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A subsidiary of Occidental Petroleum

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February 28, 2017

Reference No. 001431

Mr. Brian Sadowski
New York State Department of Environmental Conservation
Region 9
270 Michigan Avenue
Buffalo, NY 14203-2999

Dear Mr. Sutton:

**Re: 2016 Annual Periodic Review Report
102nd Street Landfill Site, Niagara Falls, New York**

Per the requirements of the Consent Decree and the Operations and Maintenance (O&M) Manual, Glenn Springs Holdings, Inc. (GSH) is submitting the 2016 Annual Periodic Review Report for the 102nd Street Landfill Site.

Please contact me at 231-670-6809 or email at joseph_branch@oxy.com should you have any questions or concerns.

Very truly yours,

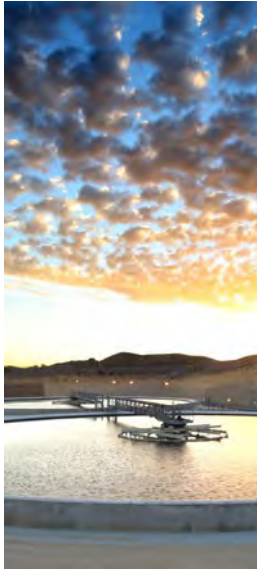
GLENN SPRINGS HOLDINGS, INC.

Joe Branch
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JB/eew/(Rpt No. 93)
Encl.

cc: C. Babcock, GSH
D. Share, Olin (email)
G. May, NYSDEC (email)
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2016 Annual Periodic Review Report 102nd Street Landfill Site

NYSDEC Site No. 932031
Niagara Falls, New York

Glenn Springs Holdings, Inc.



2016 Annual Periodic Review Report

102nd Street Landfill Site
Niagara Falls, New York
NYSDEC Site No. 932031

Glenn Springs Holdings, Inc.

GHD | 2055 Niagara Falls Boulevard Niagara Falls New York 14304 USA
001431 | Report No 93 | February 28, 2017



Executive Summary

The following report describes the Operation, Maintenance, and Monitoring (OM&M) activities for 2016 at 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 (OCC) (15.6 acres) and Olin Corporation (Olin) (6.5 acres). Management of the Site is performed on behalf of OCC and Olin by Glenn Springs Holdings, Inc. (GSH), an affiliate of OCC. Since October 1, 2008, GHD Services, Inc. (GHD), formerly Conestoga-Rovers & Associates (CRA), has performed operation, maintenance, monitoring, and reporting activities for the Site under contract to and direct management of GSH.

During 2016, the Remedial Action (RA) system components at the Site performed as designed. The leachate collection system removed 184,970 gallons of Aqueous Phase Liquid (APL) from the Site. The slurry wall installed at the Site continued to function as designed. Water level monitoring showed that an inward gradient, with respect to the potential for groundwater to flow across the slurry wall, continued to be maintained throughout the year at all ten well pairs with the exception of one location during the March, September and December 2016 monitoring events. An inward gradient is demonstrated by a lower water elevation inside the slurry wall as compared to water elevations outside the slurry wall. In the case of well pairs with a dry inside well, the bottom elevation of the dry inside well was compared to the elevation of the water level at the outside well. At one location, the March 2016 monitoring event showed a slight outward gradient, while the September and December monitoring events had a negligible outward gradient. Groundwater potentiometric contours demonstrate that groundwater flows in a north-to-south direction towards the APL collection trench.

In 2016, approximately 629.4 gallons of Non-Aqueous Phase Liquid (NAPL) were recovered from the Site NAPL Recovery (NR) Wells. The recovered NAPL was recovered and stored temporarily on Site in two 2,500-gallon accumulation containers, containerized, and shipped to the Clean Harbors Aragonite facility in Aragonite, Utah for incineration.

The 2016 data indicate that there has been no significant change in chemical and hydrogeological conditions at the Site. The APL collection trench continues to collect sufficient leachate from the landfill to maintain an inward gradient across the slurry wall and create a depressed water table inside the slurry wall. As mentioned above, the slurry wall is functioning as designed, preventing off-Site migration and influx of groundwater.



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1. Introduction

The following report describes the Operation, Maintenance, and Monitoring (OM&M) activities for 2016 at the 102nd Street Landfill Site (Site) located in Niagara Falls, New York (Figure 1.1). Management of the Site is performed on behalf of Occidental Chemical Corporation (OCC) and Olin Corporation (Olin) by Glenn Springs Holdings, Inc. (GSH), an affiliate of OCC. Since October 1, 2008, GHD Services, Inc. (GHD), formerly Conestoga-Rovers & Associates (CRA), has performed operation, maintenance, monitoring, and reporting activities for the Site under contract to and direct management of GSH.

The Site covers approximately 22.1 acres and consists of two separate properties owned by OCC (15.6 acres) and Olin (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 locked fence gates.

Remedial construction at the Site was completed in 1999, and groundwater pumping began in March 1999. The groundwater collection system at the Site is shown on Figure 1.2.

Final responses to the comments for the Final Closure Report for the Site were submitted to the New York State Department of Environmental Conservation (NYSDEC) and the United States Environmental Protection Agency (USEPA) (collectively, the "Agencies") on September 22, 2000. The Certificate of Completion for the Site was accepted by the Agencies on March 13, 2002, signifying that all remedial work had been completed. Subsequently, the formal initiation of the OM&M for the Site occurred in April 2002. This report is the sixteenth annual report for the Site.

The Remedial Action (RA) system components at the Site that have associated OM&M activities are as follows:

- Landfill cap
- Perimeter slurry wall
- Aqueous Phase Liquid (APL) collection and discharge system
- Non-Aqueous Phase Liquid (NAPL) recovery system
- Post-RA system performance monitoring
- Perimeter fence

This report describes the OM&M activities conducted in accordance with the OM&M Manual and presents the data collected at the Site between January 1, 2016 and December 31, 2016. The completed NYSDEC Institutional and Engineering Control Certification (ICEC) Form is included as Appendix A.

2. Site Monitoring Programs

The Site monitoring program was established to monitor the effectiveness of the RA system components and includes the following activities/programs:



- Quarterly groundwater level measurements
- Annual groundwater quality monitoring
- Quarterly NAPL presence monitoring
- Accelerated NAPL Recovery Program (ANRP)

2.1 Hydraulic Monitoring Program

Hydraulic monitoring at the Site consists of the measurement of water levels in monitoring wells to determine groundwater elevations. This includes ten monitoring well pairs, each with a monitoring well located inside the slurry wall (PZ-01 through PZ-10) and a corresponding monitoring well located outside the slurry wall (PCM-01 through PCM-10). The measurements are used to evaluate RA system performance toward establishment of a depressed water table inside the slurry wall by comparing the water levels in each monitoring well pair. A lower water elevation inside the slurry wall than the water elevation outside the slurry wall at each monitoring well pair demonstrates that the water table has been depressed and that an "inward gradient" with respect to groundwater flow across the slurry wall has been created. The established monitoring well pairs are listed in Table 2.1, and the locations of the monitoring wells and slurry wall are shown on Figure 1.2.

Groundwater level measurements in the monitoring wells were measured quarterly in 2016, in accordance with the OM&M Manual. The 2016 water level measurements have been converted to elevations and are presented in Table 2.2. Table 2.2 also presents measured groundwater elevations for Site NAPL recovery (NR) wells and wet wells. The elevations for each of the monitoring well pairs and the gradients achieved for the quarterly events throughout the year are presented in Table 2.3.

Groundwater elevations are listed on the Annual Report Forms (Appendix B). Data for 2002 through 2016 have been graphed to show groundwater elevation trends (Appendix C). The quarterly groundwater elevations and associated potentiometric groundwater contours are presented on Figures 2.1 through 2.4.

2.2 Groundwater Quality Monitoring Program

The groundwater quality monitoring program consists of ten overburden monitoring wells (PCM-01 through PCM-10) and three bedrock monitoring wells (PCBM-01 through PCBM-03). These wells were sampled quarterly for the first 2 years following initiation of the OM&M in 2002, and then semiannually for the next 8 years through 2011. In 2012, sampling frequency decreased to annually in accordance with the approved OM&M Manual.

Annual groundwater quality monitoring was performed in October 2016. Samples were analyzed for Site-Specific volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides (i.e. hexachlorocyclohexanes), mercury, and arsenic. Table 2.4 presents the results of the current groundwater monitoring event. Historical groundwater monitoring results are presented in Tables D-1 and D-2 of Appendix D. The next groundwater quality monitoring event will occur in October 2017.

Chemical concentrations present in the groundwater have been graphed for select monitoring wells (PCM-03, PCM-04, and PCM-05) to evaluate concentration trends and determine if any of the levels are increasing. These graphs are presented in Appendix E. The monitoring well locations and



parameters presented were selected based on the historical detection of compounds. Those monitoring well locations and parameters not included in Appendix E are typically non-detect with the occasional low level detections and, therefore, do not present any useful data with regard to a discussion of historical analytical trends at the Site.

The monitoring well purge records for the 2016 groundwater quality monitoring event are presented in Appendix F.

2.3 NAPL Presence Monitoring Program

The NAPL presence monitoring program consists of eight NR wells (NR-01 through NR-05, NR-07, NR-08, and NR-10). NAPL presence monitoring began in these wells in April 2002, immediately after the Agencies accepted the Certificate of Completion. In accordance with the OM&M Manual, NAPL presence was checked each month for the first 3 months. The monthly monitoring ended in June 2002. Since June 2002, the NAPL presence monitoring has been completed quarterly. If during the quarterly monitoring more than 3 gallons of NAPL (6 inches deep in the 12-inch diameter well) is present in a NR well, the NAPL will be removed. NAPL removal will occur from April through October, during the warmer months of the year.

In December 2003, GSH submitted the "NAPL Extraction Program Work Plan for Accelerated Recovery" to determine the production capability and possible accelerated extraction of NAPL at NR-02 (known to have a quick recharge rate). As a result of the pumping tests conducted per the Work Plan, the ANRP was implemented in 2004. This program involved the continuous removal of NAPL from NR-02 through the use of a low-flow, automated pump installed in the NR-02 well with daily measurements, while the remaining NR wells were monitored quarterly and NAPL removed as necessary, per the OM&M Manual.

On June 23, 2010, CRA, on behalf of GSH, submitted a memorandum documenting modifications to the ANRP at the Site. The memo summarized March 10, 2011 discussions with Mr. Brian Sadowski of NYSDEC regarding a reduction in frequency of NAPL removal at NR-02 and the addition of NR-03 to the ANRP. Quarterly NAPL presence and removal data in 2010 indicated that NAPL presence in the vicinity of NR-02 may be diminishing, either due to a decrease in NAPL in the area of NR-02 (indicating a successful implementation of the recovery program), or possibly a result of creating a "de-NAPLed" (absence of NAPL) area around NR-02 due to the long-term pumping at this location and a decreased recharge rate of the NAPL. Due to the reduction in NAPL removed from NR-02, it was proposed to reduce the frequency of monitoring at NR-02 from continuous to weekly. Historic amounts of NAPL removed from NR-03, along with quarterly NAPL measurements during 2010, indicated that there may be sufficient NAPL present at NR-03 such that additional NAPL removal would be beneficial. Therefore, NR-03 was proposed to be added to the ANRP on a temporary basis. Mr. Sadowski agreed to the modification to the program, effective immediately, with the addition of NR-03 and with the stipulation that NR-02 would be checked, and NAPL removed as necessary, no less than on a weekly frequency. The modification was further discussed and confirmed during the May 27, 2010 NYSDEC annual Site inspection. The addition of NR-03 to the ANRP was originally to be on a continuous basis. Monitoring and continuous removal of NAPL from NR-03 (in addition to weekly removal from NR-02) began in May 2010. A low NAPL recharge rate at NR-03 resulted in the pumping frequency at this NR well being reduced from continuous to twice weekly (NAPL checks and pumping as necessary), and subsequently from twice weekly to its current weekly frequency as approved by the NYSDEC. Subsequently, the high



recharge rate in NR-02 resulted in an increase in NAPL check and pumping frequency from weekly to its current twice weekly frequency as approved by NYSDEC.

Results of the 2016 NAPL presence monitoring are included on the Annual Report Forms presented in Appendix B.

3. Site Monitoring Results

3.1 Hydraulic Monitoring Results

The 2016 quarterly groundwater elevations and potentiometric groundwater contours are shown on Figures 2.1 through 2.4. Where groundwater was present, inward gradients across the slurry wall towards the landfill (as indicated by a lower water elevation inside the slurry wall than outside the slurry wall) were demonstrated at all monitoring wells pairs for each event with the exception of well pair 7 (PCM-07R and PC-07) during the March, September and December 2016 events. During the March 2016 monitoring event, well pair 7 exhibited an outward gradient of 2.56 feet. Well pair 7 exhibited an outward gradient of 0.17 feet during the September 2016 monitoring event and 0.91 feet during the December 2016 monitoring event.

PZ-06 and PZ-08 were dry during some or all of the quarterly events. The difference in elevation used to demonstrate an inward gradient at these monitoring well pairs during dry events was calculated using the bottom elevation of each dry monitoring well, with the rationale that if the monitoring well was dry, the water elevation would have to be at an elevation below the bottom of the monitoring well. The water level elevations in the monitoring wells outside the slurry wall were higher than the elevation of the bottom of the dry monitoring wells inside the slurry wall; therefore, regardless of the dry conditions at PZ-06 and PZ-08, an inward gradient across the slurry wall was maintained at these two monitoring well pairs in 2016.

Piezometers PZ-06, PZ-07, PZ-08, PZ-09R, and PZ-10 are located along the northern side of the Site, and as shown on Figures 2.1 through 2.4, exhibit groundwater elevations ranging from 563.09 feet above mean sea level (AMSL) to 568.65 feet AMSL. The remaining wells inside the slurry wall at the Site (piezometers PZ-01, PZ-02, PZ-03R, PZ-04, PZ-05), NAPL recovery wells (NR-01, NR-02, NR-03, NR-04, NR-05, NR-07, NR-08, NR-10), and Wet Wells (1 through 4) to the south of piezometers PZ-06, PZ-07, PZ-08, PZ-09R, and PZ-10 exhibit groundwater elevations ranging from 560.06 feet AMSL to 566.13 feet AMSL. Groundwater potentiometric contours presented on Figures 2.1 through 2.4 demonstrate that within the landfill, groundwater flows in a north-to-south direction towards the APL collection trench (located on the south side of the Site along the Niagara River and portions of the east and west sides of the Site). Therefore, the water table is depressed inside the slurry wall and any groundwater impacts would migrate to the APL collection trench.

3.2 Groundwater Quality Monitoring Results

Overburden Monitoring Wells

In 2016, groundwater samples were collected from nine of the ten monitoring wells included in the annual analytical program (monitoring well location PCM-09 had an insufficient volume of water for sampling; therefore no samples were collected from that location). Chemical concentrations in groundwater samples exceeded NYSDEC Class GA groundwater criteria in 3 of the 10 overburden



monitoring wells sampled in 2016 (PCM-03, PCM-04, and PCM-05). Concentrations in PCM-03, PCM-04, and PCM-05 were consistent with previous sampling results. With respect to VOCs, well PCM-03 had exceedances of benzene, chlorobenzene, 2-chlorotoluene and dichlorobenzenes. Well PCM-04 had exceedances of benzene, chlorobenzene and dichlorobenzenes. Well PCM-05 had an exceedance of chlorobenzene. With respect to the SVOCs, well PCM-03 and PCM-04 had exceedances for 2-chlorophenol, 4-chlorophenol, 2,4-dichlorophenol. Additionally well PCM-03 had a pesticide exceedance for beta-BHC. The exceedances at all of these locations are consistent with, or lower than, historical concentrations at these wells (see Appendix D).

Arsenic was detected at an estimated concentration of 52 micrograms per liter ($\mu\text{g/L}$) at PCM-09 in 2014, which is greater than the NYSDEC Class GA groundwater criteria of 25 $\mu\text{g/L}$. During the 2015 and 2016 sample events, well PCM-09 had an insufficient volume of water for sampling, preventing a sample from being collected. Arsenic had not been detected in PCM-09 prior to 2014. Low levels of arsenic have been detected intermittently at other wells outside of the slurry wall. The hydraulic gradient at PCM-09 is inward towards the slurry wall, with inward groundwater gradients ranging from 1.99 feet to 5.53 feet between PCM-09 and PZ-09R observed in 2016. This fact, combined with the southward flow of groundwater within the slurry wall, make off-Site migration of arsenic towards PCM-09 unlikely. The arsenic concentration in PCM-09 will continue to be monitored in the coming year.

Bedrock Monitoring Wells

NYSDEC Class GA groundwater criteria were not exceeded in any of the three bedrock monitoring wells that were sampled for groundwater quality in 2016.

3.3 NAPL Presence Monitoring Results

Monitoring for the presence of NAPL at the eight NR wells is checked quarterly. Results of the quarterly NAPL monitoring events are presented in the Annual Report Forms included in Appendix B.

NAPL was present in six of the eight NR wells in 2016 (NR-01 through NR-03, NR-05, NR-07 and NR-08). The thickness of NAPL in these five wells ranged from trace amounts (NR-05) to 1.94 feet (NR-02) (see page B-2 of Appendix B). NAPL was removed from the wells between April and October 2015 when it was present in quantities of more than 3 gallons OR at a thickness greater than 6 inches.

4. Operation of 102nd Street Landfill Systems

4.1 APL Collection and Discharge System Operation

The individual APL pumps in the four APL collection wet wells operated throughout 2016 on level control. The pump in Wet Well 2 is set to start up at an elevation of 560.4 feet AMSL (2.6 feet below the average Niagara River water level) and to shut down when the elevation in the well reaches 560.2 feet AMSL. Over the years, the set points on the pumps in Wet Wells 1, 3, and 4 have been lowered to encourage pumping in the wells. The pumps in Wet Wells 1, 3, and 4 are set to start up at elevations of 561.3, 561.4, and 561.4, respectively, and to shut down when the elevations in the wells reach 561.1, 561.2, and 561.2, respectively.



A total of 184,970 gallons of APL was removed from the Site and pumped to the Love Canal Treatment Facility (LCTF). There, the APL was treated and discharged to the City of Niagara Falls Sanitary Sewer System, under the Niagara Falls Water Board Significant Industrial User (SIU) Permit #44. A total of approximately 9.4 million gallons of APL have been recovered from the Site since pumping was initiated in March 1999.

In 2016, Wet Well 1 collected 1.4 percent of the total APL for the Site, Wet Well 2 collected 97.2 percent, Wet Well 3 collected 0.7 percent, and Wet Well 4 collected 0.6 percent.

4.2 NAPL Recovery

The total volume of NAPL removed from the NR wells at the Site in 2016 was approximately 629.4 gallons (Table 4.1). The majority of the NAPL (620.6 gallons) was pumped from NR-02 (Table 4.2).

Table 4.1 shows the current and historical NAPL recoveries from the on-Site NR wells. Approximately 71,143 gallons of NAPL have been recovered at the Site to date.

4.2.1 NR-02 and NR-03 NAPL Recovery

As discussed in Section 2.3, in 2010 a temporary change to the ANRP at the Site was implemented. Previous to June 2010, the ANRP consisted of continuous NAPL recovery at well NR-02 and quarterly NAPL presence checks and recovery (if necessary) from NR-01, NR-03, NR-04, NR-05, NR-07, NR-08, and NR-10 between April and October of each year. The June 2010 modification and the evaluations of data collected thereafter resulted in the current schedule of NAPL removal at NR-02 twice weekly, NR-03 weekly, and quarterly at the remaining NR wells.

As per the approved modification to the ANRP, pumping at NR-02 was conducted twice weekly during the second and third quarters of 2016 and resulted in a total NAPL recovery of 620.6 gallons. Table 4.2 presents a summary of NAPL removed from NR-02 during 2016. The removal of NAPL from NR-02 will continue to be evaluated, and options to maximize NAPL removal and optimize the pumping schedule at NR-02 will be considered.

Weekly NAPL checks at well NR-03 were conducted from March through the beginning of October during 2016. Due to the high viscosity of the NAPL and typical measurements of NAPL of less than 6 inches, only 2.8 gallons of NAPL were removed from NR-03 in 2016. In addition, 6 gallons were removed from NR-01.

4.2.2 NAPL Storage and Disposal

NAPL removed from the NR wells during 2016 was pumped into one of two 2,500-gallon double-walled skid-mounted steel tanks with internal secondary containment. The tanks are located at NR-02 and NR-03 due to the current pumping schedule and can be easily moved depending on the productivity of the two wells during pumping events. The two 2,500-gallon NAPL tanks are inspected as part of the 102nd Street daily inspections. The 2016 daily inspections of the NAPL tanks did not identify any issues.

Approximately 7,000 pounds of accumulated NAPL were containerized and transported to the Clean Harbors Aragonite facility in Aragonite, Utah for incineration in 2016.



5. Site Maintenance and Inspections

5.1 Site Inspections

Daily inspections were conducted at the Site in 2016, as per the OM&M Manual. Copies of the daily inspection forms are available upon request.

The 2016 annual NYSDEC Site inspection was conducted on May 2, 2016 by representatives from NYSDEC, GSH, and GHD. During the Site Inspection, the RA system components are reviewed to ensure Site compliance. The inspection included a general Site walk and covered all portions of the landfill remediation including the APL Collection System, APL Discharge System, Landfill Cap, Bulkhead, and Storm Sewer. No deficiencies were noted.

5.2 Monitoring Well Inspections

The monitoring wells, NAPL recovery wells, and wet wells are inspected on an annual basis. The well depth is sounded, and the probe inspected for signs of NAPL. Additionally, the physical condition of each well is assessed, and any necessary repairs are noted as part of the water level measurement and groundwater sampling procedures. The 2016 well inspections were carried out on September 6 and November 15, 2016. No issues requiring immediate attention with the wells were noted. Several minor routine maintenance items were noted and were/will be repaired as time permits.

5.3 Activities

Activities performed at the Site in 2016 included the following:

- Mowed the landfill vegetation once after August 15th to inhibit the growth of woody material
- Removed all wood and trees from 102nd Street storm sewer inlet
- Maintained (including scheduled preventative maintenance) all pumps and on-Site control equipment to ensure proper function
- Monitored and pumped NAPL from NR-02 (twice per week) and NR-03 (once per week) between April and October
- Removed NAPL from the accumulation tanks and disposed off-Site
- Repaired Wet Well 1 level indicator

5.4 Site Beautification/Wildlife

Wildlife/beautification enhancements implemented at the Site in the past continue to provide wildlife habitat and beneficial reuse.

These enhancements have included the following:

- Inspection, observation, and documentation of animal houses and wildlife
- Planting of lancer pea on a large portion of the landfill cap at the beginning of O&M activities at the Site to provide food for waterfowl
- Replanting the embayment area with water celery to enhance fish habitat



- Growth of native grasses and flowers on the landfill cap
- Installation of bluebird houses and bat boxes on the perimeter of the landfill cap
- Daily inspection of perimeter fencing and Site cover and removal of litter as necessary, which enhances the aesthetics of the Site when viewed from the Niagara River, from Buffalo Avenue, and from Griffon Park
- Other than the once yearly mowing that occurs after August 15th of the landfill cap vegetation, periodic mowing of only the space necessary to safely access the Site groundwater and NR wells. This is done to minimize the disruption of wildlife habitat in the native growth of the landfill cover vegetation.

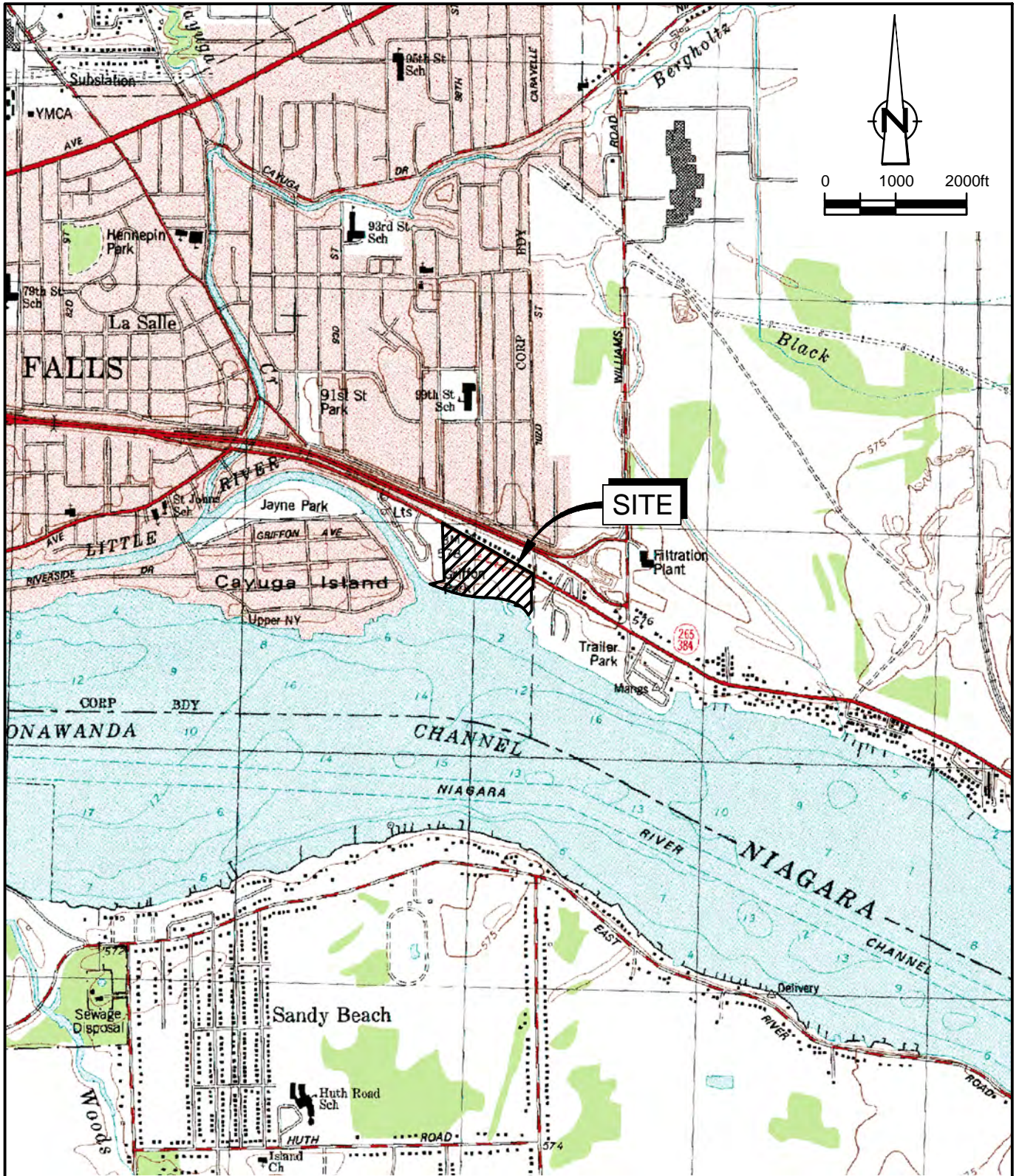
6. Conclusions and Recommendations

During 2016, the RA system components at the Site performed as designed. The leachate collection system removed 184,970 gallons of APL from the Site. Water level monitoring showed that an inward gradient, with respect to groundwater flow across the slurry wall, continues to be maintained throughout the year as indicated by a lower water elevation inside the slurry wall than outside the slurry wall with the exception of one location during the March, September and December 2016 monitoring events. Well pair 7 did exhibit a slight outward gradient during the March monitoring event, while the September and December monitoring events had a negligible outward gradient of approximately 0.17 and 0.91 feet (respectively). To address the elevated water level in PZ-07 in three of the monitoring events, GHD recommends redeveloping PZ-07 in 2017. Groundwater potentiometric contours demonstrate that groundwater flows in a north-to-south direction towards the APL collection trench.

In 2016, approximately 629.4 gallons of NAPL were recovered from the Site NR wells. The recovered NAPL was stored temporarily on Site in one of two 2,500-gallon containers during 2016, containerized, and was shipped to an off-Site disposal facility (incinerators) (Clean Harbors, Aragonite, Utah) for final destruction.

The 2016 data indicate that there has been no significant change in chemical and hydrogeological conditions at the Site. The APL collection trench continues to collect sufficient leachate from the landfill to maintain an inward gradient across the slurry wall and create a depressed water table inside the slurry wall. The slurry wall is functioning as designed, preventing off-Site migration and the influx of off-Site groundwater.

Figures



SOURCE: USGS QUADRANGLE MAP;
TONAWANDA WEST, NEW YORK, 1980

figure 1.1

SITE LOCATION
2016 PERIODIC REVIEW REPORT
102ND STREET LANDFILL SITE
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York



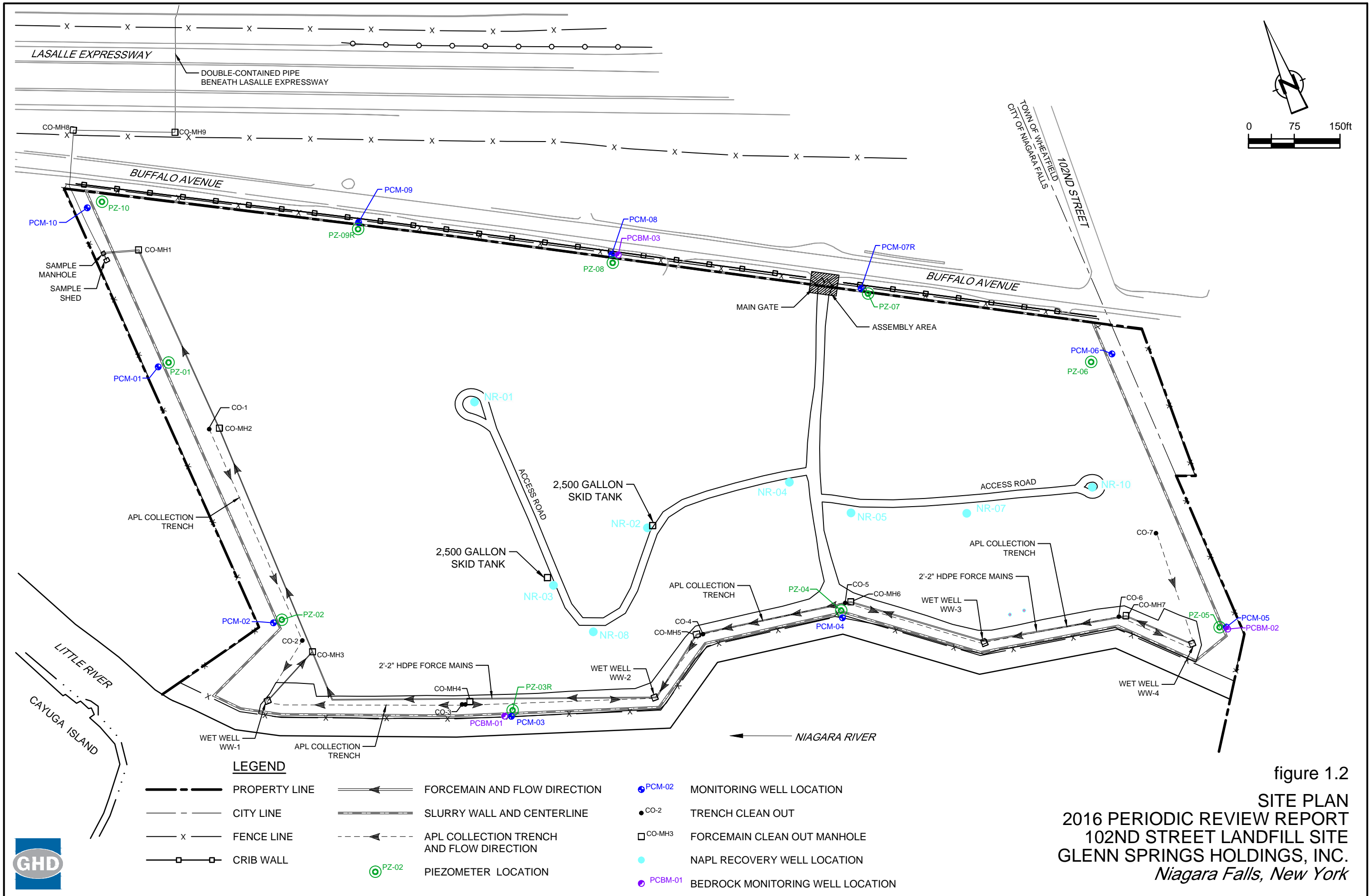
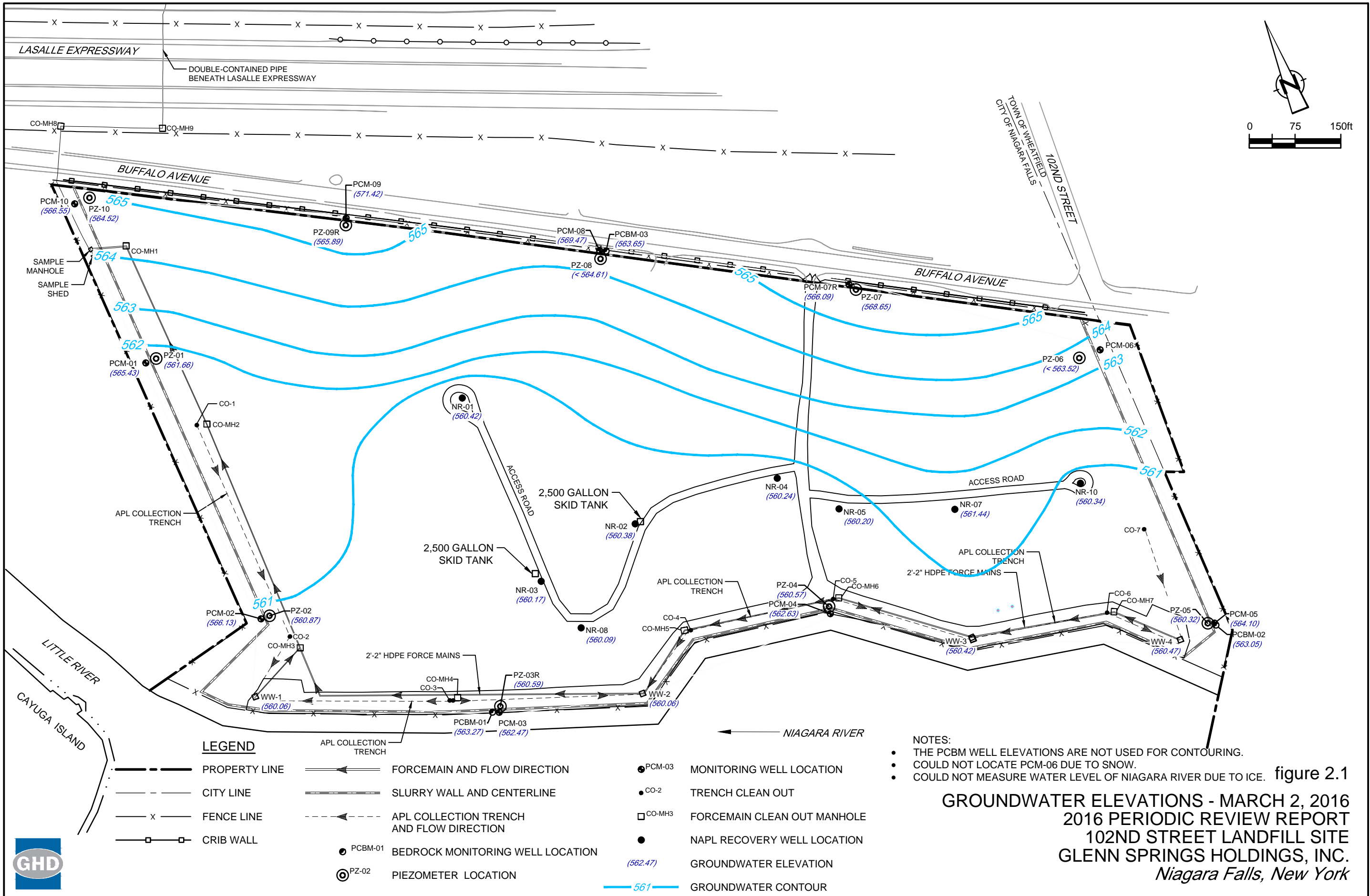
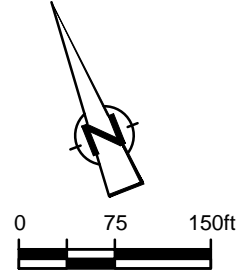
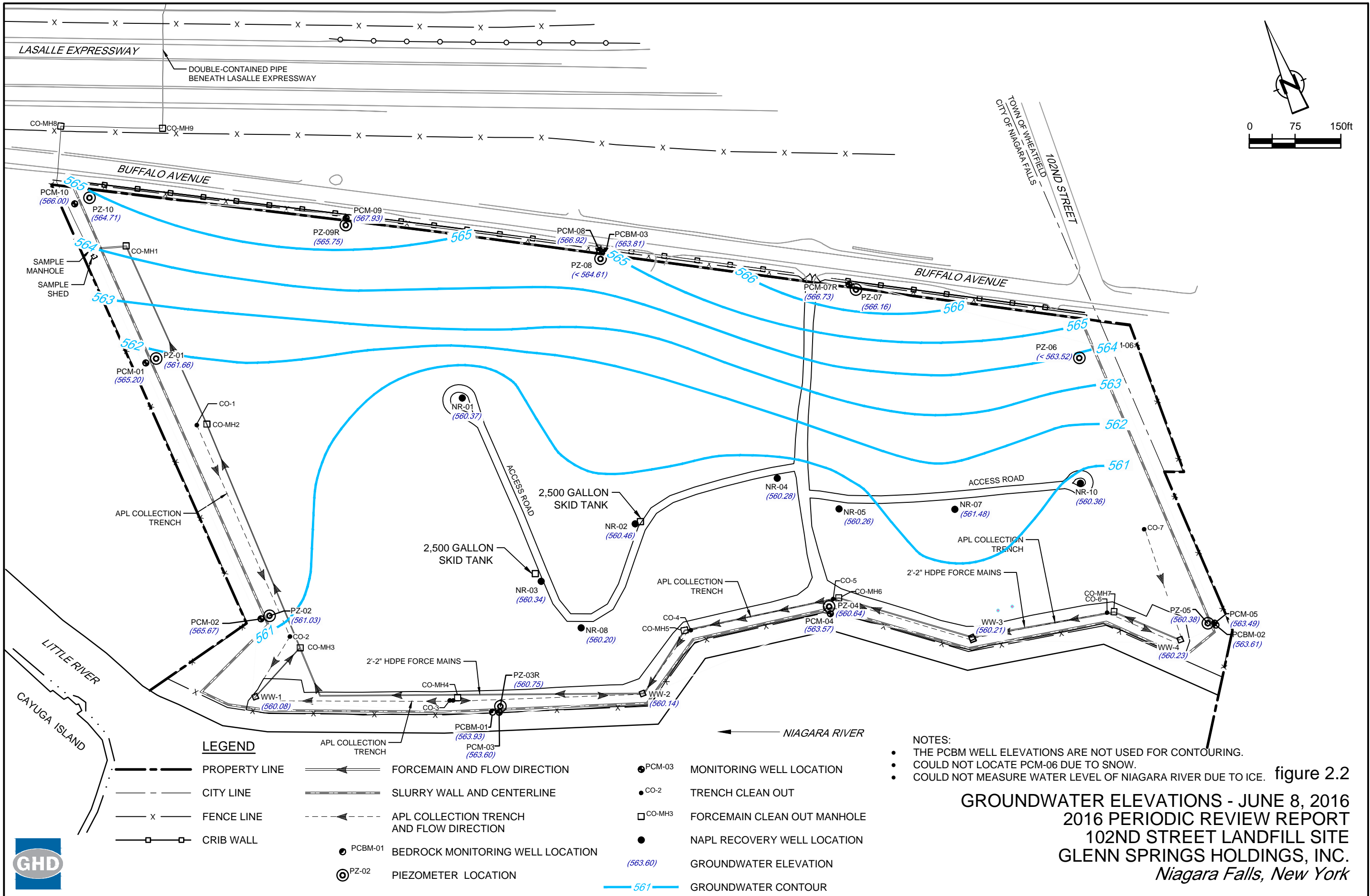


figure 1.2
 SITE PLAN
 2016 PERIODIC REVIEW REPORT
 102ND STREET LANDFILL SITE
 GLENN SPRINGS HOLDINGS, INC.
 Niagara Falls, New York







