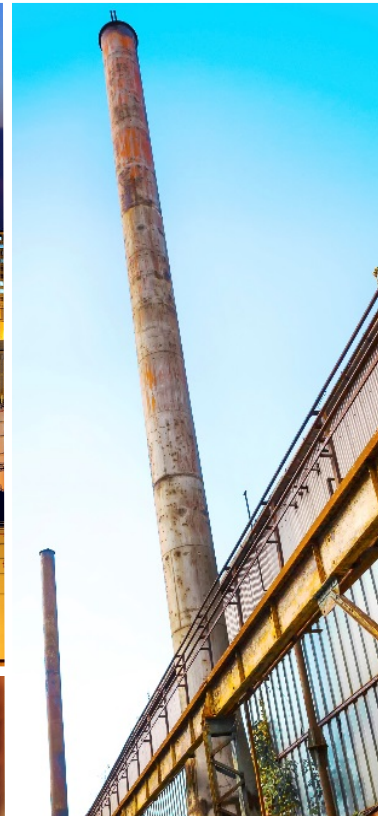




Periodic Review Report

Lot 4 – Austin Ave. and Prior Place BCP Site
BCP Site #C360116
September 27, 2018 to September 27, 2019
Reporting Period

Morris Westchester Retail
Associates, LLC





Executive Summary

The Lot 4 – Austin Ave. and Prior Place Brownfield Cleanup Program (BCP) Site (BCP Site #C360116) consists of approximately 9.93 acres of land located at 45 Stew Leonard Drive in the City of Yonkers, Westchester County, New York. The Site is currently owned by Morris Westchester Retail Associates, LLC and the Site Remedial Party is Austin Avenue Brownfield Redevelopment II, LLC. This Periodic Review Report (PRR) is being submitted to the New York State Department of Environmental Conservation (NYSDEC) in accordance with the Site Management Plan (SMP) for the Site.

Site soil and groundwater were historically determined to have detected concentrations of metals, semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and pesticides. In addition, Site soil vapor was considered to have the potential for accumulation of explosive gases associated with the historic landfill operations which would require the assessment of the potential for soil vapor intrusion in any future buildings constructed on-Site. The Site was remediated to commercial use cleanup standards and received a Certificate of Completion (COC) from the NYSDEC on November 4, 2016.

In accordance with the NYSDEC-approved revised SMP (April 2019), Site monitoring currently includes annual groundwater sampling and analysis for metals and an annual Site inspection. On behalf of the Site owner, Morris Westchester Retail Associates, LLC, annual groundwater monitoring is currently being conducted in May of each year and annual Site inspection is currently being conducted in September of each year. The annual Site inspection occurs to correspond with the closure of the PRR certification period. The institutional and engineering controls certification form, as issued by NYSDEC, has been completed and is included as Appendix A.

Based on the Site inspection conducted on September 29, 2019, the institutional controls and engineering controls for the Site remain in place and effective for protecting human health and the environment. The soil cover engineering controls remain in place, and no structures have been built on-Site. The Site is currently in the monitoring stage with groundwater samples being taken from on-Site and off-Site groundwater monitoring wells on an annual basis. In general, stable or decreasing concentrations appear to be observed at the Site.

The requirements necessary to discontinue Site monitoring and Site engineering and institutional controls have not been met at this time. There is no need to revise the frequency of PRR submittals at this time.



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1. Introduction

1.1 Purpose

This Periodic Review Report (PRR) is being submitted on behalf of the Site Owner, Morris Westchester Retail Associates, LLC, for the Lot 4 – Austin Avenue and Prior Place Brownfield Cleanup Program (BCP) Site (BCP Site No. C360116). According to the Certificate of Completion (COC), the Site is located on three (3) tax parcels in the City of Yonkers, Westchester County, New York (Figure 1), as follows: 3-3244-4 - 45 Stew Leonard Drive; 3-3244-7 - 65 Austin Avenue; and a portion of 3-8001-40 - 40 Stew Leonard Drive. The purpose of this PRR and attached documents is to document that institutional and engineering controls, as described in the New York State Department of Environmental Conservation (NYSDEC)-approved Site Management Plan (SMP) and Environmental Easement (EE), are in place in accordance with 6NYCRR Part 375-3. The following elements are included in this report:

