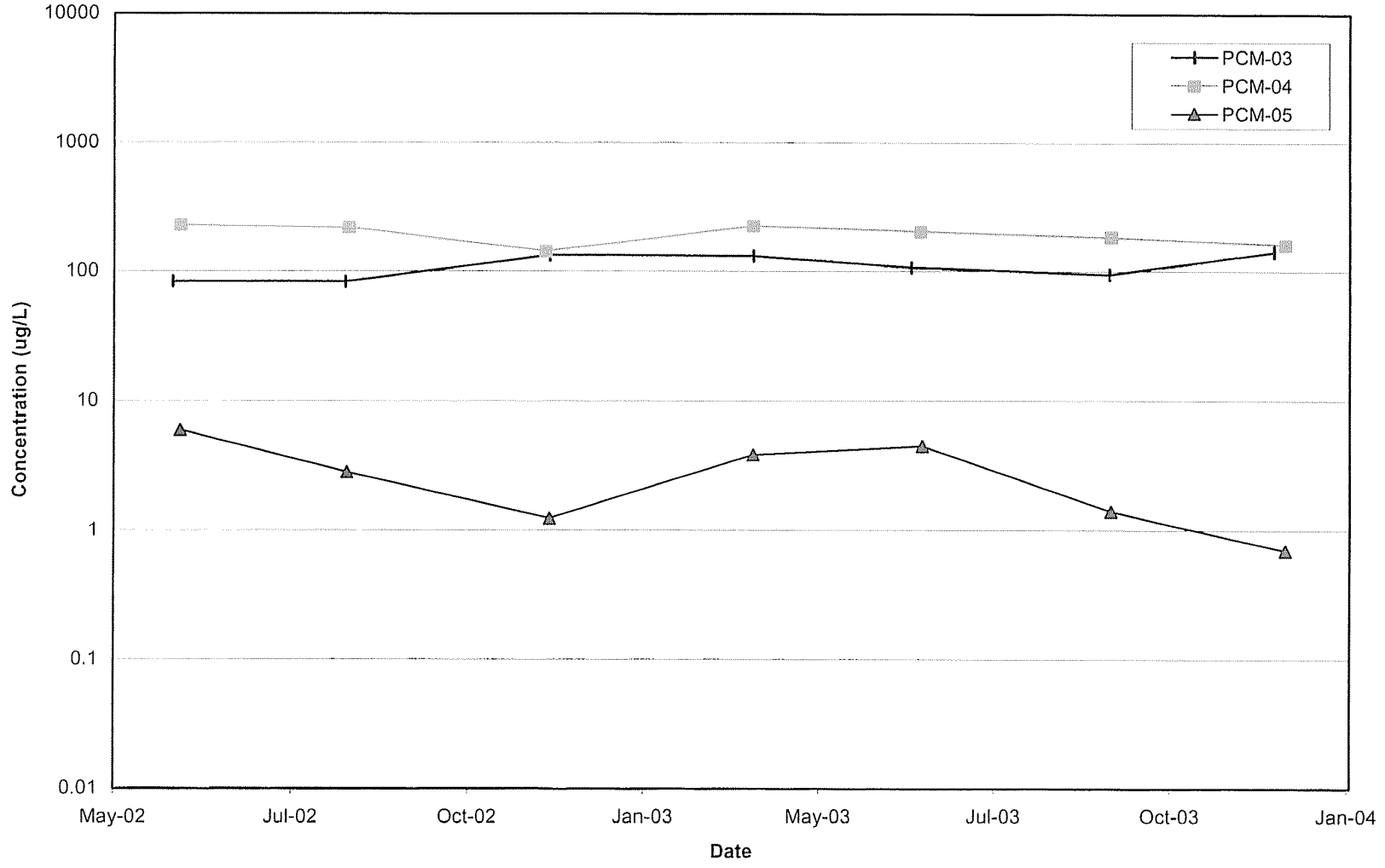


figure 6
CONCENTRATION OF BENZENE vs. TIME
102ND STREET LANDFILL