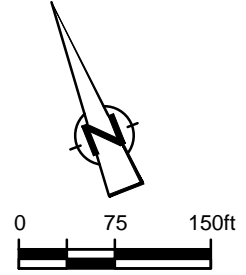
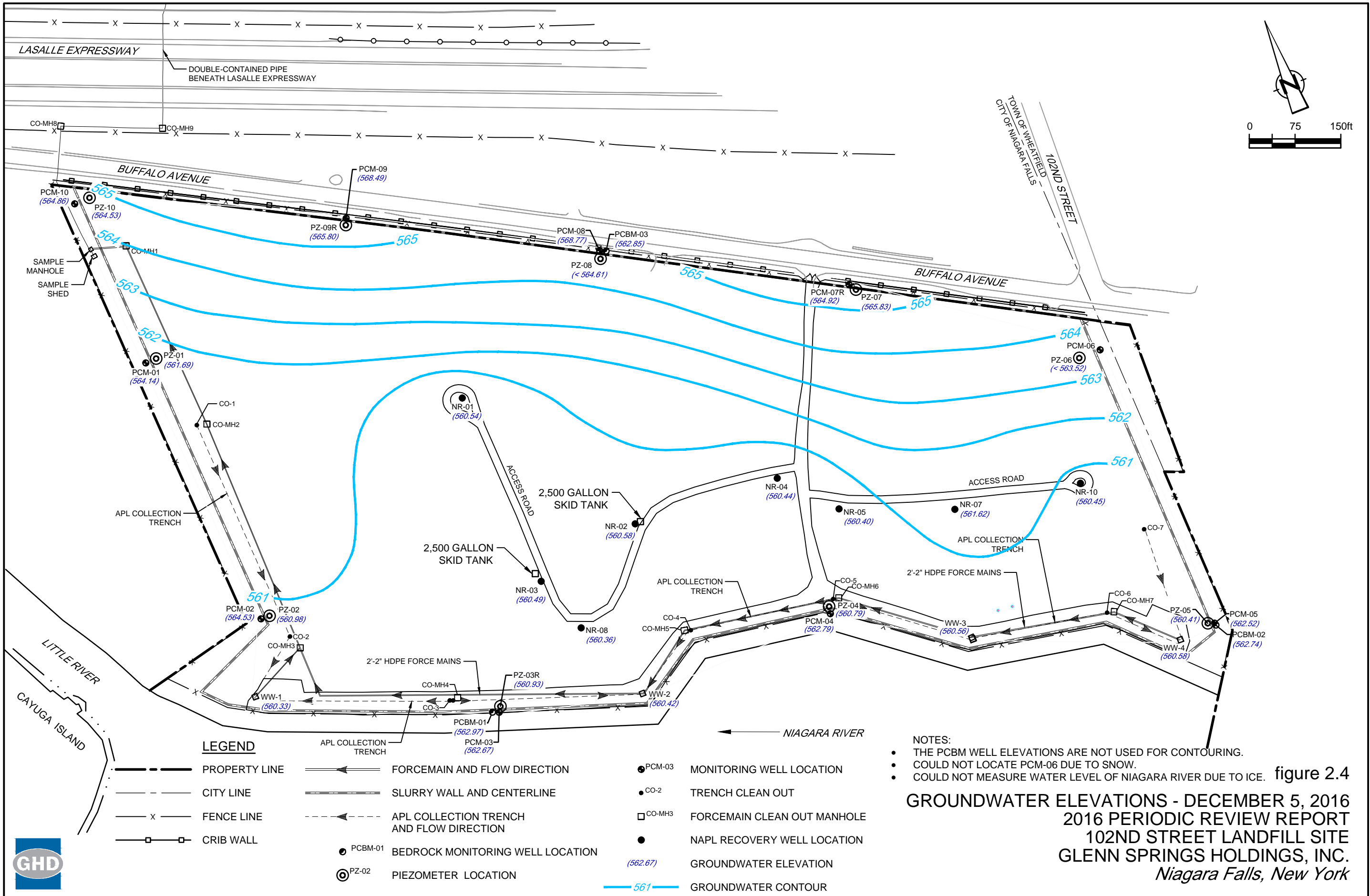
LEGEND

- | | | | | | |
|-----------|---------------|-----------|--|----------|-----------------------------|
| — — — — — | PROPERTY LINE | — — — — — | FORCEMAIN AND FLOW DIRECTION | ● PCM-03 | MONITORING WELL LOCATION |
| — — — — — | CITY LINE | — — — — — | SLURRY WALL AND CENTERLINE | ● CO-2 | TRENCH CLEAN OUT |
| — x — x — | FENCE LINE | — — — — — | APL COLLECTION TRENCH AND FLOW DIRECTION | □ CO-MH3 | FORCEMAIN CLEAN OUT MANHOLE |
| — □ — □ — | CRIB WALL | ● PCBM-01 | BEDROCK MONITORING WELL LOCATION | ● | NAPL RECOVERY WELL LOCATION |
| | | ⊙ PZ-02 | PIEZOMETER LOCATION | (563.60) | GROUNDWATER ELEVATION |
| | | — 561 — | GROUNDWATER CONTOUR | | |

- NOTES:**
- THE PCBM WELL ELEVATIONS ARE NOT USED FOR CONTOURING.
 - COULD NOT LOCATE PCM-06 DUE TO SNOW.
 - COULD NOT MEASURE WATER LEVEL OF NIAGARA RIVER DUE TO ICE.

figure 2.2
GROUNDWATER ELEVATIONS - JUNE 8, 2016
2016 PERIODIC REVIEW REPORT
102ND STREET LANDFILL SITE
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York





LEGEND

- | | | | | | |
|-----------|---------------|-----------|--|----------|-----------------------------|
| — — — — — | PROPERTY LINE | — — — — — | FORCEMAIN AND FLOW DIRECTION | ● PCM-03 | MONITORING WELL LOCATION |
| — — — — — | CITY LINE | — — — — — | SLURRY WALL AND CENTERLINE | ● CO-2 | TRENCH CLEAN OUT |
| — x — x — | FENCE LINE | — — — — — | APL COLLECTION TRENCH AND FLOW DIRECTION | □ CO-MH3 | FORCEMAIN CLEAN OUT MANHOLE |
| — □ — □ — | CRIB WALL | ● PCBM-01 | BEDROCK MONITORING WELL LOCATION | ● | NAPL RECOVERY WELL LOCATION |
| | | ⊙ PZ-02 | PIEZOMETER LOCATION | (562.67) | GROUNDWATER ELEVATION |
| | | — 561 — | GROUNDWATER CONTOUR | | |

- NOTES:**
- THE PCBM WELL ELEVATIONS ARE NOT USED FOR CONTOURING.
 - COULD NOT LOCATE PCM-06 DUE TO SNOW.
 - COULD NOT MEASURE WATER LEVEL OF NIAGARA RIVER DUE TO ICE.

figure 2.4
GROUNDWATER ELEVATIONS - DECEMBER 5, 2016
2016 PERIODIC REVIEW REPORT
102ND STREET LANDFILL SITE
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York



Tables

Table 2.1

**Hydraulic Gradient Well Pairs
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Pair	Outside	Inside	Location
1	PCM-01	PZ-01	West Side
2	PCM-02	PZ-02	Southwest Side
3	PCM-03	PZ-03*/PZ-03R	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-07R	PZ-07	North Side
8	PCM-08	PZ-08	North Side
9	PCM-09	PZ-09*/PZ-09R	North Side
10	PCM-10	PZ-10	Northwest Side

Notes:

- * - These wells are no longer present and were replaced with the "R" well of the same name

Table 2.2

**Quarterly Water Level Elevations
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Location	Ref Elev. (ft AMSL)	March 2, 2016	June 8, 2016	September 6, 2016	December 5, 2016
NR-01	595.96	560.42	560.37	560.48	560.54
NR-02	588.39	560.38	560.46	560.61	560.58
NR-03	593.09	560.17	560.34	560.48	560.49
NR-04	581.06	560.24	560.28	560.45	560.44
NR-05	580.33	560.20	560.26	560.42	560.40
NR-07	587.21	561.44	561.48	561.64	561.62
NR-08	590.72	560.09	560.20	560.36	560.36
NR-10	586.77	560.34	560.36	560.46	560.45
PCBM-01	576.19	563.27	563.93	563.70	562.97
PCBM-02	575.21	563.05	563.61	563.46	562.74
PCBM-03	579.34	563.65	563.81	563.31	562.85
PCM-01	577.02	565.43	565.20	564.38	564.14
PCM-02	576.22	566.13	565.67	564.83	564.53
PCM-03	576.14	562.47	563.60	563.61	562.67
PCM-04	574.90	562.63	563.57	563.68	562.79
PCM-05	575.21	564.10	563.49	562.40	562.52
PCM-06	579.26	565.97	566.33	567.38	566.12
PCM-07R	578.80	566.09	566.73	565.97	564.92
PCM-08	578.34	569.47	566.92	568.84	568.77
PCM-09	578.05	571.42	567.93	567.84	568.49
PCM-10	578.44	566.55	566.00	565.01	564.86
PZ-01	580.98	561.66	561.66	561.72	561.69
PZ-02	577.10	560.87	561.03	560.99	560.98
PZ-03R	576.15	560.59	560.75	560.93	560.93
PZ-04	575.99	560.57	560.64	560.81	560.79
PZ-05	575.92	560.32	560.38	560.54	560.41
PZ-06	583.70	Dry	Dry	Dry	Dry
PZ-07	578.48	568.65	566.16	566.14	565.83
PZ-08	579.71	Dry	Dry	Dry	Dry
PZ-09R	580.37	565.89	565.75	565.85	565.80
PZ-10	581.61	564.52	564.71	564.67	564.53
RIVERNPIER	567.02	562.90	564.10	564.02	563.12
WW-1	574.97	560.06	560.08	560.41	560.33
WW-2	574.43	560.06	560.14	560.42	560.42
WW-3	574.78	560.42	560.21	560.60	560.56
WW-4	575.20	560.47	560.23	560.64	560.58

Notes:

Dry - No water in well during time of measurement
ft AMSL - Feet above mean sea level

Table 2.3

**Well Pair Gradients
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Pairs	Well IDs	Elevation (ft AMSL)		March 2, 2016	June 8, 2016	September 6, 2016	December 5, 2016	Quarters Maintaining Inward Gradient
		TOC	Bottom					
Pair 1	PCM-01	577.02	549.05	565.43	565.20	564.38	564.14	
	PZ-01	580.98	549.64	561.66	561.66	561.72	561.69	
				-3.77	-3.54	-2.66	-2.45	4
Pair 2	PCM-02	576.22	547.90	566.13	565.67	564.83	564.53	
	PZ-02	577.10	548.43	560.87	561.03	560.99	560.98	
				-5.26	-4.64	-3.84	-3.55	4
Pair 3	PCM-03	576.14	545.15	562.47	563.60	563.61	562.67	
	PZ-03R	576.15	542.75	560.59	560.75	560.93	560.93	
				-1.88	-2.85	-2.68	-1.74	4
Pair 4	PCM-04	574.90	545.74	562.63	563.57	563.68	562.79	
	PZ-04	575.99	545.63	560.57	560.64	560.81	560.79	
				-2.06	-2.93	-2.87	-2.00	4
Pair 5	PCM-05	575.21	550.00	564.10	563.49	562.40	562.52	
	PZ-05	575.92	550.50	560.32	560.38	560.54	560.41	
				-3.78	-3.11	-1.86	-2.11	4
Pair 6	PCM-06	579.26	565.51	565.97	566.33	567.38	566.12	
	PZ-06	583.70	563.09	Dry	Dry	Dry	Dry	
				< -2.88	< -3.24	< -4.29	< -3.03	4*

Table 2.3

**Well Pair Gradients
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Pairs	Well IDs	Elevation (ft AMSL)		March 2, 2016	June 8, 2016	September 6, 2016	December 5, 2016	Quarters Maintaining Inward Gradient
		TOC	Bottom					
Pair 7	PCM-07R	578.80	557.63	566.09	566.73	565.97	564.92	
	PZ-07	578.48	563.72	568.65	566.16	566.14	565.83	
				2.56	-0.57	0.17	0.91	1
Pair 8	PCM-08	578.34	564.43	569.47	566.92	568.84	568.77	
	PZ-08	579.71	564.10	Dry	Dry	Dry	Dry	
				< -5.37	< -2.82	< -4.74	< -4.67	4*
Pair 9	PCM-09	578.05	566.93	571.42	567.93	567.84	568.49	
	PZ-09R	580.37	563.27	565.89	565.75	565.85	565.80	
				-5.53	-2.18	-1.99	-2.69	4
Pair 10	PCM-10	578.44	556.39	566.55	566.00	565.01	564.86	
	PZ-10	581.61	561.56	564.52	564.71	564.67	564.53	
				-2.03	-1.29	-0.34	-0.33	4

Notes:

- ft AMSL - Feet above mean sea level
- TOC - Top of casing
- 3.53 - Negative number indicates an inward gradient
- Dry - No water in well during time of measurement. Assumed to be less than bottom of well for gradient calculation.
- * - When the bottom elevation of the well is taken into account, all four quarters demonstrate inward gradients
- Bottom - Bottom of well screen elevation

Table 2.4

Analytical Results Summary
 Glenn Springs Holdings, Inc.
 102nd Street Landfill Site
 Niagara Falls, New York

Parameters	NYSDEC Class GA GW Criteria	Units	Overburden Wells									
			Sample Location:	PCM-01	PCM-02	PCM-03	PCM-04	PCM-05	PCM-06	PCM-07R	PCM-08	PCM-10
			Sample ID:	PCM-01-1016	PCM-02-1016	PCM-03-1016	PCM-04-1016	PCM-05-1016	PCM-06-1016	PCM-07R-1016	PCM-08-1016	PCM-10-1016
Sample Date:	10/18/2016	10/19/2016	10/19/2016	10/19/2016	10/29/2016	10/29/2016	10/29/2016	10/29/2016	10/18/2016	10/18/2016		
Volatile Organic Compounds												
1,2,3-Trichlorobenzene	5	µg/L	1.0 U	1.0 U	5.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2,4-Trichlorobenzene	5	µg/L	1.0 U	1.0 U	5.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichlorobenzene	3	µg/L	1.0 U	1.0 U	52	14	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	3	µg/L	1.0 U	0.22 J	320	230	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
2-Chlorotoluene	5	µg/L	1.0 U	1.0 U	12	2.2 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Benzene	1	µg/L	1.0 U	1.0 U	34	27	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chlorobenzene	5	µg/L	1.0 U	1.0 U	3500	7700	110	1.0 U	1.0 U	1.0 U	1.0 U	
Semi-volatile Organic Compounds												
1,2,4,5-Tetrachlorobenzene	5	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	-	-	9.4 U	9.4 U	
2,4,5-Trichlorophenol	1	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	-	-	9.4 U	9.4 U	
2,4-Dichlorophenol	1	µg/L	9.4 U	9.4 U	24	1.4 J	9.4 U	-	-	9.4 U	9.4 U	
2,5-Dichlorophenol	1	µg/L	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	-	-	4.7 U	4.7 U	
2-Chlorophenol	1	µg/L	9.4 U	9.4 U	24	23	9.4 U	-	-	9.4 U	9.4 U	
4-Chlorophenol	1	µg/L	9.4 U	9.4 U	53	46	9.4 U	-	-	9.4 U	9.4 U	
Phenol	1	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	-	-	9.4 U	9.4 U	
Metals (Totals)												
Arsenic	25	µg/L	10 U	10 U	10 U	10 U	10 U	-	-	10 U	10 U	
Mercury	0.7	µg/L	0.20 U	0.20 U	0.20 U	0.04 J	0.20 U	-	-	0.20 U	0.20 U	
Pesticides												
alpha-BHC	0.01	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	-	0.047 U	0.030 J	0.047 U	
beta-BHC	0.04	µg/L	0.047 U	0.047 U	0.068	0.047 U	0.047 U	-	0.047 U	0.047 U	0.022 J	
delta-BHC	0.04	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	-	0.047 U	0.047 U	0.047 U	
gamma-BHC (lindane)	0.05	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	-	0.047 U	0.047 U	0.047 U	

Notes:

J - Estimated Concentration

U - Not present at or above the associated value

"- " - Well not sampled due to insufficient volume (Dry)

µg/L - Micrograms per liter

☐ - Concentration exceeds the NYSDEC Class GA GW Criteria

Table 2.4

**Analytical Results Summary
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Parameters	NYSDEC Class GA GW Criteria	Units	Bedrock Wells			
			PCBM-01	PCBM-02	PCBM-03	PCBM-03
Sample Location:			PCBM-01	PCBM-02	PCBM-03	PCBM-03
Sample ID:			PCBM-01-1016	PCBM-02-1016	PCBM-03-1016	PCM-12-1016
Sample Date:			10/19/2016	10/19/2016	10/18/2016	10/18/2016 Duplicate
Volatile Organic Compounds						
1,2,3-Trichlorobenzene	5	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	5	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	1	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	µg/L	1.0 U	0.40 J	1.0 U	1.0 U
Semi-volatile Organic Compounds						
1,2,4,5-Tetrachlorobenzene	5	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4,5-Trichlorophenol	1	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	1	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,5-Dichlorophenol	1	µg/L	4.7 U	4.7 U	4.7 U	4.7 U
2-Chlorophenol	1	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Chlorophenol	1	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Phenol	1	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Metals (Totals)						
Arsenic	25	µg/L	10 U	10 U	10 U	10 U
Mercury	0.7	µg/L	0.20 U	0.20 U	0.20 U	0.20 U
Pesticides						
alpha-BHC	0.01	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
beta-BHC	0.04	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
delta-BHC	0.04	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
gamma-BHC (lindane)	0.05	µg/L	0.047 U	0.047 U	0.047 U	0.047 U

Notes:

J - Estimated Concentration

U - Not present at or above the associated value

"- " - Well not sampled due to insufficient volume (Dry)

µg/L - Micrograms per liter

☐ — Concentration exceeds the NYSDEC Class GA GW Criteria

Table 4.1

**Current and Historical NAPL Recoveries
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Amount of NAPL Removed in Gallons																	
Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Totals
Well																	
NR-01	55.0	0	60.0	0	0	30.0	85.0	44.0	46.0	7.0	10.5	7.0	4.5	4.8	7.0	6.0	366.8
NR-02	200.0	1,490.0	1,355.0	12,150.6	18,153.0	8,738.0	9,421.0	6,189.0	7,164.0	477.7	953.0	1,185.0	787.0	799.8	692.4	620.6	70,376.0
NR-03	40.0	0	0	0	0	10.0	42.0	22.0	12.0	0	7.0	6.0	5.3	5.9	5.8	2.8	158.6
NR-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
NR-05	40.0	0	20.0	0	0	10.0	36.0	21.0	15.0	0	2.5	0	0	0	0	0	144.5
NR-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
NR-08	0	0	5.0	0	0	8.0	43.0	22.0	16.0	0	3.5	0	0	0	0	0	97.5
NR-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Total	335.0	1,490.0	1,440.0	12,150.6	18,153.0	8,796.0	9,627.0	6,298.0	7,253.0	484.7	976.5	1,198.0	796.8	810.4	705.2	629.4	71,143

Notes:

NAPL - Non-Aqueous Phase Liquid

* 2010 - NR-2 inspections/pumping frequency reduced from daily to twice weekly, NR-3 increased to weekly

Table 4.2

**NAPL Recovery From NR-02
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Date	NAPL Removed (gallons)
04/01/2016	8.5
04/05/2016	25.1
04/11/2016	23.5
04/22/2016	19.6
04/29/2016	19.6
05/06/2016	17.8
05/09/2016	23.0
05/13/2016	23.0
05/20/2016	24.4
05/27/2016	24.4
06/03/2016	17.1
06/10/2016	17.1
06/13/2016	17.5
06/17/2016	20.1
06/24/2016	23.5
07/01/2016	26.1
07/08/2016	21.4
07/11/2016	21.4
07/15/2016	15.3
07/19/2016	19.1
08/08/2016	17.1
08/12/2016	22.4
08/19/2016	18.0
08/26/2016	13.5
09/02/2016	18.3
09/06/2016	17.6
09/14/2016	17.6
09/23/2016	17.6
09/26/2016	16.3
10/04/2016	17.8
10/24/2016	17.8
10/31/2016	19.1
TOTAL	620.6

Notes:

NAPL - Non-Aqueous Phase Liquid

Appendices

Appendix A Institutional and Engineering Controls Certification Form

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation

625 Broadway, 11th Floor, Albany, NY 12233-7020

P: (518)402-9543 | F: (518)402-9547

www.dec.ny.gov

12/19/2016

Joseph Branch
Project Manager
OCC/Glenn Springs Holdings Inc.
7601 Old Channel Trail
P.O. Box 146
Montague, MI 49437

Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal

Site Name: Hooker-102nd Street Landfill

Site No.: 932022

Site Address: 102nd Street, South of River Road
Niagara Falls, NY 14304

Dear Joseph Branch:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at <http://www.dec.ny.gov/regulations/67386.html>) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **January 30, 2017**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls (“IC/EC Plan”); a plan for monitoring the performance and effectiveness of the selected remedy (“Monitoring Plan”); and/or a plan for the operation and maintenance of the selected remedy (“O&M Plan”). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. The Engineering Controls (ECs) portion of the form (Box 7) must be signed by a Professional Engineer (PE). If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.

All site-related documents and data, including the PRR, are to be submitted in electronic format to the Department of Environmental Conservation. The Department will not approve the PRR unless all documents and data generated in support of that report have been submitted in accordance with the electronic submissions protocol. In addition, the certification forms are required to be submitted in both paper and electronic formats.

Information on the format of the data submissions can be found at:
<http://www.dec.ny.gov/regulations/2586.html>

The signed certification forms should be sent to Brian Sadowski, Project Manager, at the following address:

New York State Department of Environmental Conservation
270 Michigan Ave
Buffalo, NY 14203-2915

Phone number: 716-851-7220. E-mail: brian.sadowski@dec.ny.gov

The contact information above is also provided so that you may notify the project manager about upcoming inspections, or for any other questions or concerns that may arise in regard to the site.

Enclosures

- PRR General Guidance
- Certification Form Instructions
- Certification Forms

ec: w/ enclosures

- Brian Sadowski, Project Manager
- Mary McIntosh, Section Chief
- Chad Staniszewski, Hazardous Waste Remediation Engineer, Region 9

Enclosure 1

Certification Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional Controls/ Engineering Controls (IC/ECs)(Boxes 3, 4, and 5)

1.1.1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7):

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.
- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the form.



Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 Site Management Periodic Review Report Notice
 Institutional and Engineering Controls Certification Form



	Site Details	Box 1
Site No.	932022	
Site Name Hooker-102nd Street Landfill		
Site Address: 102nd Street, South of River Road		Zip Code: 14304
City/Town: Niagara Falls		
County: Niagara		
Site Acreage: 16.5		
Reporting Period: January 30, 2016 to December 31, 2016		
		YES NO
1.	Is the information above correct? If NO, include handwritten above or on a separate sheet.	<input checked="" type="checkbox"/> <input type="checkbox"/>
2.	Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	<input type="checkbox"/> <input checked="" type="checkbox"/>
3.	Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11 (d))?	<input type="checkbox"/> <input checked="" type="checkbox"/>
4.	Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	<input type="checkbox"/> <input checked="" type="checkbox"/>
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5.	Is the site currently undergoing development?	<input type="checkbox"/> <input checked="" type="checkbox"/>

		Box 2
		YES NO
6.	Is the current site use consistent with the use(s) listed below? Closed Landfill	<input checked="" type="checkbox"/> <input type="checkbox"/>
7.	Are all ICs/ECs in place and functioning as designed?	<input checked="" type="checkbox"/> <input type="checkbox"/>
IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.		
A Corrective Measures Work Plan must be submitted along with this form to address these issues.		
_____ Signature of Owner, Remedial Party or Designated Representative		_____ Date

Description of Institutional Controls

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Control</u>
161.18-1-34.2	Occidental Chemical Corporation	<p>Landuse Restriction</p> <p>Ground Water Use Restriction Building Use Restriction Monitoring Plan O&M Plan</p> <p>1. Record of Decision; September 26, 1990.</p> <p>2. Deed Restriction; January 25, 2000. Prohibits the use of site groundwater or disturbance of the landfill cover.</p>
161.19-3-1	Occidental Chemical Corporation	<p>Monitoring Plan O&M Plan Building Use Restriction Landuse Restriction</p> <p>Ground Water Use Restriction</p> <p>1. Record of Decision; September 26, 1990.</p> <p>2. Deed Restriction; January 25, 2000. Prohibits the use of site groundwater or disturbance of the landfill cover.</p>
161.19-3-2	Occidental Chemical Corporation	<p>Landuse Restriction</p> <p>Ground Water Use Restriction Building Use Restriction Monitoring Plan O&M Plan</p> <p>1. Record of Decision (ROD) September 26, 1990.</p> <p>2. Deed Restriction; January 25, 2000. Prohibits the use of site groundwater or disturbance of the landfill cover.</p>
174.07-1-1	Occidental Chemical Corporation	<p>Ground Water Use Restriction Building Use Restriction O&M Plan Monitoring Plan Landuse Restriction</p>

1. Record of Decision; September 26, 1990.

2. Deed Restriction; January 25, 2000. Prohibits the use of site groundwater or disturbance of the landfill cover.

174.07-1-2

Occidental Chemical Corporation

Ground Water Use Restriction
Building Use Restriction

Landuse Restriction

Monitoring Plan
O&M Plan

1. Record of Decision; September 26, 1990.

2. Deed Restriction; January 25, 2000. Prohibits the use of site groundwater or disturbance of the landfill cover.

174.07-1-3

Olin Corporation

Monitoring Plan
O&M Plan
Ground Water Use Restriction
Building Use Restriction
Landuse Restriction

1. Record of Decision; September 26, 1990.

2. Deed Restriction; January 25, 2000. Prohibits the use of site groundwater or disturbance of the landfill cover.

174.07-1-4

Olin Corporation

Landuse Restriction
Monitoring Plan
O&M Plan

Ground Water Use Restriction
Building Use Restriction

1. Record of Decision; September 26, 1990.

2. Deed Restriction; January 25, 2000. Prohibits the use of site groundwater or disturbance of the landfill cover.

Box 4

Description of Engineering Controls

Parcel

Engineering Control

161.18-1-34.2

Groundwater Treatment System
Groundwater Containment
Subsurface Barriers
Cover System
Fencing/Access Control
Leachate Collection

The engineering controls consist of a containment system for the landfill, including: perimeter fencing; NAPL recovery wells; a groundwater collection system; a perimeter sub-surface slurry wall; and a landfill cap. Groundwater collected from the containment system is pumped north for treatment at the Love Canal Leachate Treatment Facility. NAPL is pumped seasonally (April - Nov.) from NAPL recovery wells into two double walled skid mounted tanks with internal secondary containment and sent off site for proper disposal. OCC/Olin, or their consultant has performed the required OM&M activities since 1999.

161.19-3-1

Leachate Collection
Cover System
Fencing/Access Control
Groundwater Treatment System
Groundwater Containment
Subsurface Barriers

The engineering controls consist of a containment system for the landfill, including: perimeter fencing; NAPL recovery wells; a groundwater collection system; a perimeter sub-surface slurry wall; and a landfill cap. Groundwater collected from the containment system is pumped north for treatment at the Love Canal Leachate Treatment Facility. NAPL is pumped seasonally (April - Nov.) from NAPL recovery wells into two double walled skid mounted tanks with internal secondary containment and sent off site for proper disposal. OCC/Olin, or their consultant has performed the required OM&M activities since 1999.

161.19-3-2

Groundwater Treatment System
Groundwater Containment
Subsurface Barriers
Cover System
Fencing/Access Control
Leachate Collection

The engineering controls consist of a containment system for the landfill, including: perimeter fencing; NAPL recovery wells; a groundwater collection system; a perimeter sub-surface slurry wall; and a landfill cap. Groundwater collected from the containment system is pumped north for treatment at the Love Canal Leachate Treatment Facility. NAPL is pumped seasonally (April - Nov.) from NAPL recovery wells into two double walled skid mounted tanks with internal secondary containment and sent off site for proper disposal. OCC/Olin, or their consultant has performed the required OM&M activities since 1999.

174.07-1-1

Leachate Collection
Cover System
Fencing/Access Control
Groundwater Treatment System
Groundwater Containment
Subsurface Barriers

The engineering controls consist of a containment system for the landfill, including: a perimeter sub-surface slurry wall, groundwater collection system, NAPL recovery wells, landfill cap and perimeter fencing. Groundwater collected from the containment system is pumped north for treatment at the Love Canal Leachate Treatment Facility. NAPL is pumped seasonally (April-October) from NAPL recovery wells into two, 2,500 gallon, double walled skid mounted tanks with internal secondary containment. Accumulated NAPL is shipped off site for proper disposal. OCC/Olin, or their consultant has performed the required OM&M activities since 1999.

174.07-1-2

Leachate Collection
Cover System
Fencing/Access Control
Groundwater Treatment System
Groundwater Containment
Subsurface Barriers

The engineering controls consist of a containment system for the landfill, including: perimeter fencing; NAPL recovery wells; a groundwater collection system; a perimeter sub-surface slurry wall; and a landfill cap. Groundwater collected from the containment system is pumped north for treatment at the Love Canal Leachate Treatment Facility. NAPL is pumped seasonally (April - Nov.) from NAPL recovery

Parcel

Engineering Control

wells into two double walled skid mounted tanks with internal secondary containment and sent off site for proper disposal. OCC/Olin, or their consultant has performed the required OM&M activities since 1999.

174.07-1-3

Groundwater Treatment System
Cover System
Groundwater Containment
Leachate Collection
Subsurface Barriers
Fencing/Access Control

The engineering controls consist of a containment system for the landfill, including: perimeter fencing; NAPL recovery wells; a groundwater collection system; a perimeter sub-surface slurry wall; and a landfill cap. Groundwater collected from the containment system is pumped north for treatment at the Love Canal Leachate Treatment Facility. NAPL is pumped seasonally (April - Nov.) from NAPL recovery wells into two double walled skid mounted tanks with internal secondary containment and sent off site for proper disposal. OCC/Olin, or their consultant has performed the required OM&M activities since 1999.

174.07-1-4

Groundwater Treatment System
Cover System
Groundwater Containment
Leachate Collection
Subsurface Barriers
Fencing/Access Control

The engineering controls consist of a containment system for the landfill, including: perimeter fencing; NAPL recovery wells; a groundwater collection system; a perimeter sub-surface slurry wall; and a landfill cap. Groundwater collected from the containment system is pumped north for treatment at the Love Canal Leachate Treatment Facility. NAPL is pumped seasonally (April - Nov.) from NAPL recovery wells into two double walled skid mounted tanks with internal secondary containment and sent off site for proper disposal. OCC/Olin, or their consultant has performed the required OM&M activities since 1999.

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

RGA 02/24/17

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. 932022

Box 6


SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1, 2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Joseph Branch at 7601 Old Channel Trail, Montague MI, 49437
print name print business address

am certifying as CO-OWNER (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.


Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification

2-21-2017
Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I ROBERT G. ADAMS at GHD CONSULTING SERVICES INC - 285 DELAWARE AVE, BUFFALO NY 14202
print name print business address

am certifying as a Professional Engineer for the REMEDIAL PARTY
(Owner or Remedial Party)

Robert G. Adams

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification



02/24/17
Date

Enclosure 3
Periodic Review Report (PRR) General Guidance

- I. Executive Summary: (1/2-page or less)
 - A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
 - B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
 1. progress made during the reporting period toward meeting the remedial objectives for the site
 2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
 - C. Compliance
 1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
 2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
 - D. Recommendations
 1. recommend whether any changes to the SMP are needed
 2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
 3. recommend whether the requirements for discontinuing site management have been met.

- II. Site Overview (one page or less)
 - A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
 - B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.

- III. Evaluate Remedy Performance, Effectiveness, and Protectiveness
Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.

- IV. IC/EC Plan Compliance Report (if applicable)
 - A. IC/EC Requirements and Compliance
 1. Describe each control, its objective, and how performance of the control is evaluated.
 2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
 3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
 4. Conclusions and recommendations for changes.
 - B. IC/EC Certification
 1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).

- V. Monitoring Plan Compliance Report (if applicable)
 - A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
 - B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
 - C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
 - D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
 - E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.

- VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
 - A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
 - B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.
 - C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated

the ability of each component of the remedy subject to O&M requirements to perform as designed/expected.

- D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.
- E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

VII. Overall PRR Conclusions and Recommendations

- A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
 - 1. whether all requirements of each plan were met during the reporting period
 - 2. any requirements not met
 - 3. proposed plans and a schedule for coming into full compliance.
- B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.
- C. Future PRR Submittals
 - 1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
 - 2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.