- A description of all institutional and/or engineering controls employed at the Site.
- An evaluation of the plans developed for implementation of the engineering and institutional controls, regarding the continued effectiveness of any institutional and/or engineering controls required by the decision document for the Site.
- A certification prepared by a professional engineer or qualified environmental professional that the institutional controls and/or engineering controls employed at the Site during the period are:
 - Unchanged from the previous certification, unless approved by NYSDEC.
 - Consistent with the current NYSDEC-approved SMP.
 - In place and effective.
 - Performing as designed, and that nothing has occurred that would (1) impair the ability of the controls to protect public health and the environment, or (2) constitute a violation or failure to comply with any operation and maintenance plan for such controls.
- The institutional and engineering controls certification form, as issued by NYSDEC, has been completed and is included as Appendix A.
- Data tables and figures depicting results of annual groundwater monitoring activities conducted on-Site.

1.2 Certification Period

NYSDEC requested that this PRR cover the period between September 27, 2018 and September 27, 2019. The Site Owner retained GHD Consulting Services Inc. (GHD) to perform annual groundwater monitoring and annual visual inspection of the Site and its engineering controls, and to prepare this PRR in accordance with the SMP.

2. Site Overview

The currently undeveloped Site is located in the City of Yonkers, Westchester County, New York and reportedly encompasses three (3) parcels reportedly owned/operated by Morris Westchester Retail Associates, LLC, identified as Parcel 3-3244-4, Parcel 3-3244-7, and a portion of Parcel 3-8001-40 on the NYSDEC Institutional and Engineering Controls Certification Form. A tax map amendment was applied for by the Site Owner in June 2016, prior to issuance of the COC, which combined the Site into a single tax parcel (3-3244-4) consisting of approximately 13.17-acres. The Site occupies the majority of this new tax parcel; however, approximately 3.24-acres of the new tax parcel are occupied by a portion of the adjacent Austin Avenue Landfill BCP Site (Site #C360066). The Site is bound by Austin Avenue to the north, Stew Leonard's parking lot to the south, an unimproved road and similar vacant land (Lot 1 – Austin Avenue Landfill BCP Site, Site #C360006) to the east, and Prior Place to the west (Figure 2).

The Site was initially investigated under two separate Brownfield Cleanup Agreements (BCAs) as two separate BCP Sites, as follows:

- Lot 4 – Austin Ave. and Prior Place – BCA Index #C360116-04-11 and BCP Site #C360116, which was executed in August 2011
- Lot 7 and Corporate Drive – BCA Index #C360128-08-14 and BCP Site #C360128, which was executed in September 2014.

Since the two sites are adjacent to one another, have the same owner, were to be investigated and remediated by the same volunteer, have similar historical uses, and were to be remediated in the same manner with the same Site management requirements, the Applicant (Austin Avenue Brownfield Redevelopment II, LLC) requested that the BCA for Lot 4 be amended to include Lot 7. The request was approved by NYSDEC and the BCA for the Lot 7 and Corporate Drive BCP Site was officially terminated on September 17, 2015. The acreage of the former Lot 7 and Corporate Drive BCP Site was added to the Lot 4 – Austin Ave. and Prior Place BCP Site and the BCA was amended to include a total of approximately 9.93-acres.

The Remedial Investigation (RI), which was conducted under both BCAs during 2012 and 2013, as well as previous investigations conducted by others, characterized the nature and extent of contamination at the Site. The results of the RI, as reported in the *Remedial Investigation Report* (GHD Consulting Engineers, LLC, August 2012), the *Additional Surface and Subsurface Soil Sampling* report (GHD Consulting Engineers, LLC, February 11, 2013), and the *Surface and Subsurface Soil Sampling* report (GHD Consulting Engineers, LLC, April 26, 2013), determined that contaminants of potential concern are present in Site soil/historic fill, groundwater, and soil vapor. It was determined that Site surface and subsurface soil/historic fill contains metals, specifically arsenic, barium, lead, and mercury at concentrations that exceed the Commercial Use Soil Cleanup Objectives (SCOs) in at least one of the samples analyzed. Analytical results of Site groundwater samples identified several metals, including chromium, iron, lead, magnesium, manganese, sodium, and thallium at concentrations that exceed the Technical and Operational Guidance Series (TOGS) 1.1.1 Class GA groundwater standards or guidance values. In addition, there was evidence of VOCs in soil vapor samples taken from the two (2) on-Site soil vapor wells, as well as the potential for explosive gases associated with historic site operations.