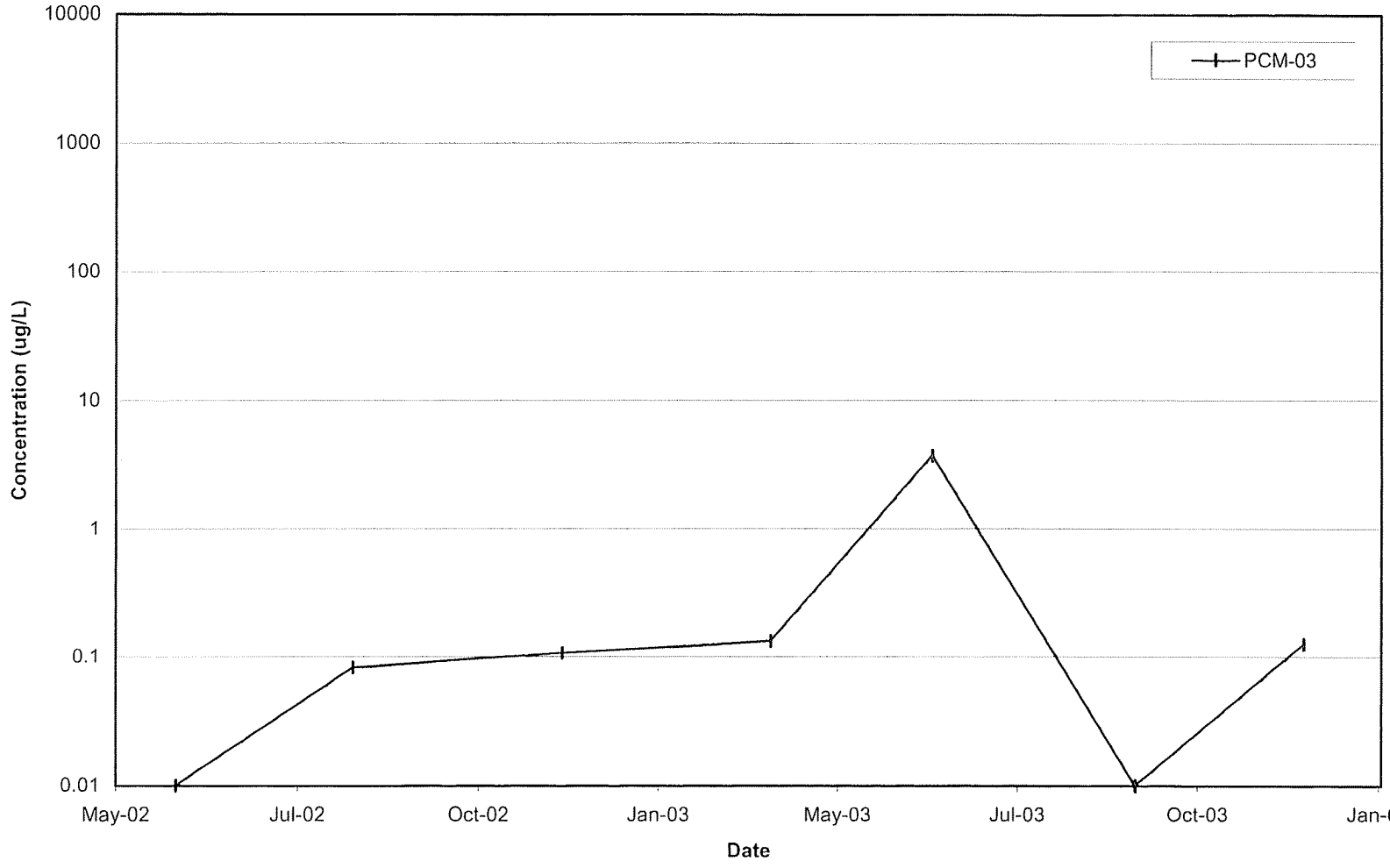


figure 7
CONCENTRATION OF BETA-BHC vs. TIME
102ND STREET LANDFILL