Appendix B Annual Report Forms

ANNUAL OPERATION AND MAINTENANCE REPORT

102ND STREET LANDFILL SITE
NIAGARA FALLS, NEW YORK

YEAR: 2016

MONITORING - Water Level Elevations (ft. AMSL)

Month	Day	Inspector	PCM-01	PZ-01	PCM-02	PZ-02	PCM-03	PZ-03R
1st Qtr.	3/2/2016	S. Gardner	565.43	561.66	566.13	560.87	562.47	560.59
2nd Qtr.	6/8/2016	S. Gardner	565.20	561.66	565.67	561.03	563.60	560.75
3rd Qtr.	9/6/2016	D. Tyran	564.38	561.72	564.83	560.99	563.61	560.93
4th Qtr.	12/5/2016	S. Gardner	564.14	561.69	564.53	560.98	562.67	560.93

Month	Day	Inspector	PCM-04	PZ-04	PCM-05	PZ-05	PCM-06	PZ-06
1st Qtr.	3/2/2016	S. Gardner	562.63	560.57	564.10	560.32	565.97	Dry
2nd Qtr.	6/8/2016	S. Gardner	563.57	560.64	563.49	560.38	566.33	Dry
3rd Qtr.	9/6/2016	D. Tyran	563.68	560.81	562.40	560.54	567.38	Dry
4th Qtr.	12/5/2016	S. Gardner	562.79	560.79	562.52	560.41	566.12	Dry

Month	Day	Inspector	PCM-07R	PZ-07	PCM-08	PZ-08	PCM-09	PZ-09R
1st Qtr.	3/2/2016	S. Gardner	566.09	568.65	569.47	Dry	571.42	565.89
2nd Qtr.	6/8/2016	S. Gardner	566.73	566.16	566.92	Dry	567.93	565.75
3rd Qtr.	9/6/2016	D. Tyran	565.97	566.14	568.84	Dry	567.84	565.85
4th Qtr.	12/5/2016	S. Gardner	564.92	565.83	568.77	Dry	568.49	565.80

Month	Day	Inspector	PCM-10	PZ-10
1st Qtr.	3/2/2016	S. Gardner	566.55	564.52
2nd Qtr.	6/8/2016	S. Gardner	566.00	564.71
3rd Qtr.	9/6/2016	D. Tyran	565.01	564.67
4th Qtr.	12/5/2016	S. Gardner	564.86	564.53

FORM 1

ANNUAL OPERATION AND MAINTENANCE REPORT

102ND STREET LANDFILL SITE
NIAGARA FALLS, NEW YORK

YEAR: 2016

GROUNDWATER - Quality Monitoring

Quarter	Date Sample Taken	Inspector	Comments
1st			
2nd			
3rd			
4th	10/18, 10/19	D. Tyran, S. Gardner	Annual Event

Results of analyses are attached.

NAPL PRESENCE - Monitoring

	Date	Inspector	NR-01		NR-02		NR-03	
			Thickness of NAPL (ft)	Gallons Removed	Thickness of NAPL (ft)	Gallons Removed	Thickness of NAPL (ft)	Gallons Removed
1st Quarter	3/2/2016	S. Gardner	0.93	0.00	1.94	0.00	0.73	0.00
2nd Quarter	6/8/2016	S. Gardner	1.00	6.00	1.59	226.00	0.59	2.75
3rd Quarter	9/6/2016	D. Tyran	0.86	0.00	1.74	288.40	0.78	0.00
4th Quarter	12/5/2016	S. Gardner	0.85	0.00	1.90	106.20	0.83	0.00

	Date	Inspector	NR-04		NR-05		NR-07	
			Thickness of NAPL (ft)	Gallons Removed	Thickness of NAPL (ft)	Gallons Removed	Thickness of NAPL (ft)	Gallons Removed
1st Quarter	3/2/2016	S. Gardner	NO NAPL	0.00	0.25	0.00	NO NAPL	0.00
2nd Quarter	6/8/2016	S. Gardner	NO NAPL	0.00	0.24	0.00	NO NAPL	0.00
3rd Quarter	9/6/2016	D. Tyran	NO NAPL	0.00	0.06	0.00	NO NAPL	0.00
4th Quarter	12/5/2016	S. Gardner	NO NAPL	0.00	0.03	0.00	0.22	0.00

	Date	Inspector	NR-08		NR-10	
			Thickness of NAPL (ft)	Gallons Removed	Thickness of NAPL (ft)	Gallons Removed
1st Quarter	3/2/2016	S. Gardner	1.10	0.00	NO NAPL	0.00
2nd Quarter	6/8/2016	S. Gardner	0.31	0.00	NO NAPL	0.00
3rd Quarter	9/6/2016	D. Tyran	0.54	0.00	NO NAPL	0.00
4th Quarter	12/5/2016	S. Gardner	0.69	0.00	NO NAPL	0.00

Notes:
ft. - Feet

FORM 1

ANNUAL OPERATION AND MAINTENANCE REPORT

**102ND STREET LANDFILL SITE
NIAGARA FALLS, NEW YORK**

YEAR: 2016

OPERATION

APL COLLECTION AND DISCHARGE SYSTEM

APL Flow for Previous Year (gallons)	APL Flow for Current Year (gallons)
199,893	184,970

NAPL REMOVAL SYSTEM

	NAPL Removed for Previous Year (gallons)	NAPL Removed for Current Year (gallons)
NR-01	7.0	6.0
NR-02	692.4	620.6
NR-03	5.75	2.75
NR-04	0	0
NR-05	0	0
NR-07	0	0
NR-08	0	0
NR-10	0	0
Total	705.15	629.35

Where was NAPL treated/disposed?

Facility	5 Drums shipped to Clean Harbors Aragonite, Grantsville, Utah	Date	6/22/2016
Facility	5 Drums shipped to Clean Harbors Aragonite, Grantsville, Utah	Date	9/7/2016
Facility	4 Drums shipped to Clean Harbors Aragonite, Grantsville, Utah	Date	12/1/2016
Facility	_____	Date	_____
Facility	_____	Date	_____
Facility	_____	Date	_____

FORM 1

ANNUAL OPERATION AND MAINTENANCE REPORT

102ND STREET LANDFILL SITE
NIAGARA FALLS, NEW YORK

YEAR: 2016

INSPECTION AND MAINTENANCE

Scheduled inspections performed:

	<i>Date</i>	<i>Inspectors</i>
DEC Inspection	<u>5/2/2016</u>	<u>Brian Sadowski (NYSDEC); Darrell Crockett (GHD)</u>
Well Inspection	<u>9/6/2016, 11/15/2016</u>	<u>Dave Tyran (GHD); Shawn Gardner (GHD)</u>

Was maintenance required?

Yes

No

What maintenance was required?

Date Performed

<u>Repaired WW1 level indicator</u>	<u>4/15/2016</u>
<u>Drummed NAPL from tank</u>	<u>6/14/2016</u>
<u>Drummed NAPL from tank</u>	<u>9/1/2016</u>
<u>Drummed NAPL from tank</u>	<u>11/28/2016</u>

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

None

ANNUAL OPERATION AND MAINTENANCE REPORT**102ND STREET LANDFILL SITE
NIAGARA FALLS, NEW YORK****YEAR:** 2016

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

Mr. Joseph Branch
Glenn Springs Holdings, Inc.
7601 Old Channel Trail
Montague, MI 49437

and

Mr. Dave M. Share
Olin Corporation
3855 North Ocoee Street, Suite 200
Cleveland, TN 37312

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

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

and

Mr. Brian Sadowski (electronic/email copy only)
New York State Department of Environmental Conservation
270 Michigan Avenue
Buffalo, NY 14203-2999

FORM 1

Appendix C
Graphs of Groundwater Level
Elevations 2002 through 2016

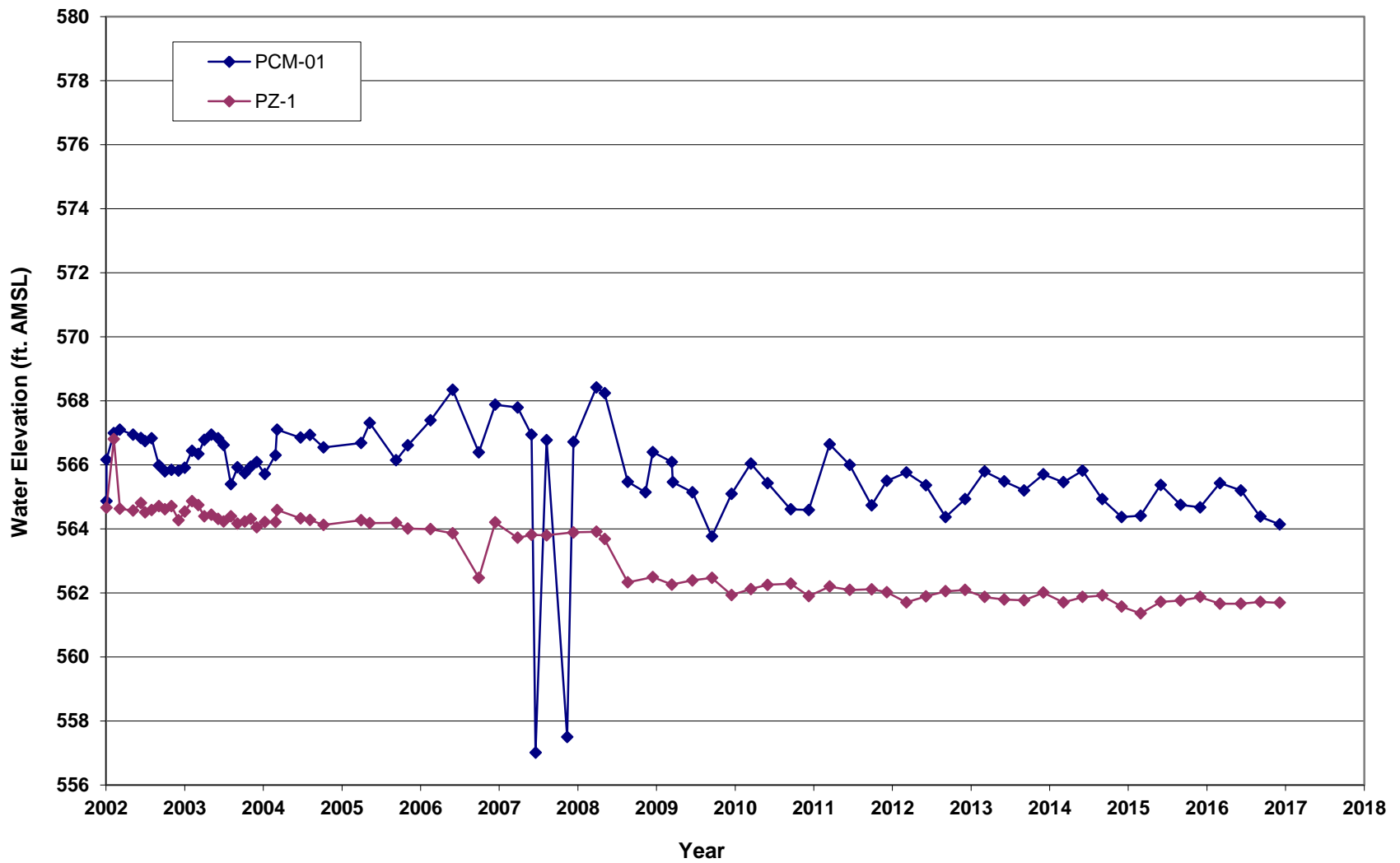


figure C.1
 GROUNDWATER LEVELS WELL PAIR 1
 102ND STREET LANDFILL SITE
 GLENN SPRINGS HOLDINGS, INC
Niagara Falls, New York



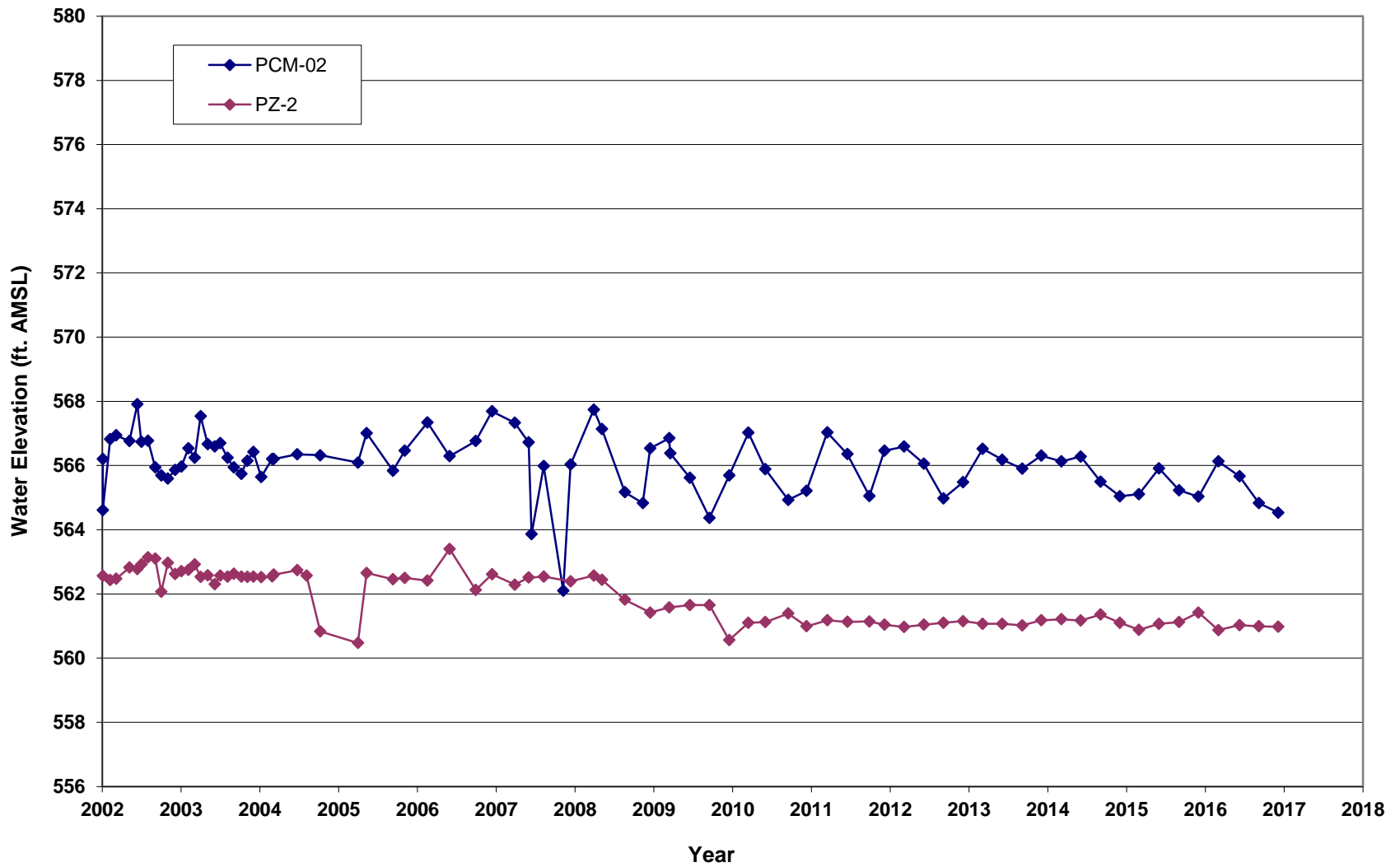


figure C.2
 GROUNDWATER LEVELS WELL PAIR 2
 102ND STREET LANDFILL SITE
 GLENN SPRINGS HOLDINGS, INC
Niagara Falls, New York



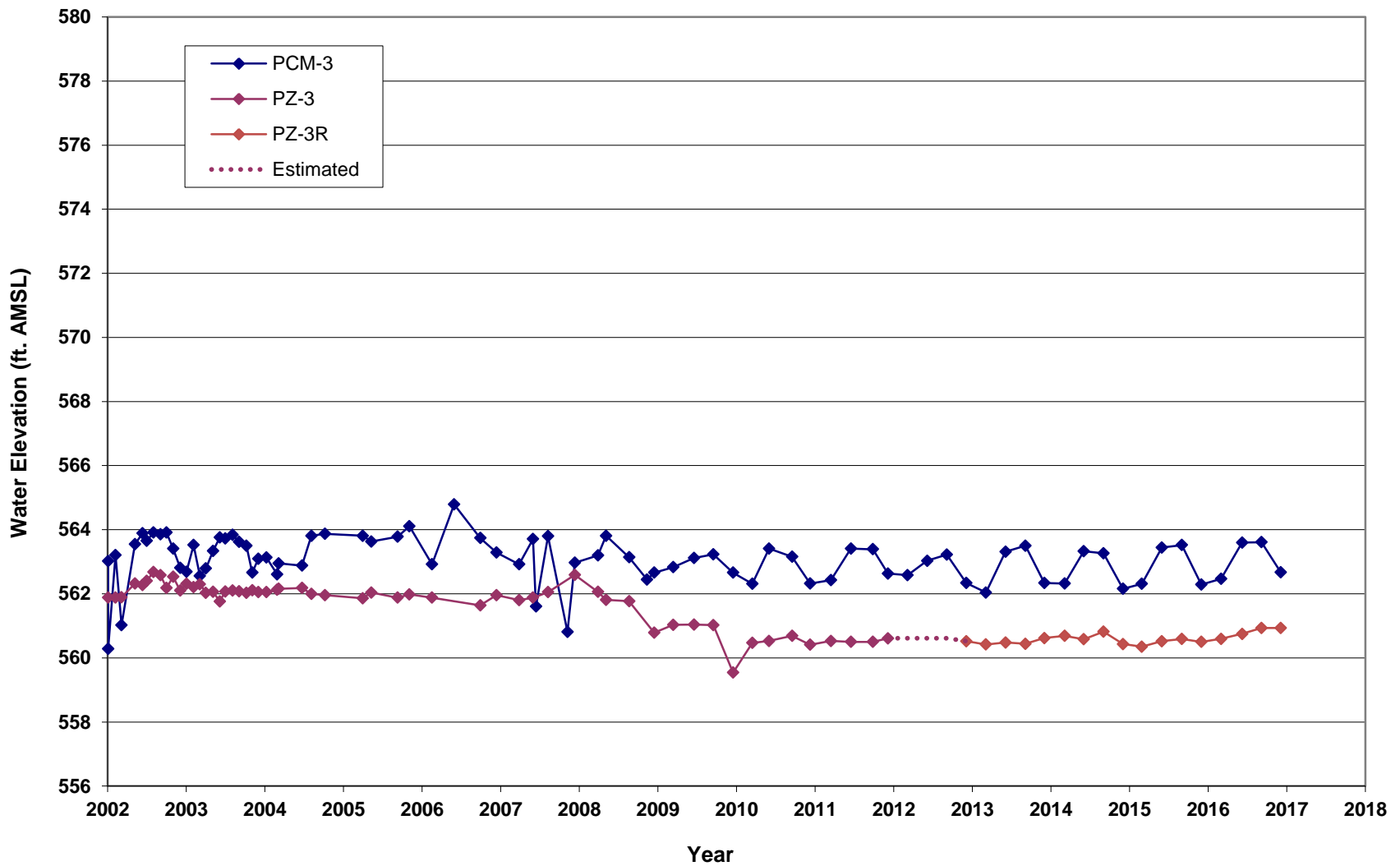


figure C.3
 GROUNDWATER LEVELS WELL PAIR 3
 102ND STREET LANDFILL SITE
 GLENN SPRINGS HOLDINGS, INC
Niagara Falls, New York



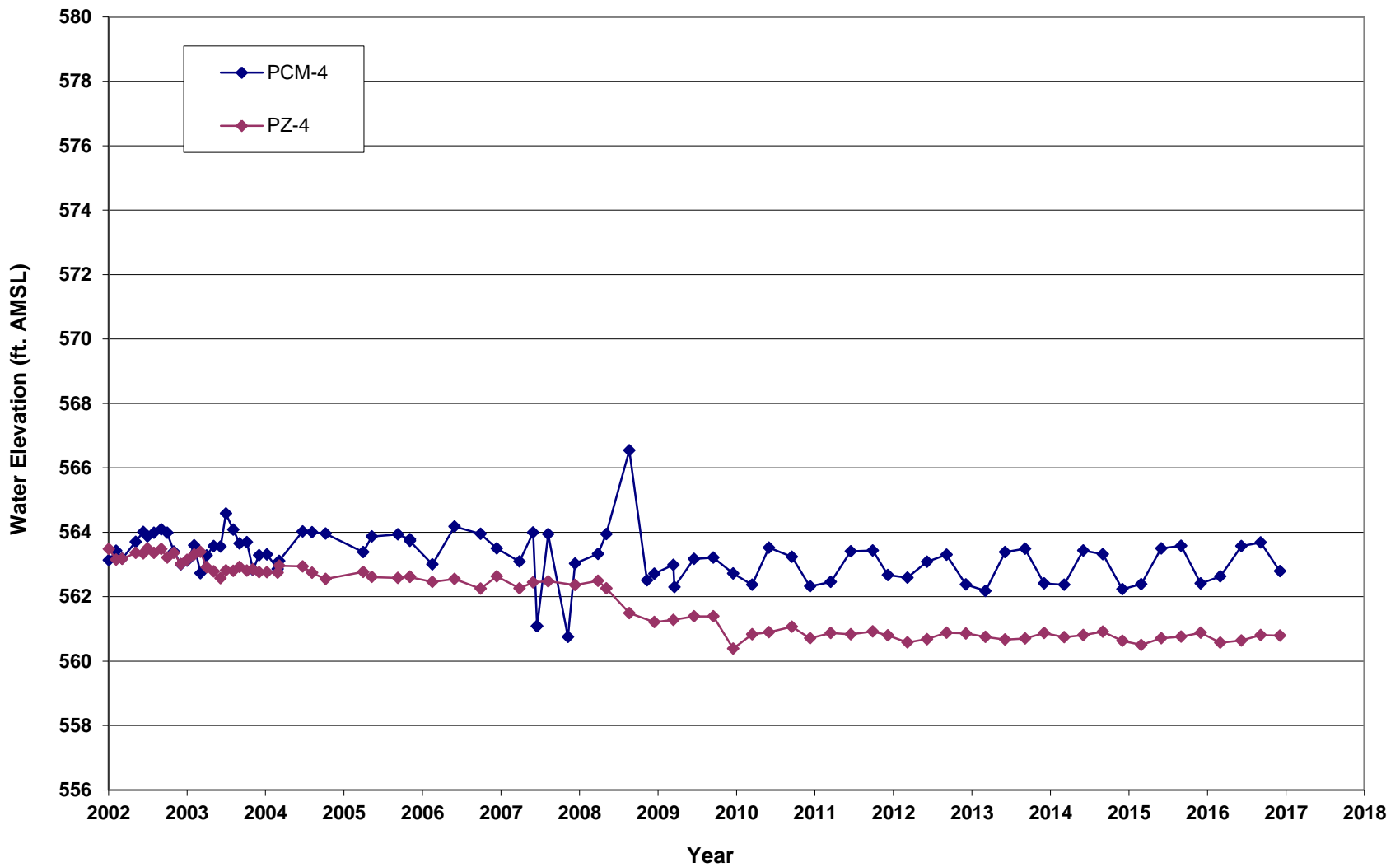


figure C.4
 GROUNDWATER LEVELS WELL PAIR 4
 102ND STREET LANDFILL SITE
 GLENN SPRINGS HOLDINGS, INC
Niagara Falls, New York



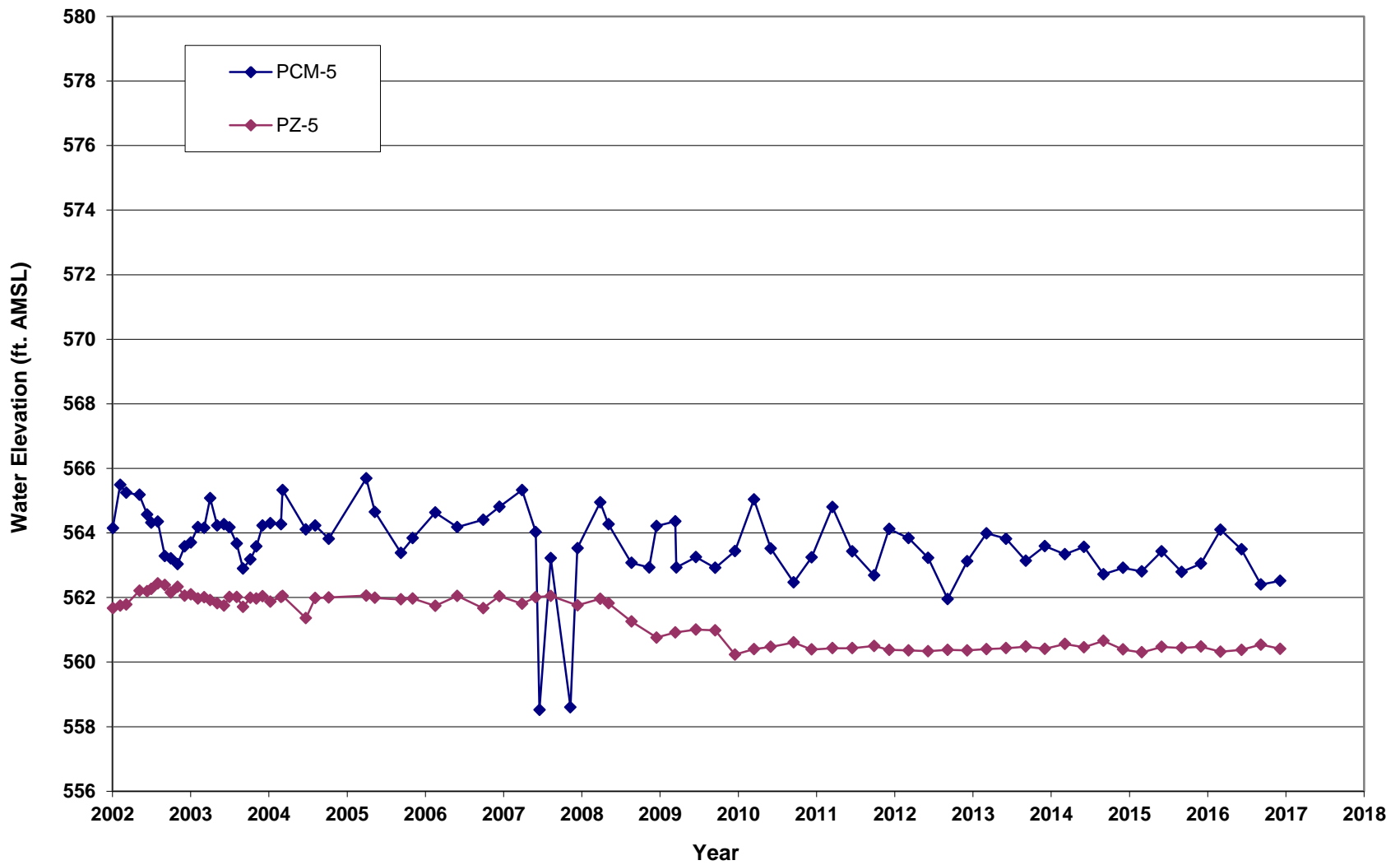


figure C.5
 GROUNDWATER LEVELS WELL PAIR 5
 102ND STREET LANDFILL SITE
 GLENN SPRINGS HOLDINGS, INC
Niagara Falls, New York



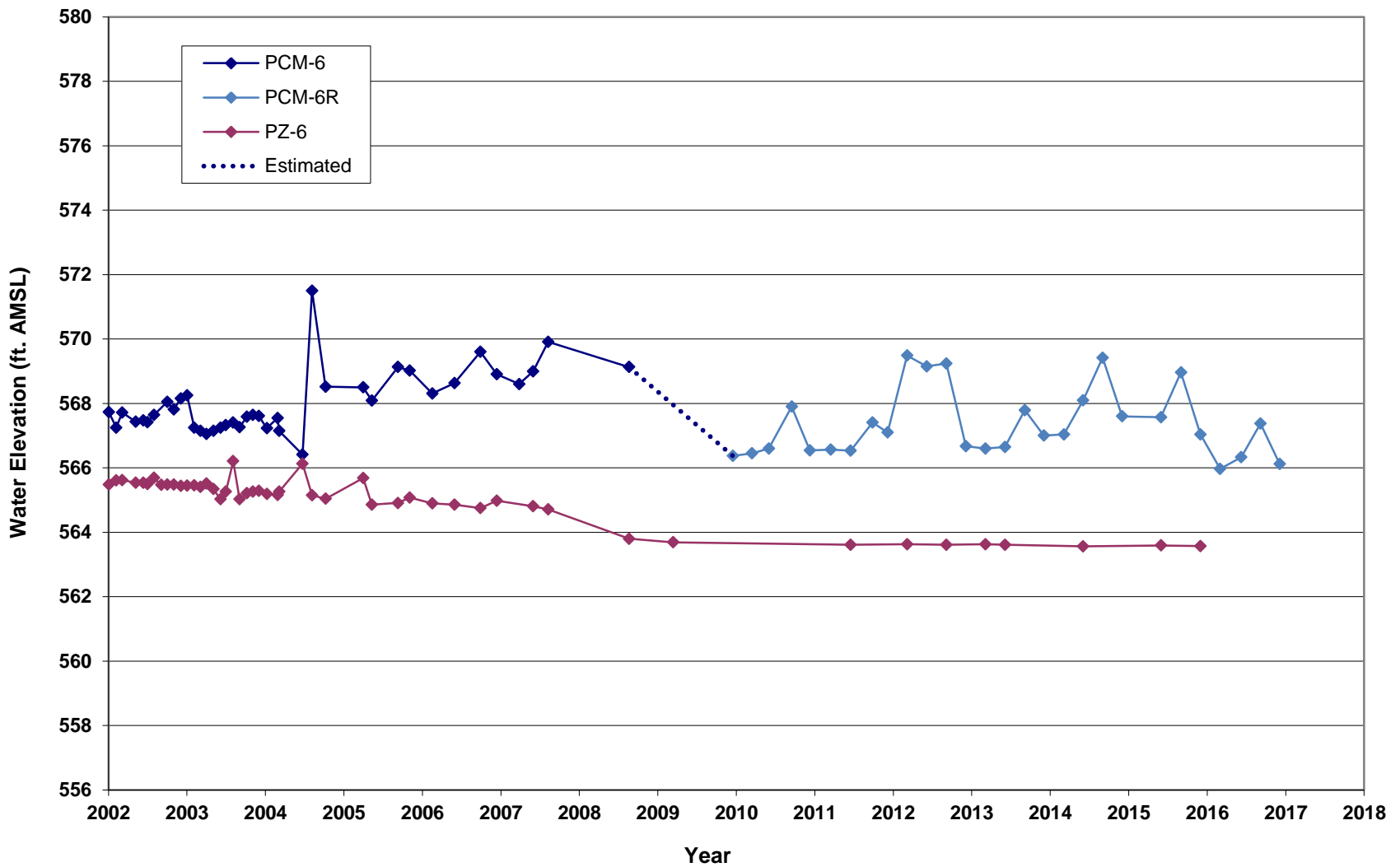


figure C.6
 GROUNDWATER LEVELS WELL PAIR 6
 102ND STREET LANDFILL SITE
 GLENN SPRINGS HOLDINGS, INC
 Niagara Falls, New York



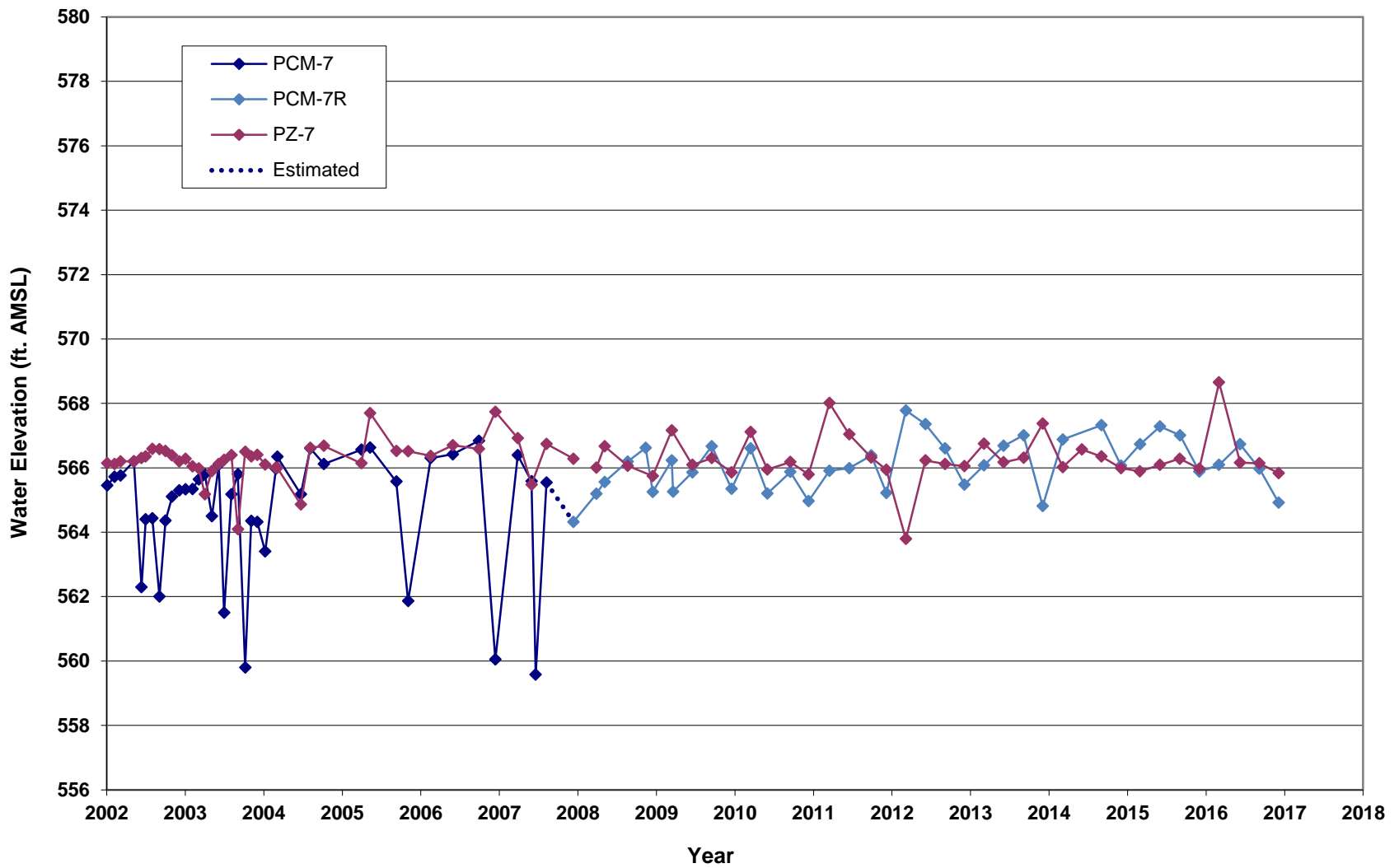
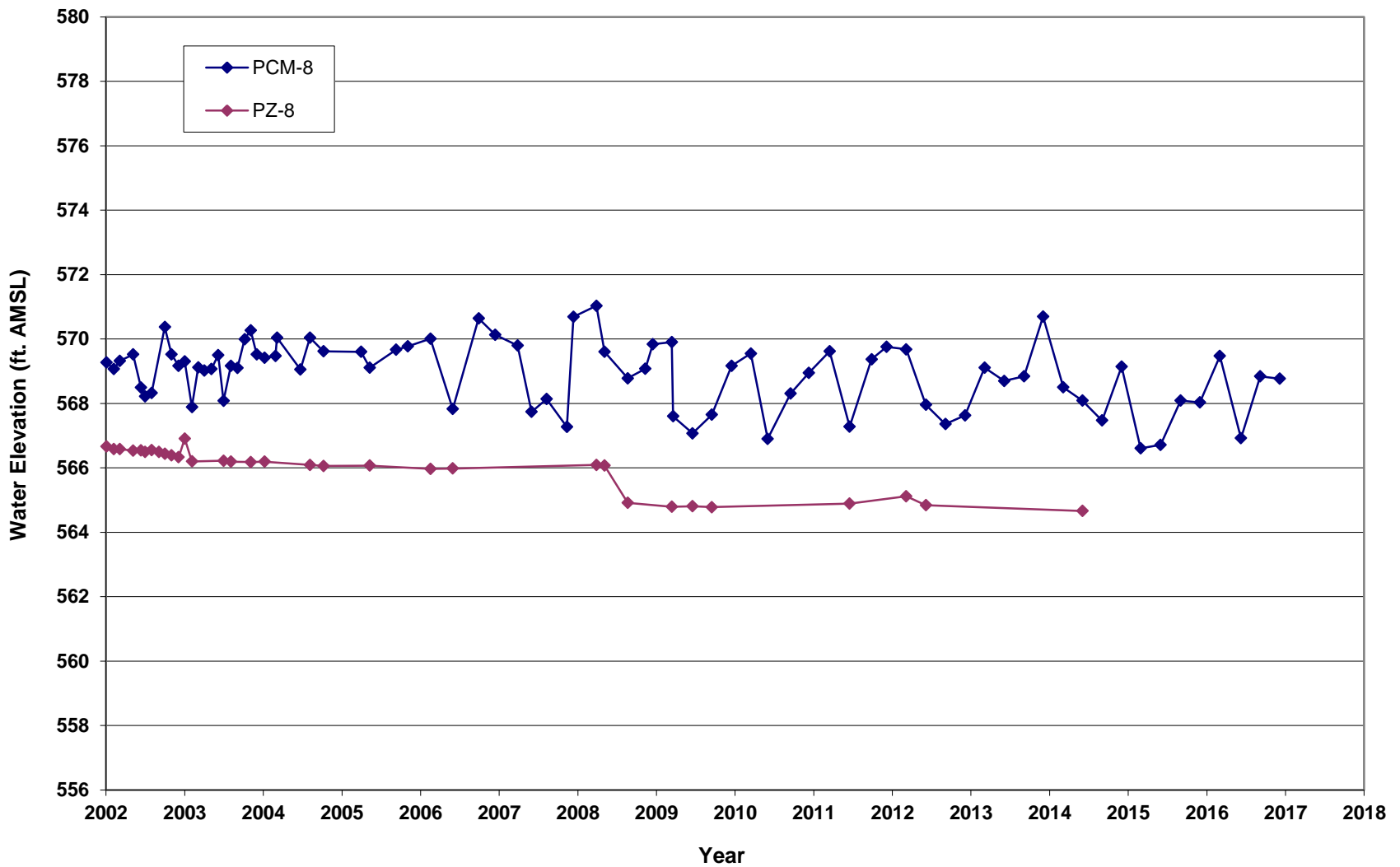


figure C.7
 GROUNDWATER LEVELS WELL PAIR 7
 102ND STREET LANDFILL SITE
 GLENN SPRINGS HOLDINGS, INC
 Niagara Falls, New York