Remedial Work Plans (RWPs) and Remedial Design Documents (RDDs) were prepared by GHD Consulting Engineers, LLC for each of the BCP Sites. The remedial goals for the Site included:

- Eliminate or mitigate, to the extent practicable, on-Site environmental or public health exposures to on-Site metals contamination that may remain in soil/historic fill or groundwater.
- Eliminate or mitigate, to the extent practicable, the potential for concentrations of soil gases (i.e., explosive gases or volatile vapors) to enter future Site buildings, if any.

The proposed remedial approach was to remediate approximately 6.24-acres of the Site to a Track 4 Commercial Use by implementing engineering/institutional controls, including: placing either a minimum of 1 foot of clean fill underlain by a geotextile demarcation layer, a minimum of 3-feet of shot rock, or a minimum of 6-inches of asphalt pavement; requiring the evaluation and mitigation, if necessary, of soil vapor intrusion in any future buildings constructed on-Site; and implementing an Environmental Easement for the Site, which included Site use and groundwater use restrictions. Remedial activities were completed at the Site during April, May, and June 2016. Figure 3 depicts the location and extent of the BCP Site and engineering controls.

The engineering controls for the Site consist of maintaining the soil cover system and evaluating the potential for vapor intrusion for any building(s) developed on-Site, with any potential impacts that are identified being monitored or mitigated. The institutional controls include a Site groundwater use restriction, a Site use restriction of commercial use or higher uses (i.e., industrial uses, subject to local zoning), and evaluating the potential for soil vapor intrusion in any future building(s) constructed on-Site.

An EE for the Site was filed with the Westchester County Clerk's Office on July 22, 2016. A SMP, which outlines Site restrictions and requirements of future maintenance and monitoring, was completed in August 2016 and subsequently revised in April 2019. A Certificate of Completion allowing for commercial and industrial use of the Site was received from the NYSDEC on November 4, 2016.

The reader of this PRR may refer to previous reports for more detail, as needed. These reports include:

- Geraghty & Miller, Inc., June 1977. Hydrogeologic Investigations of Selected Landfills in Westchester County, New York.
- Melick-Tully and Associates, P.C., December 8, 1988. Soil and Foundation Investigations.
- Leggette, Brashears, & Graham, Inc., April 5, 1995. Austin Avenue Landfill Surface and Groundwater Investigations.
- Leggette, Brashears, & Graham, Inc., May 1995. Supplemental Investigation of Bedrock Groundwater Quality.
- Leggette, Brashears, & Graham Engineering Services, P.C., October 3, 2000. Supplemental Site Characterization Activities.
- S&W Redevelopment of North America, LLC, August 2007. Remedial Investigation Report.
- GHD Consulting Engineers, LLC, August 2012. Remedial Work Plan, Lot 4 – Austin Avenue and Prior Place.

- GHD Consulting Engineers, LLC, October 26, 2012. Surface and Subsurface Soil Sampling Work Plan, Lot 7 – Corporate Drive Site.
- GHD Consulting Engineers, LLC, November 2012. Remedial Work Plan, Lot 7 and Corporate Drive.
- GHD Consulting Engineers, LLC, April 26, 2013. Surface and Subsurface Soil Sampling Report, Lot 7 and Corporate Drive Site.
- GHD Consulting Services Inc., March 2013, Revised: August 2014. Remedial Design Document.
- GHD Consulting Services Inc., August 2016. Final Engineering Report.
- GHD Consulting Services Inc., August 2016, Revised: April 2019. Site Management Plan.
- GHD Consulting Services Inc., November 5, 2018. Periodic Review Report, Lot 4 – Austin Avenue and Prior Place BCP Site, November 4, 2016 to September 27, 2018 Reporting Period.
- GHD Consulting Services Inc., October 7, 2019. Annual Post-Remediation Groundwater Monitoring – Spring 2019.

3. Institutional and Engineering Controls

Based on identified soil and groundwater contamination, the potential for soil vapor contamination and explosive gases from historic operations, and the Site's past, present, and reasonably anticipated future use, institutional and engineering controls are utilized at the Site to limit exposure risks. These institutional and engineering controls are described below.

