MILLER SPRINGS REMEDIATION MANAGEMENT, INC.
2480 Fortune Dr. Suite 300 Lexington, KY 40509

OLIN CORPRATION
1186 Lower River Road Charleston, TN 37310

Donald McLeod
Project Manager
Telephone (859) 543-2174
Facsimile (859) 543-2171

Michael Bellotti
Environmental Remediation Group
Telephone (423) 336-4587
Facsimile (423)336-4166

August 10, 2005

Gregory Sutton
Region 9 Office
New York State Department of Environmental Conservation
270 Michigan Avenue
Buffalo, NY 14203-2999

Re: 102nd Street Landfill Site, Niagara Falls, NY
2004 Annual Report

On behalf of Miller Springs Remediation Management, Inc. (Occidental Chemical Corporation) and Olin Corporation enclosed is a copy of the 102nd Street (Site) Annual Report.

This is the second in a series of yearly submission that will cover the O&M activities that occurred on Site during the year from January through December 2004.

Sincerely,

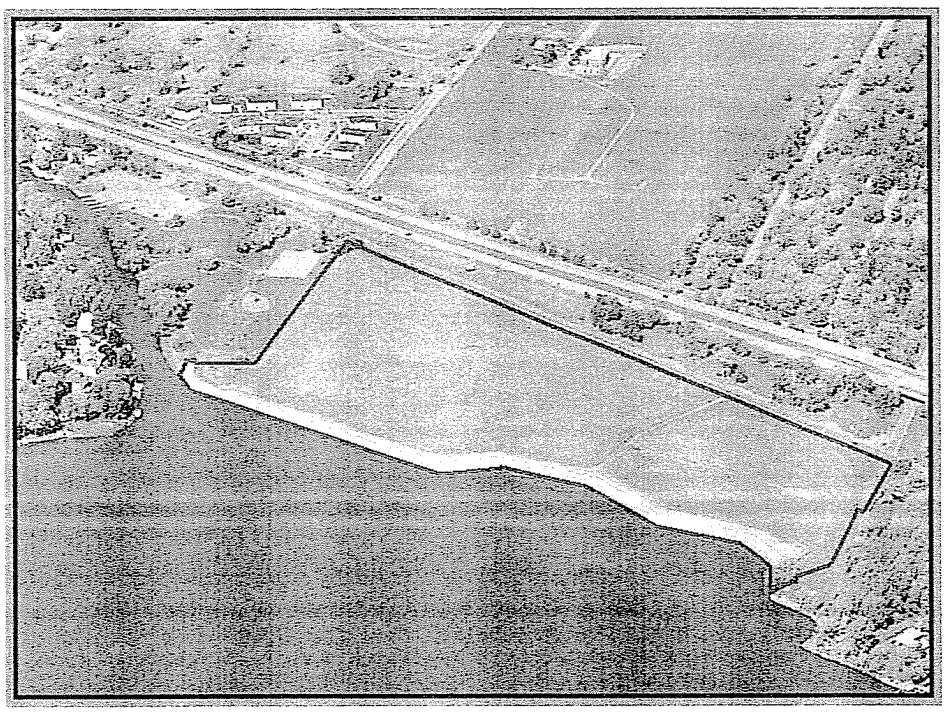
Donald McLeod P.E. .
Miller Springs Remediation Management, Inc.

Michael Bellotti. P.G.
Olin Corporation

c.c. Gary Kline, NYSDEC (5 copies)
Brian Downie, MSRM
Scott Parkhill, MSRM
Jim Thornton, CRA

102ND STREET LANDFILL SITE
NIAGARA FALLS, NEW YORK

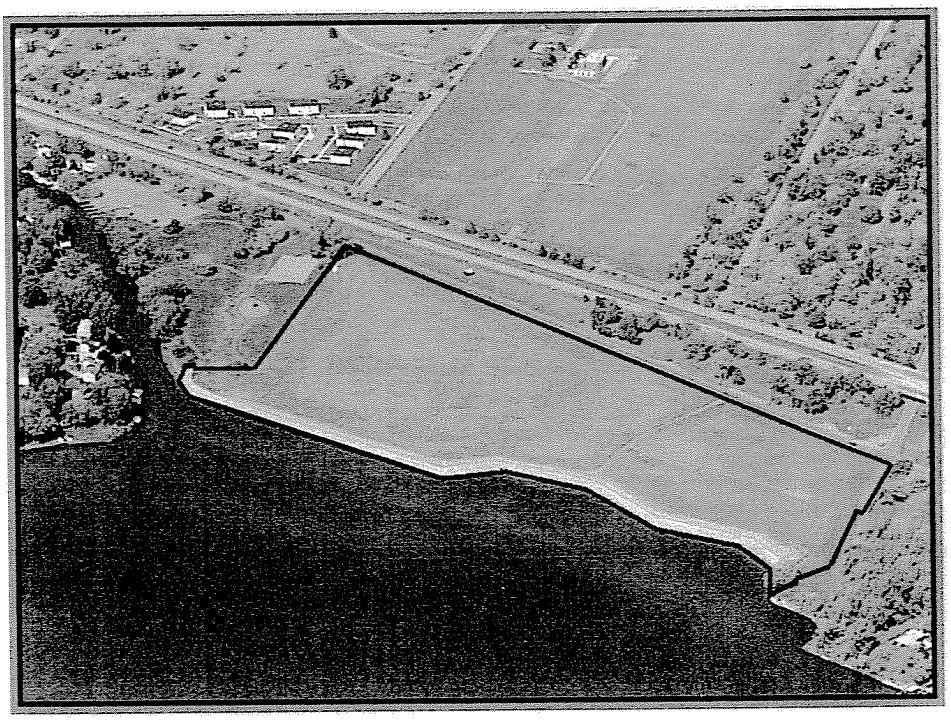
ANNUAL REPORT 2004



Miller Springs Remediation Management, Inc and Olin Corporation

102ND STREET LANDFILL SITE
NIAGARA FALLS, NEW YORK

ANNUAL REPORT 2004



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 2004 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.

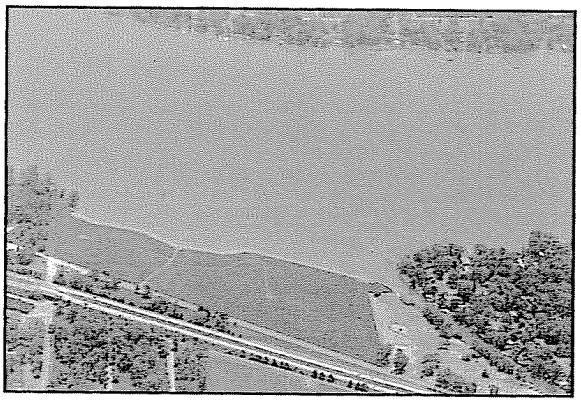
During 2004, the Remedial Action System Components at 102nd Street performed well. The leachate collection system removed 474,251 gallons of APL from the site. Water level monitoring showed that an inward gradient was maintained for 100% of the time at nine of the well pairs. Only one well pair (PCM-07/PZ-07) on the north side of the site indicated that an inward gradient was not being maintained (two of the five monitoring events) 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 2004, 12,151 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 2004 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

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 third Annual Report for the Site, covering all O&M activities for the calendar year of 2004.

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 for the first quarter and quarterly throughout the remainder of 2004 in accordance with the O&M Plan.

Water level data have been converted to elevations and are listed on the Annual Report Forms, in *Appendix A*. The data for 2002 through 2004 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 quarterly measurements of water levels in 20 monitoring wells located outside (10, PCM series) and inside (10, PZ series) of the slurry wall. Listed below 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 Sides
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 the following well pairs:

- West-Side pairs 1 and 2 showed inward gradients during 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.
- 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 5 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 for all of the monitoring events throughout the year; well pair 9 while detecting as "Dry" (PZ-9) for four of five events showed an inward gradients throughout the year. 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-08and PZ-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 into 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-annually for 8 years (*currently under*) and annually thereafter.

Groundwater quality monitoring events for 2004 occurred semi-annually; April for the first semi-annual event and in December for the second semi-annual event for 2004, ***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

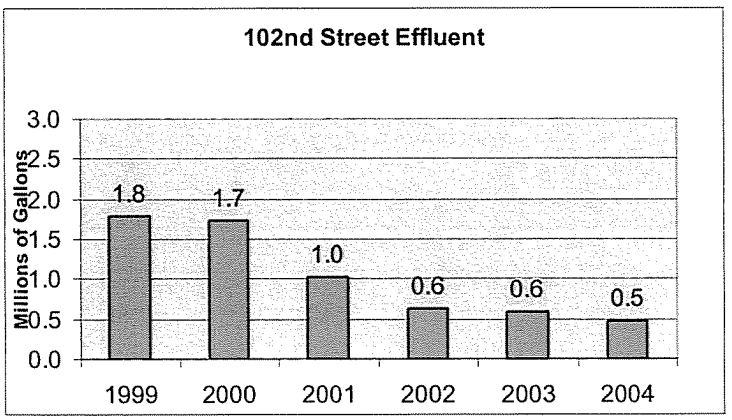
results of this monitoring are presented in the Annual Report Form, which are attached as part of *Appendix A*.

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 2004 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 474,251 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 6.2 million gallons have been recovered from the Site since pumping was initiated in March of 1999.

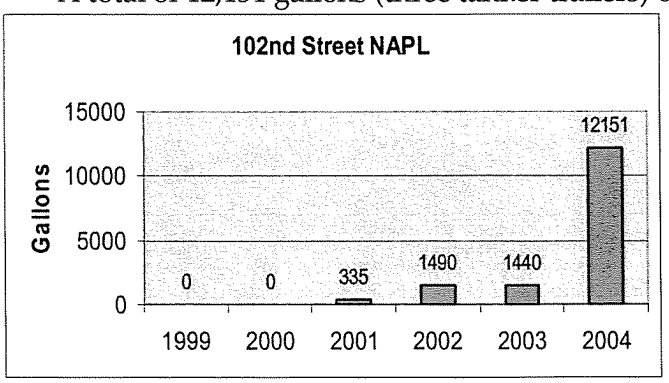


Listed below are four (4) wet wells and the gallons and percentiles of APL the individual wells had collected on Site for the year.

Well 1	Well 2	Well 3	Well 4	YTD
38,080	343,914	73,291	18,964	474,249
8%	**73%**	**15%**	**4%**	**100%**

3.2 NAPL COLLECTION SYSTEM OPERATION

A total of 12,151 gallons (three tanker trailers) of material (NAPL) was removed from the NAPL Recovery Wells at the site in 2004. This material was transported to the Clean Harbors Facility in Deer Park, Texas for incineration.

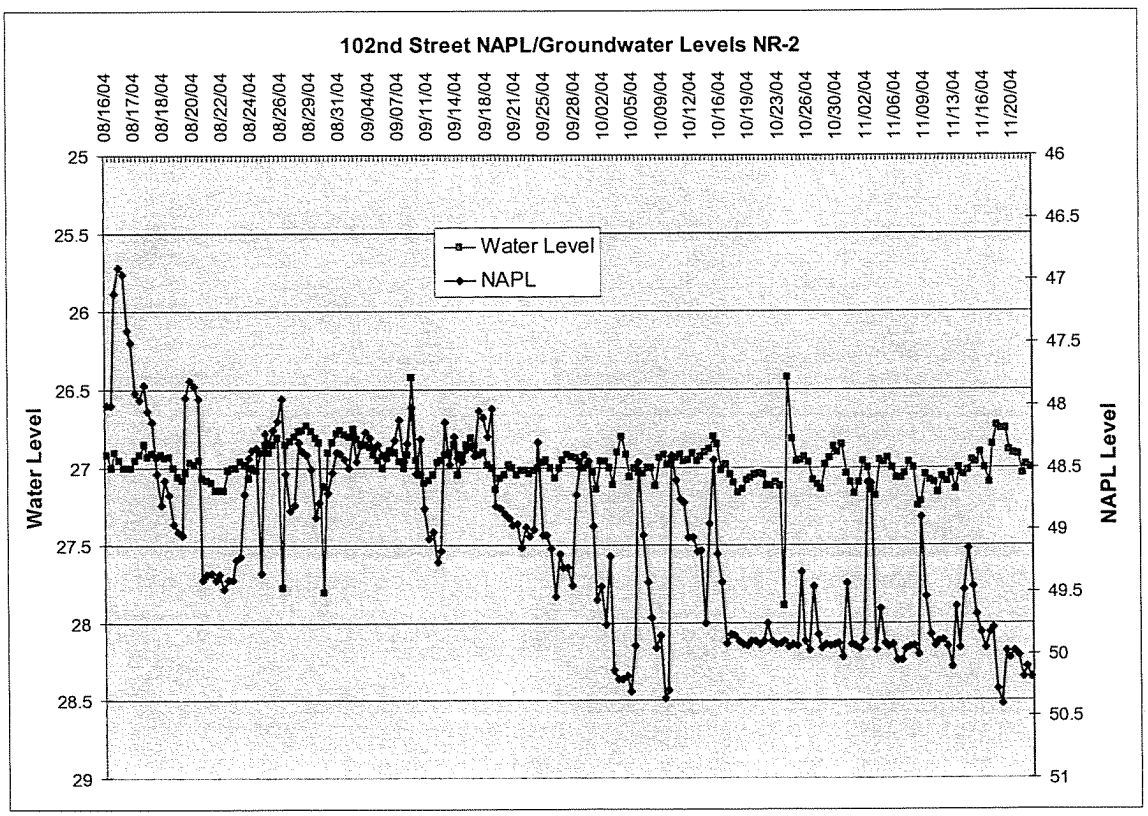


As outlined in the above section **2.1.3 NAPL Presence Monitoring**, a concentrated effort was implemented to

monitor and extract NAPL in the most efficient manner as possible in 2004. This was based on the approved work plan "NAPL Extraction Program Work Plan for Accelerated Recovery " submitted to NYSDEC December 2003.

This task was achieved by concentrating on the known quick-recharge well NR-02. In 2004, NAPL was recovered continuously starting in August 2004 through December 2004 from NR-02 for a total NAPL recovery of 12,151 gallons. A summary of the NAPL monitoring and the extractions are outlined in ***Appendix B.*** The table below represents the NAPL recovered from the individual wells from 1999 through 2004. Additionally presented below in chart form are the water elevations (depth below grade) versus the level of NAPL in NR-2 during the Accelerated NAPL Recovery efforts.

	1999	2000	2001	2002	2003	2004	Totals
NR-1	-	-	55	0	60	0	**115**
NR-2	-	-	200	1,490	1,355	12,151	**15,196**
NR-3	-	-	40	0	0	0	**40**
NR-4	-	-	0	0	0	0	**0**
NR-5	-	-	40	0	20	0	**60**
NR-7	-	-	0	0	0	0	**0**
NR-8	-	-	0	0	5	0	**5**
NR-10	-	-	0	0	0	0	**0**
Total			**335**	**1,490**	**1,440**	**12,151**	**15,416**

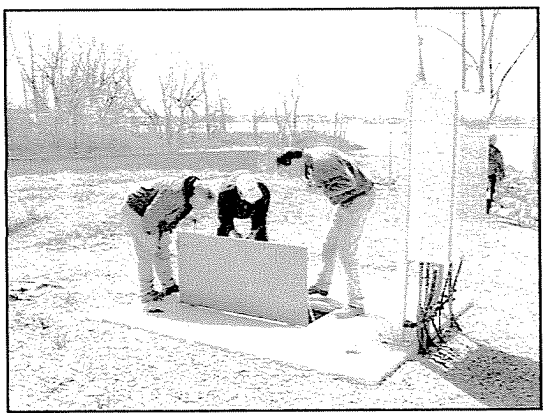


4.0 SITE MAINTENANCE AND INSPECTIONS

4.1 SITE INSPECTIONS

Semi-Annual Site Inspections were held on April 29 and October 15, 2004 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. No items requiring maintenance were noted during the inspections for the year.



4.2 MAINTENANCE

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. Additional stone was added over access roads on Site. All pumps and on Site control equipment were maintained throughout the year with scheduled preventive maintenance to ensure all equipment was functioning accurately. Bent casings were repaired on three monitoring wells (PCM-02, PCM-09, and PCBM-01) on August 26, 2004.