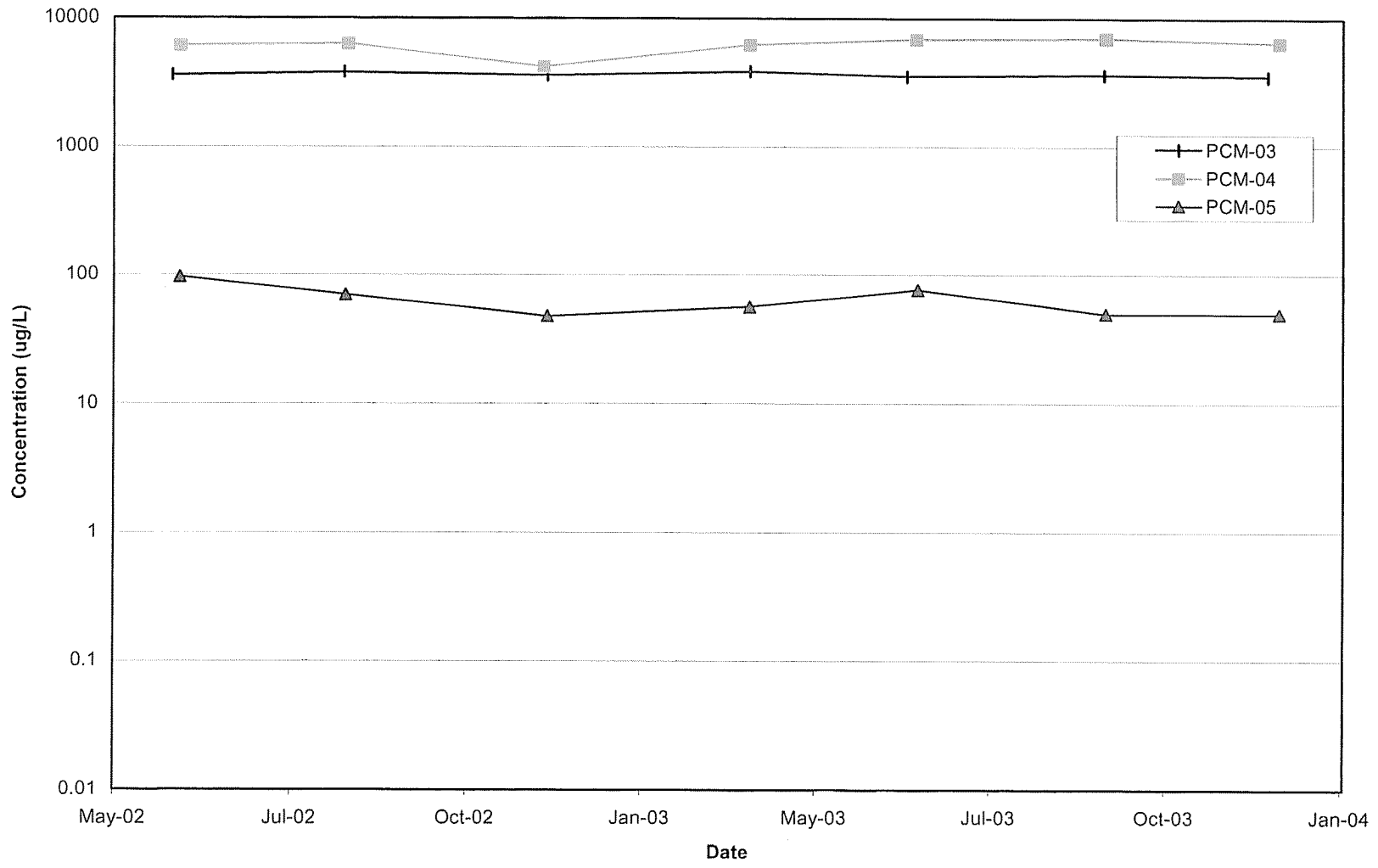


figure 8
CONCENTRATION OF CHLOROBENZENE vs. TIME
102ND STREET LANDFILL