3.1 Institutional Controls

The institutional controls (ICs) for this Site are outlined in the NYSDEC-approved SMP (GHD Consulting Services Inc., August 2016, Revised: April 2019), and adherence to these ICs is required by the Environmental Easement. The ICs for the Site include the following:

- The Site may only be used for Track 4 Commercial or Industrial use provided that the long-term engineering and institutional controls included in the SMP are employed and local zoning laws allow the use.
- The Site may not be used for a higher level of use, such as Unrestricted Use, Residential Use, or Restricted-Residential Use without amendment of the Environmental Easement, and review and approval by the NYSDEC.
- All future activities on-Site that will disturb remaining potentially contaminated material must be conducted in accordance with the SMP.
- The use of groundwater underlying the Site is prohibited without treatment rendering it safe for the intended use and prior written approval from the NYSDEC.
- The potential for vapor intrusion must be evaluated for any building(s) developed on-Site, and any potential impacts that are identified must be monitored or mitigated.
- Vegetable gardens and farming on-Site are prohibited.
- The Site Owner or Remedial Party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Site are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitutes a violation or failure to comply with the SMP. NYSDEC retains the right to access the Site at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow, and will be made by an expert that the NYSDEC finds acceptable.

3.1.1 Environmental Easement

The Environmental Easement was filed with the Westchester County Clerk's office and remains unchanged.

3.1.2 Site Use

The Site use has not changed since the NYSDEC issued the COC. The Site is currently vacant and consists of a vegetated soil cover system with associated drainage control features.

3.1.3 Groundwater

Groundwater is not being used at the Site.

Annual groundwater monitoring and Site inspection was conducted as outlined in the NYSDEC-approved SMP during this PRR's certification period, on May 31, 2019 and September 29, 2019, respectively. Additional information is provided in Section 4.

3.1.4 Excavations

No excavations that have penetrated the demarcation layer have occurred on-Site during this PRR's certification period.

3.2 Engineering Controls

The engineering controls (ECs) for this Site are outlined in the NYSDEC-approved SMP (GHD Consulting Services Inc., August 2016, Revised: April 2019), and include the following.

3.2.1 Soil Cover System

Direct contact with potentially contaminated soil/historic fill at the Site is mitigated by a soil cover system in place over an approximately 6.24 acre portion of the larger approximately 9.93-acre BCP Site. This soil cover system is comprised of either a minimum of 1 foot of clean fill underlain by a geotextile demarcation layer and seeded to promote vegetative growth, a minimum of 3-feet of large diameter shot rock debris, or a minimum of 6-inches of asphalt pavement. The extent of the soil cover system is depicted in Figure 3.

An annual inspection was completed on September 29, 2019 by GHD Consulting Services Inc. personnel. There was no record of the soil cover system being breached during the reporting period. Based on field observations, the soil cover system appeared generally unchanged during this certification period, and no maintenance was reported to be required to amend the soil cover system. The vegetative cover on-Site is well established, and no substantive erosion was observed. In general, the soil cover system should be periodically mowed to discourage woody growth.

Additional information can be found in the Institutional and Engineering Controls Certification Form (Appendix A) and the Annual Site Inspection Form (Appendix B).

3.2.2 Soil Vapor Mitigation System

The potential for vapor intrusion must be evaluated for any building(s) developed on-Site and any potential impacts that are identified must be monitored or mitigated.

At the time of the annual Site inspection (September 29, 2019), no buildings had been constructed on-Site; therefore, no soil vapor intrusion investigation, monitoring, or mitigation is required at this time.

4. Operations and Monitoring

Based on established groundwater quality trends, the spring 2018 groundwater monitoring report recommended a reduction in groundwater sampling frequency from semi-annual to annual and a reduction in the sample analytical list to include metals analysis only (i.e., remove analysis for SVOCs, PBCs, and pesticides). These requests were approved by NYSDEC on November 30, 2018. As a result, the NYSDEC-approved SMP (GHD Consulting Services Inc., August 2016, Revised: April 2019) was revised to include annual groundwater monitoring and reporting and annual Site inspection, as well as monitoring and reporting requirements for a future soil vapor mitigation or monitoring system, if applicable.

The annual groundwater monitoring is intended to assess the performance of the remedy. Annual groundwater monitoring and Site inspection was completed in accordance with the NYSDEC-approved SMP during this PRR's certification period, on May 31, 2019 and September 29, 2019, respectively (Figure 4 and Tables 1 through 3). An annual groundwater monitoring report for the monitoring event was transmitted to the NYSDEC on October 7, 2019. Groundwater monitoring results for the 2019 annual monitoring event were also uploaded in the NYSDEC EQulS Database, were approved by the EQulS Team, and are ready for use (Appendix C).