Note: PZ-8 dry during all four quarters of the 2016 quarterly monitoring.

figure C.8
 GROUNDWATER LEVELS WELL PAIR 8
 102ND STREET LANDFILL SITE
 GLENN SPRINGS HOLDINGS, INC
 Niagara Falls, New York



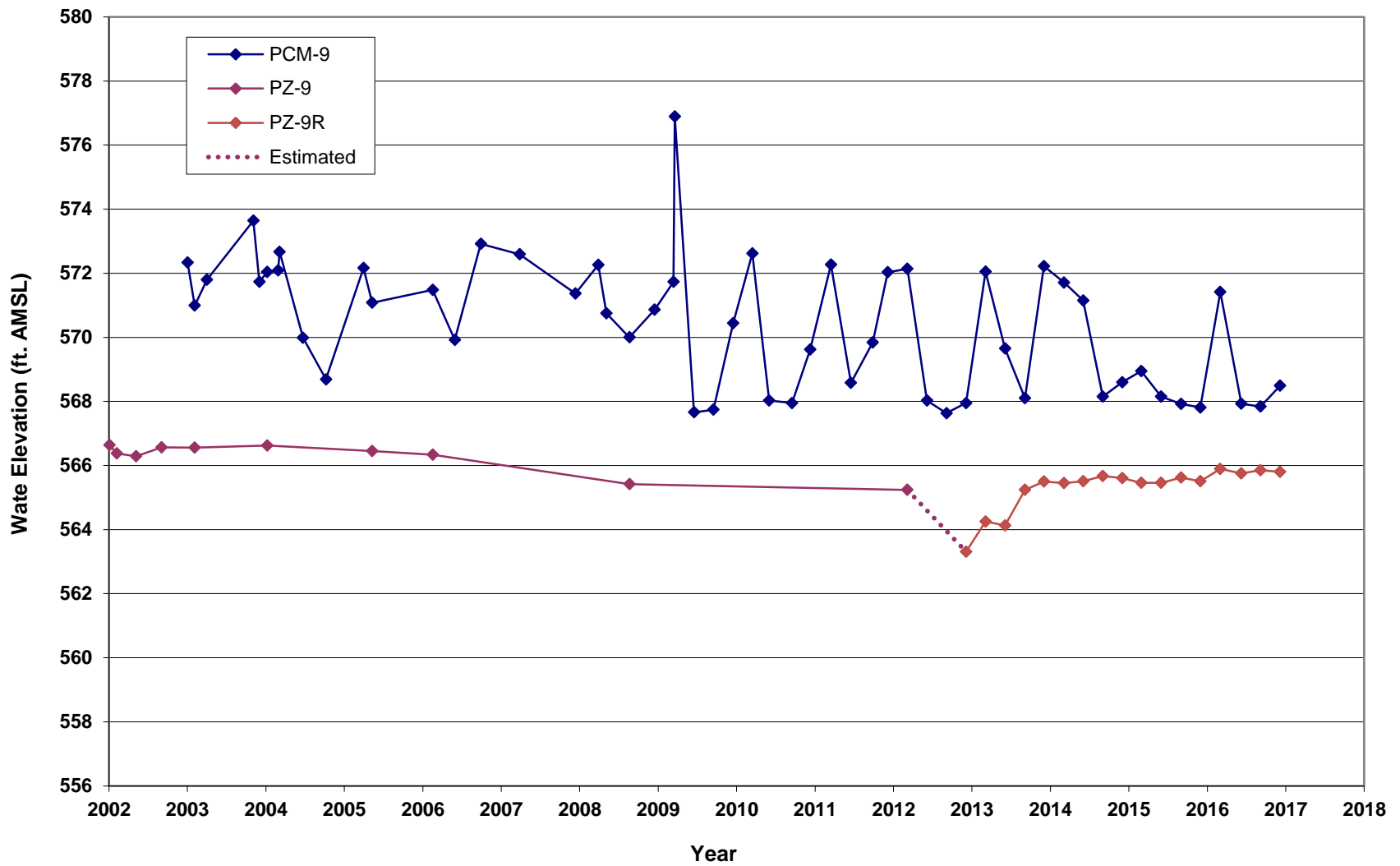


figure C.9
 GROUNDWATER LEVELS WELL PAIR 9
 102ND STREET LANDFILL SITE
 GLENN SPRINGS HOLDINGS, INC
 Niagara Falls, New York



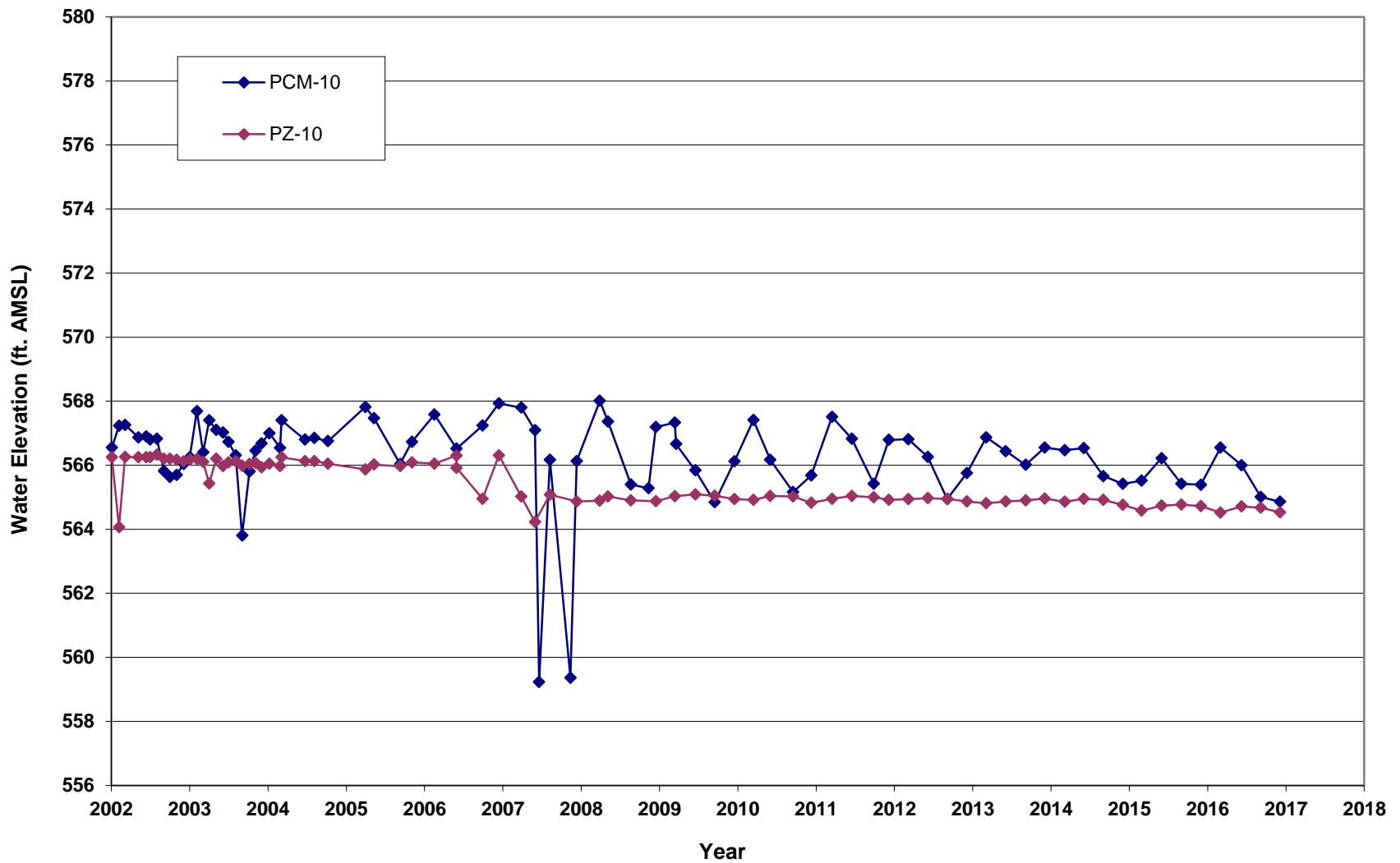


figure C.10
 GROUNDWATER LEVELS WELL PAIR 10
 102ND STREET LANDFILL SITE
 GLENN SPRINGS HOLDINGS, INC
Niagara Falls, New York



Appendix D

Historic Groundwater Monitoring Results

Table D.1

**Historical Bedrock Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location:	PCBM-01	PCBM-01	PCBM-01	PCBM-01	PCBM-01	PCBM-01	PCBM-01	PCBM-01	PCBM-01	PCBM-01
Sample ID:	PCBM-01-502	PCBM-01-802	PCM-12-802	PCBM-01-1202	PCBM-01-303	PCBM-01-603	PCBM-01-903	PCBM-01-1203	PCBM-01-304	
Sample Date:	5/31/2002	8/29/2002	8/29/2002 (Duplicate)	12/10/2002	3/31/2003	6/23/2003	9/29/2003	12/23/2003	3/11/2004	
Parameters	Units									
Volatile Organic Compounds										
1,2,3-Trichlorobenzene	µg/L	5.00 U	5.00 U	5.00 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	5.00 U	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,2-Dichlorobenzene	µg/L	5.00 U	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,4-Dichlorobenzene	µg/L	5.00 U	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
2-Chlorotoluene	µg/L	5.00 U	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Benzene	µg/L	5.00 U	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Chlorobenzene	µg/L	5.00 U	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Semi-volatile Organic Compounds										
1,2,4,5-Tetrachlorobenzene	µg/L	5.00 U	5.00 U	5.00 U	5.05 U	4.72 U	4.67 U	4.72 U	4.72 U	4.67 U
2,4,5-Trichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	10.1 U	9.43 U	9.35 U	9.43 U	9.43 U	9.35 U
2,4-Dichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	10.1 U	9.43 U	9.35 U	9.43 U	9.43 U	9.35 U
2,5-Dichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	10.1 U	9.43 U	9.35 U	9.43 U	9.43 U	9.35 U
2-Chlorophenol	µg/L	10.0 U	10.0 U	10.0 U	10.1 U	9.43 U	9.35 U	9.43 U	9.43 U	9.35 U
4-Chlorophenol	µg/L	10.0 U	10.0 U	10.0 U	10.1 U	9.43 U	9.35 U	9.43 U	9.43 U	9.35 U
Phenol	µg/L	10.0 U	10.0 U	10.0 U	10.1 U	9.43 U	9.35 U	9.43 U	9.43 U	9.35 U
Metals										
Arsenic	µg/L	50.0 U	8.35 J	10.0 U	10.0 U	27.7	10.0 U	10.0 U	10.0 U	10.0 U
Mercury	µg/L	NR	NR	NR	NR	NR	NR	NR	NR	NR
Pesticides										
alpha-BHC	µg/L	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0467 U	0.0467 U	0.0467 U	0.0377 U	0.0374 U
beta-BHC	µg/L	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0467 U	0.0467 U	0.0467 U	0.0472 U	0.0467 U
delta-BHC	µg/L	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0467 U	0.0467 U	0.0467 U	0.0566 U	0.0561 U
gamma-BHC (lindane)	µg/L	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0467 U	0.0467 U	0.0467 U	0.0377 U	0.0374 U

Table D.1

**Historical Bedrock Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

	Sample Location:	PCBM-01	PCBM-01	PCBM-01	PCBM-01	PCBM-01	PCBM-01	PCBM-01	PCBM-01	PCBM-01
	Sample ID:	PCBM-01-1204	PCBM-01-605	PCM-12-605	PCBM-01-1005	PCBM-01-606	PCM-12-606	PCBM-01-1206	PCBM-01-607	PCBM-01-1107
	Sample Date:	12/13/2004	6/21/2005	6/21/2005 (Duplicate)	10/18/2005	6/26/2006	6/26/2006 (Duplicate)	12/14/2006	6/14/2007	11/8/2007
Parameters	Units									
Volatile Organic Compounds										
1,2,3-Trichlorobenzene	µg/L	1.00 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.5 U
1,2,4-Trichlorobenzene	µg/L	1.00 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.5 U
1,2-Dichlorobenzene	µg/L	1.00 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.5 U
1,4-Dichlorobenzene	µg/L	1.00 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.5 U
2-Chlorotoluene	µg/L	1.00 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.22 J	0.50 U	2.5 U
Benzene	µg/L	1.00 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.5 U
Chlorobenzene	µg/L	1.00 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.98 J
Semi-volatile Organic Compounds										
1,2,4,5-Tetrachlorobenzene	µg/L	4.67 U	10 U	10 U	10.0 U	10 U	10 U	10 U	10 U	5.0 U
2,4,5-Trichlorophenol	µg/L	9.35 U	10 U	10 U	10.0 U	10 U	10 U	10 U	10 U	5.0 U
2,4-Dichlorophenol	µg/L	9.35 U	10 U	10 U	10.0 U	10 U	10 U	10 U	10 U	5.0 U
2,5-Dichlorophenol	µg/L	9.35 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U
2-Chlorophenol	µg/L	9.35 U	10 U	10 U	10.0 U	10 U	10 U	10 U	10 U	5.0 U
4-Chlorophenol	µg/L	9.35 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U
Phenol	µg/L	9.35 U	10 U	10 U	10.0 U	10 U	10 U	10 U	10 U	5.0 U
Metals										
Arsenic	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U	10 U	10.0 U
Mercury	µg/L	NR	NR	NR	NR	NR	NR	NR	0.20 U	0.20 U
Pesticides										
alpha-BHC	µg/L	0.0377 U	0.013 U	0.013 U	0.063 UJ	0.013 U	0.013 U	0.039J	0.042 J	0.054
beta-BHC	µg/L	0.0472 U	0.025 U	0.025 U	0.13 J	0.025 U	0.025 U	0.05 U	0.013 J	0.013 J
delta-BHC	µg/L	0.0566 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 J	0.02 J	0.017 J
gamma-BHC (lindane)	µg/L	0.0377 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.022 J	0.029 J	0.033 J

Table D.1

**Historical Bedrock Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location:	PCBM-01	PCBM-01	PCBM-01	PCBM-01	PCBM-01	PCBM-01	PCBM-01	PCBM-01	PCBM-01	PCBM-01	PCBM-01
Sample ID:	PCBM-01-0508	PCBM-01-1108	PCBM-01-309	PCM-13-309	PCBM-011009	PCBM-01-310	PCM-12	PCBM-01-1010	PCM-12-1010	PCBM-01-0411	
Sample Date:	5/21/2008	11/11/2008	3/18/2009	3/18/2009 (Duplicate)	10/21/2009	4/6/2010	4/6/2010 (Duplicate)	10/9/2010	10/9/2010 (Duplicate)	4/13/2011	
Parameters	Units										
Volatile Organic Compounds											
1,2,3-Trichlorobenzene	µg/L	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Semi-volatile Organic Compounds											
1,2,4,5-Tetrachlorobenzene	µg/L	5.0 U	5.0 U	10 U	10 U	10 U	9.4 U	9.5 U	9.6 U	9.4 U	9.4 U
2,4,5-Trichlorophenol	µg/L	5.0 U	5.0 U	10 U	10 U	10 U	9.4 U	9.5 U	9.6 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	5.0 U	5.0 U	10 U	10 U	10 U	9.4 U	9.5 U	9.6 U	9.4 U	9.4 U
2,5-Dichlorophenol	µg/L	5.0 U	5.0 U	10 U	10 U	10 U	9.4 U	9.5 U	9.6 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	5.0 U	5.0 U	10 U	10 U	10 U	9.4 U	9.5 U	9.6 U	9.4 U	9.4 U
4-Chlorophenol	µg/L	5.0 U	5.0 U	10 U	10 U	10 U	9.4 U	9.5 U	9.6 U	9.4 U	9.4 U
Phenol	µg/L	5.0 U	5.0 U	10 U	10 U	10 U	9.4 U	9.5 U	9.6 U	9.4 U	9.4 U
Metals											
Arsenic	µg/L	10.0 U	10.0 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Mercury	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.26 U	0.20 U	0.20 U	0.20 U	0.20 U
Pesticides											
alpha-BHC	µg/L	0.25 U	0.01 J	0.050 U	0.050 U	0.050 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
beta-BHC	µg/L	0.56	0.050 U	0.050 U	0.050 U	0.050 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
delta-BHC	µg/L	0.81	0.050 U	0.050 U	0.050 U	0.050 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
gamma-BHC (lindane)	µg/L	0.25 U	0.050 U	0.050 U	0.050 U	0.050 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U

Table D.1

**Historical Bedrock Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location:	PCBM-01	PCBM-01	PCBM-01	PCBM-01	PCBM-01	PCBM-01
Sample ID:	PCBM-01-1011	PCBM-01-1012	PCBM-01-1013	PCBM-01-1114	PCBM-01-1015	PCBM-01-1016
Sample Date:	10/19/2011	10/2/2012	10/3/2013	10/27/2014	10/15/2015	10/19/2016

Parameters	Units						
Volatile Organic Compounds							
1,2,3-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Semi-volatile Organic Compounds							
1,2,4,5-Tetrachlorobenzene	µg/L	9.5 U	9.5 U	9.6 U	9.4 U	9.5 U	9.4 U
2,4,5-Trichlorophenol	µg/L	9.5 U	9.5 U	9.6 U	9.4 U	9.5 U	9.4 U
2,4-Dichlorophenol	µg/L	9.5 U	9.5 U	9.6 U	9.4 U	9.5 U	9.4 U
2,5-Dichlorophenol	µg/L	9.5 UJ	9.5 U	9.6 U	9.4 U	9.5 U	4.7 U
2-Chlorophenol	µg/L	9.5 U	9.5 U	9.6 U	9.4 U	9.5 U	9.4 U
4-Chlorophenol	µg/L	9.5 U	9.5 U	9.6 U	9.4 U	9.5 U	9.4 U
Phenol	µg/L	9.5 U	9.5 U	9.6 U	9.4 U	9.5 U	9.4 U
Metals							
Arsenic	µg/L	10 U	10 U	10 U	10 U	10 U	10 U
Mercury	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Pesticides							
alpha-BHC	µg/L	0.048 U	0.048 U	0.048 U	0.050 U	0.052 U	0.047 U
beta-BHC	µg/L	0.048 U	0.048 U	0.048 U	0.050 U	0.052 U	0.047 U
delta-BHC	µg/L	0.055	0.048 U	0.048 U	0.050 U	0.052 U	0.047 U
gamma-BHC (lindane)	µg/L	0.048 U	0.048 U	0.048 U	0.050 U	0.052 U	0.047 U

Table D.1

**Historical Bedrock Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location:	PCBM-02	PCBM-02	PCBM-02	PCBM-02	PCBM-02	PCBM-02	PCBM-02	PCBM-02	PCBM-02	PCBM-02
Sample ID:	PCBM-02-602	PCBM-02-802	PCBM-02-1202	PCBM-02-303	PCBM-02-603	PCBM-02-903	PCBM-02-1203	PCBM-02-304	PCBM-02-1204	
Sample Date:	6/4/2002	8/29/2002	12/12/2002	3/31/2003	6/26/2003	9/30/2003	12/29/2003	3/15/2004	12/14/2004	
Parameters	Units									
Volatile Organic Compounds										
1,2,3-Trichlorobenzene	µg/L	5.00 U	5.00 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	5.00 U	5.00 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	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,4-Dichlorobenzene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
2-Chlorotoluene	µg/L	5.00 U	5.00 U	1.78 U	1.00 U	1.00 U	1.00 U	0.513 J	0.285 J	1.00 U
Benzene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Chlorobenzene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	0.855 J	1.00 U	1.00 U
Semi-volatile Organic Compounds										
1,2,4,5-Tetrachlorobenzene	µg/L	5.00 U	5.00 U	5.00 U	4.72 U	4.67 U	4.72 U	4.76 U	4.76 U	4.81 U
2,4,5-Trichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.43 U	9.35 U	9.43 U	9.52 U	9.52 U	9.62 U
2,4-Dichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.43 U	9.35 U	9.43 U	9.52 U	9.52 U	9.62 U
2,5-Dichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.43 U	9.35 U	9.43 U	9.52 U	9.52 U	9.62 U
2-Chlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.43 U	9.35 U	9.43 U	9.52 U	9.52 U	9.62 U
4-Chlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.43 U	9.35 U	9.43 U	9.52 U	9.52 U	9.62 U
Phenol	µg/L	10.0 U	10.0 U	10.0 U	9.43 U	9.35 U	9.43 U	9.52 U	9.52 U	9.62 U
Metals										
Arsenic	µg/L	10.0 U	10.0 U	10.0 U	30.7	4.39 J	10.0 U	10.0 U	9.84 J	10.0 U
Mercury	µg/L	NR	NR	NR	NR	NR	NR	NR	NR	NR
Pesticides										
alpha-BHC	µg/L	0.0510 U	0.0500 U	0.0500 U	0.0467 U	0.0467 U	0.0467 U	0.0374 U	0.0377 U	0.0400 U
beta-BHC	µg/L	0.0510 U	0.0500 U	0.0500 U	0.0467 U	0.0467 U	0.0467 U	0.0467 U	0.0472 U	0.0500 U
delta-BHC	µg/L	0.0510 U	0.0500 U	0.0500 U	0.0467 U	0.0467 U	0.0467 U	0.0561 U	0.0566 U	0.0600 U
gamma-BHC (lindane)	µg/L	0.0510 U	0.0500 U	0.0500 U	0.0467 U	0.0467 U	0.0467 U	0.0374 U	0.0377 U	0.0400 U

Table D.1

**Historical Bedrock Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location:	PCBM-02	PCBM-02	PCBM-02	PCBM-02	PCBM-02	PCBM-02	PCBM-02	PCBM-02	PCBM-02	PCBM-02
Sample ID:	PCBM-02-605	PCBM-02-1005	PCBM-02-706	PCBM-02-1206	PCM-12-1206	PCBM-02-607	PCBM-02-1107	PCM-12-1107	PCBM-02-0508	
Sample Date:	6/22/2005	10/19/2005	7/5/2006	12/13/2006	12/13/2006 (Duplicate)	6/18/2007	11/9/2007	11/9/2007 (Duplicate)	5/22/2008	
Parameters	Units									
Volatile Organic Compounds										
1,2,3-Trichlorobenzene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	6.3 U	0.50 U	0.50 U	0.50 U
1,2,4-Trichlorobenzene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	6.3 U	0.18 J	0.50 U	0.50 U
1,2-Dichlorobenzene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	6.3 U	0.50 U	0.50 U	0.50 U
1,4-Dichlorobenzene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	6.3 U	0.50 U	0.50 U	0.50 U
2-Chlorotoluene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	6.3 U	1.2 U	0.50 U	0.50 U
Benzene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	6.3 U	0.50 U	0.50 U	0.50 U
Chlorobenzene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	6.3 U	0.50 U	0.50 U	0.50 U
Semi-volatile Organic Compounds										
1,2,4,5-Tetrachlorobenzene	µg/L	10 U	10.0 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U
2,4,5-Trichlorophenol	µg/L	10 U	10.0 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	µg/L	10 U	10.0 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U
2,5-Dichlorophenol	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	µg/L	10 U	10.0 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U
4-Chlorophenol	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U
Phenol	µg/L	10 U	10.0 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	5.0 UJ
Metals										
Arsenic	µg/L	10.0 U	10.0 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U
Mercury	µg/L	NR	NR	NR	NR	NR	0.2 U	0.20 U	0.20 U	0.20 U
Pesticides										
alpha-BHC	µg/L	0.013 U	0.013 U	0.013 U	0.05 U	0.05 U	0.05 U	0.050 U	0.050 U	0.050 U
beta-BHC	µg/L	0.025 U	0.025 U	0.025 U	0.05 U	0.05 U	0.05 U	0.050 U	0.050 U	0.050 U
delta-BHC	µg/L	0.013 U	0.013 U	0.013 U	0.05 U	0.05 U	0.05 U	0.050 UJ	0.050 UJ	0.050 U
gamma-BHC (lindane)	µg/L	0.013 U	0.013 U	0.013 U	0.05 U	0.05 U	0.05 U	0.050 U	0.050 U	0.050 U

Table D.1

**Historical Bedrock Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location:	PCBM-02	PCBM-02	PCBM-02	PCBM-02	PCBM-02	PCBM-02	PCBM-02	PCBM-02	PCBM-02	PCBM-02	PCBM-02
Sample ID:	PCBM-02-1108	PCBM-02-309	PCBM-021009	PCM-121009	PCBM-02-310	PCBM-02-1010	PCBM-02-0411	PCBM-02-1011	PCBM-02-1012	PCBM-02-1013	
Sample Date:	11/11/2008	3/18/2009	10/21/2009	10/21/2009 (Duplicate)	4/6/2010	10/9/2010	4/13/2011	10/18/2011	10/2/2012	10/3/2013	
Parameters	Units										
Volatile Organic Compounds											
1,2,3-Trichlorobenzene	µg/L	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Semi-volatile Organic Compounds											
1,2,4,5-Tetrachlorobenzene	µg/L	5.0 U	10 U	10 U	10 U	9.4 U	9.5 U	9.5 U	9.6 U	9.7 U	9.6 U
2,4,5-Trichlorophenol	µg/L	5.0 U	10 U	10 U	10 U	9.4 U	9.5 U	9.5 U	9.6 U	9.7 U	9.6 U
2,4-Dichlorophenol	µg/L	5.0 U	10 U	10 U	10 U	9.4 U	9.5 U	9.5 U	9.6 U	9.7 U	9.6 U
2,5-Dichlorophenol	µg/L	5.0 U	10 U	10 U	10 U	9.4 U	9.5 U	9.5 U	9.6 U	9.7 U	9.6 U
2-Chlorophenol	µg/L	5.0 U	10 U	10 U	10 U	9.4 U	9.5 U	9.5 U	9.6 U	9.7 U	9.6 U
4-Chlorophenol	µg/L	5.0 U	10 U	10 U	10 U	9.4 U	9.5 U	9.5 U	9.6 U	9.7 U	9.6 U
Phenol	µg/L	5.0 U	10 U	10 U	10 U	9.4 U	9.5 U	9.5 U	9.6 U	9.7 U	9.6 U
Metals											
Arsenic	µg/L	10.0 U	10 U	3.3 J	2.0 J	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
Mercury	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Pesticides											
alpha-BHC	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.048 U	0.048 U	0.047 U	0.047 U	0.048 U	0.048 U
beta-BHC	µg/L	0.031 J	0.050 U	0.050 U	0.050 U	0.048 U	0.048 U	0.047 U	0.047 U	0.048 U	0.048 U
delta-BHC	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.048 U	0.048 U	0.047 UJ	0.047 U	0.048 U	0.048 U
gamma-BHC (lindane)	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.048 U	0.048 U	0.047 UJ	0.047 U	0.048 U	0.048 U

Table D.1

**Historical Bedrock Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location:	PCBM-02	PCBM-02	PCBM-02
Sample ID:	PCBM-02-1114	PCBM-02-1015	PCBM-02-1016
Sample Date:	10/22/2014	10/14/2015	10/19/2016

Parameters	Units			
Volatile Organic Compounds				
1,2,3-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	1.0 U	1.0 U	1.0 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	0.40 J
Semi-volatile Organic Compounds				
1,2,4,5-Tetrachlorobenzene	µg/L	9.5 U	9.4 U	9.4 U
2,4,5-Trichlorophenol	µg/L	9.5 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	9.5 U	9.4 U	9.4 U
2,5-Dichlorophenol	µg/L	9.5 U	9.4 U	4.7 U
2-Chlorophenol	µg/L	9.5 U	9.4 U	9.4 U
4-Chlorophenol	µg/L	9.5 U	9.4 U	9.4 U
Phenol	µg/L	9.5 U	9.4 U	9.4 U
Metals				
Arsenic	µg/L	10 U	10 U	10 U
Mercury	µg/L	0.20 U	0.20 U	0.20 U
Pesticides				
alpha-BHC	µg/L	0.050 U	0.052 U	0.047 U
beta-BHC	µg/L	0.050 U	0.052 U	0.047 U
delta-BHC	µg/L	0.050 U	0.052 U	0.047 U
gamma-BHC (lindane)	µg/L	0.050 U	0.052 U	0.047 U

Table D.1

**Historical Bedrock Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

	Sample Location:	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03
	Sample ID:	PCBM-03-502	PCBM-03-802	PCBM-03-1202	PCBM-03-303	PCBM-03-603	PCBM-03-1003	PCBM-03-1203	PCM-12-1203	PCBM-03-304
	Sample Date:	6/3/2002	8/30/2002	12/13/2002	4/1/2003	6/24/2003	10/1/2003	12/30/2003	12/30/2003 (Duplicate)	4/14/2004
Parameters	Units									
Volatile Organic Compounds										
1,2,3-Trichlorobenzene	µg/L	5.00 U	5.00 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	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.24 U	1.00 U	1.00 U	1.00 U
1,2-Dichlorobenzene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,4-Dichlorobenzene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
2-Chlorotoluene	µg/L	5.00 U	5.00 U	1.08 U	1.00 U	1.00 U	3.54 U	1.00 U	0.398 J	1.00 U
Benzene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Chlorobenzene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Semi-volatile Organic Compounds										
1,2,4,5-Tetrachlorobenzene	µg/L	5.00 U	5.00 U	5.00 U	4.67 U	4.67 U	4.67 U	4.67 U	4.67 U	4.67 U
2,4,5-Trichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.35 U	9.35 U	9.35 U	9.35 U	9.35 U	9.35 U
2,4-Dichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.35 U	9.35 U	9.35 U	9.35 U	9.35 U	9.35 U
2,5-Dichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.35 U	9.35 U	9.35 U	9.35 U	9.35 U	9.35 U
2-Chlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.35 U	9.35 U	9.35 U	9.35 U	9.35 U	9.35 U
4-Chlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.35 U	9.35 U	9.35 U	9.35 U	9.35 U	9.35 U
Phenol	µg/L	10.0 U	9.86 J	10.0 U	9.35 U	9.35 U	9.35 U	9.35 U	9.35 U	9.35 U
Metals										
Arsenic	µg/L	50.0 U	9.20 J	10.0 U	31.1	10.0 U	10.0 U	10.0 U	10.0 U	9.39 J
Mercury	µg/L	NR	NR	NR	NR	NR	NR	NR	NR	NR
Pesticides										
alpha-BHC	µg/L	0.0500 U	0.0500 U	0.0500 U	0.0476 U	0.0467 U	0.0467 U	0.0374 U	0.0374 U	0.0374 UJ
beta-BHC	µg/L	0.0500 U	0.0500 U	0.0500 U	0.0476 U	0.0467 U	0.0467 U	0.0467 U	0.0467 U	0.0467 UJ
delta-BHC	µg/L	0.0500 U	0.0500 U	0.0500 U	0.0476 U	0.0467 U	0.0467 U	0.0561 U	0.0561 U	0.0561 UJ
gamma-BHC (lindane)	µg/L	0.0500 U	0.0500 U	0.0500 U	0.0590	0.0467 U	0.0467 U	0.0374 U	0.0374 U	0.0374 UJ

Table D.1

**Historical Bedrock Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location:	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03
Sample ID:	PCM-12-304	PCBM-03-1204	PCBM-03-605	PCBM-03-1005	PCBM-03-706	PCBM-03-1206	PCBM-03-607	PCBM-03-1107	PCBM-03-0508	
Sample Date:	4/14/2004 (Duplicate)	12/15/2004	6/27/2005	10/31/2005	7/6/2006	12/12/2006	6/19/2007	11/12/2007	5/23/2008	
Parameters	Units									
Volatile Organic Compounds										
1,2,3-Trichlorobenzene	µg/L	1.00 U	1.00 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.5 U
1,2,4-Trichlorobenzene	µg/L	1.00 U	1.00 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.5 U
1,2-Dichlorobenzene	µg/L	1.00 U	1.00 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.5 U
1,4-Dichlorobenzene	µg/L	1.00 U	1.00 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.5 U
2-Chlorotoluene	µg/L	1.00 U	1.00 U	0.26 J	0.50 U	0.37 J	0.50 U	0.50 U	0.50 U	2.5 U
Benzene	µg/L	1.00 U	1.00 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.5 U
Chlorobenzene	µg/L	1.00 U	1.00 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.5 U
Semi-volatile Organic Compounds										
1,2,4,5-Tetrachlorobenzene	µg/L	5.05 U	5.05 U	10 U	10.0 U	10 U	10 U	10 U	5.0 U	5.0 U
2,4,5-Trichlorophenol	µg/L	10.1 U	10.1 U	10 U	10.0 U	10 U	10 U	10 U	5.0 U	5.0 U
2,4-Dichlorophenol	µg/L	10.1 U	10.1 U	10 U	10.0 U	10 U	10 U	10 U	5.0 U	5.0 U
2,5-Dichlorophenol	µg/L	10.1 U	10.1 U	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U
2-Chlorophenol	µg/L	10.1 U	10.1 U	10 U	10.0 U	10 U	10 U	10 U	5.0 U	5.0 U
4-Chlorophenol	µg/L	10.1 U	10.1 U	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U
Phenol	µg/L	10.1 U	10.1 U	10 U	10.0 U	10 U	10 U	10 U	5.0 U	5.0 U
Metals										
Arsenic	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U	10.0 U	10.0 U
Mercury	µg/L	NR	NR	NR	NR	NR	NR	0.20 U	0.20 U	0.20 U
Pesticides										
alpha-BHC	µg/L	0.0374 UJ	0.0400 U	0.019	R	0.013 U	0.05 U	0.05 U	0.050 U	0.050 U
beta-BHC	µg/L	0.0467 UJ	0.0500 U	0.025 U	R	0.016 J	0.05 U	0.05 U	0.050 U	0.050 U
delta-BHC	µg/L	0.0561 UJ	0.0600 U	0.013 U	R	0.013 U	0.05 U	0.05 U	0.050 UJ	0.050 U
gamma-BHC (lindane)	µg/L	0.0374 UJ	0.0400 U	0.012 J	R	0.013 U	0.05 U	0.05 U	0.050 U	0.050 U

Table D.1

**Historical Bedrock Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location:	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03
Sample ID:	PCBM-03-1108	PCBM-03-309	PCBM-031009	PCBM-03-310	PCBM-03-1010	PCBM-03-0411	PCM-12-0411	PCBM-03-1011	PCM-12-1011	PCBM-03-1012	
Sample Date:	11/10/2008	3/18/2009	10/21/2009	4/6/2010	10/9/2010	4/14/2011	4/14/2011 (Duplicate)	10/19/2011	10/19/2011 (Duplicate)	10/1/2012	
Parameters	Units										
Volatile Organic Compounds											
1,2,3-Trichlorobenzene	µg/L	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	0.10 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Semi-volatile Organic Compounds											
1,2,4,5-Tetrachlorobenzene	µg/L	5.0 U	10 U	10 U	9.4 U	9.4 U	9.5 U	9.5 U	48 U	9.6 U	9.6 U
2,4,5-Trichlorophenol	µg/L	5.0 U	10 U	10 U	9.4 U	9.4 U	9.5 U	9.5 U	48 U	9.6 U	9.6 U
2,4-Dichlorophenol	µg/L	5.0 U	10 U	10 U	9.4 U	9.4 U	9.5 U	9.5 U	48 U	9.6 U	9.6 U
2,5-Dichlorophenol	µg/L	5.0 U	10 U	10 U	9.4 U	9.4 U	9.5 U	9.5 U	48 U	9.6 U	9.6 U
2-Chlorophenol	µg/L	5.0 U	10 U	10 U	9.4 U	9.4 U	9.5 U	9.5 U	17 J	9.6 U	9.6 U
4-Chlorophenol	µg/L	5.0 U	10 U	10 U	9.4 U	9.4 U	9.5 U	9.5 U	48 U	9.6 U	9.6 U
Phenol	µg/L	5.0 U	10 U	10 U	9.4 U	9.4 U	9.5 U	9.5 U	48 U	9.6 U	9.6 U
Metals											
Arsenic	µg/L	10.0 U	10 U	3.4 J	10.0 U	10.0 U	10.0 U	10.0 U	3.9 J	10 U	10 U
Mercury	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Pesticides											
alpha-BHC	µg/L	0.050 U	0.050 U	0.050 U	0.047 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.047 U
beta-BHC	µg/L	0.050 U	0.050 U	0.050 U	0.16	0.048 U	0.048 U	0.048 U	0.054	0.048 U	0.047 U
delta-BHC	µg/L	0.050 U	0.050 U	0.050 U	0.047 U	0.048 U	0.048 U	0.048 U	0.52	0.048 U	0.047 U
gamma-BHC (lindane)	µg/L	0.050 U	0.050 U	0.050 U	0.047 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.047 U

Table D.1

**Historical Bedrock Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location:	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03	PCBM-03
Sample ID:	PCM-12-1012	PCBM-03-1013	PCM-12-1013	PCBM-03-1114	PCM-12-1114	PCBM-03-1015	PCM-12-1015	PCBM-03-1016	PCM-12-1016	PCBM-03-1016
Sample Date:	10/1/2012 (Duplicate)	10/9/2013	10/9/2013 (Duplicate)	10/22/2014	10/22/2014 (Duplicate)	10/14/2015	10/14/2015 (Duplicate)	10/18/2016	10/18/2016	10/18/2016 Duplicate
Parameters	Units									
Volatile Organic Compounds										
1,2,3-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Semi-volatile Organic Compounds										
1,2,4,5-Tetrachlorobenzene	µg/L	9.5 U	9.6 U	9.6 U	9.4 U	9.5 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4,5-Trichlorophenol	µg/L	9.5 U	9.6 U	9.6 U	9.4 U	9.5 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	9.5 U	9.6 U	9.6 U	9.4 U	9.5 U	9.4 U	9.4 U	9.4 U	9.4 U
2,5-Dichlorophenol	µg/L	9.5 U	9.6 U	9.6 U	9.4 U	9.5 U	9.4 U	9.4 U	4.7 U	4.7 U
2-Chlorophenol	µg/L	9.5 U	9.6 U	9.6 U	9.4 U	9.5 U	9.4 U	9.4 U	9.4 U	9.4 U
4-Chlorophenol	µg/L	9.5 U	9.6 U	9.6 U	9.4 U	9.5 U	9.4 U	9.4 U	9.4 U	9.4 U
Phenol	µg/L	9.5 U	9.6 U	9.6 U	9.4 U	9.5 U	9.4 U	9.4 U	9.4 U	9.4 U
Metals										
Arsenic	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	3.8 J	10 U	10 U
Mercury	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Pesticides										
alpha-BHC	µg/L	0.047 U	0.047 U	0.048 U	0.050 U	0.050 U	0.052 U	0.050 U	0.047 U	0.047 U
beta-BHC	µg/L	0.047 U	0.047 U	0.048 U	0.050 U	0.050 U	0.052 U	0.050 U	0.047 U	0.047 U
delta-BHC	µg/L	0.047 U	0.047 U	0.048 U	0.050 U	0.050 U	0.052 U	0.050 U	0.047 U	0.047 U
gamma-BHC (lindane)	µg/L	0.047 U	0.047 U	0.048 U	0.050 U	0.050 U	0.052 U	0.050 U	0.047 U	0.047 U

Notes:

NR- Not Required
µg/L - Micrograms per liter.
U - Non-detect at associated value.
"- Data not available.
J - Estimated at associated value.
R - Data rejected.