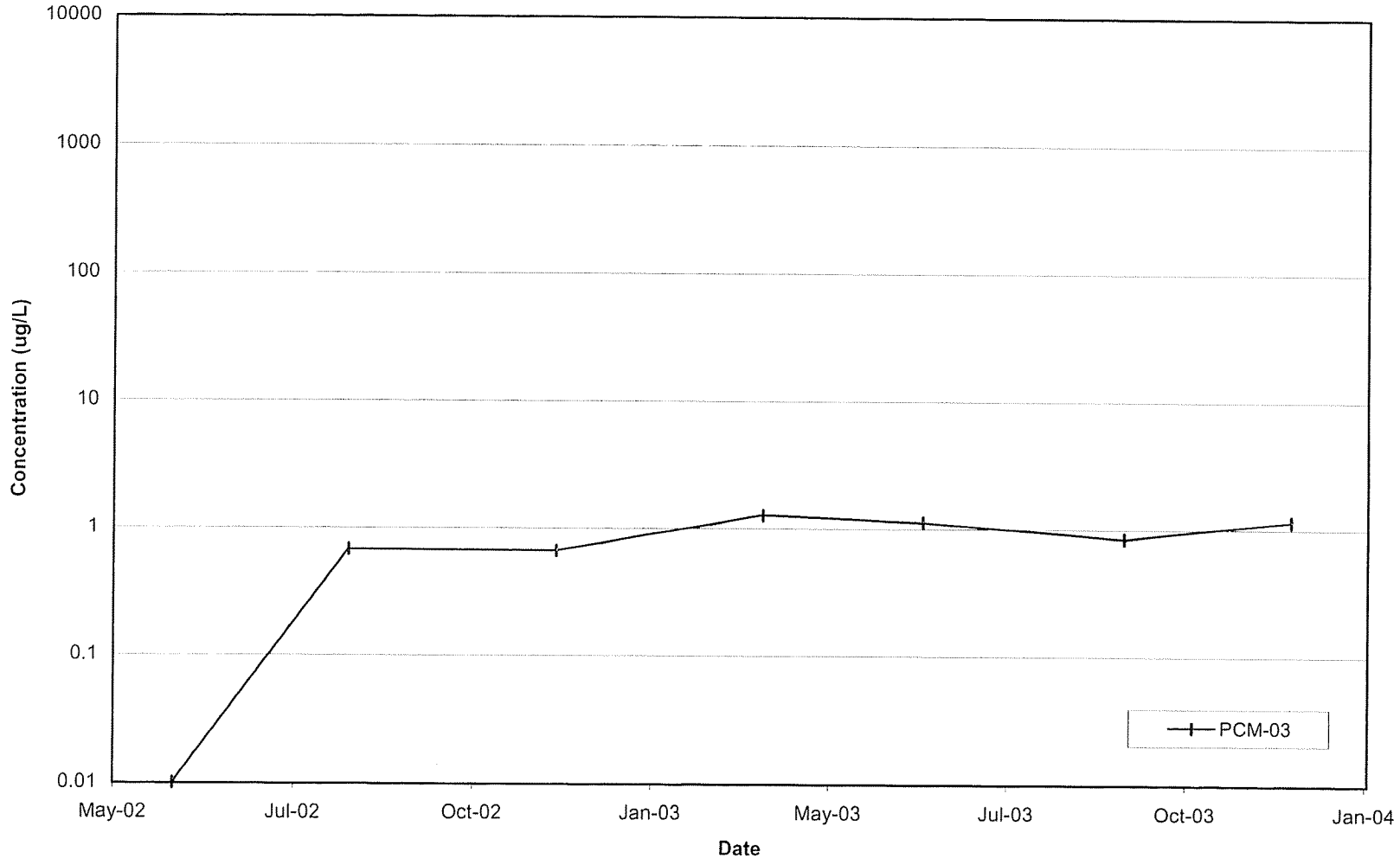


figure 9
CONCENTRATION OF DELTA-BHC vs. TIME
102ND STREET LANDFILL