4.1 Groundwater Monitoring Results

Based on the laboratory analytical results, concentrations of contaminants of potential concern in groundwater have shown decreases over time as a result of the remedial action completed at the Site. The groundwater sample analytical results from this PRR's certification period (May 2019 monitoring event, Tables 1 through 3) indicate:

- Concentrations of various metals were detected above laboratory detection limits in each of the groundwater samples, of which the following exceeded Class GA standards or guidance values:
 - Chromium – SWR-MW-1
 - Copper – SWR-MW-1
 - Iron – all samples
 - Lead – SWR-MW-1
 - Magnesium – all samples
 - Manganese – all samples
 - Nickel – SWR-MW-1
 - Selenium – MW-2A and SWR-MW-1
 - Sodium – all samples
 - Thallium – SWR-MW-1

Identified concentrations of metals are highly variable across the Site and over-time, with the most recent round of monitoring (May 2019) generally only identifying commonly occurring natural elements in excess of Class GA standards or guidance values on-Site. With the exception of groundwater standard exceedances associated with these commonly occurring natural elements, the only other exceedances are identified in samples taken from off-site groundwater monitoring well SWR-MW-1 (located on adjacent BCP Site #C360066), which is screened within historic fill material.

Identified concentrations could also, at least in part, be attributed to elevated turbidity levels in the groundwater samples, particularly SWR-MW01 during the May 2019 monitoring event.

Based on the groundwater data received to date, the qualitative exposure assessment assumptions regarding on-Site and off-site contamination have not changed and are still valid. The next round of monitoring is tentatively scheduled for May 2020.

4.2 Soil Vapor Mitigation

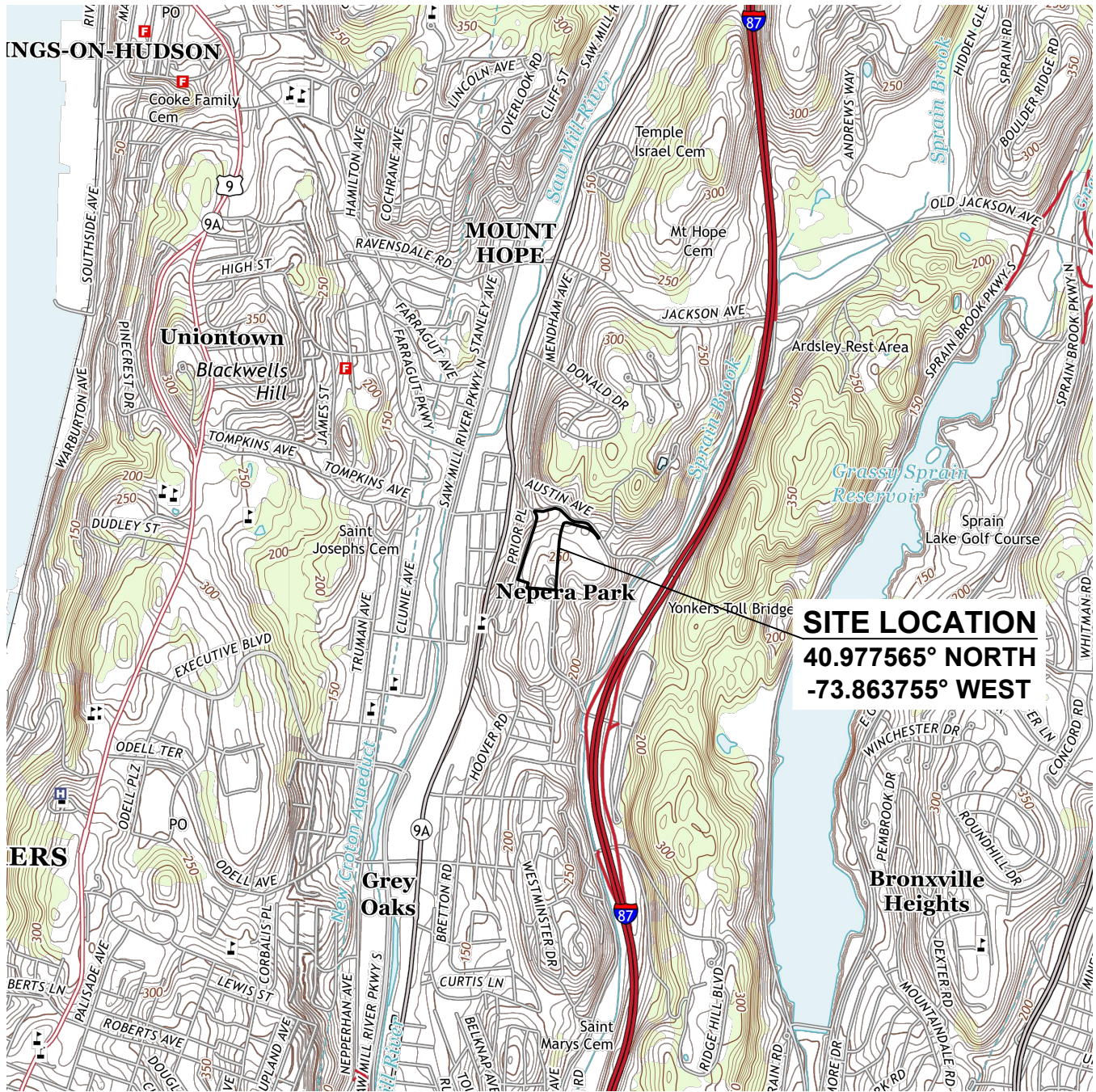
There are currently no structures located on-Site, and, as such, no soil vapor intrusion evaluation, mitigation, or monitoring was conducted. If structures are planned to be built in the future, a soil vapor intrusion evaluation will be conducted and reviewed, appropriate monitoring and/or mitigation measures will be implemented, and inspection of the soil vapor mitigation system and/or monitoring documentation will occur during future PRR certification periods, as appropriate.