FIGURES

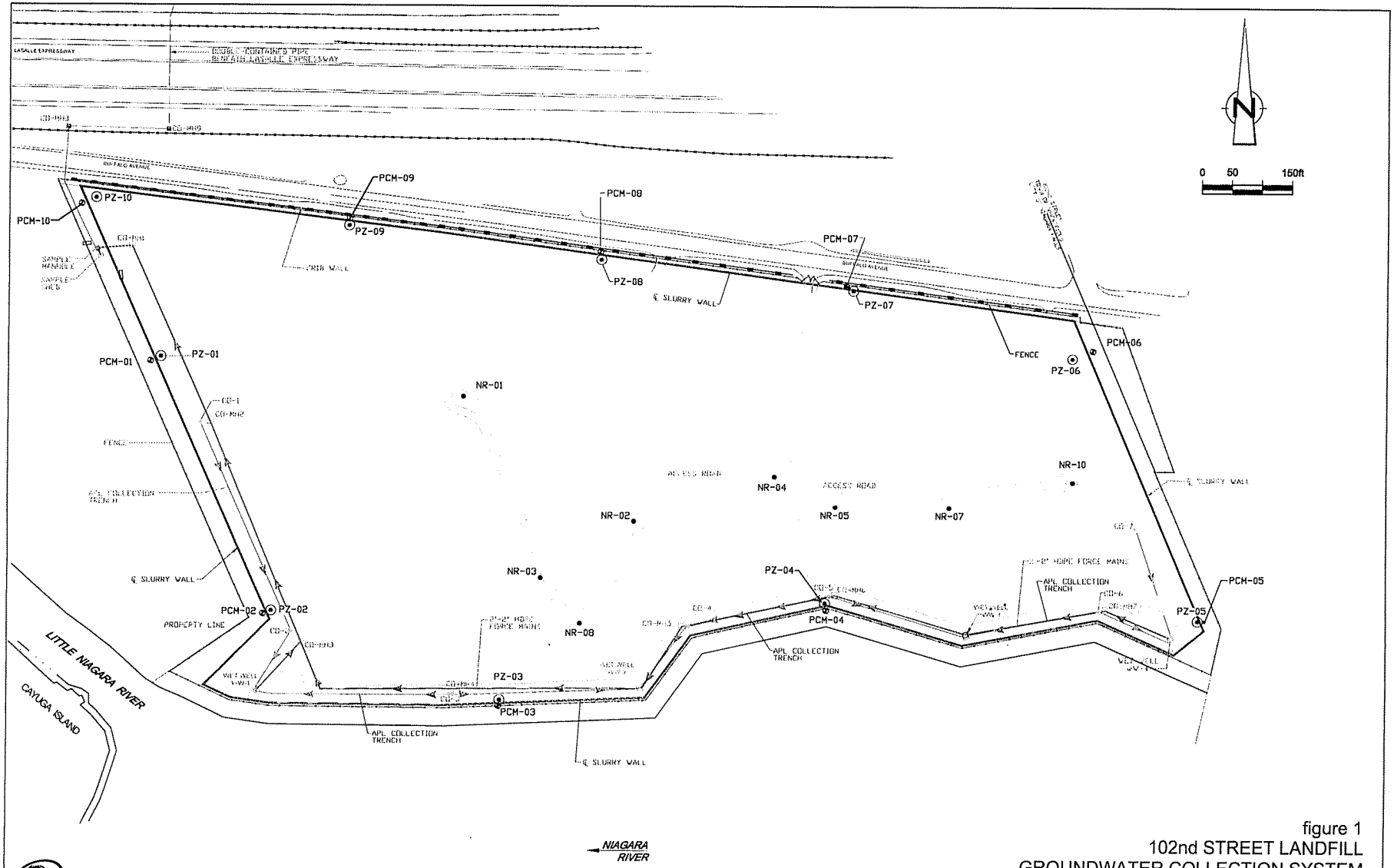


figure 1
102nd STREET LANDFILL
GROUNDWATER COLLECTION SYSTEM
Niagara Falls, New York

01431-00(07A)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.	3/5/04	6/22/04	8/5/04	10/7/04	Inward Gradients
PCM-01	578.24	549.05	29.19	567.1	566.85	566.93	566.54	
PZ-01	582.21	549.64	32.57	564.59	564.33	564.28	564.12	
Gradients				-2.51	-2.52	-2.65	-2.42	4
PCM-02	577.24	547.9	29.34	566.2	566.35	N/A	566.32	
PZ-02	577.92	548.43	29.49	562.6	562.74	562.57	560.83	
Gradients				-3.6	-3.61	N/A	-5.49	3
PCM-03	576.81	545.15	31.66	562.95	562.88	563.81	563.87	
PZ-03	576.68	545.63	31.05	562.16	562.18	562	561.96	
Gradients				-0.79	-0.7	-1.81	-1.91	4
PCM-04	575.73	545.74	29.99	563.11	564.02	564	563.96	
PZ-04	576.96	545.63	31.33	562.96	562.94	562.74	562.55	
Gradients				-0.15	-1.08	-1.26	-1.41	4
PCM-05	575.93	550	25.93	565.33	564.11	564.23	563.82	
PZ-05	576.87	550.5	26.37	562.05	561.36	561.98	562	
Gradients				-3.28	-2.75	-2.25	-1.82	4
PCM-06	580.25	566.5	13.75	567.15	566.41	571.5	568.52	
PZ-06	584.66	564.05	20.61	565.26	566.13	565.15	565.04	
Gradients				-1.89	-0.28	-6.35	-3.48	4
PCM-07	578.8	557.63	21.17	566.34	565.18	566.6	566.12	
PZ-07	579.1	564.8	14.3	566	564.86	566.62	566.68	
Gradients				-0.34	-0.32	0.02	0.56	2
PCM-08	579.32	564.43	14.89	570.04	569.05	570.04	569.62	
PZ-08	580.99	565.38	15.61	566.19	566.19	566.09	566.06	
Gradients				-3.85	-2.86	-3.95	-3.56	4
PCM-09	578.99	567.87	11.12	572.67	569.99	N/A	568.69	
PZ-09	580.67	566.28	14.39	566.57	566.57	566.47	566.43	
Gradients				-6.1	-3.42	N/A	-2.26	3
PCM-10	579.4	556.39	23.01	567.4	566.8	566.85	566.75	
PZ-10	581.65	561.56	20.09	566.25	566.13	566.13	566.05	
Gradients				-1.15	-0.67	-0.72	-0.7	4

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.
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: PCBM-01-304 Date: 3/11/2004	PCBM-01 PCBM-01-1204 12/13/2004
Volatiles					
1,2,3-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U
1,2,4-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U
1,2-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U
1,4-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U
2-Chlorotoluene	5	5	µg/L	1.00 U	1.00 U
Benzene	1	5	µg/L	1.00 U	1.00 U
Chlorobenzene	5	5	µg/L	1.00 U	1.00 U
Semi-Volatiles					
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	4.67 U	4.67 U
2,4,5-Trichlorophenol	1	50	µg/L	9.35 U	9.35 U
2,4-Dichlorophenol	1	10	µg/L	9.35 U	9.35 U
2,5-Dichlorophenol	1	10	µg/L	9.35 U	9.35 U
2-Chlorophenol	1	10	µg/L	9.35 U	9.35 U
4-Chlorophenol	1	10	µg/L	9.35 U	9.35 U
Phenol	1	10	µg/L	9.35 U	9.35 U
Pesticides					
alpha-BHC	0.01	10	µg/L	0.0374 U	0.0377 U
beta-BHC	0.04	10	µg/L	0.0467 U	0.0472 U
delta-BHC	0.04	10	µg/L	0.0561 U	0.0566 U
gamma-BHC (Lindane)	0.05	10	µg/L	0.0374 U	0.0377 U
Metals					
Arsenic	25	50	µg/L	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-02 Sample ID: PCBM-02-304 Date: 3/15/2004	Well: PCBM-02 Sample ID: PCBM-02-1204 Date: 12/14/2004
Volatiles					
1,2,3-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U
1,2,4-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U
1,2-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U
1,4-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U
2-Chlorotoluene	5	5	µg/L	0.285 J	1.00 U
Benzene	1	5	µg/L	1.00 U	1.00 U
Chlorobenzene	5	5	µg/L	1.00 U	1.00 U
Semi-Volatiles					
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	4.76 U	4.81 U
2,4,5-Trichlorophenol	1	50	µg/L	9.52 U	9.62 U
2,4-Dichlorophenol	1	10	µg/L	9.52 U	9.62 U
2,5-Dichlorophenol	1	10	µg/L	9.52 U	9.62 U
2-Chlorophenol	1	10	µg/L	9.52 U	9.62 U
4-Chlorophenol	1	10	µg/L	9.52 U	9.62 U
Phenol	1	10	µg/L	9.52 U	9.62 U
Pesticides					
alpha-BHC	0.01	10	µg/L	0.0377 U	0.0400 U
beta-BHC	0.04	10	µg/L	0.0472 U	0.0500 U
delta-BHC	0.04	10	µg/L	0.0566 U	0.0600 U
gamma-BHC (Lindane)	0.05	10	µg/L	0.0377 U	0.0400 U
Metals					
Arsenic	25	50	µg/L	9.84 J	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-03-304 Date: 4/14/2004	PCBM-03 PCBM-03-1204 12/15/2004
Volatiles					
1,2,3-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U
1,2,4-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U
1,2-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U
1,4-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U
2-Chlorotoluene	5	5	µg/L	1.00 U	1.00 U
Benzene	1	5	µg/L	1.00 U	1.00 U
Chlorobenzene	5	5	µg/L	1.00 U	1.00 U
Semi-Volatiles					
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	4.67 U	5.05 U
2,4,5-Trichlorophenol	1	50	µg/L	9.35 U	10.1 U
2,4-Dichlorophenol	1	10	µg/L	9.35 U	10.1 U
2,5-Dichlorophenol	1	10	µg/L	9.35 U	10.1 U
2-Chlorophenol	1	10	µg/L	9.35 U	10.1 U
4-Chlorophenol	1	10	µg/L	9.35 U	10.1 U
Phenol	1	10	µg/L	9.35 U	10.1 U
Pesticides					
alpha-BHC	0.01	10	µg/L	0.0374 UJ	0.0400 U
beta-BHC	0.04	10	µg/L	0.0467 UJ	0.0500 U
delta-BHC	0.04	10	µg/L	0.0561 UJ	0.0600 U
gamma-BHC (Lindane)	0.05	10	µg/L	0.0374 UJ	0.0400 U
Metals					
Arsenic	25	50	µg/L	9.39 J	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-01-304 Date: 4/13/2004	Well: PCM-01 Sample ID: PCM-01-1204 Date: 12/16/2004
Volatiles					
1,2,3-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U
1,2,4-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U
1,2-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U
1,4-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U
2-Chlorotoluene	5	5	µg/L	0.332 J	1.00 U
Benzene	1	5	µg/L	1.00 U	1.00 U
Chlorobenzene	5	5	µg/L	1.00 U	1.00 U
Semi-Volatiles					
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	5.05 U	5.05 U
2,4,5-Trichlorophenol	1	50	µg/L	10.1 U	10.1 U
2,4-Dichlorophenol	1	10	µg/L	10.1 U	10.1 U
2,5-Dichlorophenol	1	10	µg/L	10.1 U	10.1 U
2-Chlorophenol	1	10	µg/L	10.1 U	10.1 U
4-Chlorophenol	1	10	µg/L	10.1 U	10.1 U
Phenol	1	10	µg/L	10.1 U	10.1 U
Pesticides					
alpha-BHC	0.01	10	µg/L	0.0551 J	0.0404 UJ
beta-BHC	0.04	10	µg/L	0.0505 UJ	0.0505 UJ
delta-BHC	0.04	10	µg/L	0.0669 J	0.0606 UJ
gamma-BHC (Lindane)	0.05	10	µg/L	0.0404 UJ	0.0404 UJ
Metals					
Arsenic	25	50	µg/L	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: PCM-02 Date: Dry Apr-2004	PCM-02 PCM-02-1204 12/16/2004
Volatiles					
1,2,3-Trichlorobenzene	5	10	µg/L	-	1.00 U
1,2,4-Trichlorobenzene	5	10	µg/L	-	1.00 U
1,2-Dichlorobenzene	3	10	µg/L	-	1.00 U
1,4-Dichlorobenzene	3	10	µg/L	-	1.00 U
2-Chlorotoluene	5	5	µg/L	-	1.00 U
Benzene	1	5	µg/L	-	1.00 U
Chlorobenzene	5	5	µg/L	-	1.00 U
Semi-Volatiles					
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	-	5.05 U
2,4,5-Trichlorophenol	1	50	µg/L	-	10.1 U
2,4-Dichlorophenol	1	10	µg/L	-	10.1 U
2,5-Dichlorophenol	1	10	µg/L	-	10.1 U
2-Chlorophenol	1	10	µg/L	-	10.1 U
4-Chlorophenol	1	10	µg/L	-	10.1 U
Phenol	1	10	µg/L	-	10.1 U
Pesticides					
alpha-BHC	0.01	10	µg/L	-	0.0404 UJ
beta-BHC	0.04	10	µg/L	-	0.0505 UJ
delta-BHC	0.04	10	µg/L	-	0.0606 UJ
gamma-BHC (Lindane)	0.05	10	µg/L	-	0.0404 UJ
Metals					
Arsenic	25	50	µg/L	-	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:* *Date:* *PCM-03* *PCM-03-304* *3/11/2004*	*PCM-03* *PCM-03-1204* *12/13/2004*
Volatiles					
1,2,3-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U
1,2,4-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U
1,2-Dichlorobenzene	3	10	µg/L	77.6	72.4
1,4-Dichlorobenzene	3	10	µg/L	207	181
2-Chlorotoluene	5	5	µg/L	8.24	8.10
Benzene	1	5	µg/L	99.8	72.8
Chlorobenzene	5	5	µg/L	3010	2890
Semi-Volatiles					
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	4.72 U	4.67 U
2,4,5-Trichlorophenol	1	50	µg/L	9.43 U	9.35 U
2,4-Dichlorophenol	1	10	µg/L	25.6	9.35 U
2,5-Dichlorophenol	1	10	µg/L	9.43 U	17.1
2-Chlorophenol	1	10	µg/L	28.0	21.0
4-Chlorophenol	1	10	µg/L	59.1	41.8
Phenol	1	10	µg/L	4.84 J	9.35 U
Pesticides					
alpha-BHC	0.01	10	µg/L	0.0374 UJ	0.0377 U
beta-BHC	0.04	10	µg/L	0.0467 UJ	0.236 U
delta-BHC	0.04	10	µg/L	0.933 J	1.12 U
gamma-BHC (Lindane)	0.05	10	µg/L	0.0374 UJ	0.0377 U
Metals					
Arsenic	25	50	µg/L	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-04* *Sample ID:* *PCM-04-304* *Date:* *3/12/2004*	*PCM-04* *PCM-04-1204* *12/15/2004*
Volatiles					
1,2,3-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U
1,2,4-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U
1,2-Dichlorobenzene	3	10	µg/L	45.9	1.00 U
1,4-Dichlorobenzene	3	10	µg/L	229	245
2-Chlorotoluene	5	5	µg/L	2.45	2.13 U
Benzene	1	5	µg/L	195	178
Chlorobenzene	5	5	µg/L	6330 J	7220
Semi-Volatiles					
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	4.67 U	5.05 U
2,4,5-Trichlorophenol	1	50	µg/L	9.35 U	10.1 U
2,4-Dichlorophenol	1	10	µg/L	4.69 J	10.1 U
2,5-Dichlorophenol	1	10	µg/L	9.35 U	10.1 U
2-Chlorophenol	1	10	µg/L	28.1	13.9
4-Chlorophenol	1	10	µg/L	55.3	28.3
Phenol	1	10	µg/L	5.67 J	10.1 U
Pesticides					
alpha-BHC	0.01	10	µg/L	0.0374 UJ	0.0400 U
beta-BHC	0.04	10	µg/L	0.0467 UJ	0.0500 U
delta-BHC	0.04	10	µg/L	0.0561 UJ	1.40 U
gamma-BHC (Lindane)	0.05	10	µg/L	0.0374 UJ	0.0400 U
Metals					
Arsenic	25	50	µg/L	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: PCM-05 Date: PCM-05-304 3/15/2004*	*PCM-05 PCM-05-1204 12/14/2004*
Volatiles					
1,2,3-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U
1,2,4-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U
1,2-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U
1,4-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U
2-Chlorotoluene	5	5	µg/L	0.288 J	1.00 U
Benzene	1	5	µg/L	1.71	5.68
Chlorobenzene	5	5	µg/L	56.1	94.9
Semi-Volatiles					
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	4.76 U	4.67 U
2,4,5-Trichlorophenol	1	50	µg/L	9.52 U	9.35 U
2,4-Dichlorophenol	1	10	µg/L	9.52 U	9.35 U
2,5-Dichlorophenol	1	10	µg/L	9.52 U	9.35 U
2-Chlorophenol	1	10	µg/L	9.52 U	9.35 U
4-Chlorophenol	1	10	µg/L	9.52 U	9.35 U
Phenol	1	10	µg/L	9.52 U	9.35 U
Pesticides					
alpha-BHC	0.01	10	µg/L	0.0374 U	0.0377 U
beta-BHC	0.04	10	µg/L	0.0467 U	0.0472 U
delta-BHC	0.04	10	µg/L	0.0561 U	0.0566 U
gamma-BHC (Lindane)	0.05	10	µg/L	0.0374 U	0.0377 U
Metals					
Arsenic	25	50	µg/L	8.71 J	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-06 Dry *Date:* Apr-2004	PCM-06 Dry Dec-2004
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: 4/14/2004*	*PCM-07 PCM-07-304 12/21/2004*
Volatiles					
1,2,3-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U
1,2,4-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U
1,2-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U
1,4-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U
2-Chlorotoluene	5	5	µg/L	1.00 U	1.00 U
Benzene	1	5	µg/L	1.00 U	1.00 U
Chlorobenzene	5	5	µg/L	1.00 U	1.00 U
Semi-Volatiles					
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	5.05 U	4.72 U
2,4,5-Trichlorophenol	1	50	µg/L	10.1 U	9.43 U
2,4-Dichlorophenol	1	10	µg/L	10.1 U	9.43 U
2,5-Dichlorophenol	1	10	µg/L	10.1 U	9.43 U
2-Chlorophenol	1	10	µg/L	10.1 U	9.43 U
4-Chlorophenol	1	10	µg/L	10.1 U	9.43 U
Phenol	1	10	µg/L	10.1 U	9.43 U
Pesticides					
alpha-BHC	0.01	10	µg/L	0.0404 U	0.0377 UJ
beta-BHC	0.04	10	µg/L	0.0505 U	0.0472 UJ
delta-BHC	0.04	10	µg/L	0.0606 U	0.0566 UJ
gamma-BHC (Lindane)	0.05	10	µg/L	0.0404 U	0.0377 UJ
Metals					
Arsenic	25	50	µg/L	9.55 J	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-08 Dry *Date:* Apr-2004	PCM-08 Dry Dec-2004
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-09 *Date:* Apr-2004	PCM-09 Dry Dec-2004
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 Date: 4/13/2004	PCM-10 PCM-10-304 4/13/2004	PCM-10 PCM-12-1204 12/16/2004
Volatiles						
1,2,3-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U	
1,2,4-Trichlorobenzene	5	10	µg/L	1.00 U	1.00 U	
1,2-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U	
1,4-Dichlorobenzene	3	10	µg/L	1.00 U	1.00 U	
2-Chlorotoluene	5	5	µg/L	1.00 U	1.00 U	
Benzene	1	5	µg/L	1.00 U	1.00 U	
Chlorobenzene	5	5	µg/L	1.00 U	1.00 U	
Semi-Volatiles						
1,2,4,5-Tetrachlorobenzene	5	10	µg/L	4.67 U	5.05 U	
2,4,5-Trichlorophenol	1	50	µg/L	9.35 U	10.1 U	
2,4-Dichlorophenol	1	10	µg/L	9.35 U	10.1 U	
2,5-Dichlorophenol	1	10	µg/L	9.35 U	10.1 U	
2-Chlorophenol	1	10	µg/L	9.35 U	10.1 U	
4-Chlorophenol	1	10	µg/L	9.35 U	10.1 U	
Phenol	1	10	µg/L	9.35 U	10.1 U	
Pesticides						
alpha-BHC	0.01	10	µg/L	0.0662	0.0404 UJ	
beta-BHC	0.04	10	µg/L	0.0725	0.0505 UJ	
delta-BHC	0.04	10	µg/L	0.0676	0.0606 UJ	
gamma-BHC (Lindane)	0.05	10	µg/L	0.0404 U	0.0404 UJ	
Metals						
Arsenic	25	50	µg/L	16.1	10.0 U	