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

	Sample Location:	PCM-01	PCM-01	PCM-01	PCM-01	PCM-01	PCM-01	PCM-01	PCM-01
	Sample ID:	PCM-01-502	PCM-01-802	PCM-01-1202	PCM-01-303	PCM-01-603	PCM-01-1003	PCM-01-1203	PCM-01-304
	Sample Date:	6/3/2002	8/29/2002	12/18/2002	4/1/2003	6/27/2003	10/1/2003	12/31/2003	4/13/2004
Parameters	Units								
Volatile Organic Compounds									
1,2,3-Trichlorobenzene	µg/L	5.00 U	5.00 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	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,2-Dichlorobenzene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,4-Dichlorobenzene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
2-Chlorotoluene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	0.751 J	0.332 J
Benzene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Chlorobenzene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Semi-volatile Organic Compounds									
1,2,4,5-Tetrachlorobenzene	µg/L	5.00 U	5.00 U	5.00 U	4.67 U	4.67 U	4.67 U	4.72 U	5.05 U
2,4,5-Trichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.35 U	9.35 U	9.35 U	9.43 U	10.1 U
2,4-Dichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.35 U	9.35 U	9.35 U	9.43 U	10.1 U
2,5-Dichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.35 U	9.35 U	9.35 U	9.43 U	10.1 U
2-Chlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.35 U	9.35 U	9.35 U	9.43 U	10.1 U
4-Chlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.35 U	9.35 U	9.35 U	9.43 U	10.1 U
Phenol	µg/L	10.0 U	10.0 U	10.0 U	9.35 U	9.35 U	9.35 U	9.43 U	10.1 U
Metals									
Arsenic	µg/L	50.0 U	100 U	20.0 U	20.0 U	7.45 J	10.0 U	10.0 U	10.0 U
Mercury	µg/L	NR	NR	NR	NR	NR	NR	NR	NR
Pesticides									
alpha-BHC	µg/L	0.0146 J	0.0500 U	0.0500 U	0.0623	0.0467 U	0.0467 U	0.0374 U	0.0551 J
beta-BHC	µg/L	0.141	0.0500 U	0.0500 U	0.0472 U	0.0467 U	0.0467 U	0.0467 U	0.0505 UJ
delta-BHC	µg/L	0.864	0.0500 U	0.0500 U	0.0613	0.0467 U	0.0467 U	0.0561 U	0.0669 J
gamma-BHC (lindane)	µg/L	0.0103 J	0.0500 U	0.0500 U	0.0472 U	0.0467 U	0.0467 U	0.0374 U	0.0404 UJ

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location: Sample ID: Sample Date:	PCM-01 PCM-01-1204 12/16/2004	PCM-01 PCM-01-605 6/23/2005	PCM-01 PCM-01-1005 10/27/2005	PCM-01 PCM-01-706 7/7/2006	PCM-01 PCM-01-1206 12/12/2006	PCM-01 PCM-01-607 6/19/2007	PCM-01 PCM-01-1107 11/13/2007
Parameters	Units						
Volatile Organic Compounds							
1,2,3-Trichlorobenzene	µg/L	1.00 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 UJ
1,2,4-Trichlorobenzene	µg/L	1.00 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 UJ
1,2-Dichlorobenzene	µg/L	1.00 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 UJ
1,4-Dichlorobenzene	µg/L	1.00 U	0.50 U	0.50 U	0.12 J	0.5 U	0.50 UJ
2-Chlorotoluene	µg/L	1.00 U	0.50 U	0.19 J	0.5 U	0.5 U	0.50 UJ
Benzene	µg/L	1.00 U	0.50 U	0.17 J	0.5 U	0.5 U	0.50 UJ
Chlorobenzene	µg/L	1.00 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 UJ
Semi-volatile Organic Compounds							
1,2,4,5-Tetrachlorobenzene	µg/L	5.05 U	10 U	10.5 U	10 U	10 U	5.0 U
2,4,5-Trichlorophenol	µg/L	10.1 U	10 U	10.5 U	10 U	10 U	5.0 U
2,4-Dichlorophenol	µg/L	10.1 U	10 U	10.5 U	10 U	10 U	5.0 U
2,5-Dichlorophenol	µg/L	10.1 U	10 U	10 U	10 U	10 U	5.0 U
2-Chlorophenol	µg/L	10.1 U	10 U	10.5 U	10 U	10 U	5.0 U
4-Chlorophenol	µg/L	10.1 U	10 U	10 U	10 U	10 U	5.0 U
Phenol	µg/L	10.1 U	10 U	10.5 U	10 U	10 UJ	5.0 U
Metals							
Arsenic	µg/L	10.0 U	5.6 J	2.6 J	10 U	10 U	10.0 U
Mercury	µg/L	NR	NR	NR	NR	0.2 U	0.20 U
Pesticides							
alpha-BHC	µg/L	0.0404 UJ	0.051 J	R	0.013 U	0.05 UJ	0.050 UJ
beta-BHC	µg/L	0.0505 UJ	0.025 UJ	R	0.025 U	0.05 UJ	0.050 UJ
delta-BHC	µg/L	0.0606 UJ	0.012 J	R	0.013 U	0.05 UJ	0.050 UJ
gamma-BHC (lindane)	µg/L	0.0404 UJ	0.024 J	R	0.013 U	0.05 UJ	0.050 UJ

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location:	PCM-01	PCM-01	PCM-01	PCM-01	PCM-01	PCM-01	PCM-01	PCM-01
Sample ID:	PCM-01-0508	PCM-01-1108	PCM-01-309	PCM-011009	PCM-01-310	PCM-01-1010	PCM-01-0411	
Sample Date:	5/27/2008	11/10/2008	3/18/2009	10/21/2009	4/13/2010	10/11/2010	4/14/2011	
Parameters	Units							
Volatile Organic Compounds								
1,2,3-Trichlorobenzene	µg/L	0.50 UJ	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	0.50 UJ	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	0.50 UJ	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	0.50 UJ	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	0.50 UJ	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	0.50 UJ	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	0.50 UJ	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Semi-volatile Organic Compounds								
1,2,4,5-Tetrachlorobenzene	µg/L	5.0 U	5.0 U	10 U	10 U	9.6 U	9.4 U	9.5 U
2,4,5-Trichlorophenol	µg/L	5.0 U	5.0 U	10 U	10 U	9.6 U	9.4 U	9.5 U
2,4-Dichlorophenol	µg/L	5.0 U	5.0 U	10 U	10 U	9.6 U	9.4 U	9.5 U
2,5-Dichlorophenol	µg/L	5.0 U	5.0 U	10 U	10 U	9.6 U	9.4 U	9.5 U
2-Chlorophenol	µg/L	5.0 U	5.0 U	10 U	10 U	9.6 U	9.4 U	9.5 U
4-Chlorophenol	µg/L	5.0 U	5.0 U	10 U	10 U	9.6 U	9.4 U	9.5 U
Phenol	µg/L	5.0 U	5.0 U	10 U	10 U	9.6 U	9.4 U	9.5 U
Metals								
Arsenic	µg/L	10.0 U	10.0 UJ	10 U	3.8 J	7.1 J	6.6 J	10.0 U
Mercury	µg/L	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U	0.060 J	0.20 U
Pesticides								
alpha-BHC	µg/L	0.050 UJ	0.050 UJ	0.050 U	0.050 U	0.048 U	0.047 U	0.048 U
beta-BHC	µg/L	0.050 UJ	0.050 UJ	0.050 U	0.050 U	0.048 U	0.047 U	0.048 U
delta-BHC	µg/L	0.050 UJ	0.050 UJ	0.050 U	0.050 U	0.048 U	0.047 U	0.048 U
gamma-BHC (lindane)	µg/L	0.050 UJ	0.050 UJ	0.050 U	0.050 U	0.048 U	0.047 U	0.048 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location: Sample ID: Sample Date:	PCM-01 PCM-01-1011 10/19/2011	PCM-01 PCM-01-1012 10/2/2012	PCM-01 PCM-01-1013 10/9/2013	PCM-01 PCM-01-1114 10/27/2014	PCM-01 PCM-01-1015 10/15/2015	PCM-01 PCM-01-1016 10/18/2016
Parameters	Units					
Volatile Organic Compounds						
1,2,3-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Semi-volatile Organic Compounds						
1,2,4,5-Tetrachlorobenzene	µg/L	9.6 U	9.5 U	9.5 U	9.4 U	9.5 U
2,4,5-Trichlorophenol	µg/L	9.6 U	9.5 U	9.5 U	9.4 U	9.5 U
2,4-Dichlorophenol	µg/L	9.6 U	9.5 U	9.5 U	9.4 U	9.5 U
2,5-Dichlorophenol	µg/L	9.6 U	9.5 U	9.5 U	9.4 U	9.5 U
2-Chlorophenol	µg/L	9.6 U	9.5 U	9.5 U	9.4 U	9.5 U
4-Chlorophenol	µg/L	9.6 U	9.5 U	9.5 U	9.4 U	9.5 U
Phenol	µg/L	9.6 U	9.5 U	9.5 U	9.4 U	9.5 U
Metals						
Arsenic	µg/L	2.9 J	10 U	10 U	10 U	10 U
Mercury	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Pesticides						
alpha-BHC	µg/L	0.047 U	0.047 U	0.048 U	0.050 U	0.047 U
beta-BHC	µg/L	0.047 U	0.047 U	0.048 U	0.050 U	0.047 U
delta-BHC	µg/L	0.047 U	0.047 U	0.048 U	0.050 U	0.047 U
gamma-BHC (lindane)	µg/L	0.047 U	0.047 U	0.048 U	0.050 U	0.047 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

	Sample Location:	PCM-02	PCM-02	PCM-02	PCM-02	PCM-02	PCM-02	PCM-02	PCM-02
	Sample ID:	PCM-02-502	PCM-12-502	PCM-02-802	PCM-02-1202	PCM-02-303	PCM-02-603	PCM-02-1003	PCM-02-1203
	Sample Date:	6/3/2002	6/3/2002 (Duplicate)	8/28/2002	12/17/2002	3/31/2003	6/26/2003	10/2/2003	12/30/2003
Parameters	Units								
Volatile Organic Compounds									
1,2,3-Trichlorobenzene	µg/L	5.00 U	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,2,4-Trichlorobenzene	µg/L	5.00 U	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,2-Dichlorobenzene	µg/L	5.00 U	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,4-Dichlorobenzene	µg/L	5.00 U	5.00 U	5.00 U	1.00 U	1.00 U	0.246 J	1.00 U	0.221 J
2-Chlorotoluene	µg/L	5.00 U	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	0.639 J
Benzene	µg/L	5.00 U	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Chlorobenzene	µg/L	5.00 U	5.00 U	5.00 U	1.00 U	1.00 U	0.178 J	1.00 U	1.00 U
Semi-volatile Organic Compounds									
1,2,4,5-Tetrachlorobenzene	µg/L	5.00 U	5.00 U	5.00 U	5.00 U	4.72 U	4.67 U	4.67 U	4.72 U
2,4,5-Trichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	9.43 U	9.35 U	9.35 U	9.43 U
2,4-Dichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	9.43 U	9.35 U	9.35 U	9.43 U
2,5-Dichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	9.43 U	9.35 U	9.35 U	9.43 U
2-Chlorophenol	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	9.43 U	9.35 U	9.35 U	9.43 U
4-Chlorophenol	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	9.43 U	9.35 U	9.35 U	9.43 U
Phenol	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	9.43 U	9.35 U	9.35 U	9.43 U
Metals									
Arsenic	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	12.1 U	14.4
Mercury	µg/L	NR	NR	NR	NR	NR	NR	NR	NR
Pesticides									
alpha-BHC	µg/L	0.0500 U	0.0500 U	0.0500 U	0.0505 U	0.0660	0.0467 U	0.0541 U	0.0374 U
beta-BHC	µg/L	0.0500 U	0.00720 J	0.0500 U	0.0505 U	0.0472 U	0.0467 U	0.0748 J	0.0467 U
delta-BHC	µg/L	0.0500 U	0.0384 J	0.0500 U	0.0505 U	0.0783	0.0467 U	0.0991 J	0.0561 U
gamma-BHC (lindane)	µg/L	0.0500 U	0.0500 U	0.0500 U	0.0505 U	0.0472 U	0.0467 U	0.0467 U	0.0374 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

	Sample Location: Sample ID: Sample Date:	PCM-02 NA 3/15/2004	PCM-02 PCM-02-1204 12/16/2004	PCM-02 PCM-02-605 6/23/2005	PCM-02 PCM-02-1005 10/27/2005	PCM-02 PCM-02-706 7/7/2006	PCM-02 PCM-02-1206 12/12/2006	PCM-02 PCM-02-607 6/14/2007
Parameters	Units							
Volatile Organic Compounds								
1,2,3-Trichlorobenzene	µg/L	OW-NS	1.00 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	µg/L	OW-NS	1.00 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	µg/L	OW-NS	1.00 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	µg/L	OW-NS	1.00 U	0.50 U	0.50 U	0.26 J	0.2 J	0.27 J
2-Chlorotoluene	µg/L	OW-NS	1.00 U	0.27 J	0.15 J	0.5 U	0.5 U	0.5 U
Benzene	µg/L	OW-NS	1.00 U	0.20 J	0.16 J	0.15 J	0.5 U	0.14 J
Chlorobenzene	µg/L	OW-NS	1.00 U	0.50 U	0.16 J	0.22 J	0.19 J	0.5 U
Semi-volatile Organic Compounds								
1,2,4,5-Tetrachlorobenzene	µg/L	OW-NS	5.05 U	10 U	10.0 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	µg/L	OW-NS	10.1 U	10 U	10.0 U	10 U	10 U	10 U
2,4-Dichlorophenol	µg/L	OW-NS	10.1 U	10 U	10.0 U	10 U	10 U	10 U
2,5-Dichlorophenol	µg/L	OW-NS	10.1 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	µg/L	OW-NS	10.1 U	10 U	10.0 U	10 U	10 U	10 U
4-Chlorophenol	µg/L	OW-NS	10.1 U	10 U	10 U	10 U	10 U	10 U
Phenol	µg/L	OW-NS	10.1 U	10 U	10.0 U	10 U	10 U	10 U
Metals								
Arsenic	µg/L	OW-NS	10.0 U	7.2 J	10.0 U	10 U	10 U	10 U
Mercury	µg/L	NR	NR	NR	NR	NR	NR	0.2 U
Pesticides								
alpha-BHC	µg/L	OW-NS	0.0404 UJ	0.019 J	R	0.0047 J	0.05 UJ	0.05 UJ
beta-BHC	µg/L	OW-NS	0.0505 UJ	0.025 UJ	0.0074 J	0.025 U	0.05 UJ	0.05 UJ
delta-BHC	µg/L	OW-NS	0.0606 UJ	0.013 UJ	R	0.008 J	0.05 UJ	0.05 UJ
gamma-BHC (lindane)	µg/L	OW-NS	0.0404 UJ	0.0064 J	R	0.013 U	0.05 UJ	0.05 UJ

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location:	PCM-02	PCM-02	PCM-02	PCM-02	PCM-02	PCM-02	PCM-02	PCM-02
Sample ID:	PCM-02-1107	PCM-02-0508	PCM-02-1108	PCM-02-309	PCM-02-1009	PCM-02-310	PCM-02-1010	PCM-02-1010
Sample Date:	11/8/2007	5/27/2008	11/11/2008	3/18/2009	10/23/2009	4/13/2010	10/11/2010	10/11/2010
Parameters	Units							
Volatile Organic Compounds								
1,2,3-Trichlorobenzene	µg/L	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	0.33 J	0.50 U	0.20 J	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	0.85 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	0.19 J	0.50 U	0.13 J	1.0 U	1.0 U	1.0 U	0.12 J
Chlorobenzene	µg/L	0.50 U	0.21 J	0.19 J	1.0 U	1.0 U	1.0 U	0.16 J
Semi-volatile Organic Compounds								
1,2,4,5-Tetrachlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	10 U	10 U	9.7 U	9.5 U
2,4,5-Trichlorophenol	µg/L	5.0 U	5.0 U	5.0 U	10 U	10 U	9.7 U	9.5 U
2,4-Dichlorophenol	µg/L	5.0 U	5.0 U	5.0 U	10 U	10 U	9.7 U	9.5 U
2,5-Dichlorophenol	µg/L	5.0 U	5.0 U	5.0 U	10 U	10 U	9.7 U	9.5 U
2-Chlorophenol	µg/L	5.0 U	5.0 U	5.0 U	10 U	10 U	9.7 U	9.5 U
4-Chlorophenol	µg/L	5.0 U	5.0 U	5.0 U	10 U	10 U	9.7 U	9.5 U
Phenol	µg/L	5.0 U	5.0 U	5.0 U	10 U	10 U	9.7 U	9.5 U
Metals								
Arsenic	µg/L	11.2	10.0 U	10.0 U	10 U	10 U	4.6 J	2.7 J
Mercury	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ
Pesticides								
alpha-BHC	µg/L	0.050 U	0.050 UJ	0.050 U	0.050 U	0.050 U	0.048 U	0.045 J
beta-BHC	µg/L	0.01 J	0.050 UJ	0.050 U	0.050 U	0.050 U	0.048 U	0.047 U
delta-BHC	µg/L	0.050 U	0.050 UJ	0.050 U	0.050 U	0.050 U	0.048 U	0.047 U
gamma-BHC (lindane)	µg/L	0.050 U	0.050 UJ	0.050 U	0.050 U	0.050 U	0.048 U	0.047 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location:	PCM-02	PCM-02	PCM-02	PCM-02	PCM-02	PCM-02
Sample ID:	PCM-02-0411	PCM-02-1011	PCM-02-1012	PCM-02-1013	PCM-02-1114	PCM-02-1015
Sample Date:	4/15/2011	10/19/2011	10/2/2012	10/9/2013	10/27/2014	10/15/2015
Parameters	Units					
Volatile Organic Compounds						
1,2,3-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	0.16 J	0.14 J	1.0 U	0.15 J
Semi-volatile Organic Compounds						
1,2,4,5-Tetrachlorobenzene	µg/L	9.5 U	9.7 U	9.6 U	9.7 U	9.5 U
2,4,5-Trichlorophenol	µg/L	9.5 U	9.7 U	9.6 U	9.7 U	9.5 U
2,4-Dichlorophenol	µg/L	9.5 U	9.7 U	9.6 U	9.7 U	9.5 U
2,5-Dichlorophenol	µg/L	9.5 U	9.7 U	9.6 U	9.7 U	9.5 U
2-Chlorophenol	µg/L	9.5 U	9.7 U	9.6 U	9.7 U	9.5 U
4-Chlorophenol	µg/L	9.5 U	9.7 U	9.6 U	9.7 U	9.5 U
Phenol	µg/L	9.5 U	9.7 U	9.6 U	9.7 U	9.5 U
Metals						
Arsenic	µg/L	10.0 U	2.8 J	10 U	10 U	10 U
Mercury	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Pesticides						
alpha-BHC	µg/L	0.048 U	0.048 U	0.047 U	0.047 U	0.050 U
beta-BHC	µg/L	0.048 U	0.048 U	0.047 U	0.047 U	0.050 U
delta-BHC	µg/L	0.048 U	0.048 U	0.047 U	0.047 U	0.050 U
gamma-BHC (lindane)	µg/L	0.048 U	0.048 U	0.047 U	0.047 U	0.050 U

Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York

	Sample Location:	PCM-03	PCM-03	PCM-03	PCM-03	PCM-03	PCM-03	PCM-03	PCM-03
	Sample ID:	PCM-03-502	PCM-03-802	PCM-03-1202	PCM-12-1202	PCM-03-303	PCM-12-303	PCM-03-603	PCM-03-903
	Sample Date:	5/31/2002	8/28/2002	12/12/2002	12/12/2002 (Duplicate)	3/28/2003	3/28/2003 (Duplicate)	6/18/2003	9/29/2003
Parameters	Units								
Volatile Organic Compounds									
1,2,3-Trichlorobenzene	µg/L	125 U	100 U	10.0 U	10.0 U	1.00 U	20.0 U	1.00 U	1.00 U
1,2,4-Trichlorobenzene	µg/L	125 U	100 U	10.0 U	10.0 U	1.00 U	20.0 U	1.00 U	1.00 U
1,2-Dichlorobenzene	µg/L	71.1 J	63.4 J	86.9	84.7	99.8	79.0	95.4	99.9
1,4-Dichlorobenzene	µg/L	217	199	291	281	280	273	267	252
2-Chlorotoluene	µg/L	125 U	100 U	9.36 U	9.91 U	11.4	20.0 U	8.93	10.4 U
Benzene	µg/L	82.6 J	82.4 J	133	131	131	105	107	94.2
Chlorobenzene	µg/L	3600	3810	3590	3790	3860	3830	3540	3640
Semi-volatile Organic Compounds									
1,2,4,5-Tetrachlorobenzene	µg/L	5.00 U	5.00 UJ	5.00 U	5.00 U	4.72 U	4.72 U	4.72 U	4.72 U
2,4,5-Trichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	9.43 U	9.43 U	9.43 U	9.43 U
2,4-Dichlorophenol	µg/L	17.1	10.0 U	3.20 J	10.0 U	15.3	7.25 J	15.2 J	10.8
2,5-Dichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	9.43 U	9.43 U	9.43 U	9.43 U
2-Chlorophenol	µg/L	42.7	4.51 J	5.40 J	4.20 J	12.8	7.40 J	27.4 J	10.9
4-Chlorophenol	µg/L	84.7	15.4	10.0 U	10.0 U	28.9	17.0	53.5 J	21.9
Phenol	µg/L	5.10 J	10.0 U	10.0 U	10.0 U	9.43 U	9.43 U	3.79 J	9.43 U
Metals									
Arsenic	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	20.0 U	10.0 U	7.34 J
Mercury	µg/L	NR	NR	NR	NR	NR	NR	NR	NR
Pesticides									
alpha-BHC	µg/L	0.0500 U	0.0500 U	0.0505 U	0.0501 U	0.0688	0.0685	0.0469 U	0.0509 U
beta-BHC	µg/L	0.0500 U	0.0820	0.107	0.0870	0.133	0.130	3.75 J	0.0467 U
delta-BHC	µg/L	0.0500 U	0.679	0.666 J	0.353 J	1.28	1.25	1.13 J	0.848
gamma-BHC (lindane)	µg/L	0.0500 U	0.0500 U	0.0505 U	0.0500 U	0.0472 U	0.0472 U	0.0469 U	0.0467 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location:	PCM-03	PCM-03	PCM-03	PCM-03	PCM-03	PCM-03	PCM-03	PCM-03
Sample ID:	PCM-03-1203	PCM-03-304	PCM-03-1204	PCM-03-605	PCM-03-1005	PCM-03-606	PCM-03-1206	PCM-03-1206
Sample Date:	12/23/2003	3/11/2004	12/13/2004	6/21/2005	10/18/2005	6/26/2006	12/14/2006	12/14/2006
Parameters	Units							
Volatile Organic Compounds								
1,2,3-Trichlorobenzene	µg/L	1.00 U	1.00 U	1.00 U	0.50 U	36 J	25 U	25 U
1,2,4-Trichlorobenzene	µg/L	0.412 J	1.00 U	1.00 U	0.22 J	41 J	25 U	25 U
1,2-Dichlorobenzene	µg/L	117	77.6	72.4	73 J	87 J	11 J	66
1,4-Dichlorobenzene	µg/L	250	207	181	280	300	47	260
2-Chlorotoluene	µg/L	12.5	8.24	8.10	9.5 J	28 J	25 U	8.5 J
Benzene	µg/L	141	99.8	72.8	73 J	61 J	8.9 J	47
Chlorobenzene	µg/L	3550	3010	2890	4100	4000	680	2700
Semi-volatile Organic Compounds								
1,2,4,5-Tetrachlorobenzene	µg/L	4.76 U	4.72 U	4.67 U	10 U	10.0 U	10 U	10 U
2,4,5-Trichlorophenol	µg/L	9.52 U	9.43 U	9.35 U	10 U	10.0 U	10 U	10 U
2,4-Dichlorophenol	µg/L	22.6	25.6	9.35 U	11	6.62 J	3.5 J	8 J
2,5-Dichlorophenol	µg/L	9.52 U	9.43 U	17.1	10 U	10 U	10 U	10 U
2-Chlorophenol	µg/L	34.2	28.0	21.0	21	11.4	8.3 J	12
4-Chlorophenol	µg/L	70.6	59.1	41.8	60	20	10 U	26
Phenol	µg/L	4.32 J	4.84 J	9.35 U	0.56 J	0.628 J	10 U	10 U
Metals								
Arsenic	µg/L	8.61 J	10.0 U	10.0 U	10.0 UJ	10.0 U	10 U	10 U
Mercury	µg/L	NR	NR	NR	NR	NR	NR	NR
Pesticides								
alpha-BHC	µg/L	0.0377 U	0.0374 UJ	0.0377 U	0.026 J	0.025 U	.019	.25 U
beta-BHC	µg/L	0.126	0.0467 UJ	0.236 U	0.34 J	0.28	.29	.25 U
delta-BHC	µg/L	1.16	0.933 J	1.12 U	0.25 J	0.44	.65	.73
gamma-BHC (lindane)	µg/L	0.0377 U	0.0374 UJ	0.0377 U	0.013 UJ	0.013 U	.013 U	.25 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location:	PCM-03	PCM-03	PCM-03	PCM-03	PCM-03	PCM-03	PCM-03	PCM-03
Sample ID:	PCM-03-607	PCM-03-1107	PCM-03-0508	PCM-12-0508	PCM-03-1108	PCM-03-309 031809	PCM-03-1108	PCM-03-1009
Sample Date:	6/14/2007	11/8/2007	5/21/2008	5/21/2008 (Duplicate)	11/11/2008	3/18/2009	11/11/2008	10/23/2009
Parameters	Units							
Volatile Organic Compounds								
1,2,3-Trichlorobenzene	µg/L	250 U	130 U	130 U	130 U	130 U	130 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	250 U	130 U	51 J	130 U	130 U	130 U	1.0 U
1,2-Dichlorobenzene	µg/L	68 J	67 J	130 U	130 U	87 J	97	90
1,4-Dichlorobenzene	µg/L	300	310	440	430	380	440	500
2-Chlorotoluene	µg/L	250 U	130 U	130 U	130 U	130 U	12 U	1.0 U
Benzene	µg/L	70 J	48 J	47 J	51 J	73 J	84	73
Chlorobenzene	µg/L	3900	4000	4300	4300	4000	4300	4900
Semi-volatile Organic Compounds								
1,2,4,5-Tetrachlorobenzene	µg/L	10 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U
2,4,5-Trichlorophenol	µg/L	10 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U
2,4-Dichlorophenol	µg/L	15	16	28	26	12	28	11 J
2,5-Dichlorophenol	µg/L	10 U	5.0 U	5.0 U	7.5	22	6.1 J	3.9 J
2-Chlorophenol	µg/L	20	19	37	35	13	41	16
4-Chlorophenol	µg/L	44	5.0 U	77	67	29	93	71
Phenol	µg/L	10 U	0.72 J	5.0 U	1.1 J	0.58 J	4.2 J	1.3 J
Metals								
Arsenic	µg/L	10 UJ	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U
Mercury	µg/L	.2 UJ	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Pesticides								
alpha-BHC	µg/L	.5 U	0.25 U	0.25 U	0.25 U	1.0 U	0.050 U	0.050 U
beta-BHC	µg/L	0.08 J	0.076 J	0.48	0.46	5.6	0.072	0.12
delta-BHC	µg/L	0.75	0.6 J	0.6	0.68	1.1	2.0	1.5
gamma-BHC (lindane)	µg/L	.5 U	0.25 U	0.25 U	0.25 U	1.0 U	0.050 U	0.050 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location: Sample ID: Sample Date:	PCM-03 PCM-03-310 4/6/2010	PCM-03 PCM-03-1010 10/9/2010	PCM-03 PCM-03-0411 4/13/2011	PCM-03 PCM-03-1011 10/19/2011	PCM-03 PCM-03-1012 10/2/2012	PCM-03 PCM-03-1013 10/3/2013
Parameters	Units					
Volatile Organic Compounds						
1,2,3-Trichlorobenzene	µg/L	250 U	200 U	120 U	130 U	4.0 U
1,2,4-Trichlorobenzene	µg/L	250 U	200 U	120 U	130 U	4.0 U
1,2-Dichlorobenzene	µg/L	100 J	66 J	61 J	46 J	82
1,4-Dichlorobenzene	µg/L	510	340	310	220	450
2-Chlorotoluene	µg/L	120 J	200 U	120 U	130 U	16
Benzene	µg/L	76 J	50 J	62 J	34 J	58
Chlorobenzene	µg/L	5000	3500	3400	3000	3200
Semi-volatile Organic Compounds						
1,2,4,5-Tetrachlorobenzene	µg/L	9.4 U	9.6 U	9.5 U	9.6 U	48 U
2,4,5-Trichlorophenol	µg/L	9.4 U	9.6 U	9.5 U	9.6 U	48 U
2,4-Dichlorophenol	µg/L	6.0 J	18	9.5 U	9.6 U	48 U
2,5-Dichlorophenol	µg/L	9.4 U	9.6 U	13	9.6 U	48 U
2-Chlorophenol	µg/L	5.9 J	14	9.0 J	9.6 U	16 J
4-Chlorophenol	µg/L	9.0 J	31	16	9.6 U	31 J
Phenol	µg/L	9.4 U	1.7 J	0.91 J	9.6 U	48 U
Metals						
Arsenic	µg/L	5.7 J	10.0 U	10.0 U	10 U	10 U
Mercury	µg/L	0.95	0.20 U	0.20 U	0.20 U	0.20 U
Pesticides						
alpha-BHC	µg/L	0.048 U	0.048 U	0.048 U	0.048 U	0.047 U
beta-BHC	µg/L	0.060	0.046 J	0.059	0.048 U	0.061
delta-BHC	µg/L	1.0	0.59	0.075	0.048 U	0.91
gamma-BHC (lindane)	µg/L	0.048 U	0.048 U	0.048 U	0.048 U	0.047 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

	Sample Location: Sample ID: Sample Date:	PCM-04 PCM-04-602 6/4/2002	PCM-04 PCM-04-802 8/30/2002	PCM-04 PCM-04-1202 12/10/2002	PCM-04 PCM-04-303 3/28/2003	PCM-04 PCM-04-603 6/23/2003	PCM-04 PCM-12-603 6/23/2003 (Duplicate)	PCM-04 PCM-04-903 9/30/2003	PCM-04 PCM-04-1203 12/29/2003
Parameters	Units								
Volatile Organic Compounds									
1,2,3-Trichlorobenzene	µg/L	5.00 U	5.00 U	20.0 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,2,4-Trichlorobenzene	µg/L	5.00 U	5.00 U	20.0 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,2-Dichlorobenzene	µg/L	66.9	52.5	27.2	53.4	50.0	48.7	41.7 J	31.1
1,4-Dichlorobenzene	µg/L	261	272	154	269	259	266	267 J	240
2-Chlorotoluene	µg/L	5.00 U	5.00 U	20.0 U	2.73	1.57 U	1.61 U	3.25 U	3.17
Benzene	µg/L	228 J	218	143	225	204	202	185 J	161
Chlorobenzene	µg/L	6080	6290	4210	6210	6870	6760	7010 J	6470
Semi-volatile Organic Compounds									
1,2,4,5-Tetrachlorobenzene	µg/L	5.00 U	5.00 U	5.05 U	4.72 U	4.67 U	4.67 U	4.72 U	4.76 U
2,4,5-Trichlorophenol	µg/L	10.0 U	10.0 U	10.1 U	9.43 U	9.35 U	9.35 U	9.43 U	9.52 U
2,4-Dichlorophenol	µg/L	6.19 J	4.69 J	10.1 U	6.48 J	4.15 J	3.79 J	4.20 J	9.52 U
2,5-Dichlorophenol	µg/L	10.0 U	10.0 U	10.1 U	9.43 U	9.35 U	9.35 U	9.43 U	9.52 U
2-Chlorophenol	µg/L	19.3	18.8	12.4 J	23.5	20.4	20.1	18.0	11.4
4-Chlorophenol	µg/L	48.6	37.3	32.6 J	45.2	38.0	38.4	35.4	27.9
Phenol	µg/L	3.60 J	10.0 U	10.1 U	3.91 J	9.35 U	9.35 U	9.43 U	9.52 U
Metals									
Arsenic	µg/L	10.0 U	10.0 U	10.0 U	20.0 U	10.0 U	10.0 U	12.8	7.61 J
Mercury	µg/L	NR	NR	NR	NR	NR	NR	NR	NR
Pesticides									
alpha-BHC	µg/L	0.0500 U	0.0500 U	0.0505 U	0.0642	0.0467 U	0.0467 U	0.0479 U	0.0374 U
beta-BHC	µg/L	0.0500 U	0.0500 U	0.0505 U	0.0361 J	0.0467 U	0.0467 U	0.0467 U	0.0467 U
delta-BHC	µg/L	0.0500 U	0.0500 U	0.0505 U	0.0472 U	0.0467 U	0.0467 U	1.38	0.895
gamma-BHC (lindane)	µg/L	0.0500 U	0.0500 U	0.0505 U	0.0472 U	0.0467 U	0.0467 U	0.0467 U	0.0374 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