5. Recommendations

Based on a review of the annual groundwater data, it is recommended that the ICs and ECs currently in place for the Site remain in place in order to ensure the continued effectiveness and protectiveness of the remedy. Periodic routine maintenance of the soil cover system should continue to be conducted, including the following:

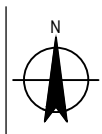
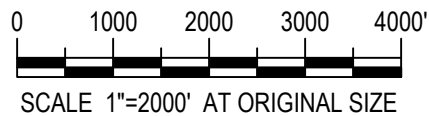
- Mowing/brush hogging should be performed periodically to discourage woody growth on the soil cover system (excluding the shot rock pile).
- Woody vegetative growth that forms in areas of the Site soil cover system where steep slopes (excluding the large shot rock pile) preclude periodic mowing/brush hogging should be cut and removed on a periodic basis.
- Periodic trimming (i.e., annually) should also occur around the groundwater monitoring wells to provide free and easy access during future sampling events and to maintain the integrity of the monitoring points.
- The monitoring wells should be periodically inspected and maintained, including replacing locks or damaged covers. In addition, the location of the monitoring wells should be staked and flagged for ease of identification in the field.

Figures



CONTOUR INTERVAL: 10 FEET

MAP TAKEN FROM: USGS 7.5 MINUTE SERIES
 TOPOGRAPHIC QUADRANGLES:
 MOUNT VERNON, NY (2013) &
 YONKERS, NY-NJ (2013)
 (U.S. GEOLOGICAL SURVEY WEBSITE)



Morris Westchester Retail Associates, LLC
 Lot 4 - Austin Ave and Prior Place BCP Site
 Periodic Review Report
 Site Location Map

Job Number 11144127
 Revision A
 Date 10.17.2019

Figure 1



LEGEND:

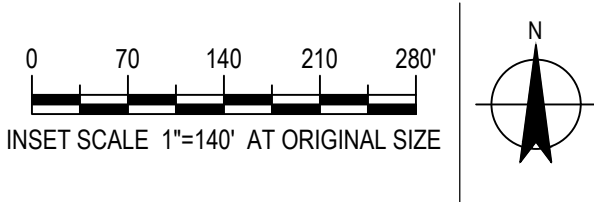
- LOT 4 BCP SITE PROPERTY BOUNDARY
- GROUNDWATER MONITORING WELL LOCATION AND ID (SURVEYED)
- EXTENT OF ASH (APPROXIMATE)
- EXTENT OF SOIL COVER ENGINEERING CONTROL (APPROXIMATE)

NOTES:

LOT 1 BASE MAP FROM A FIELD SURVEY CONDUCTED BY CONTRACTORS LINE AND GRADE SOUTH, LLC, MAY 11, 2011.