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

APPENDIX A

ANNUAL OPERATION AND MAINTENANCE REPORT

102ND STREET LANDFILL SITE

NIAGARA FALLS, NEW YORK

YEAR: 2004

MONITORING - Water Level Measurements

Month	*Day*	*Inspector*	*PCM-01*	*PZ-01*	*PCM-02*	*PZ-02*	*PCM-03*	*PZ-03*	*PCM-04*
January	8	T. Blackmon	565.71	564.21	565.64	562.52	563.13	562.05	563.31
February	27	T. Blackmon	566.30	564.21	566.20	562.55	562.61	562.13	562.86
March	5	T. Blackmon	567.10	564.59	566.20	562.60	562.95	562.16	563.11
April									
May									
June	22	T. Blackmon	566.85	564.33	566.35	562.74	562.88	562.18	564.02
July									
August	5	T. Blackmon	566.96	564.28	-	562.57	563.81	562	564
September									
October	7	T. Blackmon	566.54	564.12	566.32	560.83	563.87	561.96	563.96
November									
December									

Month	*Day*	*Inspector*	*PZ-04*	*PCM-05*	*PZ-05*	*PCM-06*	*PZ-06*	*PCM-07*	*PZ-07*
January	8	T. Blackmon	562.76	564.30	561.87	567.23	565.19	563.40	566.10
February	27	T. Blackmon	562.74	564.27	562.02	567.55	565.16	565.97	566.00
March	5	T. Blackmon	562.96	565.33	562.05	567.15	565.26	566.34	566.00
April									
May									
June	22	T. Blackmon	562.94	564.11	561.36	566.41	566.13	565.18	564.86
July									
August	5	T. Blackmon	562.74	564.23	561.98	571.5	565.15	566.6	566.62
September									
October	7	T. Blackmon	562.55	563.82	562.00	568.52	565.04	566.12	566.68
November									
December									

Month	*Day*	*Inspector*	*PCM-08*	*PZ-08*	*PCM-09*	*PZ-09*	*PCM-10*	*PZ-10*
January	8	T. Blackmon	569.42	566.19	572.04	566.62	567.00	566.05
February	27	T. Blackmon	567.47	566.19	572.09	566.57	566.54	565.97
March	5	T. Blackmon	570.04	566.19	572.67	566.57	567.40	566.25
April								
May								
June	22	T. Blackmon	569.05	566.19	569.99	566.57	566.80	566.13
July								
August	5	T. Blackmon	570.04	566.09	-	566.47	566.85	566.13
September								
October	7	T. Blackmon	569.62	566.06	568.69	566.43	566.75	566.05
November								
December								

FORM 1

ANNUAL OPERATION AND MAINTENANCE REPORT

102ND STREET LANDFILL SITE
NIAGARA FALLS, NEW YORK

YEAR: 2004

GROUNDWATER - Quality Monitoring

Quarter	*Date Sample Taken*	*Inspector*	*Comments*
1st	Mar 11, 12, 15 April 13, 14	T. Blackmon	Final Quarterly monitoring event. Semi-annual sampling hereafter.
2nd			
3rd			
4th	Dec. 13,14,15,16,2	T. Blackmon	

Results of analyses are attached.

NAPL PRESENCE - Monitoring

	Date	*Inspector*	*NR-01*		*NR-02*		*NR-03*	
			Depth of NAPL (ft)	*Gallons Removed*	*Depth of NAPL (ft)*	*Gallons Removed*	*Depth of NAPL (ft)*	*Gallons Removed*
1st Quarter	02/27/2004	T. Blackmon	0.28	0	3.28	0	0.35	0
2nd Quarter	06/22/2004	T. Blackmon	2.63	0	3.58	0	0.43	0
3rd Quarter	08/05/2004	T. Blackmon	2.78	0	3.73	4,045	0.48	0
4th Quarter	10/07/2004	T. Blackmon	3.48	0	0.53	8,105	0.38	0
						12,151		

	Date	*Inspector*	*NR-04*		*NR-05*		*NR-07*	
			Depth of NAPL (ft)	*Gallons Removed*	*Depth of NAPL (ft)*	*Gallons Removed*	*Depth of NAPL (ft)*	*Gallons Removed*
1st Quarter	02/27/2004	T. Blackmon	0	0	3.35	0	0	0
2nd Quarter	06/22/2004	T. Blackmon	0	0	0	0	0	0
3rd Quarter	08/05/2004	T. Blackmon	0	0	2.15	0	0	0
4th Quarter	10/07/2004	T. Blackmon	0	0	3.35	0	0	0

	Date	*Inspector*	*NR-08*		*NR-10*	
			Depth of NAPL (ft)	*Gallons Removed*	*Depth of NAPL (ft)*	*Gallons Removed*
1st Quarter	02/27/2004	T. Blackmon	2.63	0	0	0
2nd Quarter	06/22/2004	T. Blackmon	2.13	0	0	0
3rd Quarter	08/05/2004	T. Blackmon	2.18	0	0	0
4th Quarter	10/07/2004	T. Blackmon	2.83	0	0	0

FORM 1

ANNUAL OPERATION AND MAINTENANCE REPORT

102ND STREET LANDFILL SITE
NIAGARA FALLS, NEW YORK

YEAR: 2004

OPERATION

APL COLLECTION AND DISCHARGE SYSTEM

APL Flow for Previous Year (gallons)	*APL Flow for Current Year (gallons)*
575903	474251

NAPL REMOVAL SYSTEM

	NAPL Removed for Previous Year (2003) (gallons)	*NAPL Removed for Current Year (2004) (gallons)*
NR-01	60	0
NR-02	1355	12151
NR-03	0	0
NR-04	0	0
NR-05	20	0
NR-07	0	0
NR-08	5	0
NR-10	0	0
Total	1440	12151

Where was NAPL treated/disposed?

Facility _____ Date _____
Facility _____ Date _____
Facility _____ Date _____
Facility _____ Date _____

FORM 1

ANNUAL OPERATION AND MAINTENANCE REPORT

102ND STREET LANDFILL SITE
NIAGARA FALLS, NEW YORK

YEAR: 2004

INSPECTION AND MAINTENANCE

Scheduled inspections performed:

	Date	*Inspectors*
April	29	B. Downie (MSRMI), D. McLeod (GSHI), J. Konsella (DEC), B. Sadowski (DEC), J. Thornton (CRA),
October	15	B. Downie (MSRMI), J. Konsella (DEC), B. Sadowski (DEC), J. Thornton (CRA),

Was maintenance required?

	Yes	*No*
April	☐	☒
October	☐	☒

What maintenance was required?

Maintenance Required	Date Performed

Attach additional sheets as necessary.

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

Form Completed By:

NAME _____ SIGNATURE _____ DATE _____

FORM 1

ANNUAL OPERATION AND MAINTENANCE REPORT

102ND STREET LANDFILL SITE
NIAGARA FALLS, NEW YORK

YEAR: 2004

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

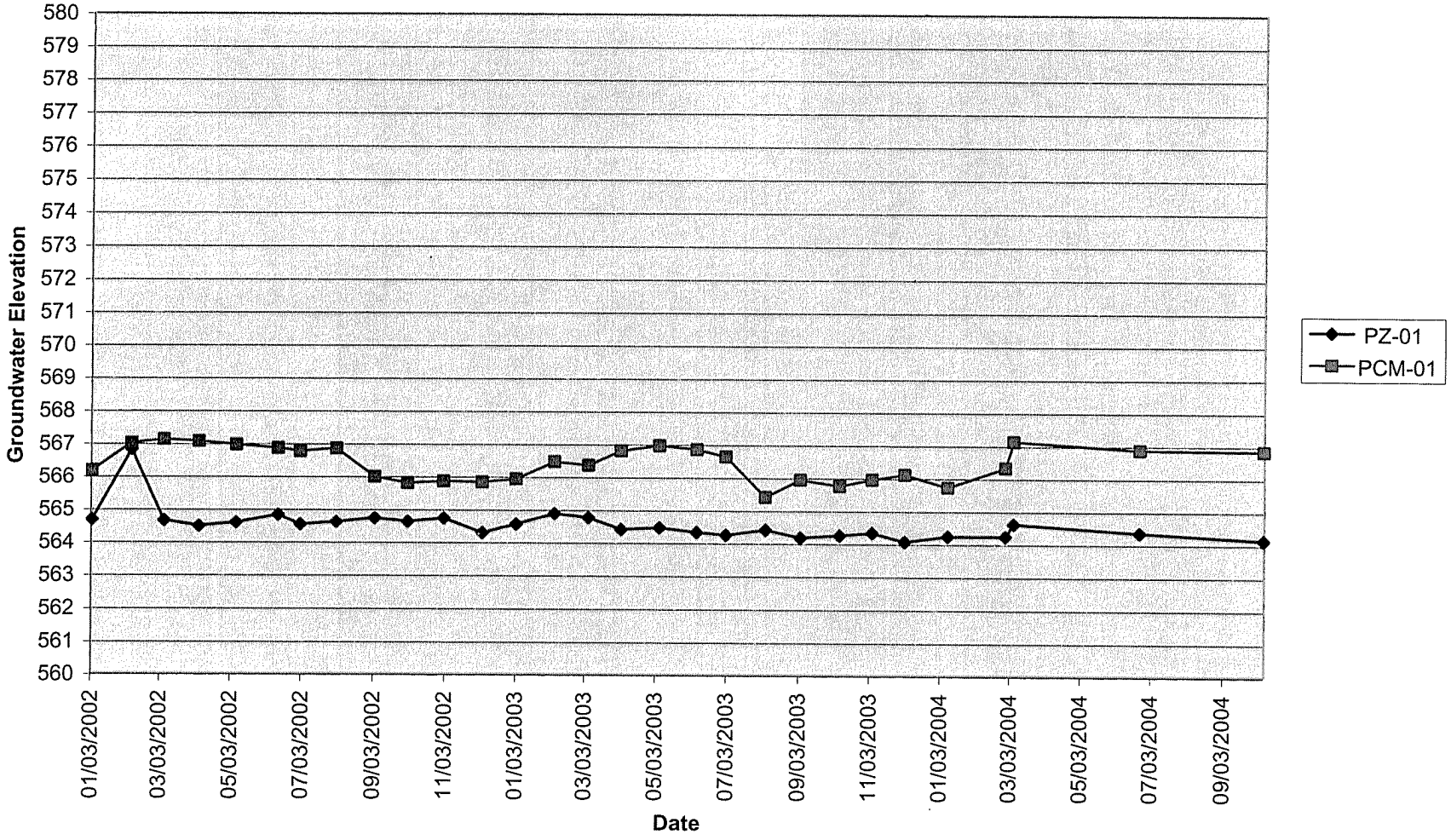
Director, Division of Environmental Remediation
New York State Dept. of Environmental Conservation
625 Broadway
8th Floor
Albany, NY 12233-7252