	Sample Location: Sample ID: Sample Date:	PCM-04 PCM-04-304 3/12/2004	PCM-04 PCM-04-1204 12/15/2004	PCM-04 PCM-04-605 6/22/2005	PCM-04 PCM-04-1005 10/19/2005	PCM-04 PCM-12-1005 10/19/2005 (Duplicate)	PCM-04 PCM-04-606 6/26/2006	PCM-04 PCM-04-1206 12/14/2006
Parameters	Units							
Volatile Organic Compounds								
1,2,3-Trichlorobenzene	µg/L	1.00 U	1.00 U	250 U	13 U	13 U	250 U	250 U
1,2,4-Trichlorobenzene	µg/L	1.00 U	1.00 U	250 U	13 U	13 U	250 U	250 U
1,2-Dichlorobenzene	µg/L	45.9	1.00 U	250 U	20	21	250 U	250 U
1,4-Dichlorobenzene	µg/L	229	245	300	250	260	330	260
2-Chlorotoluene	µg/L	2.45	2.13 U	250 U	13 U	13 U	250 U	250 U
Benzene	µg/L	195	178	140 J	85	86	69 J	65 J
Chlorobenzene	µg/L	6330 J	7220	8600	6600	8000	10000	7100
Semi-volatile Organic Compounds								
1,2,4,5-Tetrachlorobenzene	µg/L	4.67 U	5.05 U	10 U	10.0 U	10.0 U	10 U	10 U
2,4,5-Trichlorophenol	µg/L	9.35 U	10.1 U	10 U	10.0 U	10.0 U	10 U	10 U
2,4-Dichlorophenol	µg/L	4.69 J	10.1 U	3.0 J	1.38 J	1.36 J	4.3 J	1.4 J
2,5-Dichlorophenol	µg/L	9.35 U	10.1 U	10 U	10 U	10 U	10 U	1.5 J
2-Chlorophenol	µg/L	28.1	13.9	20	15.6	15.0	14	14
4-Chlorophenol	µg/L	55.3	28.3	32	42	32	34	28
Phenol	µg/L	5.67 J	10.1 U	10 U	10.0 U	10.0 U	10 U	10 U
Metals								
Arsenic	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U
Mercury	µg/L	NR	NR	NR	NR	NR	NR	NR
Pesticides								
alpha-BHC	µg/L	0.0374 UJ	0.0400 U	0.013 U	0.013 U	0.013 U	.013 U	.05 UJ
beta-BHC	µg/L	0.0467 UJ	0.0500 U	0.025 U	0.025 U	0.025 U	.025 U	.05 UJ
delta-BHC	µg/L	0.0561 UJ	1.40 U	0.05	0.035	0.035	.032	.057 J
gamma-BHC (lindane)	µg/L	0.0374 UJ	0.0400 U	0.013 U	0.013 U	0.013 U	.013 U	.05 UJ

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

	Sample Location: Sample ID: Sample Date:	PCM-04 PCM-04-607 6/18/2007	PCM-04 PCM-12-607 6/18/2007 (Duplicate)	PCM-04 PCM-04-1107 11/9/2007	PCM-04 PCM-04-0508 5/21/2008	PCM-04 PCM-04-1108 11/11/2008	PCM-04 PCM-04-309 3/18/2009	PCM-04 PCM-041009 10/23/2009
Parameters	Units							
Volatile Organic Compounds								
1,2,3-Trichlorobenzene	µg/L	310 U	310 U	210 U	500 U	360 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	310 U	310 U	210 U	500 U	360 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	310 U	310 U	210 U	500 U	360 U	1.0 U	18 J
1,4-Dichlorobenzene	µg/L	330	320	300	400 J	400	290	300
2-Chlorotoluene	µg/L	310 U	310 U	210 U	500 U	360 U	2.1 U	1.0 U
Benzene	µg/L	110 J	100 J	48 J	500 U	360 U	41 J	25 J
Chlorobenzene	µg/L	10000	11000	8600	12000	11000	10000	10000
Semi-volatile Organic Compounds								
1,2,4,5-Tetrachlorobenzene	µg/L	10 U	10 U	5.0 U	5.0 U	5.0 U	10 U	10 U
2,4,5-Trichlorophenol	µg/L	10 U	10 U	5.0 U	5.0 U	5.0 U	10 U	10 U
2,4-Dichlorophenol	µg/L	10 U	10 U	1.2 J	1.6 J	0.88 J	1.8 J	10 U
2,5-Dichlorophenol	µg/L	10 U	10 U	5.0 U	2.0 J	5.0 U	1.9 J	1.4 J
2-Chlorophenol	µg/L	14	15	5.0 U	5.0 U	10	34	24
4-Chlorophenol	µg/L	26	26	25	35	30	66	49
Phenol	µg/L	10 U	10 U	5.0 U	5.0 U	5.0 U	2.4 J	7.2 J
Metals								
Arsenic	µg/L	10 U	10 U	10.0 U	10.0 U	10.0 U	10 U	10 U
Mercury	µg/L	0.10 J	.2 U	0.11 J	0.20 U	0.20 U	0.20 U	0.20 U
Pesticides								
alpha-BHC	µg/L	0.0081 J	.05 U	0.050 U	0.050 U	0.25 U	0.050 U	0.050 U
beta-BHC	µg/L	0.14 J	0.16	0.050 U	0.050 U	0.25 U	0.050 U	0.050 U
delta-BHC	µg/L	.05 UJ	.05 U	0.025 J	0.12	1.1	1.2	0.050 U
gamma-BHC (lindane)	µg/L	.05 UJ	.05 U	0.050 U	0.050 U	0.25 U	0.050 U	0.050 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

	Sample Location: Sample ID: Sample Date:	PCM-04 PCM-04-310 4/6/2010	PCM-04 PCM-04-1010 10/9/2010	PCM-04 PCM-04-0411 4/13/2011	PCM-04 PCM-04-1011 10/19/2011	PCM-04 PCM-04-1012 10/2/2012	PCM-04 PCM-04-1013 10/3/2013
Parameters	Units						
Volatile Organic Compounds							
1,2,3-Trichlorobenzene	µg/L	500 U	500 U	500 U	500 U	400 U	4.0 U
1,2,4-Trichlorobenzene	µg/L	500 U	500 U	500 U	500 U	400 U	4.0 U
1,2-Dichlorobenzene	µg/L	500 U	500 U	500 U	500 U	400 U	20
1,4-Dichlorobenzene	µg/L	380 J	210 J	220 J	200 J	170 J	340
2-Chlorotoluene	µg/L	500 U	500 U	500 U	500 U	400 U	4.0 U
Benzene	µg/L	500 U	500 U	500 U	500 U	400 U	33
Chlorobenzene	µg/L	12000	7700	8400	8000	7000	10000 J
Semi-volatile Organic Compounds							
1,2,4,5-Tetrachlorobenzene	µg/L	9.4 U	9.5 U	9.5 U	48 U	9.6 U	9.6 U
2,4,5-Trichlorophenol	µg/L	9.4 U	9.5 U	9.5 U	48 U	9.6 U	9.6 U
2,4-Dichlorophenol	µg/L	1.1 J	0.98 J	0.90 J	48 U	0.54 J	0.71 J
2,5-Dichlorophenol	µg/L	9.4 U	9.5 U	9.5 U	48 U	9.6 U	9.6 U
2-Chlorophenol	µg/L	14	14	12	39 J	8.0 J	11
4-Chlorophenol	µg/L	24	27	28	48 U	18	18
Phenol	µg/L	9.4 U	9.5 U	9.5 U	48 U	9.6 U	9.6 U
Metals							
Arsenic	µg/L	3.2 J	10.0 U	10.0 U	10 U	10 U	10 U
Mercury	µg/L	0.20 U	0.060 J	0.11 J	0.064 J	0.071 J	0.20 U
Pesticides							
alpha-BHC	µg/L	0.048 U	0.048 U	0.048 U	0.047 U	0.048 U	0.048 U
beta-BHC	µg/L	0.048 U	0.048 U	0.048 U	0.047 U	0.048 U	0.048 U
delta-BHC	µg/L	0.10	0.13 J	0.13	0.090	0.053	0.81
gamma-BHC (lindane)	µg/L	0.048 U	0.048 U	0.048 U	0.047 U	0.048 U	0.048 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

	Sample Location: Sample ID: Sample Date:	PCM-05 PCM-05-602 6/4/2002	PCM-05 PCM-05-802 8/29/2002	PCM-05 PCM-05-1202 12/12/2002	PCM-05 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-05-1203 12/29/2003
Parameters	Units								
Volatile Organic Compounds									
1,2,3-Trichlorobenzene	µg/L	5.00 U	5.00 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	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,2-Dichlorobenzene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,4-Dichlorobenzene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
2-Chlorotoluene	µg/L	5.00 U	5.00 U	2.00 U	1.00 U	1.00 U	1.13 U	1.01 U	1.00 U
Benzene	µg/L	5.91	2.79 J	1.23	3.79	4.44	1.39	1.22	0.690 J
Chlorobenzene	µg/L	96.8	69.9	47.8	56.2	76.2	49.7	45.3	49.6
Semi-volatile Organic Compounds									
1,2,4,5-Tetrachlorobenzene	µg/L	5.00 U	5.00 U	5.00 U	4.72 U	4.67 U	4.72 U	4.72 U	4.81 U
2,4,5-Trichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.43 U	9.35 U	9.43 U	9.43 U	9.62 U
2,4-Dichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.43 U	9.35 U	9.43 U	9.43 U	9.62 U
2,5-Dichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.43 U	9.35 U	9.43 U	9.43 U	9.62 U
2-Chlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.43 U	9.35 U	9.43 U	9.43 U	9.62 U
4-Chlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.43 U	9.35 U	9.43 U	9.43 U	9.62 U
Phenol	µg/L	10.0 U	10.0 U	10.0 U	9.43 U	9.35 U	9.43 U	9.43 U	9.62 U
Metals									
Arsenic	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	15.4	18.5	7.09 J
Mercury	µg/L	NR	NR	NR	NR	NR	NR	NR	NR
Pesticides									
alpha-BHC	µg/L	0.0500 U	0.0500 U	0.0505 U	0.0613	0.0472 U	0.0511 U	0.0471 U	0.0374 U
beta-BHC	µg/L	0.0500 U	0.0500 U	0.0505 U	0.0472 U	0.0472 U	0.0467 U	0.0467 U	0.0467 U
delta-BHC	µg/L	0.0500 U	0.0500 U	0.0505 U	0.0472 U	0.0472 U	0.0467 U	0.0467 U	0.0561 U
gamma-BHC (lindane)	µg/L	0.0500 U	0.0500 U	0.0505 U	0.0472 U	0.0472 U	0.0467 U	0.0467 U	0.0374 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

	Sample Location: Sample ID: Sample Date:	PCM-05 PCM-05-304 3/15/2004	PCM-05 PCM-05-1204 12/14/2004	PCM-05 PCM-05-605 6/20/2005	PCM-05 PCM-05-1005 10/20/2005	PCM-05 PCM-05-706 7/5/2006	PCM-05 PCM-05-1206 12/13/2006	PCM-05 PCM-05-607 6/18/2007
Parameters	Units							
Volatile Organic Compounds								
1,2,3-Trichlorobenzene	µg/L	1.00 U	1.00 U	4.2 U	3.1 U	13 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	µg/L	1.00 U	1.00 U	4.2 U	3.1 U	13 U	0.5 U	0.5 U
1,2-Dichlorobenzene	µg/L	1.00 U	1.00 U	4.2 U	3.1 U	13 U	0.5 U	0.5 U
1,4-Dichlorobenzene	µg/L	1.00 U	1.00 U	4.2 U	3.1 U	13 U	0.79 J	0.5 U
2-Chlorotoluene	µg/L	0.288 J	1.00 U	4.2 U	3.1 U	13 U	0.5 U	0.5 U
Benzene	µg/L	1.71	5.68	7.0	3.1 U	13 U	3.4	4.9
Chlorobenzene	µg/L	56.1	94.9	120	77	87	91	100
Semi-volatile Organic Compounds								
1,2,4,5-Tetrachlorobenzene	µg/L	4.76 U	4.67 U	10 U	10.0 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	µg/L	9.52 U	9.35 U	10 U	10.0 U	10 U	10 U	10 U
2,4-Dichlorophenol	µg/L	9.52 U	9.35 U	10 U	10.0 U	10 U	10 U	10 U
2,5-Dichlorophenol	µg/L	9.52 U	9.35 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	µg/L	9.52 U	9.35 U	10 U	10.0 U	10 U	10 U	10 U
4-Chlorophenol	µg/L	9.52 U	9.35 U	10 U	10 U	1.4 J	10 U	10 U
Phenol	µg/L	9.52 U	9.35 U	10 U	10.0 U	10 U	10 U	10 U
Metals								
Arsenic	µg/L	8.71 J	10.0 U	10.0 UJ	10.0 U	10 UJ	10 U	10 U
Mercury	µg/L	NR	NR	NR	NR	NR	NR	0.2 U
Pesticides								
alpha-BHC	µg/L	0.0374 U	0.0377 U	0.022	0.013 U	.013 U	0.05 U	0.05 U
beta-BHC	µg/L	0.0467 U	0.0472 U	0.025 U	0.025 U	.025 U	0.05 U	0.05 U
delta-BHC	µg/L	0.0561 U	0.0566 U	0.011 J	0.025	.013 U	0.05 U	0.05 U
gamma-BHC (lindane)	µg/L	0.0374 U	0.0377 U	0.015	0.013 U	.013 U	0.05 U	0.05 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location:	PCM-05	PCM-05	PCM-05	PCM-05	PCM-05	PCM-05	PCM-05	PCM-05
Sample ID:	PCM-05-1107	PCM-05-0508	PCM-05-1108	PCM-05-309	PCM-051009	PCM-05-310	PCM-05-1010	PCM-05-1010
Sample Date:	11/9/2007	5/22/2008	11/11/2008	3/18/2009	10/23/2009	4/16/2010	10/9/2010	10/9/2010
Parameters	Units							
Volatile Organic Compounds								
1,2,3-Trichlorobenzene	µg/L	1.8 U	2.5 U	3.6 U	1.0 U	1.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	µg/L	1.8 U	2.5 U	3.6 U	1.0 U	1.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	µg/L	1.8 U	2.5 U	3.6 U	1.0 U	1.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	µg/L	1.8 U	2.5 U	3.6 U	1.0 U	1.0 U	5.0 U	5.0 U
2-Chlorotoluene	µg/L	1.8 U	2.5 U	3.6 U	1.0 U	1.0 U	5.0 U	5.0 U
Benzene	µg/L	0.68 J	2.2 J	5.5	9.2	4.5	4.3 J	1.8 J
Chlorobenzene	µg/L	61	72	110	190	150	130	100
Semi-volatile Organic Compounds								
1,2,4,5-Tetrachlorobenzene	µg/L	5.0 U	5.0 UJ	R	10 U	10 U	9.4 U	9.5 U
2,4,5-Trichlorophenol	µg/L	R	5.0 UJ	R	10 U	10 U	9.4 U	9.5 U
2,4-Dichlorophenol	µg/L	R	5.0 UJ	R	10 U	10 U	9.4 U	9.5 U
2,5-Dichlorophenol	µg/L	R	5.0 UJ	R	10 U	10 U	9.4 U	9.5 U
2-Chlorophenol	µg/L	R	5.0 UJ	R	0.78 J	10 U	9.4 U	9.5 U
4-Chlorophenol	µg/L	R	5.0 UJ	R	2.9 J	10 U	1.5 J	9.5 U
Phenol	µg/L	R	5.0 UJ	R	10 U	10 U	9.4 U	9.5 U
Metals								
Arsenic	µg/L	10.0 U	10.0 U	10.0 U	10 U	10 U	10.0 U	6.7 J
Mercury	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Pesticides								
alpha-BHC	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.048 U	0.048 U
beta-BHC	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.048 U	0.048 U
delta-BHC	µg/L	0.050 UJ	0.050 U	0.050 U	0.050 U	0.050 U	0.048 U	0.048 U
gamma-BHC (lindane)	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.048 U	0.048 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
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Niagara Falls, New York**

Sample Location:	PCM-05	PCM-05	PCM-05	PCM-05	PCM-05	PCM-05	
Sample ID:	PCM-05-0411	PCM-05-1011	PCM-05-1012	PCM-05-1013	PCM-05-1113	PCM-05-1015	
Sample Date:	4/13/2011	10/18/2011	10/2/2012	10/3/2013	10/28/2014	10/14/2015	
Parameters	Units						
Volatile Organic Compounds							
1,2,3-Trichlorobenzene	µg/L	5.0 U	5.0 U	4.0 U	4.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U	5.0 U	4.0 U	4.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	µg/L	5.0 U	5.0 U	4.0 U	4.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	µg/L	5.0 U	5.0 U	4.0 U	4.0 U	5.0 U	5.0 U
2-Chlorotoluene	µg/L	5.0 U	5.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Benzene	µg/L	2.4 J	5.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	87	81	80	150	130	110
Semi-volatile Organic Compounds							
1,2,4,5-Tetrachlorobenzene	µg/L	9.5 U	9.7 U	9.6 U	9.6 U	9.5 U	9.4 U
2,4,5-Trichlorophenol	µg/L	9.5 U	9.7 U	9.6 U	9.6 U	9.5 U	9.4 U
2,4-Dichlorophenol	µg/L	9.5 U	9.7 U	9.6 U	9.6 U	9.5 U	9.4 U
2,5-Dichlorophenol	µg/L	9.5 U	9.7 U	9.6 U	9.6 U	9.5 U	9.4 U
2-Chlorophenol	µg/L	9.5 U	9.7 U	9.6 U	9.6 U	9.5 U	9.4 U
4-Chlorophenol	µg/L	1.7 J	2.8 J	9.6 U	1.1 J	9.5 U	9.4 U
Phenol	µg/L	9.5 U	9.7 U	9.6 U	9.6 U	9.5 U	9.4 U
Metals							
Arsenic	µg/L	10.0 U	10 U	5.0 J	10 U	10 U	4.6 J
Mercury	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Pesticides							
alpha-BHC	µg/L	0.048 U	0.048 U	0.048 U	0.048 U	0.050 U	0.052 U
beta-BHC	µg/L	0.048 U	0.048 U	0.048 U	0.048 U	0.050 U	0.052 U
delta-BHC	µg/L	0.048 U	0.048 U	0.048 U	0.048 U	0.031 J	0.052 U
gamma-BHC (lindane)	µg/L	0.048 U	0.048 U	0.048 U	0.048 U	0.050 U	0.052 U

Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York

	Sample Location:	PCM-06	PCM-06	PCM-06	PCM-06	PCM-06	PCM-06	PCM-06	PCM-06
	Sample ID:	NA	NA	NA	NA	NA	NA	NA	NA
	Sample Date:	06/03/2002	08/29/2002	12/13/2002	3/31/2003	6/24/2003	9/30/2003	12/29/2003	3/15/2004
Parameters	Units								
Volatile Organic Compounds									
1,2,3-Trichlorobenzene	µg/L	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/L	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	µg/L	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	µg/L	-	-	-	-	-	-	-	-
2-Chlorotoluene	µg/L	-	-	-	-	-	-	-	-
Benzene	µg/L	-	-	-	-	-	-	-	-
Chlorobenzene	µg/L	-	-	-	-	-	-	-	-
Semi-volatile Organic Compounds									
1,2,4,5-Tetrachlorobenzene	µg/L	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	µg/L	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	µg/L	-	-	-	-	-	-	-	-
2,5-Dichlorophenol	µg/L	-	-	-	-	-	-	-	-
2-Chlorophenol	µg/L	-	-	-	-	-	-	-	-
4-Chlorophenol	µg/L	-	-	-	-	-	-	-	-
Phenol	µg/L	-	-	-	-	-	-	-	-
Metals									
Arsenic	µg/L	-	-	-	-	-	-	-	-
Mercury	µg/L	NR	NR	NR	NR	NR	NR	NR	NR
Pesticides									
alpha-BHC	µg/L	-	-	-	-	-	-	-	-
beta-BHC	µg/L	-	-	-	-	-	-	-	-
delta-BHC	µg/L	-	-	-	-	-	-	-	-
gamma-BHC (lindane)	µg/L	-	-	-	-	-	-	-	-

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

	Sample Location: Sample ID: Sample Date:	PCM-06 NA 12/16/2004	PCM-06 NA 6/20/2005	PCM-06 NA 10/20/2005	PCM-06 NA 7/5/2006	PCM-06 NA 12/13/2006	PCM-06 NA 6/19/2007	PCM-06 NA 11/12/2007
Parameters	Units							
Volatile Organic Compounds								
1,2,3-Trichlorobenzene	µg/L	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/L	-	-	-	-	-	-	-
1,2-Dichlorobenzene	µg/L	-	-	-	-	-	-	-
1,4-Dichlorobenzene	µg/L	-	-	-	-	-	-	-
2-Chlorotoluene	µg/L	-	-	-	-	-	-	-
Benzene	µg/L	-	-	-	-	-	-	-
Chlorobenzene	µg/L	-	-	-	-	-	-	-
Semi-volatile Organic Compounds								
1,2,4,5-Tetrachlorobenzene	µg/L	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	µg/L	-	-	-	-	-	-	-
2,4-Dichlorophenol	µg/L	-	-	-	-	-	-	-
2,5-Dichlorophenol	µg/L	-	-	-	-	-	-	-
2-Chlorophenol	µg/L	-	-	-	-	-	-	-
4-Chlorophenol	µg/L	-	-	-	-	-	-	-
Phenol	µg/L	-	-	-	-	-	-	-
Metals								
Arsenic	µg/L	-	-	-	-	-	-	-
Mercury	µg/L	NR	NR	NR	NR	NR	-	-
Pesticides								
alpha-BHC	µg/L	-	-	-	-	-	-	-
beta-BHC	µg/L	-	-	-	-	-	-	-
delta-BHC	µg/L	-	-	-	-	-	-	-
gamma-BHC (lindane)	µg/L	-	-	-	-	-	-	-

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

	Sample Location: Sample ID: Sample Date:	PCM-06 NA 5/23/2008	PCM-06 NA 11/10/2008	PCM-06 NA 3/19/2009	PCM-06 NA 10/21/2009	PCM-06 NA 4/12/2010	PCM-06 PCM-06-1010 10/11/2010	PCM-06 NA 4/14/2011
Parameters	Units							
Volatile Organic Compounds								
1,2,3-Trichlorobenzene	µg/L	-	-	-	-	-	1.0 U	-
1,2,4-Trichlorobenzene	µg/L	-	-	-	-	-	1.0 U	-
1,2-Dichlorobenzene	µg/L	-	-	-	-	-	1.0 U	-
1,4-Dichlorobenzene	µg/L	-	-	-	-	-	1.0 U	-
2-Chlorotoluene	µg/L	-	-	-	-	-	1.0 U	-
Benzene	µg/L	-	-	-	-	-	1.0 U	-
Chlorobenzene	µg/L	-	-	-	-	-	1.0 U	-
Semi-volatile Organic Compounds								
1,2,4,5-Tetrachlorobenzene	µg/L	-	-	-	-	-	IV-NS	-
2,4,5-Trichlorophenol	µg/L	-	-	-	-	-	IV-NS	-
2,4-Dichlorophenol	µg/L	-	-	-	-	-	IV-NS	-
2,5-Dichlorophenol	µg/L	-	-	-	-	-	IV-NS	-
2-Chlorophenol	µg/L	-	-	-	-	-	IV-NS	-
4-Chlorophenol	µg/L	-	-	-	-	-	IV-NS	-
Phenol	µg/L	-	-	-	-	-	IV-NS	-
Metals								
Arsenic	µg/L	-	-	-	-	-	IV-NS	-
Mercury	µg/L	-	-	-	-	-	IV-NS	-
Pesticides								
alpha-BHC	µg/L	-	-	-	-	-	IV-NS	-
beta-BHC	µg/L	-	-	-	-	-	IV-NS	-
delta-BHC	µg/L	-	-	-	-	-	IV-NS	-
gamma-BHC (lindane)	µg/L	-	-	-	-	-	IV-NS	-

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

	Sample Location: Sample ID: Sample Date:	PCM-06 NA 10/18/2011	PCM-06 PCM-06-1012 10/1/2012	PCM-06 PCM-06-1013 10/10/2013	PCM-06 PCM-06-1114 10/22/2014	PCM-06 PCM-06-1015 10/14/2015	PCM-06 PCM-06-1016 10/29/2016
Parameters	Units						
Volatile Organic Compounds							
1,2,3-Trichlorobenzene	µg/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Semi-volatile Organic Compounds							
1,2,4,5-Tetrachlorobenzene	µg/L	-	11 U	IV-NS	9.5 U	9.5 U	-
2,4,5-Trichlorophenol	µg/L	-	11 U	IV-NS	9.5 U	9.5 U	-
2,4-Dichlorophenol	µg/L	-	11 U	IV-NS	9.5 U	9.5 U	-
2,5-Dichlorophenol	µg/L	-	11 U	IV-NS	9.5 U	9.5 U	-
2-Chlorophenol	µg/L	-	11 U	IV-NS	9.5 U	9.5 U	-
4-Chlorophenol	µg/L	-	11 U	IV-NS	9.5 U	9.5 U	-
Phenol	µg/L	-	11 U	IV-NS	9.5 U	9.5 U	-
Metals							
Arsenic	µg/L	-	10 U	IV-NS	10 U	10 U	-
Mercury	µg/L	-	0.20 U	IV-NS	0.20 U	0.20 U	-
Pesticides							
alpha-BHC	µg/L	-	0.048 U	IV-NS	0.050 U	0.052 U	-
beta-BHC	µg/L	-	0.048 U	IV-NS	0.050 U	0.052 U	-
delta-BHC	µg/L	-	0.048 U	IV-NS	0.050 U	0.052 U	-
gamma-BHC (lindane)	µg/L	-	0.048 U	IV-NS	0.050 U	0.052 U	-

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location:	PCM-07	PCM-07	PCM-07	PCM-07	PCM-07	PCM-07	PCM-07	PCM-07	PCM-07
Sample ID:	PCM-07-502	PCM-07-802	PCM-07-1202	PCM-07-303	PCM-07-603	PCM-07-1003	PCM-07-1203	PCM-07-1203	PCM-07-304
Sample Date:	6/3/2002	8/29/2002	12/18/2002	4/3/2003	6/27/2003	10/6/2003	12/31/2003	12/31/2003	4/14/2004
Parameters	Units								
Volatile Organic Compounds									
1,2,3-Trichlorobenzene	µg/L	5.00 U	5.00 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	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,2-Dichlorobenzene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,4-Dichlorobenzene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
2-Chlorotoluene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	2.32 U	0.490 J	1.00 U
Benzene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Chlorobenzene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Semi-volatile Organic Compounds									
1,2,4,5-Tetrachlorobenzene	µg/L	5.00 U	5.00 U	5.00 U	5.81 U	4.67 U	4.67 U	4.67 U	5.05 U
2,4,5-Trichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	11.6 U	9.35 U	9.35 U	9.35 U	10.1 U
2,4-Dichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	11.6 U	9.35 U	9.35 U	9.35 U	10.1 U
2,5-Dichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	11.6 U	9.35 U	9.35 U	9.35 U	10.1 U
2-Chlorophenol	µg/L	10.0 U	10.0 U	10.0 U	11.6 U	9.35 U	9.35 U	9.35 U	10.1 U
4-Chlorophenol	µg/L	10.0 U	10.0 U	10.0 U	11.6 U	9.35 U	9.35 U	9.35 U	10.1 U
Phenol	µg/L	10.0 U	10.0 U	10.0 U	11.6 U	9.35 U	3.49 J	9.35 U	10.1 U
Metals									
Arsenic	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	4.61 J	25.4	19.8	9.55 J
Mercury	µg/L	NR	NR	NR	NR	NR	NR	NR	NR
Pesticides									
alpha-BHC	µg/L	0.0500 U	0.0500 U	0.0510 U	0.0642	0.0467 U	0.0467 U	0.0374 U	0.0404 U
beta-BHC	µg/L	0.0500 U	0.0500 U	0.0510 U	0.0472 U	0.0467 U	0.0467 U	0.0467 U	0.0505 U
delta-BHC	µg/L	0.0500 U	0.0500 U	0.0510 U	0.0472 U	0.0467 U	0.0561 U	0.0664	0.0606 U
gamma-BHC (lindane)	µg/L	0.00810 J	0.0500 U	0.0510 U	0.0575	0.0467 U	0.0374 U	0.0374 U	0.0404 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location:	PCM-07	PCM-07	PCM-07	PCM-07	PCM-07	PCM-07	PCM-07	PCM-07R
Sample ID:	PCM-07-1204	PCM-07-605	PCM-07-1005	PCM-07-706	PCM-07-1206	PCM-07-607	PCM-07-607	NA
Sample Date:	12/21/2004	6/23/2005	10/31/2005	7/5/2006	12/13/2006	6/19/2007	6/19/2007	11/12/2007
Parameters	Units							
Volatile Organic Compounds								
1,2,3-Trichlorobenzene	µg/L	1.00 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	-
1,2,4-Trichlorobenzene	µg/L	1.00 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	-
1,2-Dichlorobenzene	µg/L	1.00 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	-
1,4-Dichlorobenzene	µg/L	1.00 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	-
2-Chlorotoluene	µg/L	1.00 U	0.32 J	0.50 U	0.5 U	0.5 U	0.5 U	-
Benzene	µg/L	1.00 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	-
Chlorobenzene	µg/L	1.00 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	-
Semi-volatile Organic Compounds								
1,2,4,5-Tetrachlorobenzene	µg/L	4.72 U	10 U	10.0 U	10 U	10 U	10 U	-
2,4,5-Trichlorophenol	µg/L	9.43 U	10 U	10.0 U	10 U	10 U	10 U	-
2,4-Dichlorophenol	µg/L	9.43 U	10 U	10.0 U	10 U	10 U	10 U	-
2,5-Dichlorophenol	µg/L	9.43 U	10 U	10 U	10 U	10 U	10 U	-
2-Chlorophenol	µg/L	9.43 U	10 U	10.0 U	10 U	10 U	10 U	-
4-Chlorophenol	µg/L	9.43 U	10 U	10 U	10 U	10 U	10 U	-
Phenol	µg/L	9.43 U	10 U	10.0 U	10 U	10 U	10 UJ	-
Metals								
Arsenic	µg/L	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U	-
Mercury	µg/L	NR	NR	NR	NR	NR	0.2 U	-
Pesticides								
alpha-BHC	µg/L	0.0377 UJ	0.055	R	0.013 U	0.05 U	0.013 J	-
beta-BHC	µg/L	0.0472 UJ	0.025 U	R	0.025 U	0.05 U	0.05 U	-
delta-BHC	µg/L	0.0566 UJ	0.013 U	R	0.013 U	0.05 U	0.011 J	-
gamma-BHC (lindane)	µg/L	0.0377 UJ	0.024	R	0.013 U	0.05 U	0.05 U	-

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location:	PCM-07R	PCM-07R	PCM-07R	PCM-07R	PCM-07R	PCM-07R	PCM-07R	PCM-07R
Sample ID:	NA	PCM-7R-1108	PCM-7R-309	PCM-071009	PCM-07R-310	PCM-07R-1010	PCM-07R-0411	
Sample Date:	5/23/2008	11/12/2008	3/19/2009	10/23/2009	4/16/2010	10/11/2010	4/14/2011	
Parameters	Units							
Volatile Organic Compounds								
1,2,3-Trichlorobenzene	µg/L	-	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	-	0.21 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	-	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	-	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	-	0.79	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	-	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	-	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.18 J
Semi-volatile Organic Compounds								
1,2,4,5-Tetrachlorobenzene	µg/L	-	5.0 U	10 U	10 U	9.6 U	9.6 U	9.6 U
2,4,5-Trichlorophenol	µg/L	-	5.0 U	10 U	10 U	9.6 U	9.6 U	9.6 U
2,4-Dichlorophenol	µg/L	-	5.0 U	10 U	10 U	9.6 U	9.6 U	9.6 U
2,5-Dichlorophenol	µg/L	-	5.0 U	10 U	10 U	9.6 U	9.6 U	9.6 U
2-Chlorophenol	µg/L	-	5.0 U	10 U	10 U	9.6 U	9.6 U	9.6 U
4-Chlorophenol	µg/L	-	5.0 U	10 U	10 U	9.6 U	9.6 U	9.6 U
Phenol	µg/L	-	5.0 U	10 U	10 U	9.6 U	9.6 U	9.6 U
Metals								
Arsenic	µg/L	-	10.0 U	10 U	1.8 J	10.0 U	IV-NS	10.0 U
Mercury	µg/L	-	0.20 U	0.20 U	0.20 U	0.20 U	IV-NS	0.20 U
Pesticides								
alpha-BHC	µg/L	-	0.11	0.052	0.060	0.048 U	0.053 J	0.033 J
beta-BHC	µg/L	-	0.19	0.050 U	0.050 U	0.048 U	0.048 U	0.048 U
delta-BHC	µg/L	-	0.062	0.038 J	0.050 U	0.048 U	0.048 U	0.032 J
gamma-BHC (lindane)	µg/L	-	0.11	0.051	0.028 J	0.048 U	0.048 U	0.048 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

	Sample Location: Sample ID: Sample Date:	PCM-07R PCM-07R-1011 10/18/2011	PCM-07R PCM-07R-1012 10/1/2012	PCM-07R PCM-07R-1013 10/9/2013	PCM-07R PCM-07R-1114 10/22/2014	PCM-07R PCM-07R-1015 10/14/2015	PCM-07R PCM-07R-1016 10/29/2016
Parameters	Units						
Volatile Organic Compounds							
1,2,3-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Semi-volatile Organic Compounds							
1,2,4,5-Tetrachlorobenzene	µg/L	9.7 U	9.8 U	9.6 U	9.5 U	9.5 U	-
2,4,5-Trichlorophenol	µg/L	9.7 U	9.8 U	9.6 U	9.5 U	9.5 U	-
2,4-Dichlorophenol	µg/L	9.7 U	9.8 U	9.6 U	9.5 U	9.5 U	-
2,5-Dichlorophenol	µg/L	9.7 U	9.8 U	9.6 U	9.5 U	9.5 U	-
2-Chlorophenol	µg/L	9.7 U	9.8 U	9.6 U	9.5 U	9.5 U	-
4-Chlorophenol	µg/L	9.7 U	9.8 U	9.6 U	9.5 U	9.5 U	-
Phenol	µg/L	9.7 U	9.8 U	9.6 U	9.5 U	9.5 U	-
Metals							
Arsenic	µg/L	10 U	10 U	10 U	10 U	10 U	-
Mercury	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	-
Pesticides							
alpha-BHC	µg/L	0.048 U	0.048 U	0.048 U	0.050 U	0.052 U	0.047 U
beta-BHC	µg/L	0.048 U	0.048 U	0.048 U	0.050 U	0.052 U	0.047 U
delta-BHC	µg/L	0.057 J	0.048 U	0.048 U	0.050 U	0.052 U	0.047 U
gamma-BHC (lindane)	µg/L	0.048 U	0.048 U	0.048 U	0.050 U	0.052 U	0.047 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

	Sample Location: Sample ID: Sample Date:	PCM-08 NA 12/16/2004	PCM-08 NA 6/20/2005	PCM-08 NA 10/20/2005	PCM-08 NA 7/5/2006	PCM-08 NA 12/13/2006	PCM-08 NA 6/19/2007	PCM-08 PCM-08-1107 11/12/2007
Parameters	Units							
Volatile Organic Compounds								
1,2,3-Trichlorobenzene	µg/L	-	-	-	-	-	-	0.50 U
1,2,4-Trichlorobenzene	µg/L	-	-	-	-	-	-	0.50 U
1,2-Dichlorobenzene	µg/L	-	-	-	-	-	-	0.50 U
1,4-Dichlorobenzene	µg/L	-	-	-	-	-	-	0.50 U
2-Chlorotoluene	µg/L	-	-	-	-	-	-	0.50 U
Benzene	µg/L	-	-	-	-	-	-	0.50 U
Chlorobenzene	µg/L	-	-	-	-	-	-	0.50 U
Semi-volatile Organic Compounds								
1,2,4,5-Tetrachlorobenzene	µg/L	-	-	-	-	-	-	5.0 U
2,4,5-Trichlorophenol	µg/L	-	-	-	-	-	-	5.0 U
2,4-Dichlorophenol	µg/L	-	-	-	-	-	-	5.0 U
2,5-Dichlorophenol	µg/L	-	-	-	-	-	-	5.0 U
2-Chlorophenol	µg/L	-	-	-	-	-	-	5.0 U
4-Chlorophenol	µg/L	-	-	-	-	-	-	5.0 U
Phenol	µg/L	-	-	-	-	-	-	5.0 U
Metals								
Arsenic	µg/L	-	-	-	-	-	-	10.0 U
Mercury	µg/L	NR	NR	NR	NR	NR	-	0.20 U
Pesticides								
alpha-BHC	µg/L	-	-	-	-	-	-	0.050 U
beta-BHC	µg/L	-	-	-	-	-	-	0.050 U
delta-BHC	µg/L	-	-	-	-	-	-	0.0073 J
gamma-BHC (lindane)	µg/L	-	-	-	-	-	-	0.050 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
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	Sample Location: Sample ID: Sample Date:	PCM-09 NA 6/3/2002	PCM-09 NA 8/29/2002	PCM-09 NA 12/13/2002	PCM-09 NA 3/31/2003	PCM-09 NA 6/24/2003	PCM-09 NA 9/30/2003	PCM-09 NA 12/29/2003	PCM-09 NA 3/15/2004
Parameters	Units								
Volatile Organic Compounds									
1,2,3-Trichlorobenzene	µg/L	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/L	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	µg/L	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	µg/L	-	-	-	-	-	-	-	-
2-Chlorotoluene	µg/L	-	-	-	-	-	-	-	-
Benzene	µg/L	-	-	-	-	-	-	-	-
Chlorobenzene	µg/L	-	-	-	-	-	-	-	-
Semi-volatile Organic Compounds									
1,2,4,5-Tetrachlorobenzene	µg/L	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	µg/L	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	µg/L	-	-	-	-	-	-	-	-
2,5-Dichlorophenol	µg/L	-	-	-	-	-	-	-	-
2-Chlorophenol	µg/L	-	-	-	-	-	-	-	-
4-Chlorophenol	µg/L	-	-	-	-	-	-	-	-
Phenol	µg/L	-	-	-	-	-	-	-	-
Metals									
Arsenic	µg/L	-	-	-	-	-	-	-	-
Mercury	µg/L	NR	NR	NR	NR	NR	NR	NR	NR
Pesticides									
alpha-BHC	µg/L	-	-	-	-	-	-	-	-
beta-BHC	µg/L	-	-	-	-	-	-	-	-
delta-BHC	µg/L	-	-	-	-	-	-	-	-
gamma-BHC (lindane)	µg/L	-	-	-	-	-	-	-	-