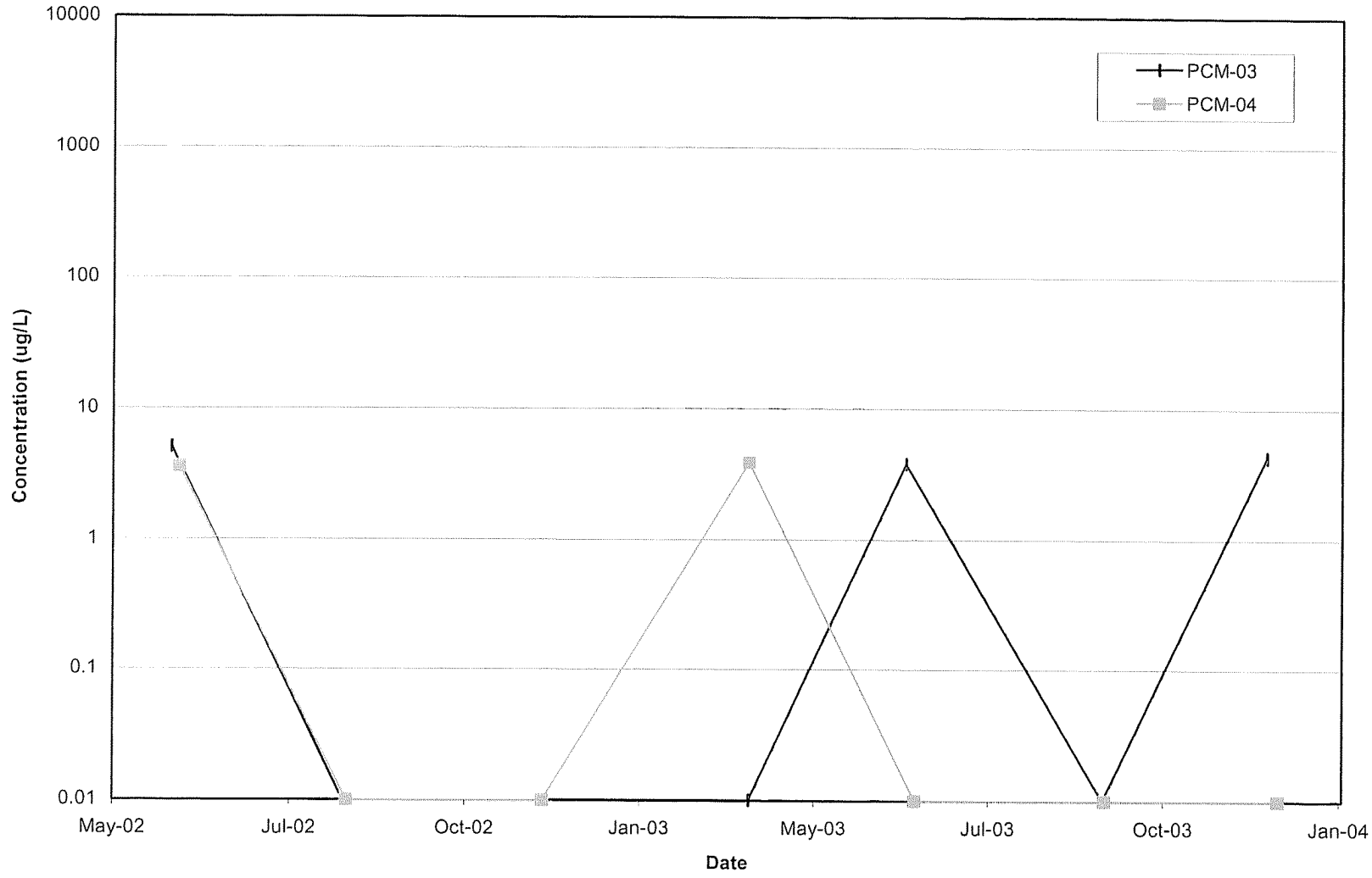


figure 10
CONCENTRATION OF PHENOL vs. TIME
102ND STREET LANDFILL