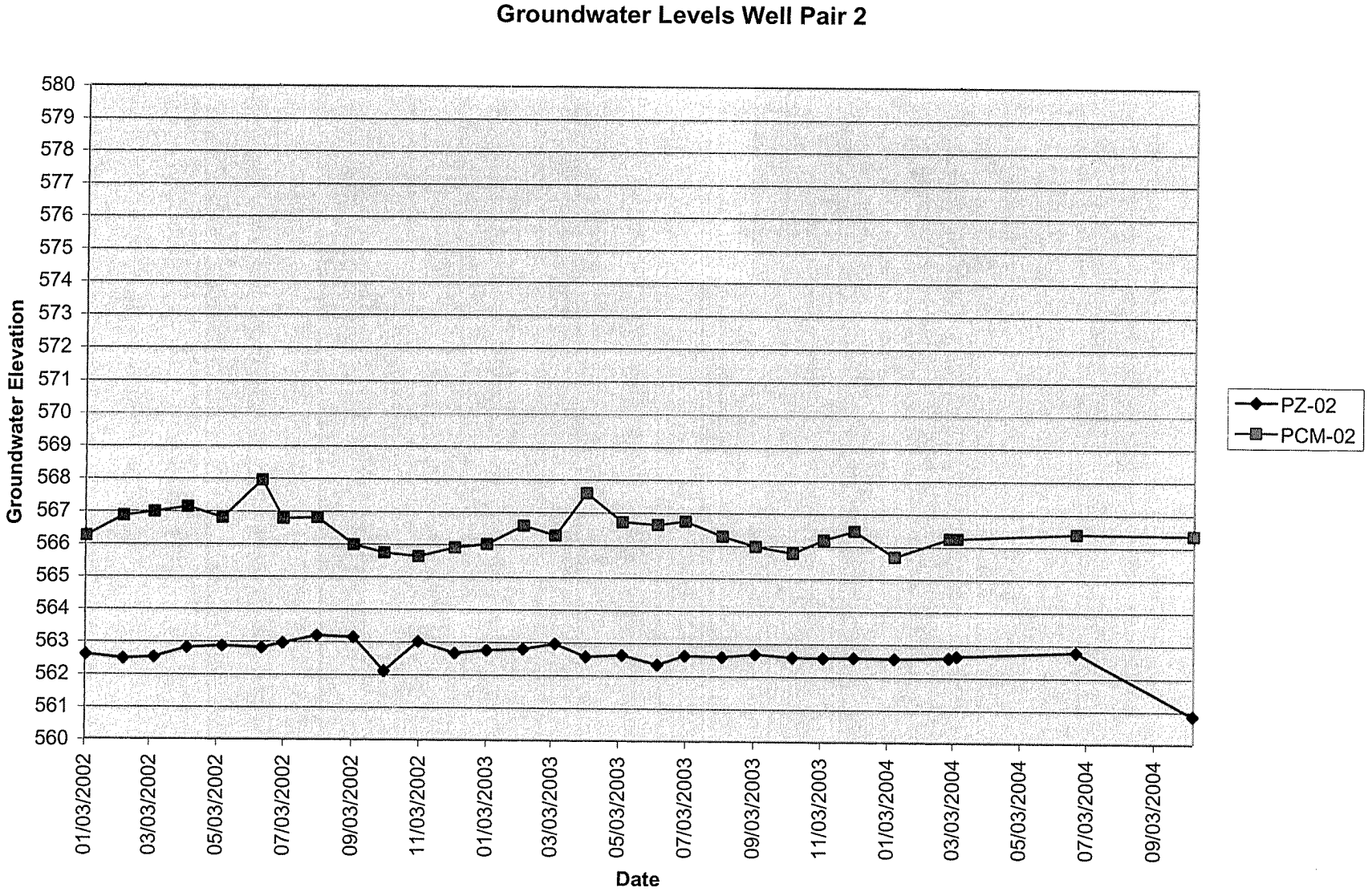
and

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 Elevation
580
579
578
577
576
575
574
573
572
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570
569
568
567
566
565
564
563
562
561
560
01/03/2002
03/03/2002
05/03/2002
07/03/2002
09/03/2002
11/03/2002
01/03/2003
03/03/2003
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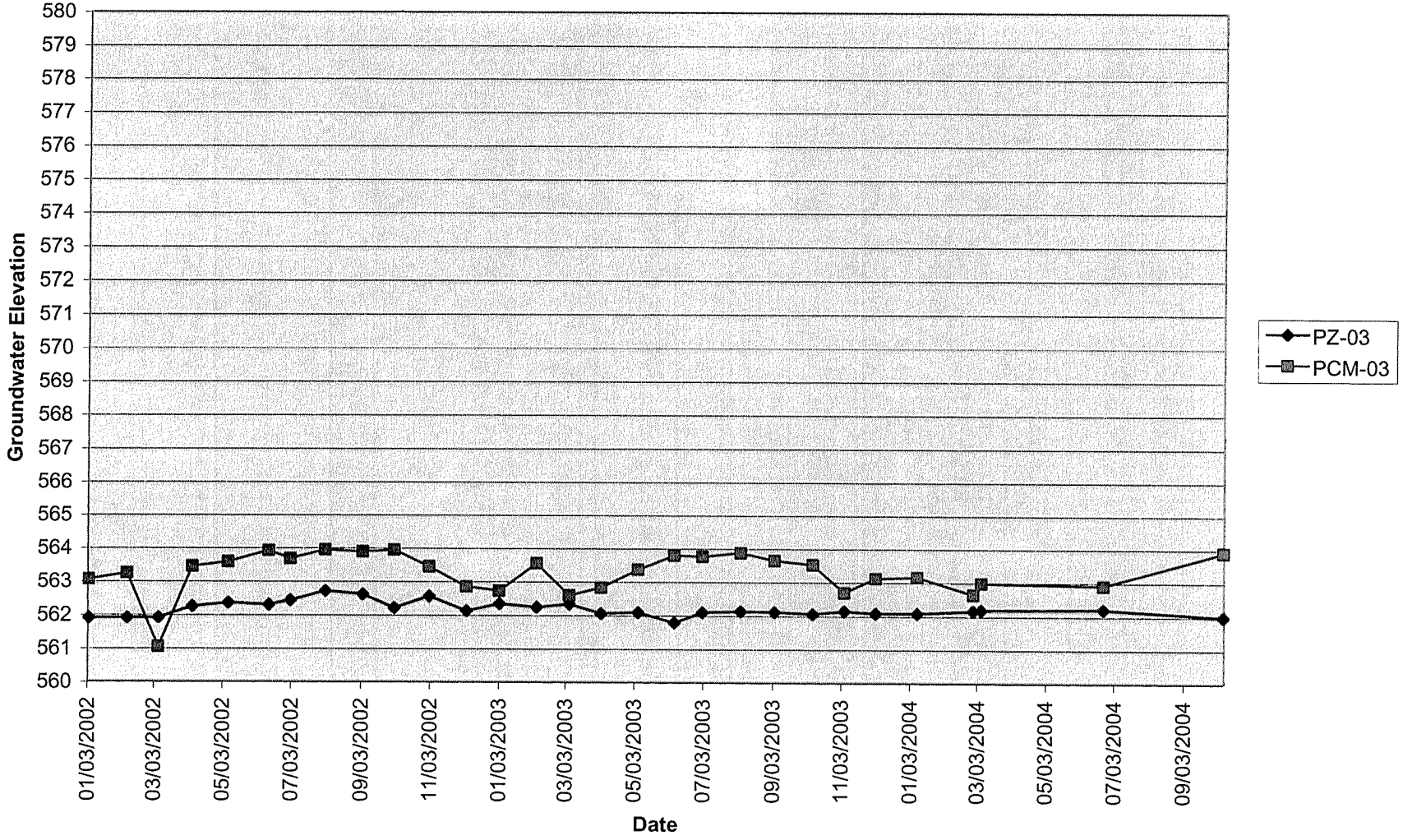
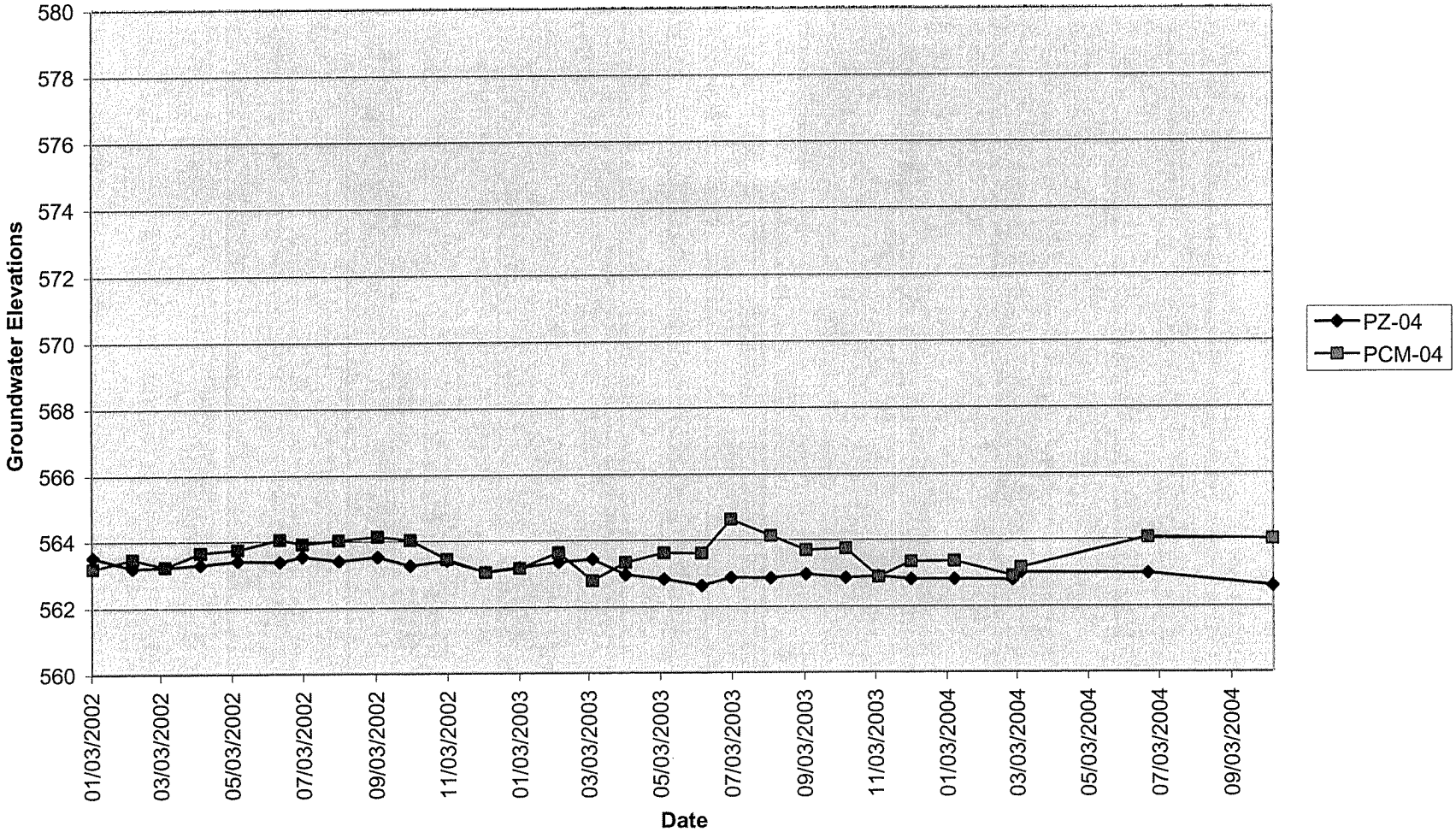
07/03/2003
09/03/2003
11/03/2003
01/03/2004
03/03/2004
05/03/2004
07/03/2004
09/03/2004
Date
PZ-02
PCM-02