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

	Sample Location: Sample ID: Sample Date:	PCM-09 NA 12/16/2004	PCM-09 NA 6/20/2005	PCM-09 NA 10/20/2005	PCM-09 NA 7/5/2006	PCM-09 NA 12/13/2006	PCM-09 NA 6/19/2007	PCM-09 NA 11/12/2007
Parameters	Units							
Volatile Organic Compounds								
1,2,3-Trichlorobenzene	µg/L	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/L	-	-	-	-	-	-	-
1,2-Dichlorobenzene	µg/L	-	-	-	-	-	-	-
1,4-Dichlorobenzene	µg/L	-	-	-	-	-	-	-
2-Chlorotoluene	µg/L	-	-	-	-	-	-	-
Benzene	µg/L	-	-	-	-	-	-	-
Chlorobenzene	µg/L	-	-	-	-	-	-	-
Semi-volatile Organic Compounds								
1,2,4,5-Tetrachlorobenzene	µg/L	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	µg/L	-	-	-	-	-	-	-
2,4-Dichlorophenol	µg/L	-	-	-	-	-	-	-
2,5-Dichlorophenol	µg/L	-	-	-	-	-	-	-
2-Chlorophenol	µg/L	-	-	-	-	-	-	-
4-Chlorophenol	µg/L	-	-	-	-	-	-	-
Phenol	µg/L	-	-	-	-	-	-	-
Metals								
Arsenic	µg/L	-	-	-	-	-	-	-
Mercury	µg/L	NR	NR	NR	NR	NR	-	-
Pesticides								
alpha-BHC	µg/L	-	-	-	-	-	-	-
beta-BHC	µg/L	-	-	-	-	-	-	-
delta-BHC	µg/L	-	-	-	-	-	-	-
gamma-BHC (lindane)	µg/L	-	-	-	-	-	-	-

Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York

	Sample Location: Sample ID: Sample Date:	PCM-09 NA 5/23/2008	PCM-09 NA 11/10/2008	PCM-09 PCM-09-309 3/19/2009	PCM-09 NA 10/21/2009	PCM-09 PCM-09-310 4/6/2010	PCM-09 NA 10/11/2010	PCM-09 PCM-09-0411 4/14/2011
Parameters	Units							
Volatile Organic Compounds								
1,2,3-Trichlorobenzene	µg/L	-	-	1.0 U	-	1.0 U	-	1.0 U
1,2,4-Trichlorobenzene	µg/L	-	-	1.0 U	-	1.0 U	-	1.0 U
1,2-Dichlorobenzene	µg/L	-	-	1.0 U	-	1.0 U	-	1.0 U
1,4-Dichlorobenzene	µg/L	-	-	1.0 U	-	1.0 U	-	1.0 U
2-Chlorotoluene	µg/L	-	-	1.0 U	-	1.0 U	-	1.0 U
Benzene	µg/L	-	-	1.0 U	-	1.0 U	-	1.0 U
Chlorobenzene	µg/L	-	-	1.0 U	-	1.0 U	-	1.0 U
Semi-volatile Organic Compounds								
1,2,4,5-Tetrachlorobenzene	µg/L	-	-	10 U	-	9.5 U	-	9.5 U
2,4,5-Trichlorophenol	µg/L	-	-	10 U	-	9.5 U	-	9.5 U
2,4-Dichlorophenol	µg/L	-	-	10 U	-	9.5 U	-	9.5 U
2,5-Dichlorophenol	µg/L	-	-	10 U	-	9.5 U	-	9.5 U
2-Chlorophenol	µg/L	-	-	10 U	-	9.5 U	-	9.5 U
4-Chlorophenol	µg/L	-	-	10 U	-	9.5 U	-	9.5 U
Phenol	µg/L	-	-	10 U	-	9.5 U	-	9.5 U
Metals								
Arsenic	µg/L	-	-	10 U	-	10.0 U	-	10.0 U
Mercury	µg/L	-	-	0.20 U	-	0.20 U	-	0.20 U
Pesticides								
alpha-BHC	µg/L	-	-	0.050 U	-	0.048 U	-	0.048 U
beta-BHC	µg/L	-	-	0.050 U	-	0.25	-	0.048 U
delta-BHC	µg/L	-	-	0.050 U	-	0.048 U	-	0.048 U
gamma-BHC (lindane)	µg/L	-	-	0.050 U	-	0.048 U	-	0.048 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

	Sample Location: Sample ID: Sample Date:	PCM-09 PCM-09-1011 10/18/2011	PCM-09 NA 10/1/2012	PCM-09 PCM-09-1013 10/9/2013	PCM-09 PCM-09-1114 10/22/2014	PCM-09 PCM-10-1015 10/14/2015	PCM-09 PCM-10-1016 10/18/2016
Parameters	Units						
Volatile Organic Compounds							
1,2,3-Trichlorobenzene	µg/L	1.0 U	-	1.0 U	1.0 U	-	-
1,2,4-Trichlorobenzene	µg/L	1.0 U	-	1.0 U	1.0 U	-	-
1,2-Dichlorobenzene	µg/L	1.0 U	-	1.0 U	1.0 U	-	-
1,4-Dichlorobenzene	µg/L	1.0 U	-	1.0 U	1.0 U	-	-
2-Chlorotoluene	µg/L	1.0 U	-	1.0 U	1.0 U	-	-
Benzene	µg/L	1.0 U	-	1.0 U	1.0 U	-	-
Chlorobenzene	µg/L	1.0 U	-	1.0 U	1.0 U	-	-
Semi-volatile Organic Compounds							
1,2,4,5-Tetrachlorobenzene	µg/L	9.7 U	-	9.7 U	9.5 U	-	-
2,4,5-Trichlorophenol	µg/L	9.7 U	-	9.7 U	9.5 U	-	-
2,4-Dichlorophenol	µg/L	9.7 U	-	9.7 U	9.5 U	-	-
2,5-Dichlorophenol	µg/L	9.7 U	-	9.7 U	9.5 U	-	-
2-Chlorophenol	µg/L	9.7 U	-	9.7 U	9.5 U	-	-
4-Chlorophenol	µg/L	9.7 U	-	9.7 U	9.5 U	-	-
Phenol	µg/L	9.7 U	-	9.7 U	9.5 U	-	-
Metals							
Arsenic	µg/L	10 U	-	10 U	52 J	-	-
Mercury	µg/L	0.20 U	-	0.20 U	0.41	-	-
Pesticides							
alpha-BHC	µg/L	0.047 U	-	0.048 U	0.050 U	-	-
beta-BHC	µg/L	0.047 U	-	0.048 U	0.050 U	-	-
delta-BHC	µg/L	0.047 U	-	0.048 U	0.050 U	-	-
gamma-BHC (lindane)	µg/L	0.047 U	-	0.048 U	0.050 U	-	-

Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York

	Sample Location:	PCM-10	PCM-10	PCM-10	PCM-10	PCM-10	PCM-10	PCM-10	PCM-10
	Sample ID:	PCM-10-602	PCM-10-802	PCM-10-1202	PCM-10-303	PCM-10-603	PCM-10-1003	PCM-10-1203	PCM-10-304
	Sample Date:	6/4/2002	8/29/2002	12/18/2002	4/2/2003	6/24/2003	10/2/2003	12/31/2003	4/13/2004
Parameters	Units								
Volatile Organic Compounds									
1,2,3-Trichlorobenzene	µg/L	5.00 U	5.00 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	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,2-Dichlorobenzene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,4-Dichlorobenzene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
2-Chlorotoluene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.16 U	0.805 J	1.00 U
Benzene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Chlorobenzene	µg/L	5.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Semi-volatile Organic Compounds									
1,2,4,5-Tetrachlorobenzene	µg/L	5.00 U	5.00 U	5.00 U	4.95 U	4.67 U	4.67 U	4.67 U	4.67 U
2,4,5-Trichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.90 U	9.35 U	9.35 U	9.35 U	9.35 U
2,4-Dichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.90 U	9.35 U	9.35 U	9.35 U	9.35 U
2,5-Dichlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.90 U	9.35 U	9.35 U	9.35 U	9.35 U
2-Chlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.90 U	9.35 U	9.35 U	9.35 U	9.35 U
4-Chlorophenol	µg/L	10.0 U	10.0 U	10.0 U	9.90 U	9.35 U	9.35 U	9.35 U	9.35 U
Phenol	µg/L	10.0 U	10.0 U	10.0 U	9.90 U	9.35 U	9.35 U	9.35 U	9.35 U
Metals									
Arsenic	µg/L	10.0 U	10.0 U	20.0 U	8.98 J	5.48 J	10.0 U	23.5	16.1
Mercury	µg/L	NR	NR	NR	NR	NR	NR	NR	NR
Pesticides									
alpha-BHC	µg/L	0.0500 U	0.0500 U	0.0500 U	0.0791	0.0472 U	0.0837 U	0.0374 U	0.0662
beta-BHC	µg/L	0.0662	0.0500 U	0.0677	0.122	0.138	0.126	0.0467 U	0.0725
delta-BHC	µg/L	0.0500 U	0.0500 U	0.0500 U	0.0640	0.0472 U	0.0467 U	0.0561 U	0.0676
gamma-BHC (lindane)	µg/L	0.0500 U	0.0500 U	0.0500 U	0.0594	0.0472 U	0.0467 U	0.0374 U	0.0404 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location:	PCM-10	PCM-10	PCM-10	PCM-10	PCM-10	PCM-10	PCM-10	PCM-10
Sample ID:	NA	PCM-10-605	PCM-10-1005	PCM-10-706	PCM-10-1206	PCM-10-607	PCM-10-1107	
Sample Date:	12/16/2004	6/23/2005	10/31/2005	7/6/2006	12/12/2006	6/19/2007	11/12/2007	
Parameters	Units							
Volatile Organic Compounds								
1,2,3-Trichlorobenzene	µg/L	Frozen - No sample	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	0.50 U
1,2,4-Trichlorobenzene	µg/L	Frozen - No sample	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	0.50 U
1,2-Dichlorobenzene	µg/L	Frozen - No sample	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	0.50 U
1,4-Dichlorobenzene	µg/L	Frozen - No sample	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	0.50 U
2-Chlorotoluene	µg/L	Frozen - No sample	0.17 J	0.11 J	0.5 U	0.5 U	0.53 U	0.50 U
Benzene	µg/L	Frozen - No sample	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	0.50 U
Chlorobenzene	µg/L	Frozen - No sample	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	0.50 U
Semi-volatile Organic Compounds								
1,2,4,5-Tetrachlorobenzene	µg/L	Frozen - No sample	10 U	10.0 U	10 U	10 U	10 U	5.0 U
2,4,5-Trichlorophenol	µg/L	Frozen - No sample	10 U	10.0 U	10 U	10 U	10 U	5.0 U
2,4-Dichlorophenol	µg/L	Frozen - No sample	10 U	10.0 U	10 U	10 U	10 U	5.0 U
2,5-Dichlorophenol	µg/L	Frozen - No sample	10 U	10 U	10 U	10 U	10 U	5.0 U
2-Chlorophenol	µg/L	Frozen - No sample	10 U	10.0 U	10 U	10 U	10 U	5.0 U
4-Chlorophenol	µg/L	Frozen - No sample	10 U	10 U	10 U	10 U	10 U	5.0 U
Phenol	µg/L	Frozen - No sample	10 U	10.0 U	10 U	10 U	10 UJ	5.0 U
Metals								
Arsenic	µg/L	Frozen - No sample	10.0 U	10.0 U	10 U	10 U	10 U	10.0 U
Mercury	µg/L	NR	NR	NR	NR	NR	0.2 U	0.20 U
Pesticides								
alpha-BHC	µg/L	Frozen - No sample	0.038	R	0.026	0.03 J	0.014 J	0.0054 J
beta-BHC	µg/L	Frozen - No sample	0.078	0.062 J	0.06	0.06 U	0.022 J	0.02 J
delta-BHC	µg/L	Frozen - No sample	0.0062 J	R	0.0062 J	0.05 U	0.0089 J	0.050 UJ
gamma-BHC (lindane)	µg/L	Frozen - No sample	0.0092 J	R	0.013 U	0.05 U	0.05 U	0.050 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

Sample Location: Sample ID: Sample Date:	PCM-10 PCM-10-0508 5/23/2008	PCM-10 PCM-101108 11/10/2008	PCM-10 PCM-10-309 3/19/2009	PCM-10 PCM-101009 10/21/2009	PCM-10 PCM-10-310 4/13/2010	PCM-10 PCM-10-1010 10/11/2010	PCM-10 PCM-10-0411 4/15/2011
Parameters	Units						
Volatile Organic Compounds							
1,2,3-Trichlorobenzene	µg/L	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Semi-volatile Organic Compounds							
1,2,4,5-Tetrachlorobenzene	µg/L	5.0 U	5.0 U	10 U	10 U	9.7 U	9.5 U
2,4,5-Trichlorophenol	µg/L	5.0 U	5.0 U	10 U	10 U	9.7 U	9.5 U
2,4-Dichlorophenol	µg/L	5.0 U	5.0 U	10 U	10 U	9.7 U	9.5 U
2,5-Dichlorophenol	µg/L	5.0 U	5.0 U	10 U	10 U	9.7 U	9.5 U
2-Chlorophenol	µg/L	5.0 U	5.0 U	10 U	10 U	9.7 U	9.5 U
4-Chlorophenol	µg/L	5.0 U	5.0 U	10 U	10 U	9.7 U	9.5 U
Phenol	µg/L	5.0 U	5.0 U	10 U	10 U	9.7 U	9.5 U
Metals							
Arsenic	µg/L	10.0 U	10.0 U	10 U	2.9 J	10.0 U	10.0 U
Mercury	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Pesticides							
alpha-BHC	µg/L	0.019 J	0.064 J	0.050 U	0.040 J	0.048 U	0.047 U
beta-BHC	µg/L	0.058 U	0.19 J	0.050 U	0.13	0.048 U	0.048 U
delta-BHC	µg/L	0.050 U	0.016 J	0.050 U	0.050 U	0.048 U	0.047 U
gamma-BHC (lindane)	µg/L	0.050 U	0.050 UJ	0.050 U	0.050 U	0.048 U	0.047 U

**Historical Overburden Groundwater Monitoring Results
Glenn Springs Holdings, Inc.
102nd Street Landfill Site
Niagara Falls, New York**

	Sample Location: Sample ID: Sample Date:	PCM-10 PCM-10-1011 10/18/2011	PCM-10 PCM-10-1012 10/1/2012	PCM-10 PCM-10-1013 10/9/2013	PCM-10 PCM-10-1114 10/22/2014	PCM-10 PCM-10-1114 10/14/2015	PCM-10 PCM-10-1016 10/18/2016
Parameters	Units						
Volatile Organic Compounds							
1,2,3-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Semi-volatile Organic Compounds							
1,2,4,5-Tetrachlorobenzene	µg/L	9.6 U	9.6 U	9.6 U	9.5 U	9.4 U	9.4 U
2,4,5-Trichlorophenol	µg/L	9.6 U	9.6 U	9.6 U	9.5 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	9.6 U	9.6 U	9.6 U	9.5 U	9.4 U	9.4 U
2,5-Dichlorophenol	µg/L	9.6 U	9.6 U	9.6 U	9.5 U	9.4 U	4.7 U
2-Chlorophenol	µg/L	9.6 U	9.6 U	9.6 U	9.5 U	9.4 U	9.4 U
4-Chlorophenol	µg/L	9.6 U	9.6 U	9.6 U	9.5 U	9.4 U	9.4 U
Phenol	µg/L	9.6 U	9.6 U	9.6 U	9.5 U	9.4 U	9.4 U
Metals							
Arsenic	µg/L	10 U	2.7 J	10 U	3.1 J	6.4 J	10 U
Mercury	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Pesticides							
alpha-BHC	µg/L	0.048 U	0.048 U	0.048 U	0.050 U	0.050 U	0.047 U
beta-BHC	µg/L	0.045 J	0.048 U	0.048 U	0.050 U	0.050 U	0.022 J
delta-BHC	µg/L	0.048 U	0.048 U	0.048 U	0.050 U	0.050 U	0.047 U
gamma-BHC (lindane)	µg/L	0.048 U	0.048 U	0.048 U	0.050 U	0.050 U	0.047 U

Notes:

NA - Not Applicable

NR - Not Required

µg/L - Micrograms per liter.

U - Non-detect at associated value.

"- " - Well Dry, No Sample Collected

OW-NS - Obstructed Well, No Sample

IV-NS - Insufficient Volume, No Sample

Appendix E

Concentration Trend Graphs

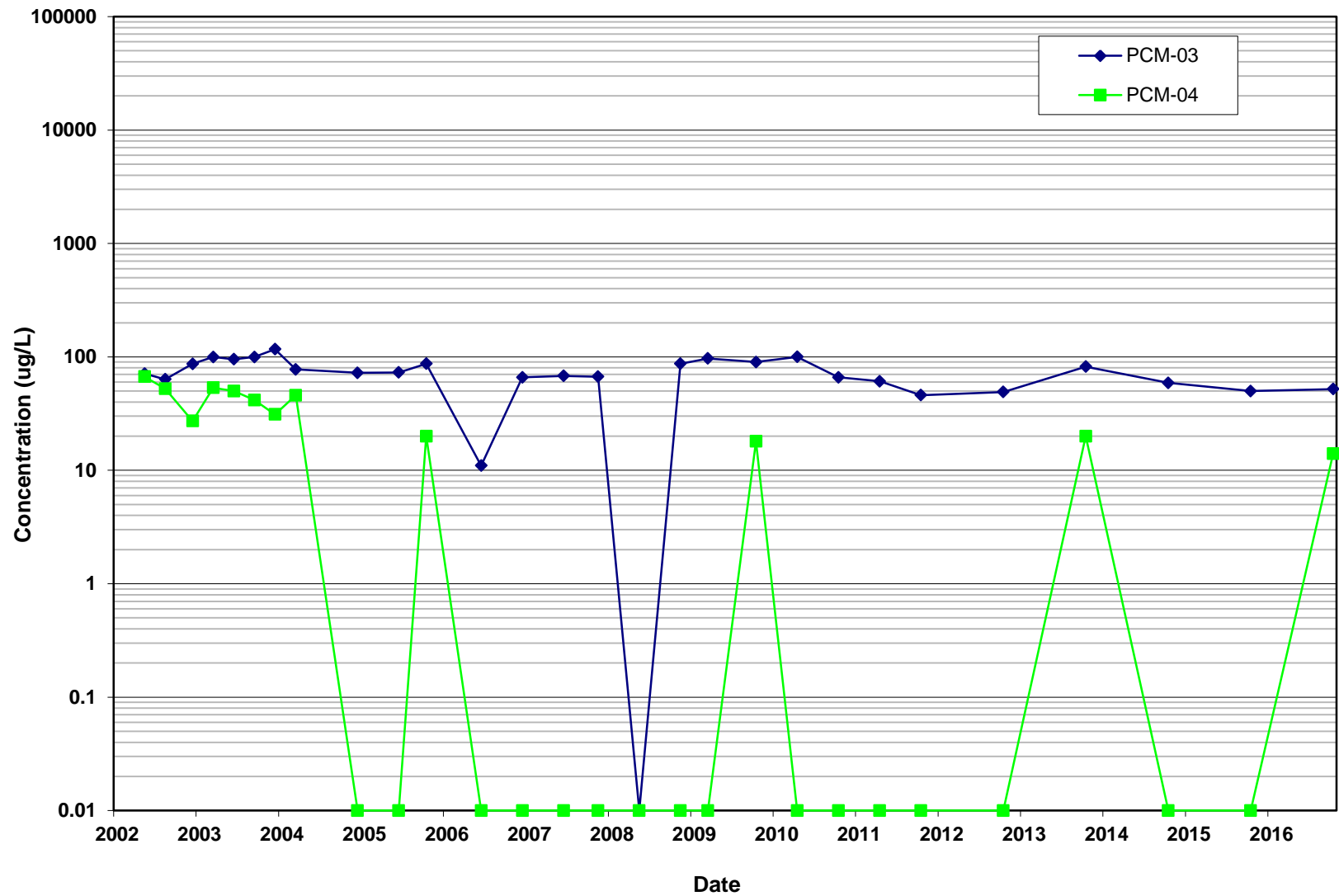


figure E.1
CONCENTRATION OF 1,2-DICHLOROBENZENE vs. TIME
102ND STREET LANDFILL



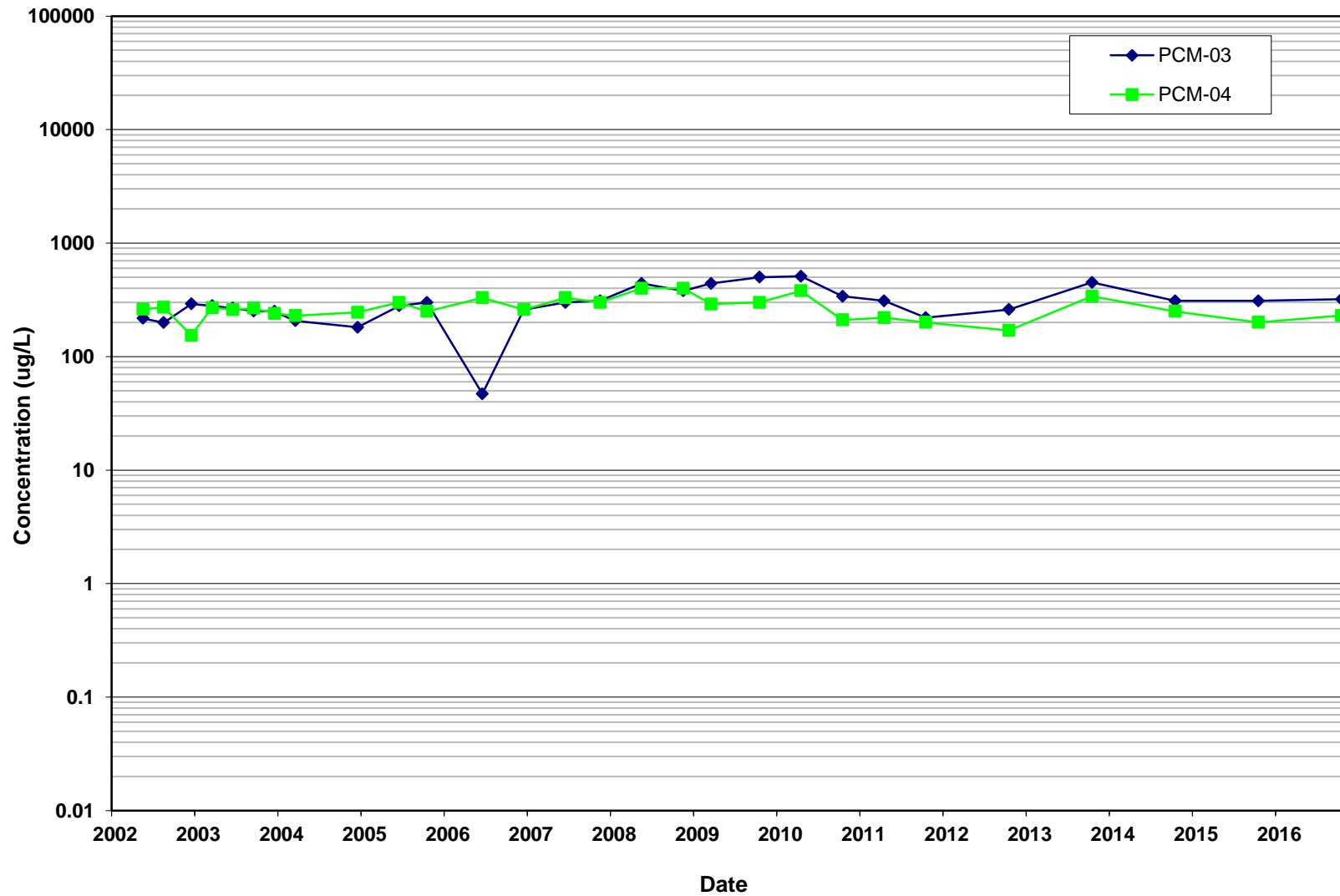


figure E.2
CONCENTRATION OF 1,4-DICHLOROBENZENE vs. TIME
102ND STREET LANDFILL



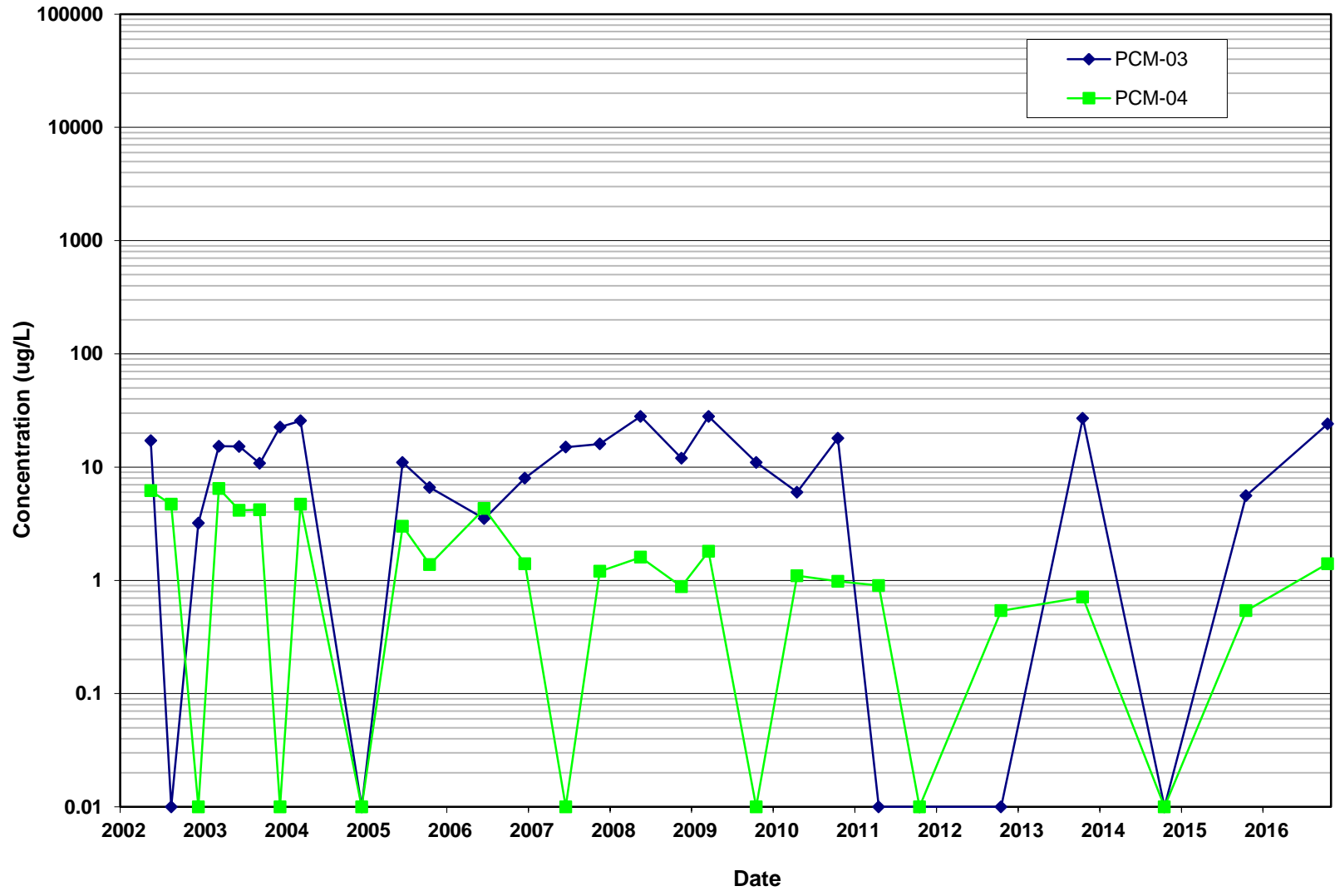


figure E.3
CONCENTRATION OF 2,4-DICHLOROPHENOL vs. TIME
102ND STREET LANDFILL



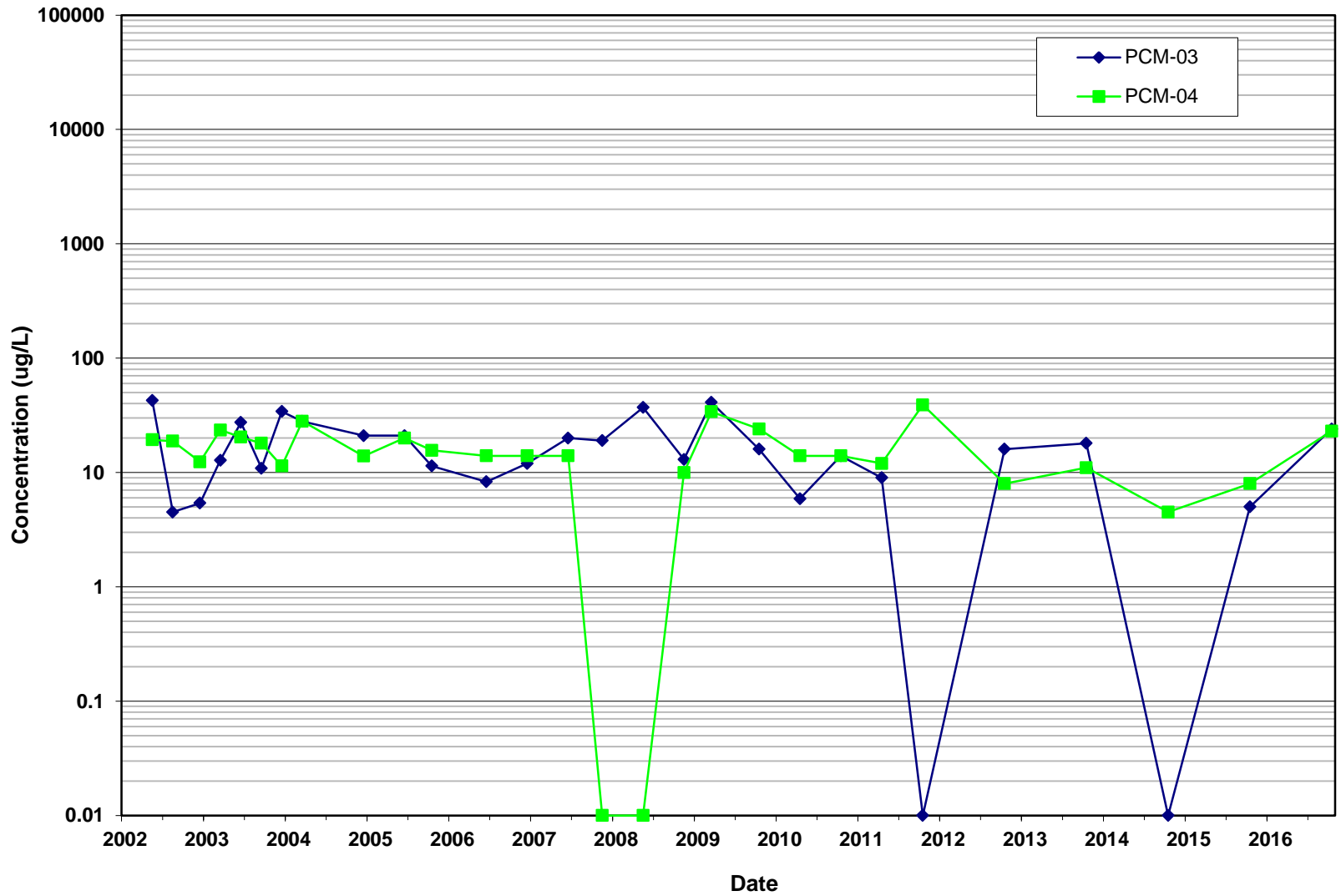
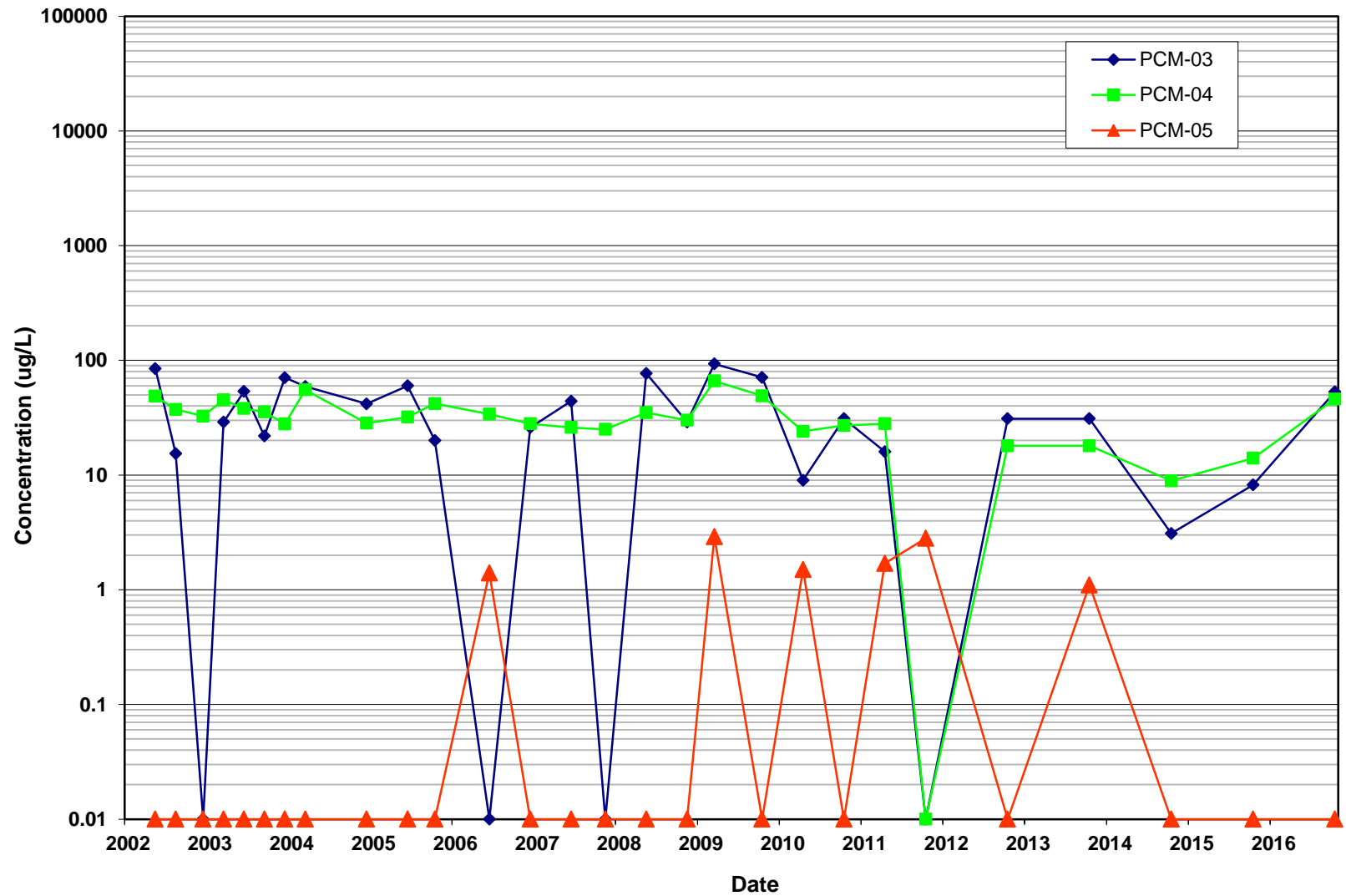