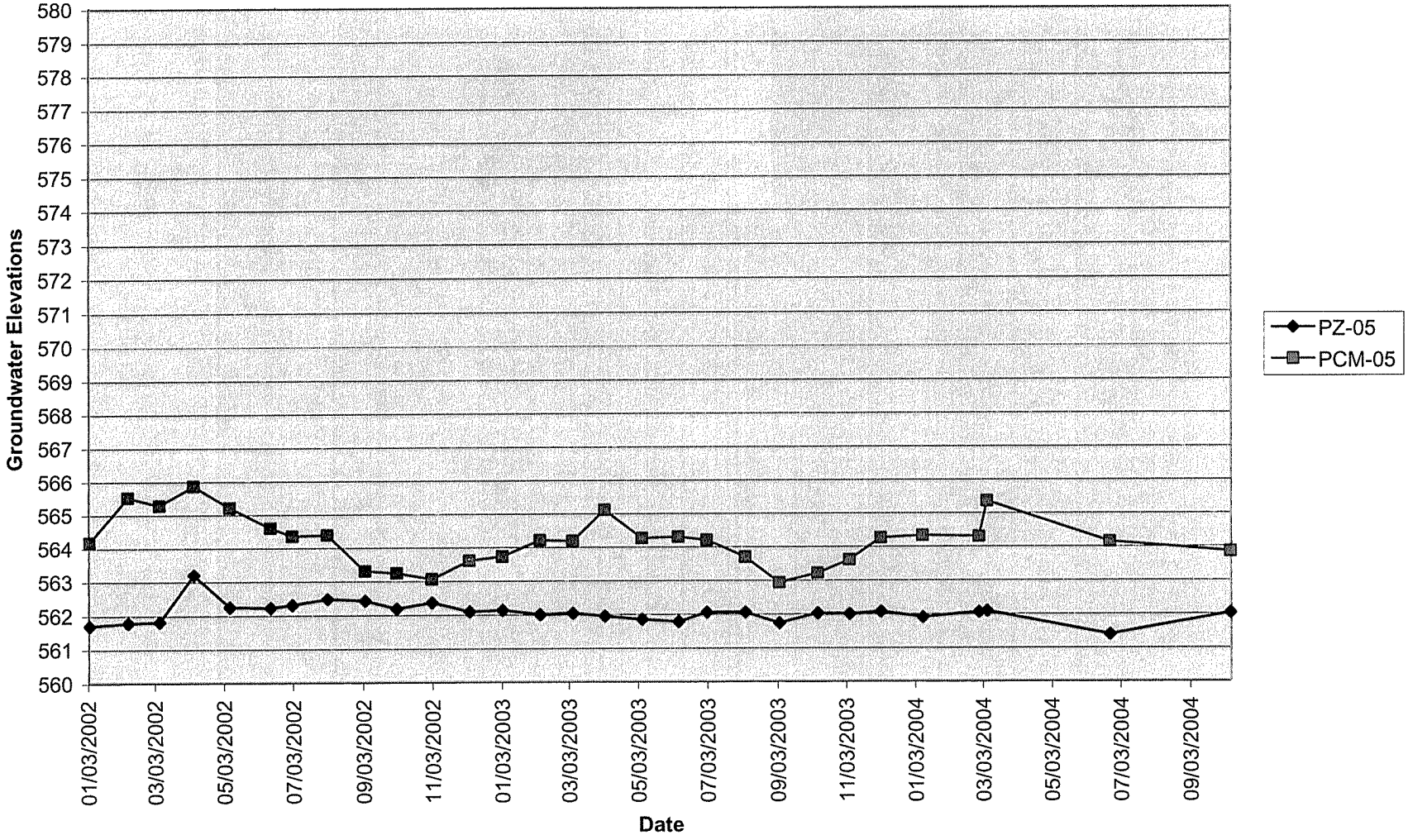
Groundwater Levels Well Pair 3



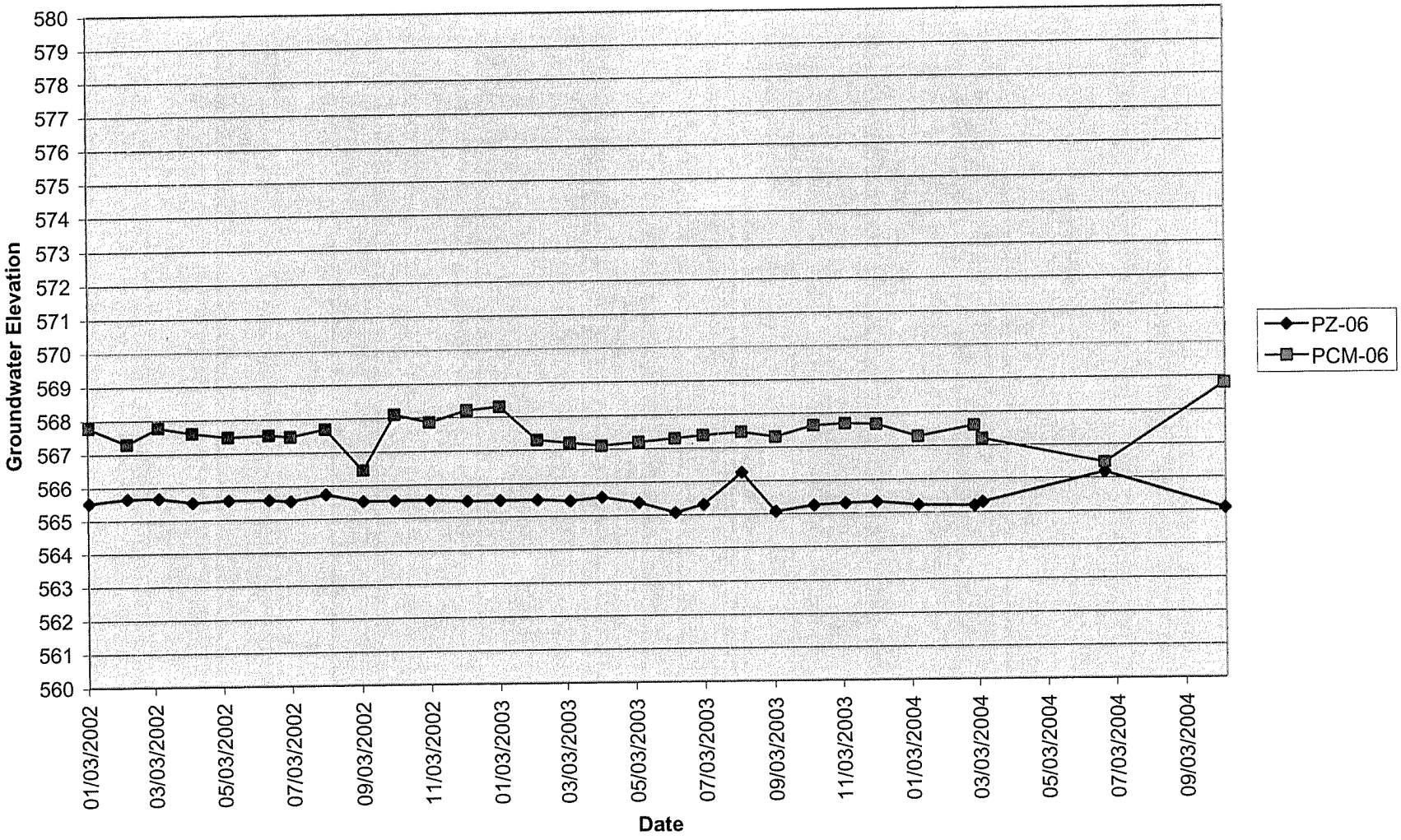
Groundwater Levels Well Pair 4



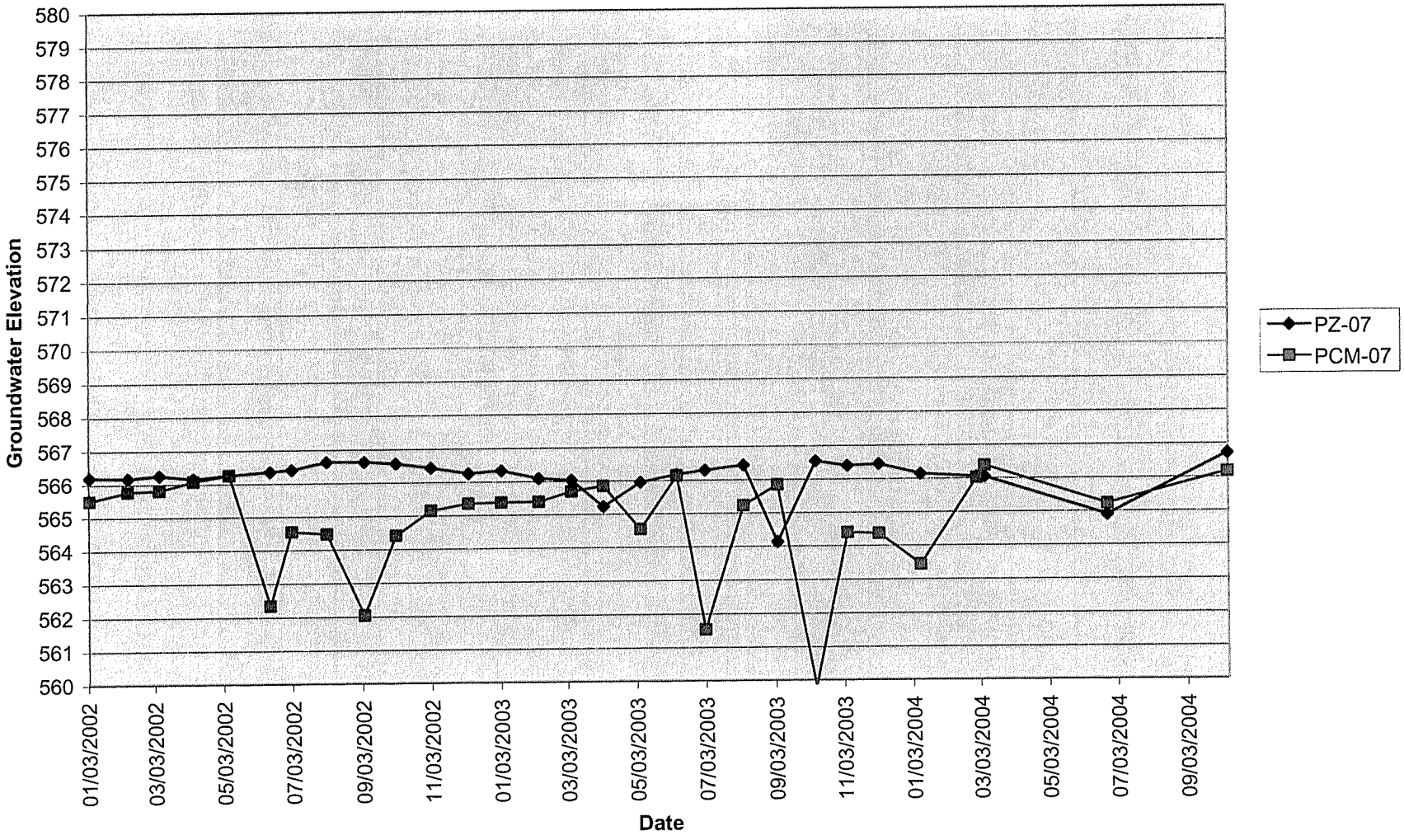
Groundwater Levels Well Pair 5



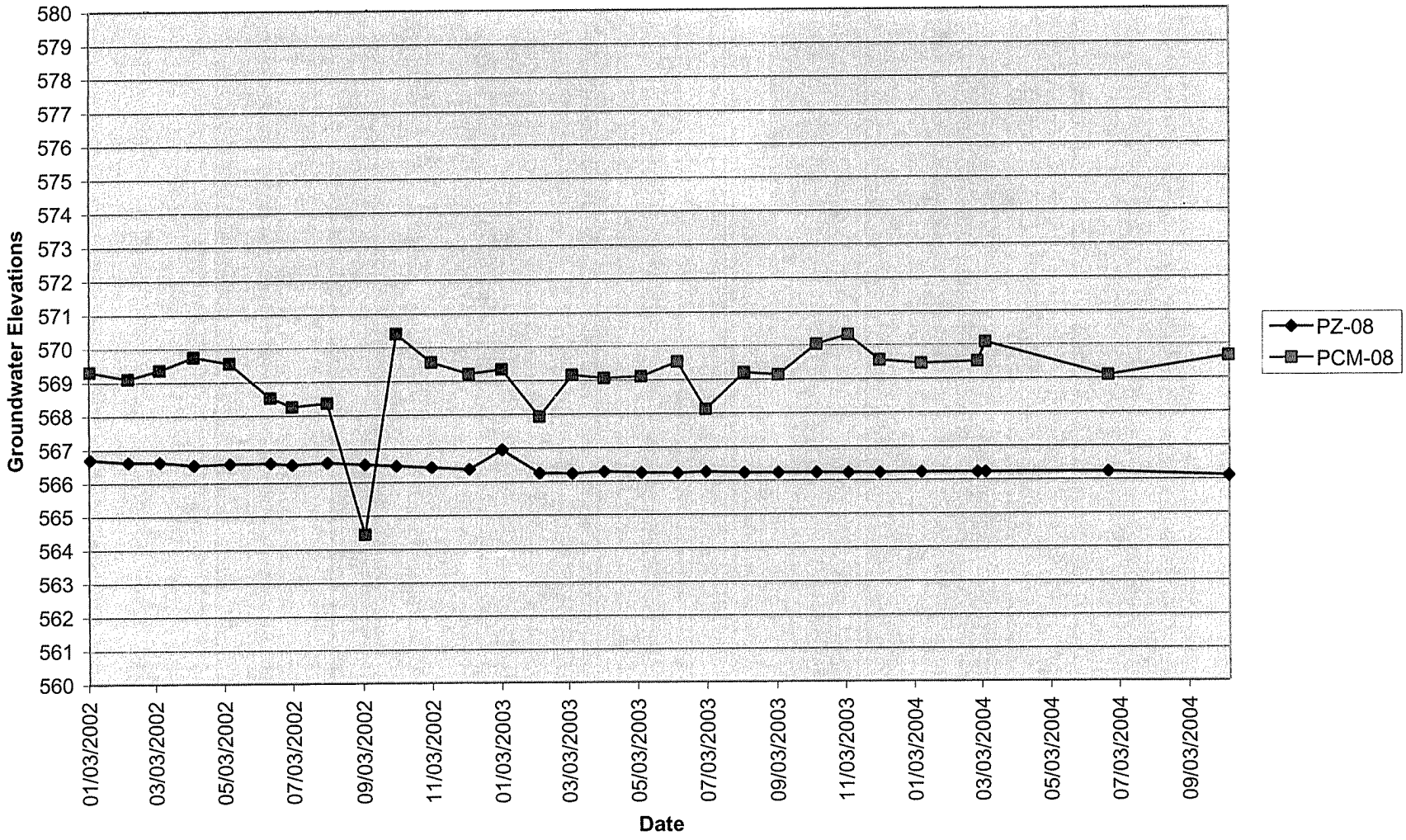
Groundwater Levels Well Pair 6



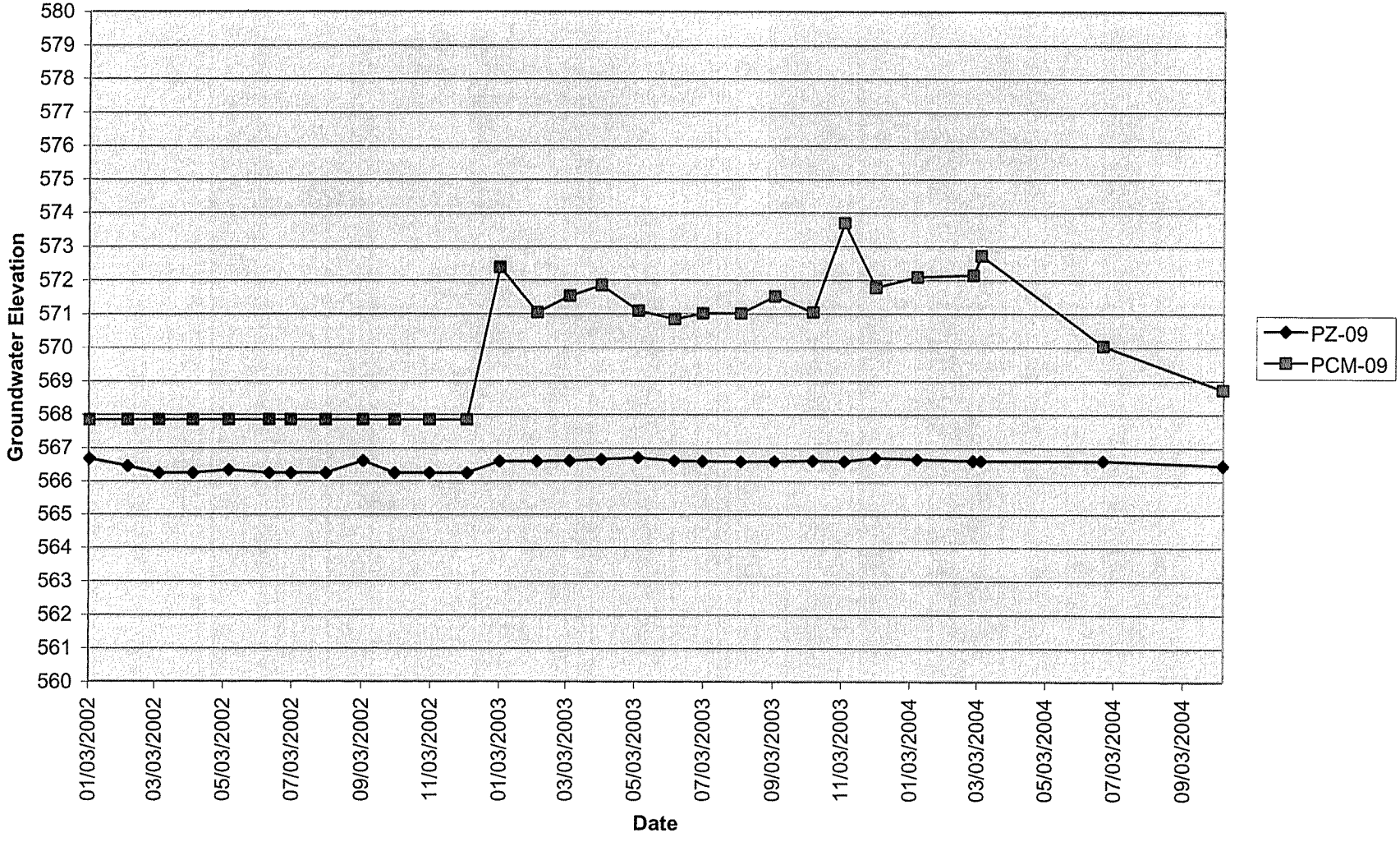
Groundwater Levels Well Pair 7



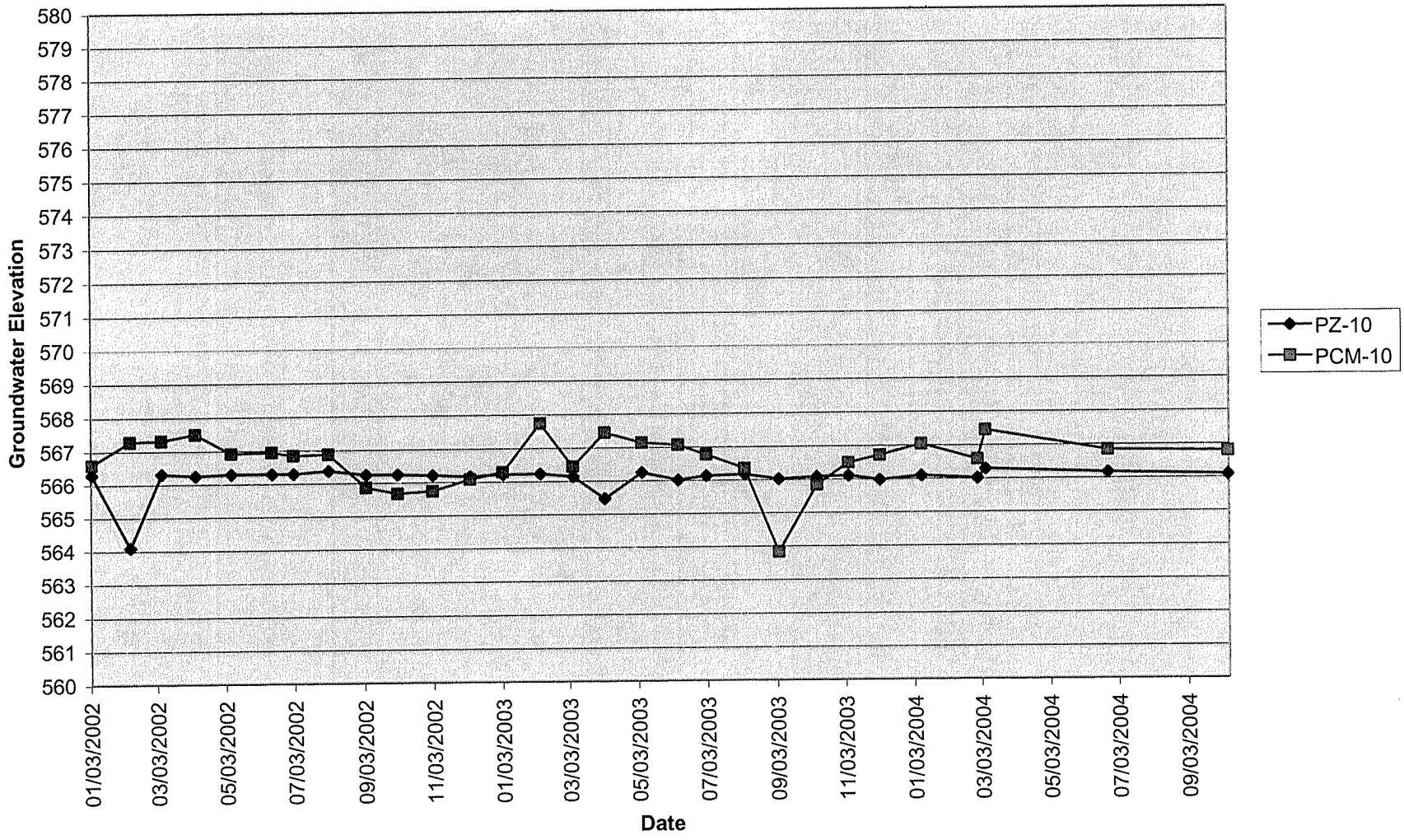
Groundwater Levels Well Pair 8



Groundwater Levels Well Pair 9



Groundwater Levels - Well Pair 10



APPENDIX B

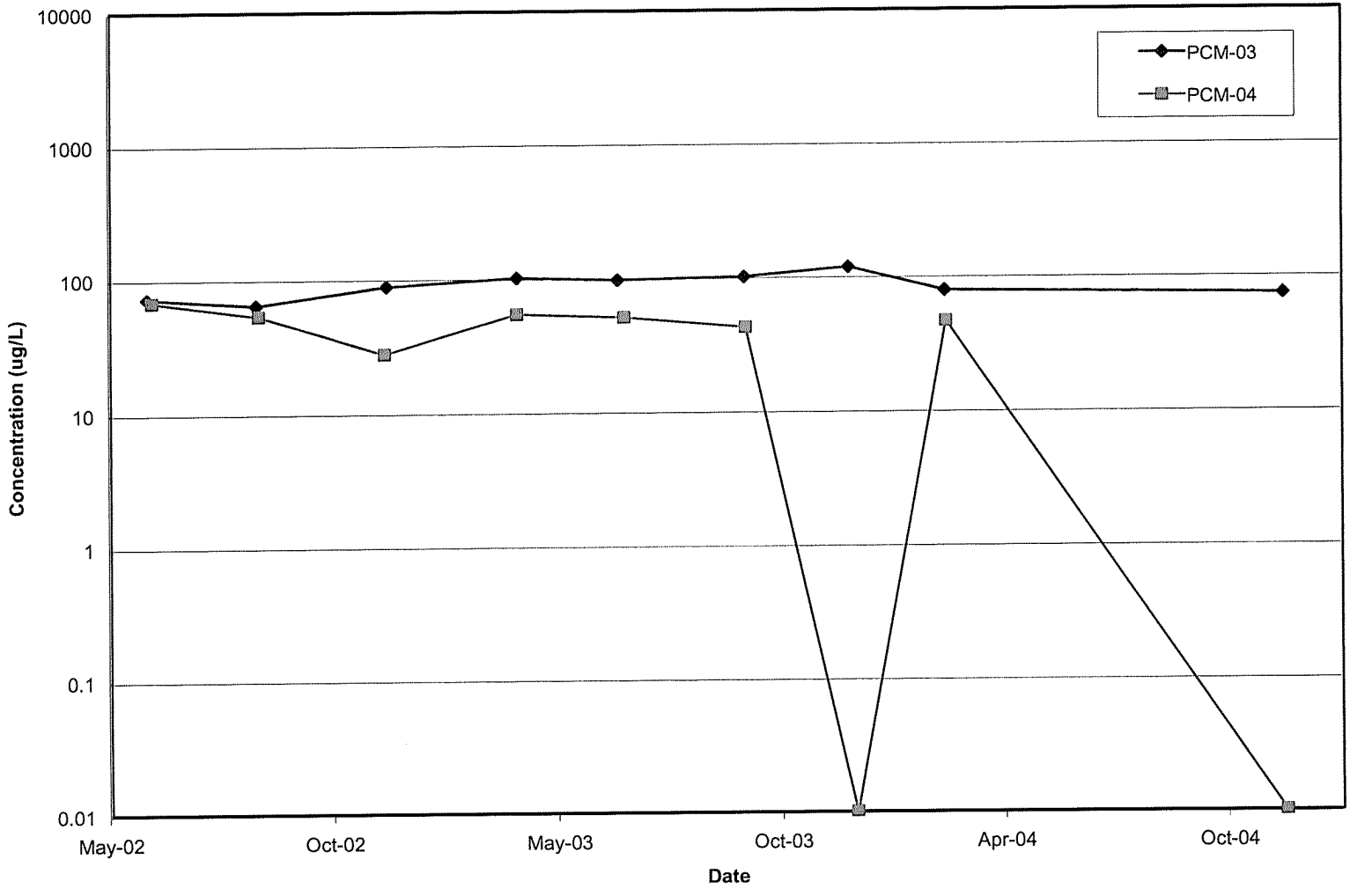


figure 1
CONCENTRATION OF 1,2-DICHLOROBENZENE vs. TIME
102ND STREET LANDFILL

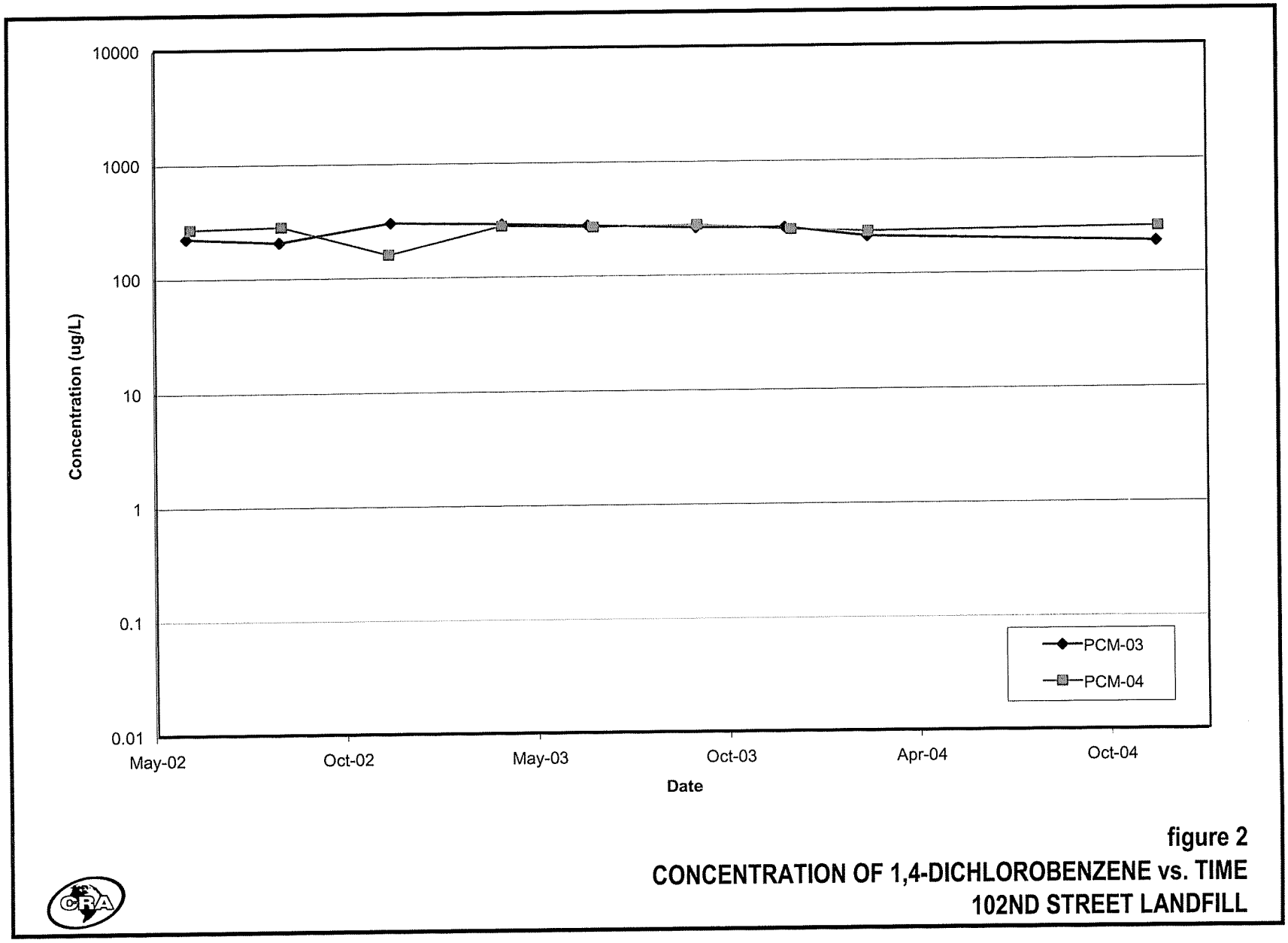


figure 2

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

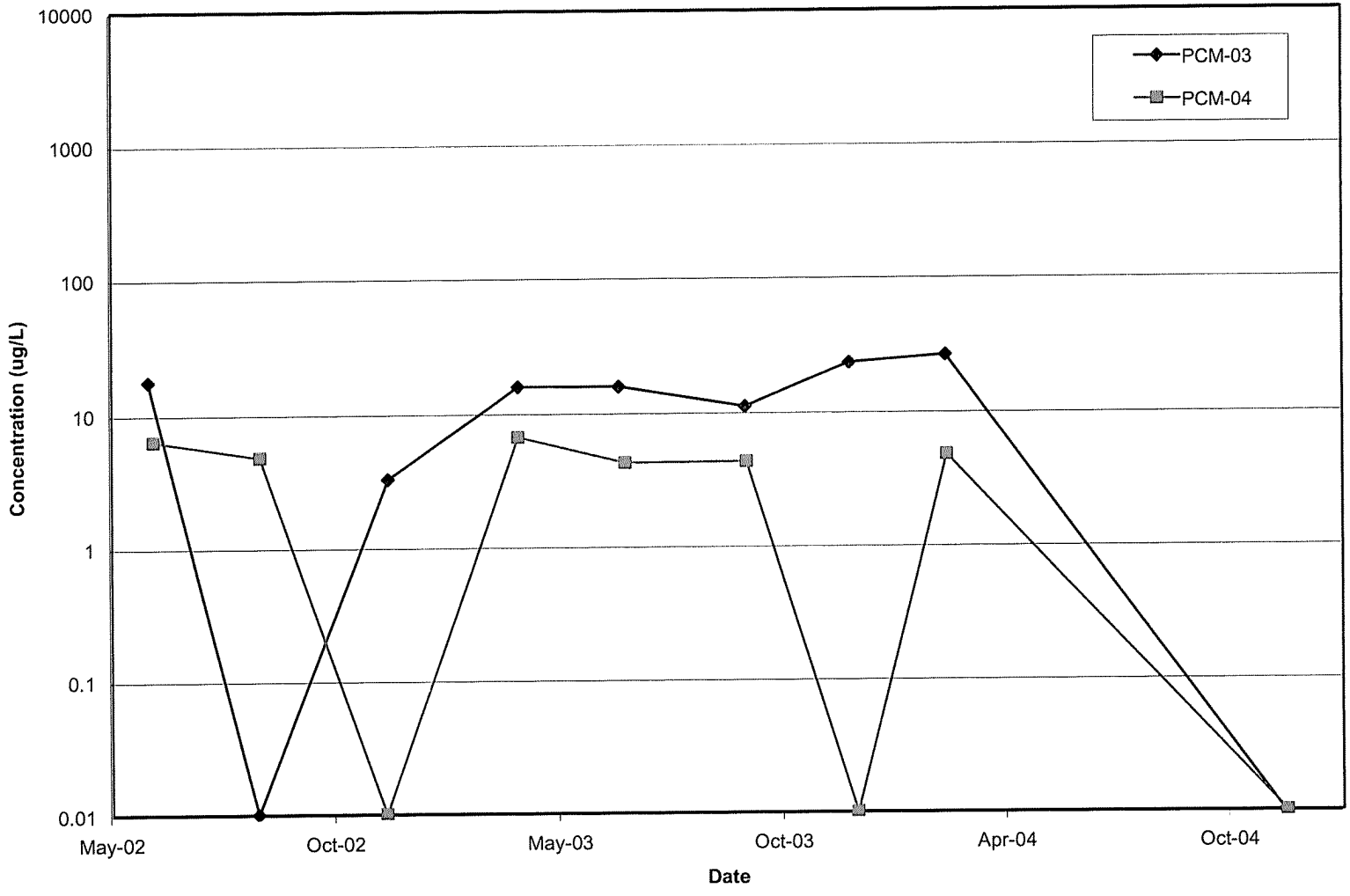


figure 3
CONCENTRATION OF 2,4-DICHLOROPHENOL vs. TIME
102ND STREET LANDFILL

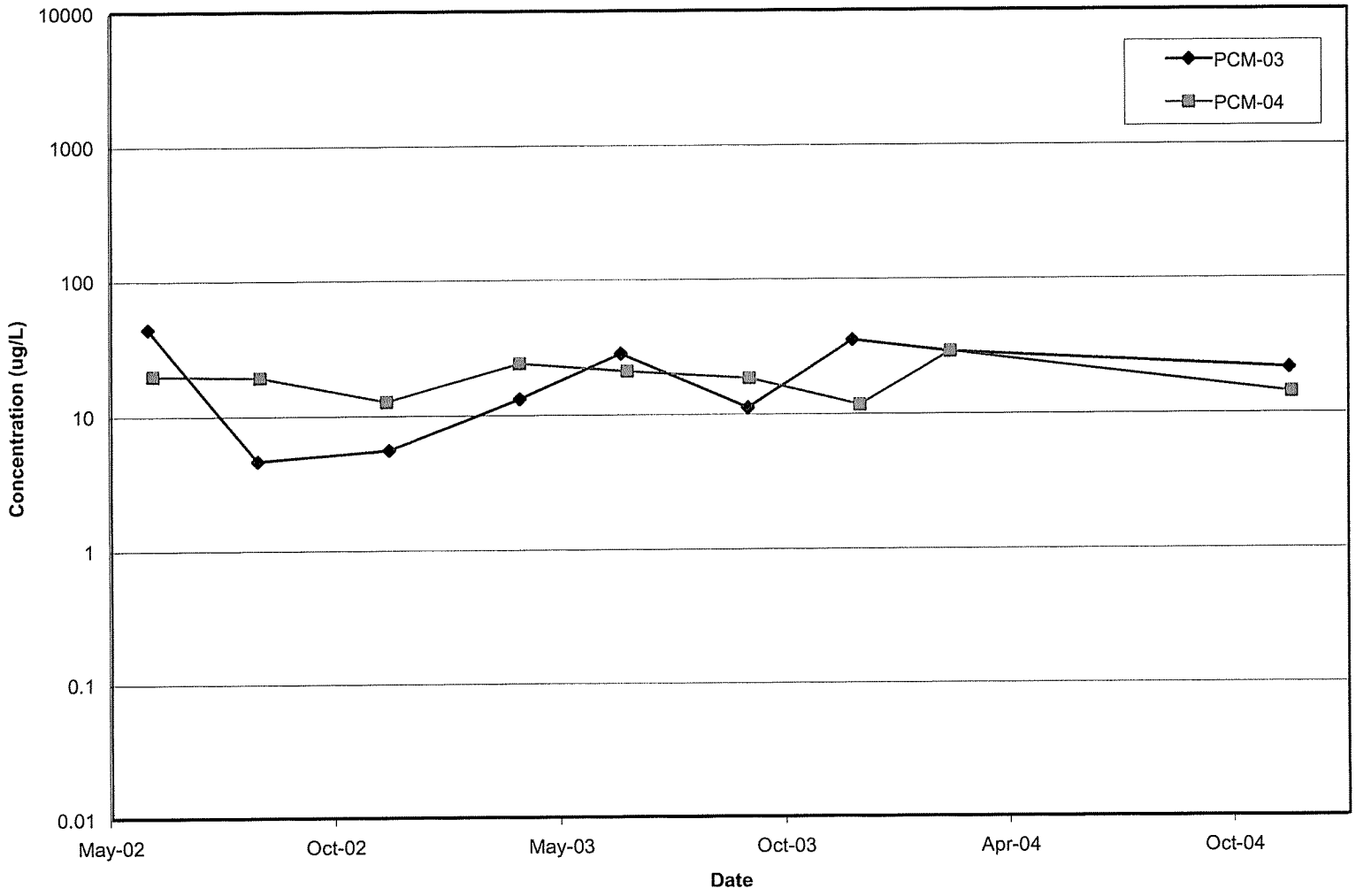


figure 4
CONCENTRATION OF 2-CHLOROPHENOL vs. TIME
102ND STREET LANDFILL

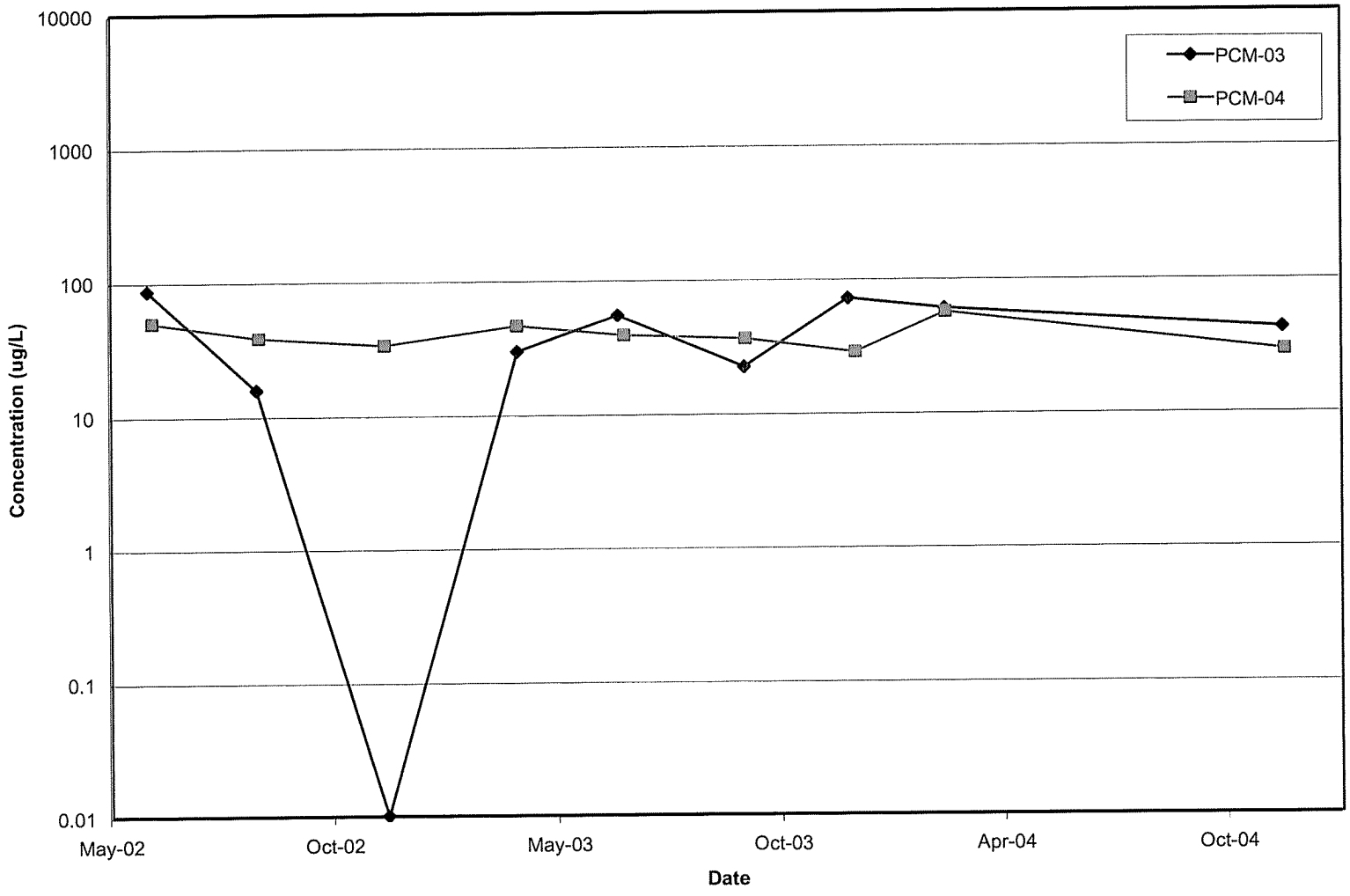


figure 5
CONCENTRATION OF 4-CHLOROPHENOL vs. TIME
102ND STREET LANDFILL

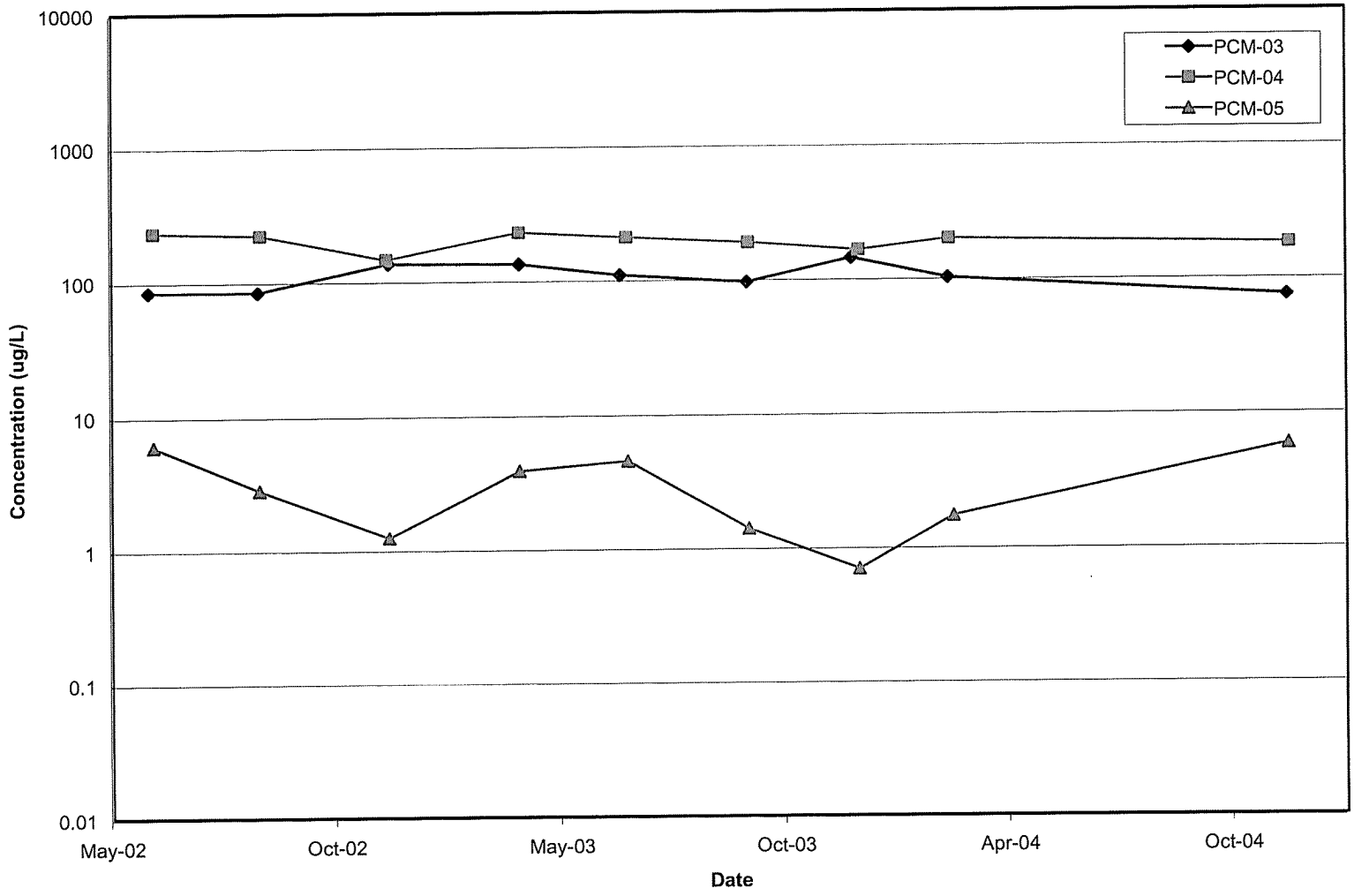


figure 6
CONCENTRATION OF BENZENE vs. TIME
102ND STREET LANDFILL

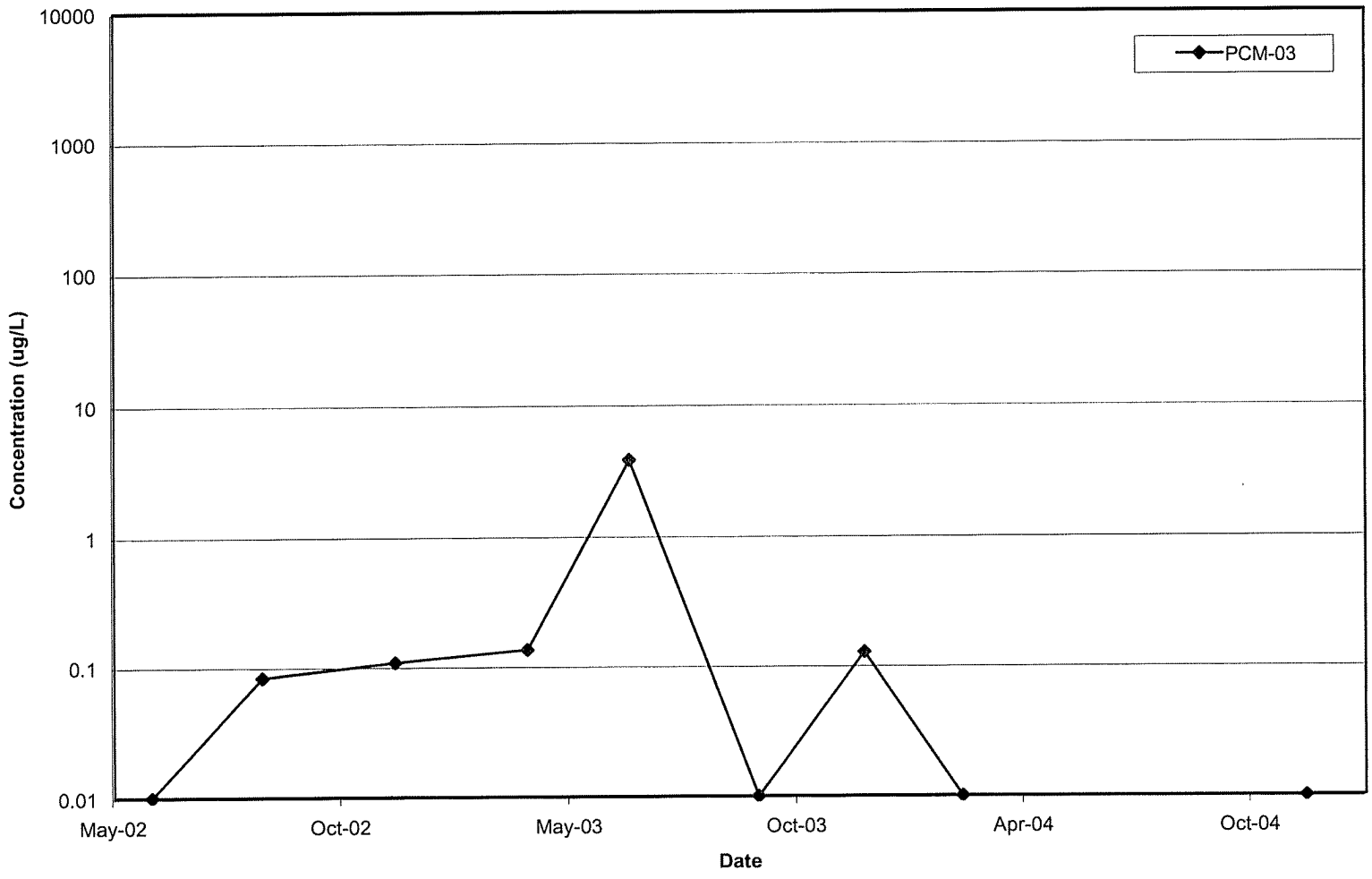


figure 7
CONCENTRATION OF BETA-BHC vs. TIME
102ND STREET LANDFILL

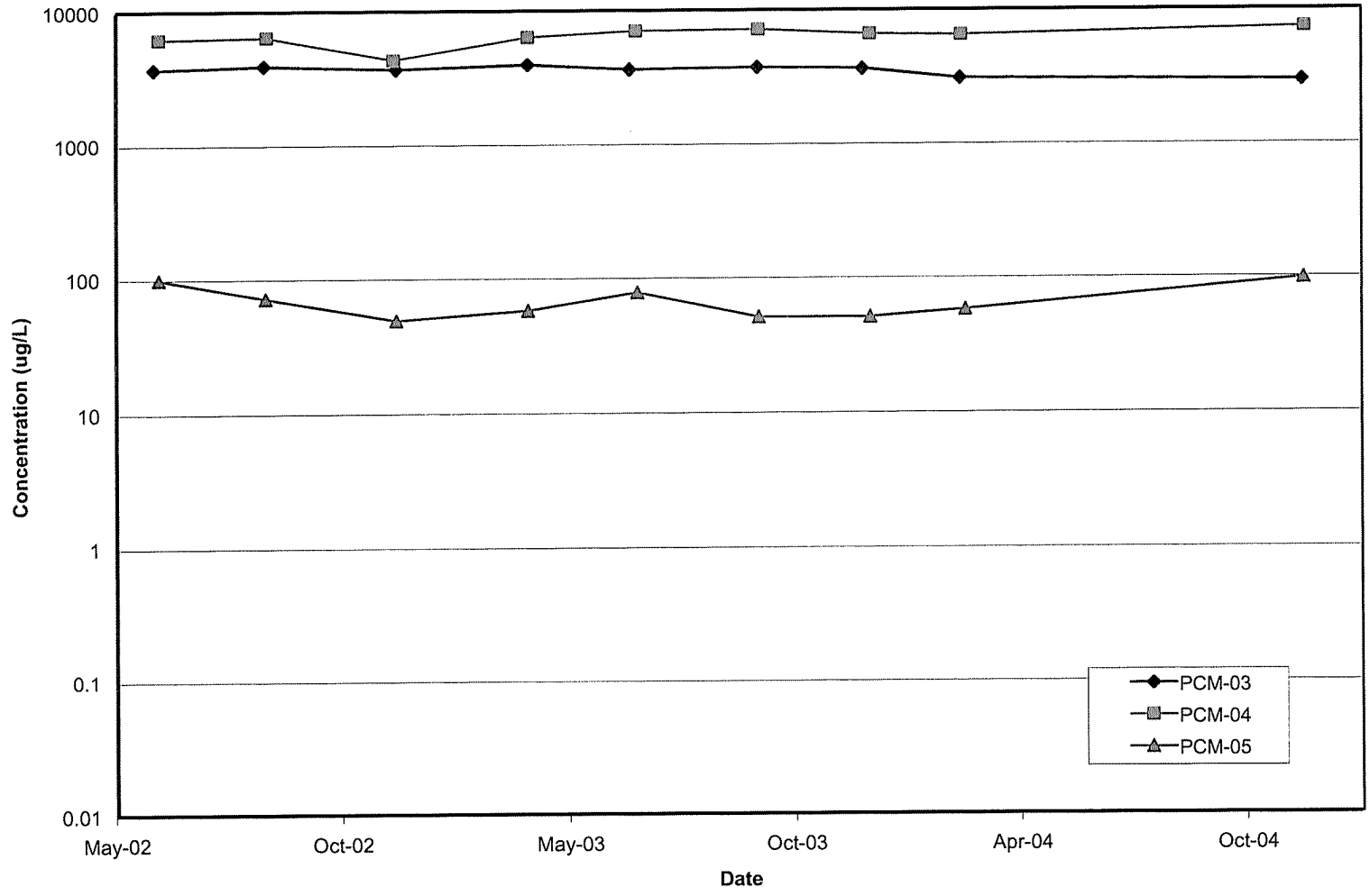


figure 8
CONCENTRATION OF CHLOROBENZENE vs. TIME
102ND STREET LANDFILL

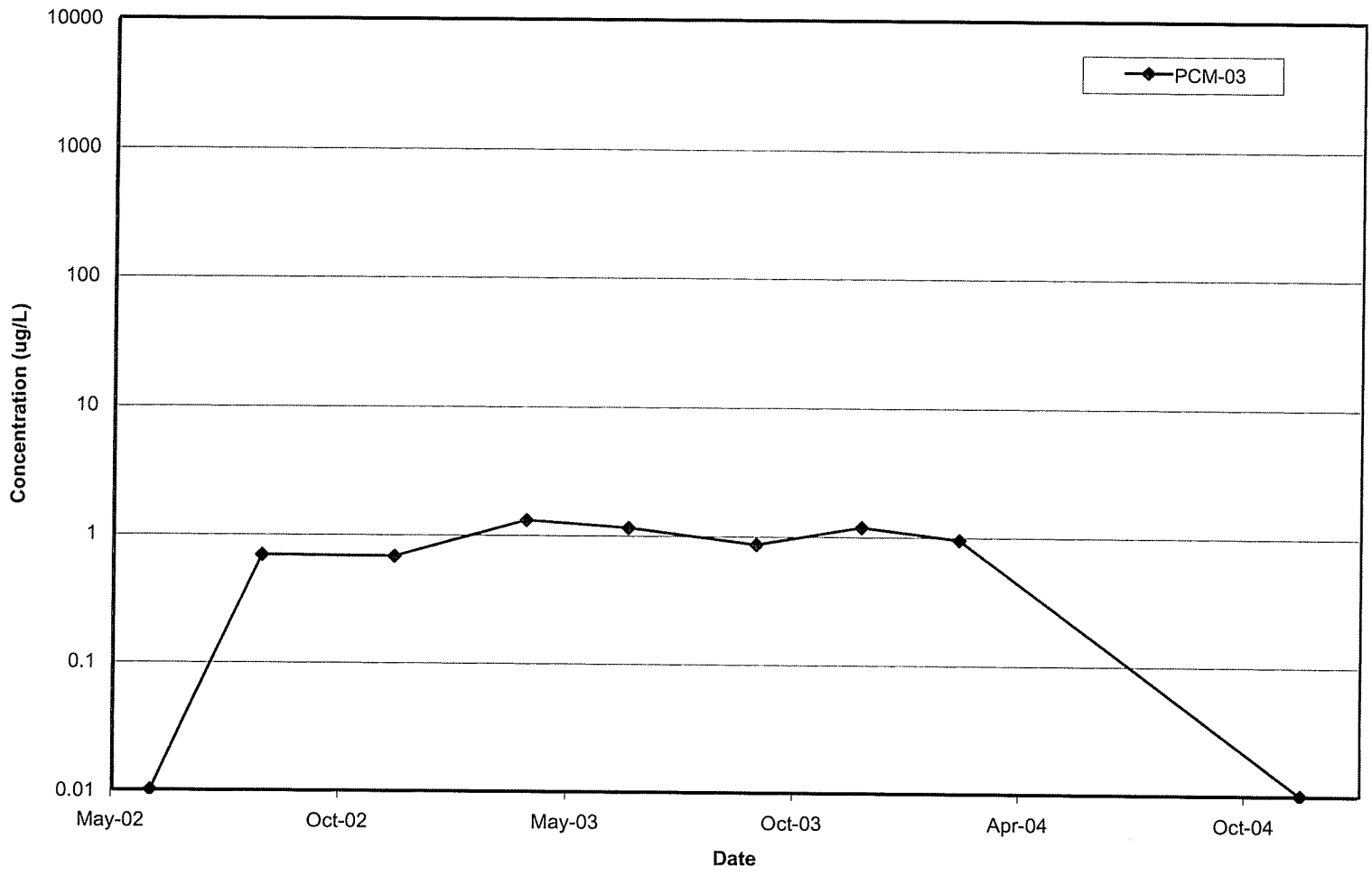


figure 9
CONCENTRATION OF DELTA-BHC vs. TIME
102ND STREET LANDFILL

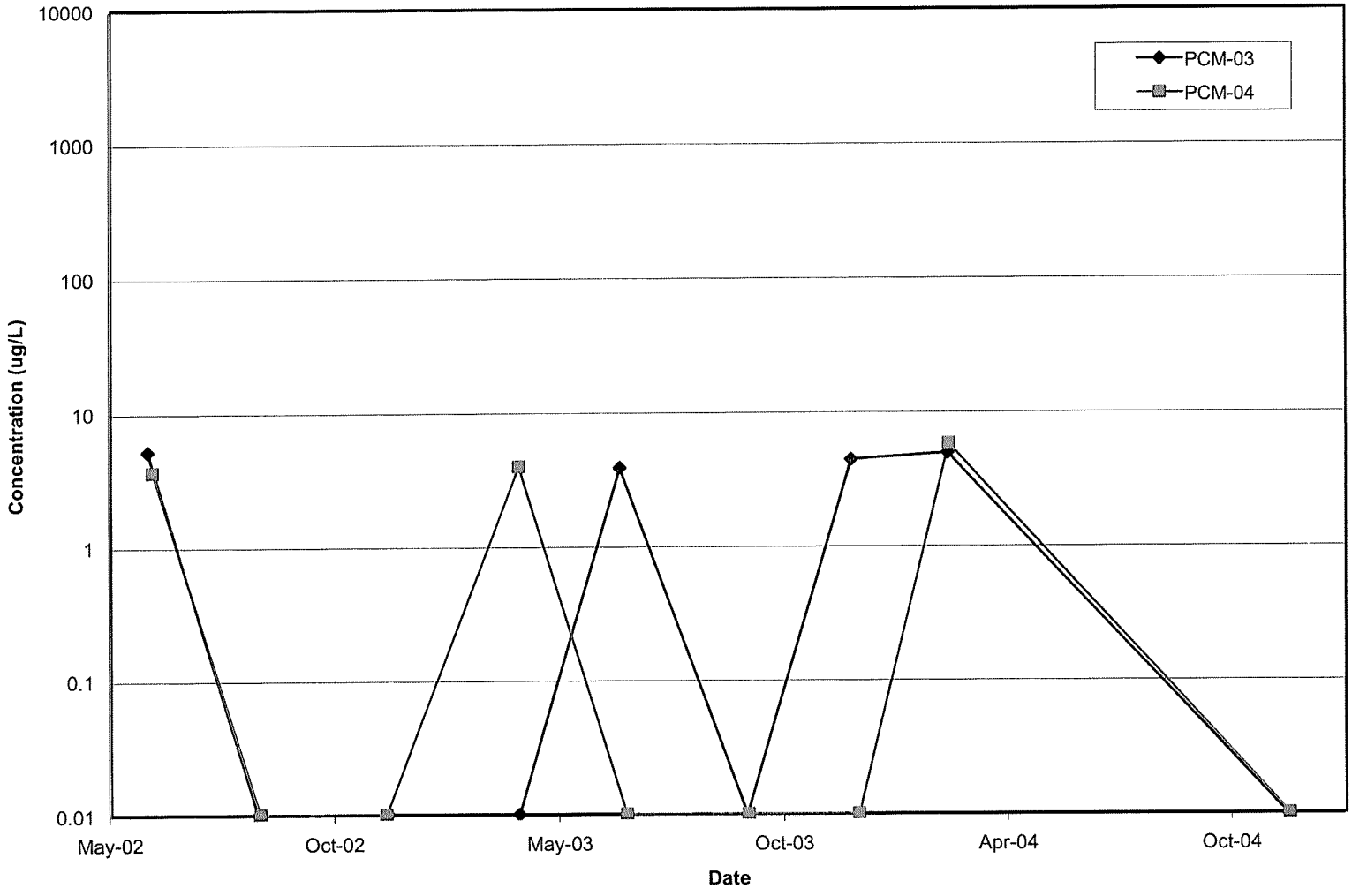


figure 10
CONCENTRATION OF PHENOL vs. TIME
102ND STREET LANDFILL

1.0 INTRODUCTION

Groundwater samples were collected in support of the Operation and Maintenance Program at the 102nd Street Landfill (Site) in Niagara Falls, New York. The samples were collected during December 2004 and delivered to Ecology and Environment. Inc. (E&E) in Lancaster, New York, for analysis. Samples were analyzed for Site-Specific Parameter List (SSPL) volatile organic compounds (VOCs), SSPL semi-volatile organic compounds (SVOCs), SSPL pesticides, and total arsenic. A sampling and analysis summary is presented in Table 1. The analytical results are summarized in Table 2 and the analytical methods used are summarized in Table 3. Copies of the Chain of Custody documents are included in Attachment A.

The final sample results and supporting quality assurance/quality control (QA/QC) results were reported by the laboratory in accordance with the requested deliverables. The QA/QC criteria by which these data were assessed are outlined in the analytical methods used and the following guidance documents:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review", October 1999; and

ii) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review", February 1994.

All data were reviewed for the QA/QC information detailed in Section 2.0 by Paul McMahon of CRA, Inc.

A graphical presentation of the concentration of chemical constituents versus time for wells PCM-03, PCM-04, and PCM-05 is located in Attachment B.

2.0 QA/QC REVIEW

Holding Times

The sample holding time criteria are specified in Table 3. All holding time criteria were met. All samples were properly preserved and received at 4°C (±2°C).

Surrogate Spike Recoveries -VOCs/SVOCs/Pesticides

All samples and blanks analyzed for VOCs, SVOCs, and pesticides were spiked with surrogate compounds prior to sample extraction and/or analysis. Most surrogate spike recoveries were acceptable per the "Guidelines", indicating good analytical efficiency.

Low benzene hexachloride (BHC) surrogate recoveries were reported for several samples. All associated sample results were qualified as estimated (see Table 4).