figure E.4
CONCENTRATION OF 2-CHLOROPHENOL vs. TIME
102ND STREET LANDFILL





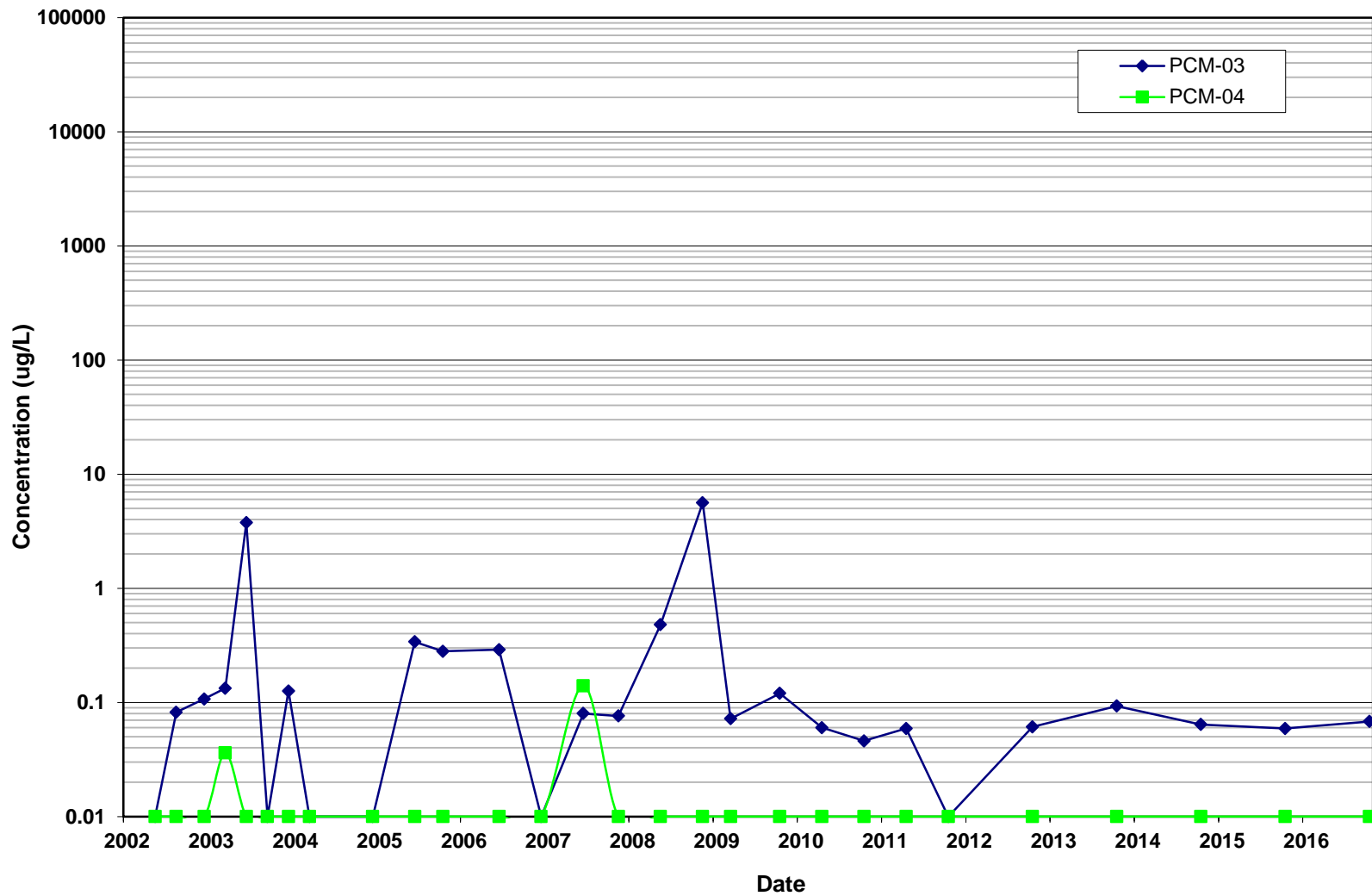


figure E.7
CONCENTRATION OF BETA-BHC vs. TIME
102ND STREET LANDFILL



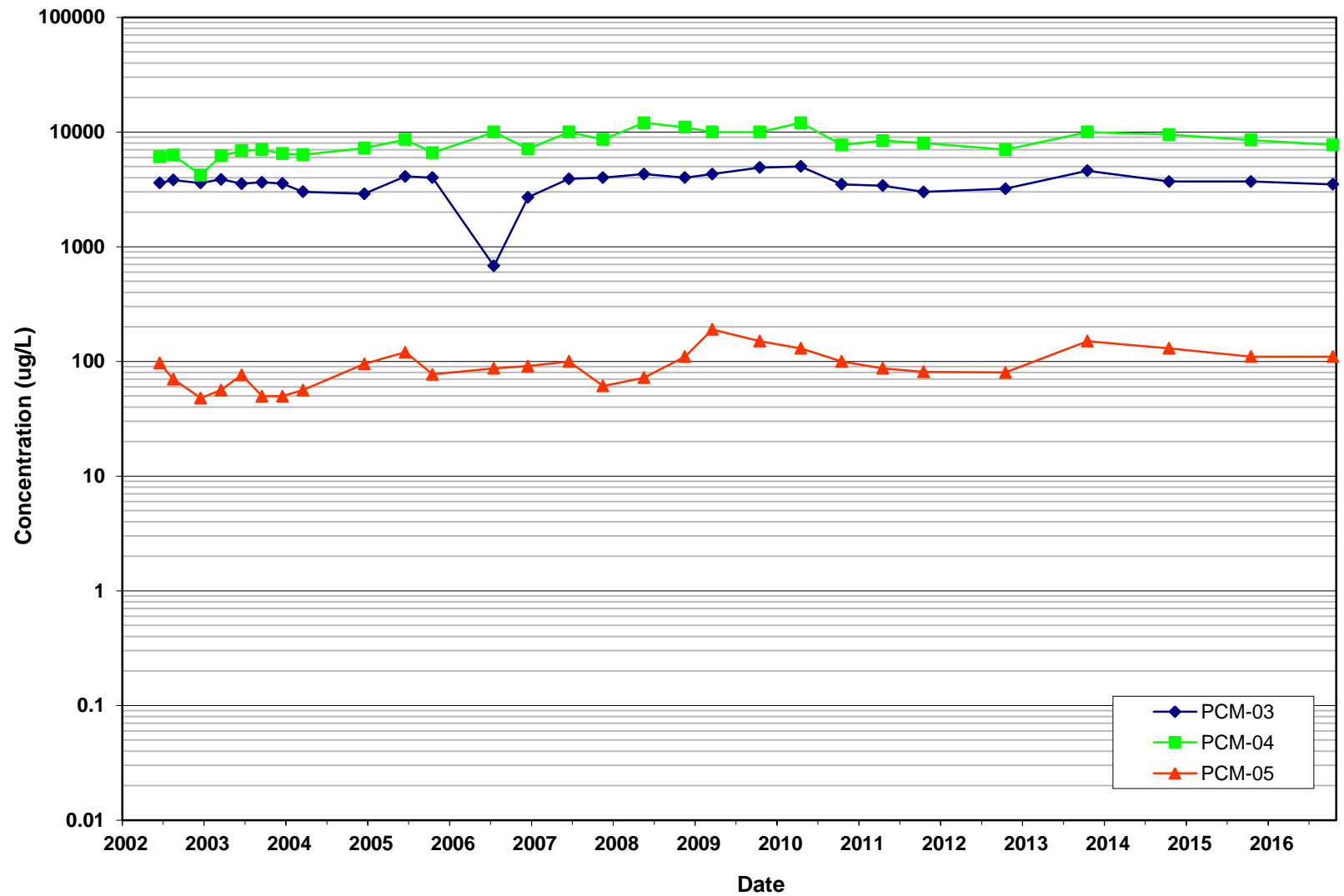


figure E.8
CONCENTRATION OF CHLOROBENZENE vs. TIME
102ND STREET LANDFILL



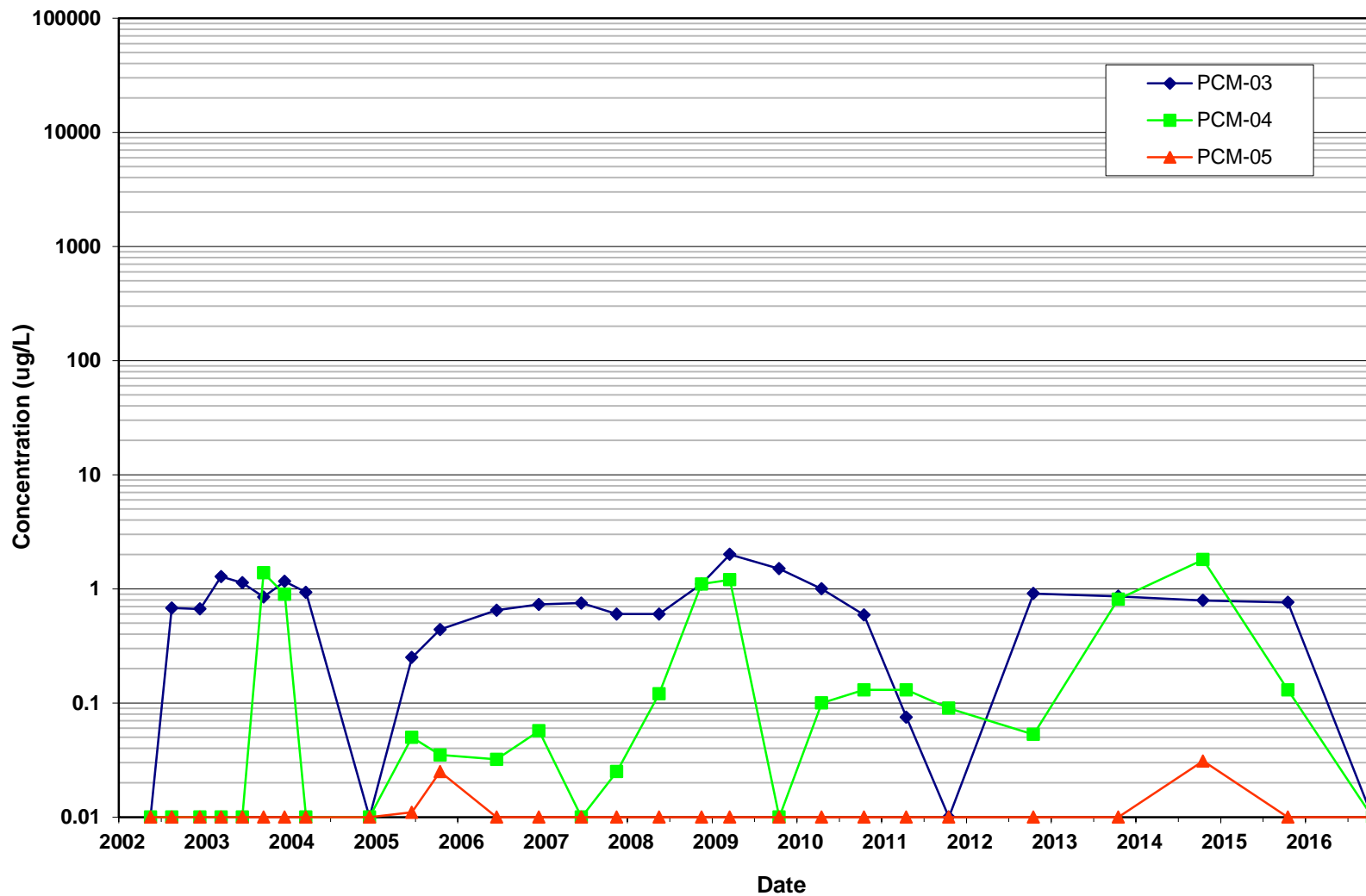


figure E.9
 CONCENTRATION OF DELTA-BHC vs. TIME
 102ND STREET LANDFILL



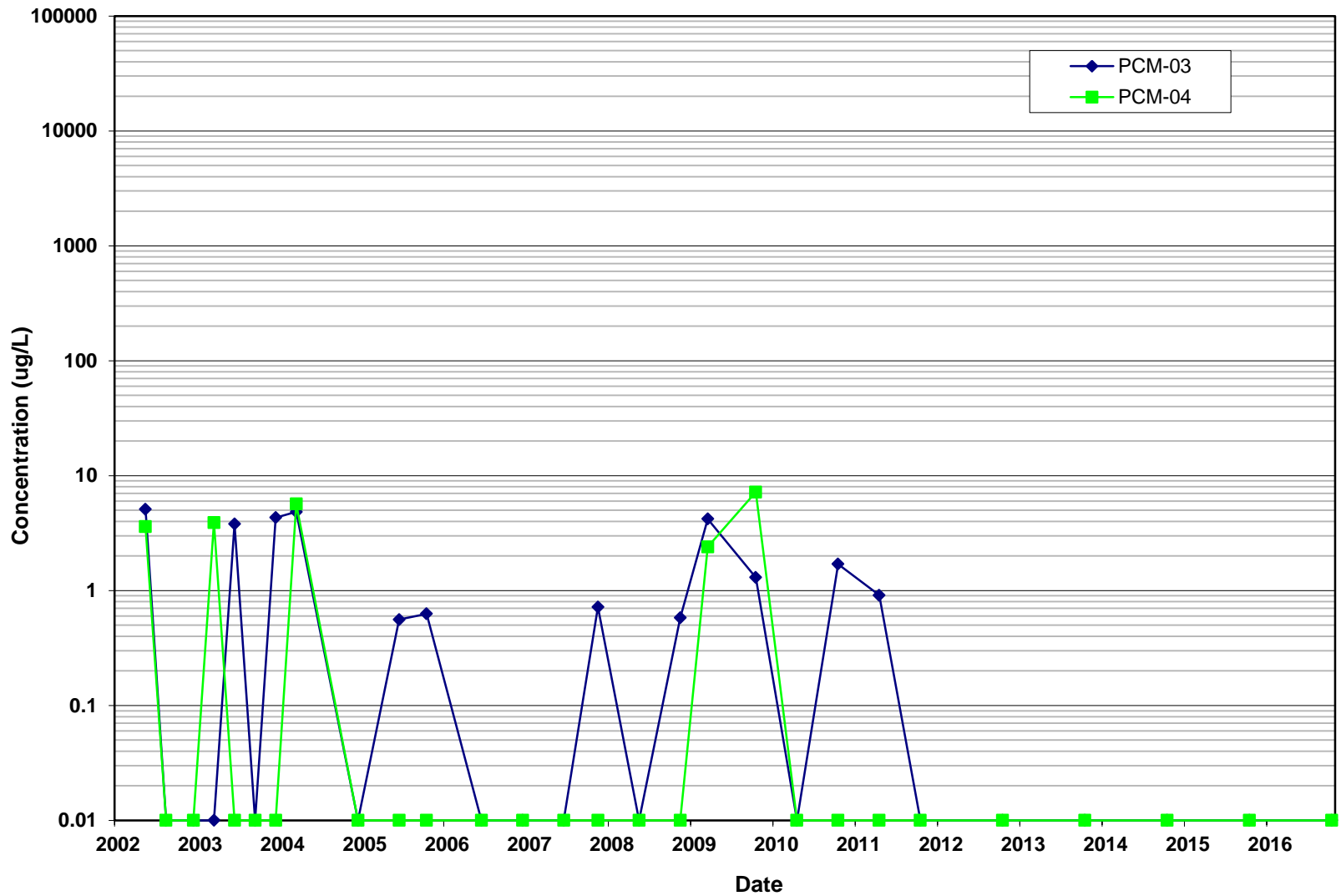


figure E.10
 CONCENTRATION OF PHENOL vs. TIME
 102ND STREET LANDFILL



Appendix F

Monitoring Well Purge Records

SAMPLE ID # PCBM-01-1016

TIME 1150

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

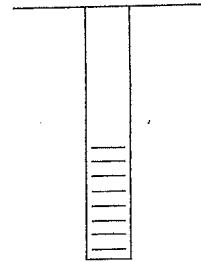
Project Name: 102ND STREET ANNUAL
Ref. No.: 53716-50-410

Date: 10/19/16
Personnel: SG

Monitoring Well Data:

Well No.: PCBM-01
Vapour PID (ppm): _____
Measurement Point: _____
Constructed Well Depth (m/ft): _____
Measured Well Depth (m/ft): _____
Depth of Sediment (m/ft): _____

Saturated Screen Length (m/ft): _____
Depth to Pump Intake (m/ft)⁽¹⁾: _____
Well Diameter, D (cm/in): _____
Well Screen Volume, V_s (L)⁽²⁾: _____
Initial Depth to Water (m/ft): 12.81



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required:				±3 %	±0.005 or 0.01 ⁽⁵⁾	±10 %	±10 %	±0.1 Units	±10 mV		
1122	400	12.98	0.17	12.4	4.83	2.44	6.54	11.24	-279.0		
1127		12.98	0.17	12.5	4.84	1.88	7.00	10.57	-325.3		
1132	394	12.98	0.17	12.4	4.84	1.30	7.39	10.64	-333.5		
1137		12.98	0.17	12.3	4.85	0.59	7.41	10.71	-341.6		
1142		12.98	0.17	12.4	4.85	0.71	7.50	10.77	-338.2		

Notes:

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi * (r^2) * L$ in mL, where r (r=D/2) and L are in cm. For Imperial units, $V_s = \pi * (r^2) * L * (2.54)^3$, where r and L are in inches
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p / V_s .
- For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

INST. CONTROL # S

YSI - GSH06212

W/L METER - NF06118

TURBIDIMETER - GSH06215

START PURGE @ 1054

Shane Gardner

SAMPLE ID # PCBM-02-1016

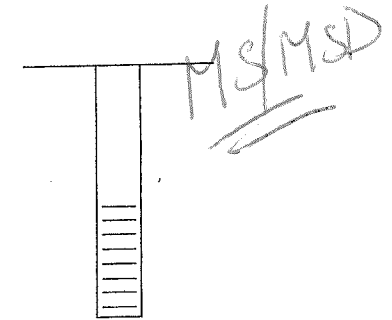
TIME 1430

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: 102ND STREET ANNUAL
Ref. No.: 53716-50-410

Date: 10/19/16
Personnel: SG



Monitoring Well Data:

Well No.: PCBM-02
Vapour PID (ppm): _____
Measurement Point: _____
Constructed Well Depth (m/ft): _____
Measured Well Depth (m/ft): _____
Depth of Sediment (m/ft): _____

Saturated Screen Length (m/ft): _____
Depth to Pump Intake (m/ft)⁽¹⁾: _____
Well Diameter, D (cm/in): _____
Well Screen Volume, V_s (L)⁽²⁾: _____
Initial Depth to Water (m/ft): 12.09

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required:				±3 %	±0.005 or 0.01 ⁽⁵⁾	±10 %	±10 %	±0.1 Units	±10 mV		
1352	384	12.11	0.02	12.4	4.17	9.50	5.85	10.27	-351.4		
1357		12.11	0.02	12.3	4.25	5.88	6.71	10.60	-349.6		
1402	384	12.11	0.02	12.3	4.25	5.10	7.96	11.89	-353.1		
1407		12.11	0.02	12.4	4.24	3.27	8.99	10.92	-349.7		
1412		12.11	0.02	12.3	4.24	2.96	9.15	11.17	-355.6		
1417	384	12.11	0.02	12.3	4.25	1.68	8.89	11.25	-357.7		
1422		12.11	0.02	12.3	4.26	2.80	9.11	11.30	-360.1		

Notes:

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi * (r^2) * L$ in mL, where r (r=D/2) and L are in cm. For Imperial units, $V_s = \pi * (r^2) * L * (2.54)^3$, where r and L are in inches.
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p / V_s .
- For conductivity, the average value of three readings < 1 mS/cm ± 0.005 mS/cm or where conductivity > 1 mS/cm ± 0.01 mS/cm.

INST. CONTROL #S

YSI - 6SH06212

W/L METER - NFO6118

TURBIDIMETER - 6SH06215

START PURGE @ 1350

Shawn Dauder

SAMPLE ID# PCM-02-1016

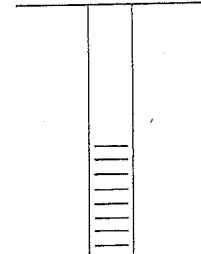
TIME 0950

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: 102ND STREET ANNUAL
Ref. No.: 53716-50-410

Date: 10/19/16
Personnel: SG



Monitoring Well Data:

Well No.: PCM-02
Vapour PID (ppm): _____
Measurement Point: _____
Constructed Well Depth (m/ft): _____
Measured Well Depth (m/ft): _____
Depth of Sediment (m/ft): _____

Saturated Screen Length (m/ft): _____
Depth to Pump Intake (m/ft)⁽¹⁾: _____
Well Diameter, D (cm/in): _____
Well Screen Volume, V_s (L)⁽²⁾: _____
Initial Depth to Water (m/ft): 11.82

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
0900	100	12.03	0.21	13.1	1.01	9.18	4.57	7.12	-76.6		
0905	100	12.16	0.34	13.0	1.01	4.45	3.52	7.42	-80.3		
0910		12.29	0.47	13.0	1.01	2.70	2.68	7.47	-80.0		
0915		12.32	0.50	13.0	1.01	3.93	2.17	7.76	-67.3		
0920		12.35	0.53	13.0	1.01	2.99	1.93	7.82	-61.7		
0925	100	12.38	0.56	13.0	1.01	2.59	1.61	7.87	-59.1		
0930		12.42	0.60	13.0	1.01	2.74	1.45	7.90	-58.6		
0935		12.42	0.60	13.1	1.01	3.18	1.25	8.17	-58.7		
0940	108	12.43	0.61	13.0	1.00	3.89	1.20	8.19	-59.3		
0945		12.43	0.61	13.0	1.00	3.77	1.19	8.21	-59.7		

Notes:

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi * (r^2) * L$ in mL, where r ($r=D/2$) and L are in cm.
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p/V_s .
- For conductivity, the average value of three readings < 1 mS/cm ± 0.005 mS/cm or where conductivity > 1 mS/cm ± 0.01 mS/cm.

INST. CONTROL #5

YSI - GSH06212

W/L METER - NF06118

TURBIDIMETER - GSH06215

START PURGE @ 0853

Shawn Gardner

SAMPLE ID# PCM-03-1016

TIME 1120

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

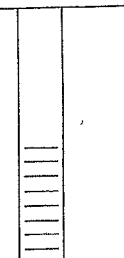
Project Name: 102ND STREET ANNUAL
Ref. No.: 53710-50-410

Date: 10/19/16
Personnel: SG

Monitoring Well Data:

Well No.: PCM-03
Vapour PID (ppm): _____
Measurement Point: _____
Constructed Well Depth (m/ft): _____
Measured Well Depth (m/ft): _____
Depth of Sediment (m/ft): _____

Saturated Screen Length (m/ft): _____
Depth to Pump Intake (m/ft)⁽¹⁾: _____
Well Diameter, D (cm/in): _____
Well Screen Volume, V_s (L)⁽²⁾: _____
Initial Depth to Water (m/ft): 12.92



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
1039	100	13.39	0.47	13.8	5.16	4.21	5.08	10.34	-121		
1044		13.40	0.48	13.8	5.10	2.37	2.90	9.97	-105.6		
1049		13.40	0.48	13.8	5.00	0.85	1.90	10.57	-122.3		
1054	100	13.41	0.49	13.6	4.98	0.72	1.61	10.67	-124.7		
1059		13.41	0.49	13.8	4.96	1.01	1.17	10.85	-126.3		
1104		13.41	0.49	13.6	4.93	1.23	0.97	10.71	-120.1		
1109	100	13.41	0.49	13.7	4.92	2.19	1.00	10.69	-119.2		
1114		13.41	0.49	13.8	4.90	2.49	1.02	10.68	-118.7		

Notes:

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi * (r^2) * L$ in mL, where r (r=D/2) and L are in cm. For Imperial units, $V_s = \pi * (r^2) * L * (2.54)^3$, where r and L are in inches.
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p / V_s .
- For conductivity, the average value of three readings < 1 mS/cm ± 0.005 mS/cm or where conductivity > 1 mS/cm ± 0.01 mS/cm.

INST. CONTROL #5

YSI-BSH06212

W/L METER-NFO0118

TURBIDIMETER-BSH06215

START PURGE @ 1005

Shamuddin

SAMPLE ID # PCM-04-1016

TIME 1300

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

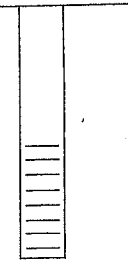
Project Name: 102ND STREET ANNUAL
Ref. No.: 53716-50-410

Date: 10/19/16
Personnel: SG

Monitoring Well Data:

Well No.: PCM-04
Vapour PID (ppm): _____
Measurement Point: _____
Constructed Well Depth (m/ft): _____
Measured Well Depth (m/ft): _____
Depth of Sediment (m/ft): _____

Saturated Screen Length (m/ft): _____
Depth to Pump Intake (m/ft)⁽¹⁾: _____
Well Diameter, D (cm/in): _____
Well Screen Volume, V_s (L)⁽²⁾: _____
Initial Depth to Water (m/ft): 11.65



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required:				±3 %	±0.005 or 0.01 ⁽⁵⁾	±10 %	±10 %	±0.1 Units	±10 mV		
1225	100	12.20	0.55	14.3	4.49	2.92	3.54	9.12	-195.3		
1230		12.29	0.64	14.3	4.47	1.91	2.20	9.73	-196.3		
1235	100	12.38	0.73	14.2	4.47	2.12	1.60	9.37	-193.6		
1240		12.40	0.75	14.2	4.46	2.81	1.22	10.28	-197.7		
1245		12.41	0.76	14.4	4.45	3.32	1.04	10.54	-196.5		
1250	100	12.47		14.4	4.44	2.11	1.09	10.53	-195.2		
1255		12.53		14.5	4.45	1.98	1.11	10.51	-196.1		

Notes:

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi * (r^2) * L$ in mL, where r (r=D/2) and L are in cm. For Imperial units, $V_s = \pi * (r^2) * L * (2.54)^3$, where r and L are in inches
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p / V_s .
- For conductivity, the average value of three readings < 1 mS/cm ± 0.005 mS/cm or where conductivity > 1 mS/cm ± 0.01 mS/cm.

INST. CONTROL # S

YSI-6506212

WL METER - NFA06118

TURBIDIMETER - 6506215

START PURGE @ 1219

[Handwritten Signature]

Sample ID PCM-05-1016

Time 1120 Monitoring Well Record for Low-Flow Purging (Form SP-09)

Project Data:

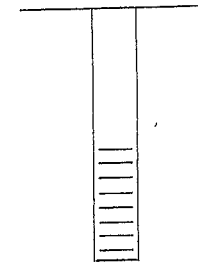
Project Name: 102nd Street Annual GW
 Ref. No.: 53716-50-410

Date: 10/29/16
 Personnel: D. Ryan

Monitoring Well Data:

Well No.: PCM-05
 Vapour PID (ppm): _____
 Measurement Point: _____
 Constructed Well Depth (m/ft): _____
 Measured Well Depth (m/ft): _____
 Depth of Sediment (m/ft): _____

Saturated Screen Length (m/ft): _____
 Depth to Pump Intake (m/ft)⁽¹⁾: _____
 Well Diameter, D (cm/in): _____
 Well Screen Volume, V_s (L)⁽²⁾: _____
 Initial Depth to Water (m/ft): 12.82



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
1049	56	13.18	0.36	15.0	1.61	34.3	0.81	7.77	-205.2		
1054		13.26	0.44	15.2	1.51	17.5	0.59	7.74	-216.1		
1059	60			15.2	1.48	16.8	0.48	7.72	-215.6		
1104		13.36	0.54	15.2	1.47	12.0	0.37	7.71	-214.7		
1109	64			15.2	1.46	8.68	0.30	7.71	-213.0		
1114		13.47	0.65	15.1	1.45	8.38	0.27	7.71	-215.2		
1119				15.0	1.45	7.65	0.27	7.70	-215.7		

Notes:

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi \cdot (r^2) \cdot L$ in mL, where r (r=D/2) and L are in cm. For Imperial units, $V_s = \pi \cdot (r^2) \cdot L \cdot (2.54)^3$, where r and L are in inches
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p/V_s.
- For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Inst. Control #'s
 YSI GSH 06214
 Turb GSH 06215
 w/k Meter NF 06117

Start Purge @ 1043

[Handwritten Signature]

SAMPLE ID# PCM-07R-1016

TIME 0910

Monitoring Well Record for Low-Flow Purging (Form SP-09)

* PARTIAL SAMPLE

Project Data:

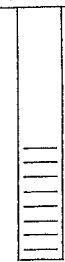
Project Name: 102ND STREET ANNUAL
Ref. No.: 53710-50-410

Date: 10/29/16
Personnel: D. Tyren

Monitoring Well Data:

Well No.: PCM-07R
Vapour PID (ppm):
Measurement Point:
Constructed Well Depth (m/ft):
Measured Well Depth (m/ft):
Depth of Sediment (m/ft):

Saturated Screen Length (m/ft):
Depth to Pump Intake (m/ft)⁽¹⁾:
Well Diameter, D (cm/in):
Well Screen Volume, V_s (L)⁽²⁾:
Initial Depth to Water (m/ft): 13.09



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required:				±3 %	±0.005 or 0.01 ⁽⁵⁾	±10 %	±10 %	±0.1 Units	±10 mV		
0843	73.64	13.41	0.32	15.8	1.54	2.25	1.20	7.43	83.7		
0848				15.8	1.53	1.38	1.05	7.45	34.5		
0853	58	13.62	0.53	15.8	1.53	1.06	0.97	7.45	17.6		
0858		13.69	0.60	15.8	1.54	1.14	0.73	7.45	9.4		
0903	56			15.8	1.54	0.94	0.79	7.44	10.3		
0908				15.9	1.54	0.73	0.73	7.43	11.4		

Notes:

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi * (r^2) * L$ in mL, where r (r=D/2) and L are in cm. For Imperial units, $V_s = \pi * (r^2) * L * (2.54)^3$, where r and L are in inches
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= V_p/V_s.
- For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

INST. CONTROL #8

YSI - GSH06214

W/L METER - NF06117

TURBIDIMETER - GSH06215

10/29/16 3x40ml vol
1KIL BHC

START PURGE @ 0833

10/30/16 Well still dry
Shawn Vardner

Sample ID PCM-06-1016

Time 0950

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

* PARTIAL SAMPLE

Project Data:

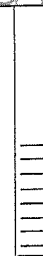
Project Name: 107nd Street Annual GW
Ref. No.: 53716-30-410

Date: 10/29/16
Personnel: D. Tyrén

Monitoring Well Data:

Well No.: PCM-06
Vapour PID (ppm): _____
Measurement Point: _____
Constructed Well Depth (m/ft): _____
Measured Well Depth (m/ft): _____
Depth of Sediment (m/ft): _____

Saturated Screen Length (m/ft): _____
Depth to Pump Intake (m/ft)⁽¹⁾: _____
Well Diameter, D (cm/in): _____
Well Screen Volume, V_s (L)⁽²⁾: _____
Initial Depth to Water (m/ft): 12.12



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required:				±3 %	±0.005 or 0.01 ⁽⁵⁾	±10 %	±10 %	±0.1 Units	±10 mV		
0948		12.26	0.14	16.5	6.47	884	0.49	5.96	21.6		
0953	68			16.4	5.06	433	0.51	6.55	-28.1		
0958		12.43	0.31	16.5	4.51	293	0.49	6.90	-55.0		
1003	60			16.5	4.37	128	0.66	7.13	-70.2		
1008		12.63	0.51	16.4	4.29	67.8	0.67	7.18	-68.8		
1013	64			16.4	4.27	51.1	0.79	7.22	-64.5		
1018				16.5	4.24	53.7	1.19	7.22	-51.8		
1023	60	13.51	1.39	16.4	4.23	59.2	1.16	7.23	-47.1		
1025	Well Dry										

Notes:

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi * (r^2) * L$ in mL, where r (r=D/2) and L are in cm. For Imperial units, $V_s = \pi * (r^2) * L * (2.54)^3$, where r and L are in inches
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p / V_s .
- For conductivity, the average value of three readings < 1 mS/cm ± 0.005 mS/cm or where conductivity > 1 mS/cm ± 0.01 mS/cm.

Inst. Control #'s
w/c Meter NF06117
Turb GSH 06215
YST GSH 06214

10/30/16 3x40ml VOCs
Well dry

Spencer

Start purge @ 0943

SAMPLE ID # PCBM-03-1016
 BLIND DUPLICATE-PCM-12-1016

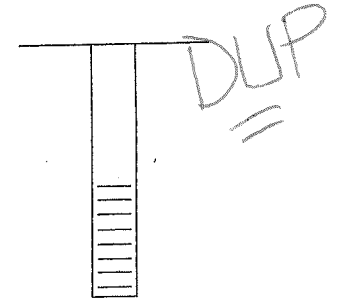
TIME 0940
 TIME 0940

Monitoring Well Record for Low-Flow Purging
 (Form SP-09)

Project Data:

Project Name: 102ND STREET ANNUAL
 Ref. No.: 53710-50-410

Date: 10/18/16
 Personnel: SG



Monitoring Well Data:

Well No.: PCBM-03
 Vapour PID (ppm): _____
 Measurement Point: _____
 Constructed Well Depth (m/ft): _____
 Measured Well Depth (m/ft): _____
 Depth of Sediment (m/ft): _____

Saturated Screen Length (m/ft): _____
 Depth to Pump Intake (m/ft)⁽¹⁾: _____
 Well Diameter, D (cm/in): _____
 Well Screen Volume, V_s (L)⁽²⁾: _____
 Initial Depth to Water (m/ft): 16.18

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required:				±3 %	±0.005 or 0.01 ⁽⁵⁾	±10 %	±10 %	±0.1 Units	±10 mV		
0925	240	16.39	0.21	12.6	5.28	1.78	19.81	6.98	-351.6		
0930		16.41	0.23	12.5	5.30	1.06	18.35	7.03	-363.8		
0935	240	16.41	0.23	12.6	5.39	0.56	18.49	7.03	-365.4		

Notes:

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, V_s=π*(r²)*L in mL, where r (r=D/2) and L are in cm. For Imperial units, V_s=π*(r²)*L*(2.54)³, where r and L are in inches
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= V_p/V_s.
- For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

INST. CONTROL #S

YSI-BSH06212

W/L METER-NFO0118

TURBIDIMETER-BSH06215

START PURGE @ 0921

Shawn Gardner

SAMPLE ID# PCM-01-1016

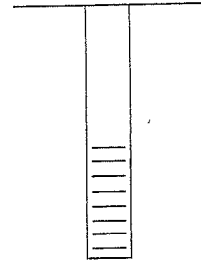
TIME 1325

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: 102ND STREET ANNUAL
Ref. No.: 53710-50-410

Date: 10/18/16
Personnel: SG



Monitoring Well Data:

Well No.: PCM-01
Vapour PID (ppm): _____
Measurement Point: _____
Constructed Well Depth (m/ft): _____
Measured Well Depth (m/ft): _____
Depth of Sediment (m/ft): _____

Saturated Screen Length (m/ft): _____
Depth to Pump Intake (m/ft)⁽¹⁾: _____
Well Diameter, D (cm/in): _____
Well Screen Volume, V_s (L)⁽²⁾: _____
Initial Depth to Water (m/ft): 12.85

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required:				±3 %	±0.005 or 0.01 ⁽⁵⁾	±10 %	±10 %	±0.1 Units	±10 mV		
1248	100	13.47	0.62	16.1	9.73	2.01	5.21	6.76	-155.4		
1253		13.70	0.88	16.7	9.78	3.88	3.78	6.76	-152.4		
1258	100	13.84	0.99	16.7	9.81	4.10	2.35	6.76	-151.0		
1303		13.95	1.10	16.8	9.82	5.21	1.40	6.74	-149.1		
1308		14.02	1.17	16.9	9.80	6.11	0.97	6.74	-147.2		
1313	96	14.09	1.24	16.8	9.84	6.46	0.98	6.75	-143.7		
1318		14.16		16.7	9.88	6.91	0.99	6.75	-145.3		

Notes:

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi * (r^2) * L$ in mL, where r (r=D/2) and L are in cm:
For Imperial units, $V_s = \pi * (r^2) * L * (2.54)^3$, where r and L are in inches
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= V_p/V_s .
- For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

INST CONTROL #5
YSI-GSH06212
W/L METER - NF06118
TURBIDIMETER - GSH06215

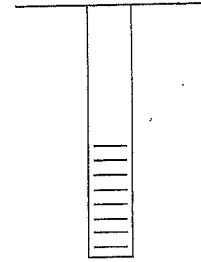
START PURGE @ 1243

Shaun Gardner

Project Data:

Project Name: 102ND ST ANNUAL
Ref. No.: S3710-SO-410

Date: 10/18/16
Personnel: SG



Monitoring Well Data:

Well No.: PCM-10
Vapour PID (ppm): _____
Measurement Point: _____
Constructed Well Depth (m/ft): _____
Measured Well Depth (m/ft): _____
Depth of Sediment (m/ft): _____

Saturated Screen Length (m/ft): _____
Depth to Pump Intake (m/ft)⁽¹⁾: _____
Well Diameter, D (cm/in): _____
Well Screen Volume, V_s (L)⁽²⁾: _____
Initial Depth to Water (m/ft): 13.72

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
1047	100	13.97	0.25	15.7	2.97	3.72	4.99	6.96	-102.1		
1052		14.09	0.37	15.7	2.90	4.84	3.30	6.89	-95.8		
1057		14.19	0.47	15.8	2.70	3.45	2.24	6.84	-92.3		
1102	100	14.31	0.59	15.8	2.55	5.07	1.75	6.81	-91.7		
1107		14.40	0.68	15.7	2.39	2.47	1.40	6.80	-97.2		
1112		14.50	0.78	15.6	2.28	2.78	1.11	6.78	-96.9		
1117	100	14.57	0.85	15.7	2.20	3.13	1.03	6.76	-101.2		
1122		14.61	0.89	15.8	2.19	3.57	1.07	6.76	-107.7		

Notes:

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi * (r^2) * L$ in mL, where r (r=D/2) and L are in cm.
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= V_p/V_s.
- For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

INST CONTROL #S
YSI-BSHOW212
W/L METER-NFOU118
TURBIDIMETER-BSHOW215

START PURGE @ 1043

Shyam Pradhan

www.ghd.com