Laboratory Method Blank Analyses

Method blanks were extracted and/or analyzed with the investigative samples for all parameters. All methods blanks were non-detect for the analytes of interest.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

One sample was selected for MS/MSD analyses as specified in Table 1. Most recoveries and relative percent differences (RPDs) were acceptable, demonstrating good analytical accuracy and precision. A high 2,5-dichlorophenol MSD recovery was reported for the SVOC MS/MSD analysis. The associated sample result was non-detect and was not impacted by the indicated high bias.

Blank Spike (BS) Analyses

BS and/or laboratory control samples (LCSs) were analyzed for all parameters. All recoveries were acceptable, indicating good analytical accuracy. Some analyses were performed in duplicate, with most RPDs demonstrating acceptable analytical precision.

A high RPD was reported for the 2,4-dichlorophenol BS/BSD analysis. All associated sample results were non-detect and no qualification of the data was necessary.

Trip Blanks

Five trip blanks were collected for the program. The trip blanks were analyzed for VOCs. All trip blank results were non-detect except for the trip blank collected on December 21, 2004. 2-Chlorotoluene was detected in the trip blank. The associated sample results were non-detect, and no qualification was necessary.

Rinse Blank Analysis

One rinse blank was collected for the program as detailed in Table 1. 2-Chlorotoluene and BHCs were detected in the blank. All associated sample results detected at levels similar to the rinse blank were qualified as non-detect (see Table 5).

3.0 CONCLUSION

Based on this QA/QC review, the data presented in Table 2 are acceptable with the noted qualifications.

CHAIN OF CUSTODY RECORD

Miller Springs Remediation Occidental Chemical	SHIP TO (LABORATORY NAME): Ecology & Environmental Analytical Services Center LANCASTER, NY 14086	REFERENCE NUMBER: 102nd SEMI-ANNUAL Sampling 716/685-8080	SAMPLE RESULTS REPORTING TO: Susan Scrocchi — Fax: (716) 297-2265 Phone: (716)297-2160 Mailing Address: CRA 2055 Niagara Falls Blvd. Suite Three NIAGARA FALLS, NY 14304
FACILITY LOCATION: 102ND STREET	SAMPLER(S) (PRINT NAME) DC/TB/FK	SIGNATURE [signature]	

DATE	TIME	SAMPLE NO.	COMPOSITE	GRAB	OTHER	CONTAINER TYPE	NO. of CONTAINERS	VOA	SVOC	BHC	ARSENIC						PRESERVED	REMARKS
12/13/04	11:50	PCM-03-1204		X		*	7	3	1	2	1						-	ALL SAMPLES STORED
"	13:35	PCBM-01-1204		X		*	7	3	1	2	1						HCL	AND SHIPPED IN COOLER(S)
"		-1204				*												WITH ICE/ICE PACKS AND
"																		KEPT AT 4o
																		BNA 1 Ltr. AG
																		VOA 40ML HCL
																		SVOC 1 Ltr. AG
																		ARSENIC 1 Ltr. P HNO3
"		TRP102-121304			X	40 mL G	1											
		TOTAL NUMBER OF CONTAINERS					15											

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
[signature]	12/14/04	7:30Am	[signature]	12.14.04	9Am
			[signature]	12-14-04	1005

BOTTLE TYPES : G = GLASS ; AG = AMBER GLASS ; P = HPDE (PLASTIC) ; SAG = SILANIZED AMBER GLASS

SAMPLE TEAM: DC/TB/FK CHAIN OF CUSTODY NO: 102nd1213041

METHOD OF SHIPMENT :

CHAIN OF CUSTODY RECORD

Miller Springs Remediation
Occidental Chemical

SHIP TO (LABORATORY NAME):
Ecology & Environmental
Analytical Services Center
LANCASTER, NY 14086

REFERENCE NUMBER:
102nd SEMI-ANNUAL
Sampling
716/685-8080

SAMPLE RESULTS REPORTING TO:
Susan Scrocchi Fax: (716) 297-2265 Phone: (716)297-2160
Mailing Address: CRA 2055 Niagara Falls Blvd. Suite Three
NIAGARA FALLS, NY 14304

FACILITY LOCATION:
102ND STREET

SAMPLER(S) (PRINT NAME)
DC/TB/FK

SIGNATURE

DATE	TIME	SAMPLE NO.	COMPOSITE	GRAB	OTHER	CONTAINER TYPE	CONTAINERS NO. of	VOA	SVOC	BHC	ARSENIC	PRESERVED	REMARKS
12/14/04	10:30	PCM-05-1204		X		*	7	3	1	2	1	-	ALL SAMPLES STORED
"	11:25	PCBM-02-1204 MS/MSD		X		*	21	9	3	6	3	HCL	AND SHIPPED IN COOLER(S)
"		-1204				*							WITH ICE/ICE PACKS AND
"													KEPT AT 4c
													BNA 1 Ltr. AG
													VOA 40ML HCL
													SVOC 1 Ltr. AG
													ARSENIC 1 Ltr. P HNO3
"		TRP102-121404			X	40 mL G	1						
		TOTAL NUMBER OF CONTAINERS					29						

RELINQUISHED BY:	DATE 12/15/04	TIME 7:30 AM	RECEIVED BY:	DATE 12-15-04	TIME 9:50
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE 12-15-04	TIME 09:35
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME

BOTTLE TYPES : G = GLASS ; AG = AMBER GLASS ; P = HPDE (PLASTIC) ; SAG = SILANIZED AMBER GLASS

METHOD OF SHIPMENT :

SAMPLE TEAM: DC/TB/FK

CHAIN OF CUSTODY NO: 102nd1214041

CHAIN OF CUSTODY RECORD

Miller Springs Remediation Occidental Chemical	SHIP TO (LABORATORY NAME): **Ecology & Environmental** **Analytical Services Center** LANCASTER, NY 14086	REFERENCE NUMBER: **102nd SEMI-ANNUAL** **Sampling** 716/685-8080	SAMPLE RESULTS REPORTING TO: **Susan Scrocchi** Fax: (716) 297-2265 Phone: (716)297-2160 **Mailing Address:** CRA 2055 Niagara Falls Blvd. Suite Three NIAGARA FALLS, NY 14304
FACILITY LOCATION: **102ND STREET**	SAMPLER(S) (PRINT NAME) **DC/TB/FK**	SIGNATURE	

DATE	TIME	SAMPLE NO.	COMPOSITE	GRAB	OTHER	CONTAINER TYPE	CONTAINERS NO. of	VOA	SVOC	BHC	ARSENIC	PRESERVED	REMARKS
12/16/04	11:20	PCM-01-1204		X		*	7	3	1	2	1	-	ALL SAMPLES STORED
12/16/04	9:30	PCM-02-1204		X		*	7	3	1	2	1	HCL	AND SHIPPED IN COOLER(S)
12/16/04	10:20	PCM-12-1204		X		*	7	3	1	2	1		WITH ICE/ICE PACKS AND
													KEPT AT 4c
													BNA 1 Ltr. AG
													VOA 40ML HCL
													SVOC 1 Ltr. AG
													ARSENIC 1 Ltr. P HNO3
"		TRP102-121604			X	40 mL G	1						
		TOTAL NUMBER OF CONTAINERS					22						

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY:	DATE 12/17/04	TIME 8:00 AM	RECEIVED BY:	DATE 12.17.04	TIME 8:45
RELINQUISHED BY:	DATE 12.17.04	TIME 9:15	RECEIVED BY:	DATE 12-17-04	TIME 0945
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME

BOTTLE TYPES : G = GLASS ; AG = AMBER GLASS ; P = HPDE (PLASTIC) ; SAG = SILANIZED AMBER GLASS

METHOD OF SHIPMENT : | SAMPLE TEAM: DC/TB/FK | CHAIN OF CUSTODY NO: 102nd1216041

CHAIN OF CUSTODY RECORD

Miller Springs Remediation Occidental Chemical	SHIP TO (LABORATORY NAME): Ecology & Environmental Analytical Services Center LANCASTER, NY 14086	REFERENCE NUMBER: 102nd SEMI-ANNUAL Sampling 716/685-8080	SAMPLE RESULTS REPORTING TO: Susan Scrocchi Fax: (716) 297-2265 Phone: (716)297-2160 Mailing Address: CRA 2055 Niagara Falls Blvd. Suite Three NIAGARA FALLS, NY 14304
FACILITY LOCATION: 102ND STREET	SAMPLER(S) (PRINT NAME) DC/TB/FK	SIGNATURE [signature]	

DATE	TIME	SAMPLE NO.	COMPOSITE	GRAB	OTHER	CONTAINER TYPE	NO. of CONTAINERS	VOA	SVOC	BHC	ARSENIC	PRESERVED	REMARKS
12/15/04	11:15	PCM-04-1204		X		*	7	3	1	2	1	-	ALL SAMPLES STORED
12/15/04	13:15	PCBM-03-1204		X		*	7	3	1	2	1	HCL	AND SHIPPED IN COOLER(S)
		-1204				*							WITH ICE/ICE PACKS AND
													KEPT AT 4c
													BNA 1 Ltr. AG
													VOA 40ML HCL
													SVOC 1 Ltr. AG
													ARSENIC 1 Ltr. P HNO3
"		TRP102-121504			X	40 mL G	1						
		TOTAL NUMBER OF CONTAINERS					15						

RELINQUISHED BY: [signature]	DATE 12/16/04	TIME 7:30 Am	RECEIVED BY: [signature]	DATE 12-16-04	TIME 8:45
RELINQUISHED BY:	DATE	TIME	RECEIVED BY: D. Akolman	DATE 12-16-04	TIME 09:15
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME

BOTTLE TYPES : G = GLASS ; AG = AMBER GLASS ; P = HPDE (PLASTIC) ; SAG = SILANIZED AMBER GLASS

METHOD OF SHIPMENT : SAMPLE TEAM: DC/TB/FK CHAIN OF CUSTODY NO: 102nd1215041

CHAIN OF CUSTODY RECORD

Miller Springs Remediation Occidental Chemical	SHIP TO (LABORATORY NAME): Ecology & Environmental Analytical Services Center LANCASTER, NY 14086	REFERENCE NUMBER: 102nd SEMI-ANNUAL Sampling 716/685-8080
FACILITY LOCATION: 102ND STREET	SAMPLER(S) (PRINT NAME) DC/TB/FK	SIGNATURE

SAMPLE RESULTS REPORTING TO:
Susan Scrocchi Fax: (716) 297-2265 Phone: (716)297-2160
Mailing Address: CRA 2055 Niagara Falls Blvd. Suite Three
NIAGARA FALLS, NY 14304

DATE	TIME	SAMPLE NO.	COMPOSITE	GRAB	OTHER	CONTAINER TYPE	CONTAINERS NO. of	VOA	SVOC	BHC	ARSENIC	PRESERVED	REMARKS
12/21/04	10:55	PCM-07-1204		X		*	7	3	1	2	1	-	ALL SAMPLES STORED
12/21/04	12:10	RIN102-1204		X		*	7	3	1	2	1	HCL	AND SHIPPED IN COOLER(S)
		-1204											WITH ICE/ICE PACKS AND
													KEPT AT 4c
													BNA 1 Ltr. AG
													VOA 40ML HCL
													SVOC 1 Ltr. AG
													ARSENIC 1 Ltr. P HNO3
"		TRP102-122104			X	40 mL G	1						
		TOTAL NUMBER OF CONTAINERS					15						

Program Complete

RELINQUISHED BY:	DATE 12/22/04	TIME 7:00am	RECEIVED BY:	DATE 12-22-04	TIME 8:30 A
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE 12-22-04	TIME 095
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME

BOTTLE TYPES : G = GLASS ; AG = AMBER GLASS ; P = HPDE (PLASTIC) ; SAG = SILANIZED AMBER GLASS

METHOD OF SHIPMENT : SAMPLE TEAM: DC/TB/FK CHAIN OF CUSTODY NO: 102nd1221041

TABLE 1

SAMPLE COLLECTION AND ANALYSIS SUMMARY
GROUNDWATER SAMPLING
MILLER SPRINGS REMEDIATION MANAGEMENT, INC.
102ND STREET LANDFILL
NIAGARA FALLS, NEW YORK
DECEMBER 2004

Sample ID	*Location ID* [1]	*Collection Date*	*Collection Time*	*Analysis/Parameters*				*Depth to Water* [2] *(feet btoc)*	*Comment*
				BHCs	*VOCs*	*Arsenic*	*SVOCs*		
PCM-03-1204	PCM-03	12/13/04	11:50:00	X	X	X	X	15.38	
PCBM-01-1204	PCBM-01	12/13/04	13:35:00	X	X	X	X	13.04	
TRP102-121304	TRIP BLANK	12/13/04	-		X			-	Trip Blank
PCM-05-1204	PCM-05	12/14/04	10:30:00	X	X	X	X	17.26	
PCBM-02-1204	PCBM-02	12/14/04	11:25:00	X	X	X	X	12.40	MS/MSD
TRP102-121404	TRIP BLANK	12/14/04	-		X			-	Trip Blank
PCM-04-1204	PCM-04	12/15/04	11:15:00	X	X	X	X	14.83	
PCBM-03-1204	PCBM-03	12/15/04	13:15:00	X	X	X	X	18.02	
TRP102-121504	TRIP BLANK	12/15/04	-		X			-	Trip Blank
PCM-01-1204	PCM-01	12/16/04	11:20:00	X	X	X	X	21.67	
PCM-02-1204	PCM-02	12/16/04	9:30:00	X	X	X	X	12.85	
PCM-12-1204	PCM-12	12/16/04	10:20:00	X	X	X	X	12.85	
TRP102-121604	TRIP BLANK	12/16/04	-		X			-	Trip Blank
PCM-07-1204	PCM-07	12/21/04	10:55:00	X	X	X	X	20.17	
RIN102-1204	RINSE BLANK	12/21/04	12:10:00	X	X	X	X	-	Rinse Blank
TRP102-122104	TRIP BLANK	12/21/04	-		X			-	Trip Blank

Notes:

(1) Wells PCM-06, PCM-08, and PCM-09 were dry. Well PCM-10 was frozen.

(2) Niagara River water level on October 7, 2004 was 563.82 feet.

BHCs Benzene Hexachloride.
ft BTOC Feet Below Top of Casing.
MS Matrix Spike.
MSD Matrix Spike Duplicate.
SVOCs Semi-Volatile Organic Compounds.
VOCs Volatile Organic Compounds.

TABLE 2

ANALYTICAL RESULTS SUMMARY
GROUNDWATER SAMPLING
MILLER SPRINGS REMEDIATION MANAGEMENT, INC.
102ND STREET LANDFILL
NIAGARA FALLS, NEW YORK
DECEMBER 2004

Sample Location:		*PCBM-01*	*PCBM-02*	*PCBM-03*	*PCM-01*	*PCM-02*	*PCM-03*	*PCM-04*	*PCM-05*	*PCM-07*	*PCM-12*
Sample ID:		*PCBM-01-1204*	*PCBM-02-1204*	*PCBM-03-1204*	*PCM-01-1204*	*PCM-02-1204*	*PCM-03-1204*	*PCM-04-1204*	*PCM-05-1204*	*PCM-07-1204*	*PCM-12-1204*
Sample Date:		*12/13/2004*	*12/14/2004*	*12/15/2004*	*12/16/2004*	*12/16/2004*	*12/13/2004*	*12/15/2004*	*12/14/2004*	*12/21/2004*	*12/16/2004*
Parameters	*Units*										
Volatile Organic Compounds											
1,2,3-Trichlorobenzene	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,2,4-Trichlorobenzene	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,2-Dichlorobenzene	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	72.4	1.00 U	1.00 U	1.00 U	1.00 U
1,4-Dichlorobenzene	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	181	245	1.00 U	1.00 U	1.00 U
2-Chlorotoluene	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	8.10	2.13 U	1.00 U	1.00 U	1.00 U
Benzene	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	72.8	178	5.68	1.00 U	1.00 U
Chlorobenzene	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	2890	7220	94.9	1.00 U	1.00 U
Semi-Volatile Organic Compounds											
1,2,4,5-Tetrachlorobenzene	µg/L	4.67 U	4.81 U	5.05 U	5.05 U	5.05 U	4.67 U	5.05 U	4.67 U	4.72 U	5.05 U
2,4,5-Trichlorophenol	µg/L	9.35 U	9.62 U	10.1 U	10.1 U	10.1 U	9.35 U	10.1 U	9.35 U	9.43 U	10.1 U
2,4-Dichlorophenol	µg/L	9.35 U	9.62 U	10.1 U	10.1 U	10.1 U	9.35 U	10.1 U	9.35 U	9.43 U	10.1 U
2,5-Dichlorophenol	µg/L	9.35 U	9.62 U	10.1 U	10.1 U	10.1 U	17.1	10.1 U	9.35 U	9.43 U	10.1 U
2-Chlorophenol	µg/L	9.35 U	9.62 U	10.1 U	10.1 U	10.1 U	21.0	13.9	9.35 U	9.43 U	10.1 U
4-Chlorophenol	µg/L	9.35 U	9.62 U	10.1 U	10.1 U	10.1 U	41.8	28.3	9.35 U	9.43 U	10.1 U
Phenol	µg/L	9.35 U	9.62 U	10.1 U	10.1 U	10.1 U	9.35 U	10.1 U	9.35 U	9.43 U	10.1 U
Pesticides											
alpha-BHC	µg/L	0.0377 U	0.0400 U	0.0400 U	0.0404 UJ	0.0404 UJ	0.0377 U	0.0400 U	0.0377 U	0.0377 UJ	0.0404 UJ
beta-BHC	µg/L	0.0472 U	0.0500 U	0.0500 U	0.0505 UJ	0.0505 UJ	0.236 U	0.0500 U	0.0472 U	0.0472 UJ	0.0505 UJ
delta-BHC	µg/L	0.0566 U	0.0600 U	0.0600 U	0.0606 UJ	0.0606 UJ	1.12 U	1.40 U	0.0566 U	0.0566 UJ	0.0606 UJ
gamma-BHC (Lindane)	µg/L	0.0377 U	0.0400 U	0.0400 U	0.0404 UJ	0.0404 UJ	0.0377 U	0.0400 U	0.0377 U	0.0377 UJ	0.0404 UJ
Metals											
Arsenic	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U

Notes:
BHC Benzene Hexachloride.
U Non-detect at associated value.
UJ The analyte was not detected above the sample quantitation limit. The reported quantitation limit is an estimated quantity.

TABLE 3

ANAYTICAL METHOD SUMMARY
GROUNDWATER SAMPLING
MILLER SPRINGS REMEDIATION MANAGEMENT, INC.
102ND STREET LANDFILL
NIAGARA FALLS, NEW YORK
DECEMBER 2004

Analyses	*Methodology* [1]	*Holding Time to Extraction (Days)*	*Holding Time to Analyses (Days)*
VOCs	SW-846 8260B	-	14
SVOCs	SW-846 8270C	7	40
Pesticides	SW-846 8081A	7	40
Arsenic	SW-846 6010B	-	180

Notes:
(1) Referenced from "Test Methods for Evaluating Solid Waste", USEPA OSW, 3rd Edition, 1986 and subsequent revisions.
SVOCs Semi-Volatile Organic Compounds.
VOCs Volatile Organic Compounds.

TABLE 4

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING SURROGATE RECOVERIES
GROUNDWATER SAMPLING
MILLER SPRINGS REMEDIATION MANAGEMENT, INC.
102ND STREET LANDFILL
NIAGARA FALLS, NEW YORK
DECEMBER 2004

Parameter	*Surrogate*	*Surrogate Recovery (percent)*	*Control Limits (percent)*	*Sample ID*	*Analytes*	*Sample Results*	*Units*	*Qualifier*
BHCs	DCB	54	57-114	PCM-01-1204	alpha-BHC	0.0404 U	µg/L	J
					beta-BHC	0.0505 U	µg/L	J
					delta-BHC	0.0606 U	µg/L	J
					gamma-BHC	0.0404 U	µg/L	J
	DCB	47	57-114	PCM-02-1204	alpha-BHC	0.0404 U	µg/L	J
					beta-BHC	0.0505 U	µg/L	J
					delta-BHC	0.0606 U	µg/L	J
					gamma-BHC	0.0404 U	µg/L	J
	DCB	43	57-114	PCM-07-1204	alpha-BHC	0.0377 U	µg/L	J
					beta-BHC	0.0472 U	µg/L	J
					delta-BHC	0.0566 U	µg/L	J
					gamma-BHC	0.0377 U	µg/L	J
	DCB	54	57-114	PCM-12-1204	alpha-BHC	0.0404 U	µg/L	J
					beta-BHC	0.0505 U	µg/L	J
					delta-BHC	0.0606 U	µg/L	J
					gamma-BHC	0.0404 U	µg/L	J

Notes:
BHCs Benzene Hexachlorides.
DCB Decachlorobiphenyl.
J Estimated.
U Non-detect at associated value.

TABLE 5

QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE RINSE BLANKS
GROUNDWATER SAMPLING
MILLER SPRINGS REMEDIATION MANAGEMENT, INC.
102ND STREET LANDFILL
NIAGARA FALLS, NEW YORK
DECEMBER 2004

Parameter	*Rinse Blank ID*	*Analyte*	*Blank Result*	*Associated Sample ID*	*Sample Result (µg/L)*	*Qualified Sample Result (µg/L)*
Volatiles	RIN102-122104	2-Chlorotoluene	0.776 J	PCM-04-1204	2.13	2.13 U
BHCs	RIN102-122104	delta-BHC	0.592	PCM-03-1204	1.12	1.12 U
				PCM-04-1204	1.40	1.40 U

Notes:
BHCs Benzene Hexachloride.
J Estimated.
U Non-detect at associated value.