LOT 4 BASE MAP FROM A FIELD SURVEY CONDUCTED BY JOHN MEYER CONSULTING, P.C. JUNE 30, 2011.

EXTENT OF ASH FROM EXISTING CONDITIONS, PLATE 1, MORRIS WESTCHESTER CONSTRUCTION COMPANY, L.L.P. HISTORIC AUSTIN AVENUE LANDFILL CLOSURE PLAN, LEGGETTE, BRASHEARS, & GRAHAM ENGINEERING SERVICES, P.C. MARCH 1988. REVISED BY S&W REDEVELOPMENT OF NORTH AMERICA, LLC, MAY 2011. FURTHER REVISED BY GHD CONSULTING ENGINEERS, LLC, DECEMBER 2012.



Morris Westchester Retail Associates, LLC
Lot 4 - Austin Ave and Prior Place BCP Site
Periodic Review Report
Site Layout

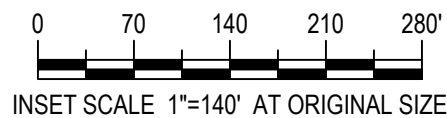
Job Number 11144127
Revision A
Date 10.17.2019

Figure 2



LEGEND:

- LOT 4 BCP SITE PROPERTY BOUNDARY
- GROUNDWATER MONITORING WELL LOCATION AND ID (SURVEYED)
- EXTENT OF ASH (APPROXIMATE)
- EXTENT OF SOIL COVER ENGINEERING CONTROL (APPROXIMATE)
- AREA WHERE THE SOIL COVER ENGINEERING CONTROL WILL BE TRANSITIONED TO THE EXISTING ROADWAY. THE SOIL COVER WILL CONSIST OF A GEOTEXTILE DEMARCATION LAYER AND A MINIMUM OF 1-FOOT OF CLEAN SOIL FILL. (APPROXIMATELY 11,000 SQUARE FEET)
- TWO SEPARATE AREAS WHERE A SOIL COVER ENGINEERING CONTROL WILL BE ESTABLISHED. THE SOIL COVER WILL CONSIST OF A GEOTEXTILE DEMARCATION LAYER AND A MINIMUM OF 1-FOOT OF 6-INCH MINUS CRUSHED SHOT ROCK. (APPROXIMATELY 72,000 SQUARE FEET)
- AREA WHERE THE SOIL COVER ENGINEERING CONTROL WILL BE TRANSITIONED TO THE EXISTING SHOT ROCK STOCKPILE. THE TRANSITION AREA WILL CONSIST OF A GEOTEXTILE DEMARCATION LAYER OVERLAPPED ONTO THE STOCKPILE AND COVERED WITH SHOT ROCK FROM THE STOCKPILE. (APPROXIMATELY 6,000 SQUARE FEET)
- AREA WHERE A SOIL COVER ENGINEERING CONTROL WILL BE ESTABLISHED. THE SOIL COVER WILL CONSIST OF A MINIMUM OF 6-INCHES OF ASPHALT PAVEMENT. (APPROXIMATELY 1,000 SQUARE FEET)
- AREAS WHERE EXISTING GROUND COVER WILL BE USED TO ESTABLISH A SOIL COVER ENGINEERING CONTROL. THE GROUND COVER IN THESE AREAS CURRENTLY CONSISTS OF EITHER:
 - 1. A GEOTEXTILE DEMARCATION LAYER AND A MINIMUM OF 2-FEET OF CLEAN SOIL FILL. (APPROXIMATELY 44,000 SQUARE FEET).
 - 2. ASPHALT PAVEMENT. (APPROXIMATELY 19,000 SQUARE FEET).
 - 3. SHOT ROCK STOCKPILE WHERE THE THICKNESS IS GREATER THAN 3 FEET. (APPROXIMATELY 119,000 SQUARE FEET).



NOTES:

LOT 1 BASE MAP FROM A FIELD SURVEY CONDUCTED BY CONTRACTORS LINE AND GRADE SOUTH, LLC, MAY 11, 2011.

LOT 4 BASE MAP FROM A FIELD SURVEY CONDUCTED BY JOHN MEYER CONSULTING, P.C. JUNE 30, 2011.

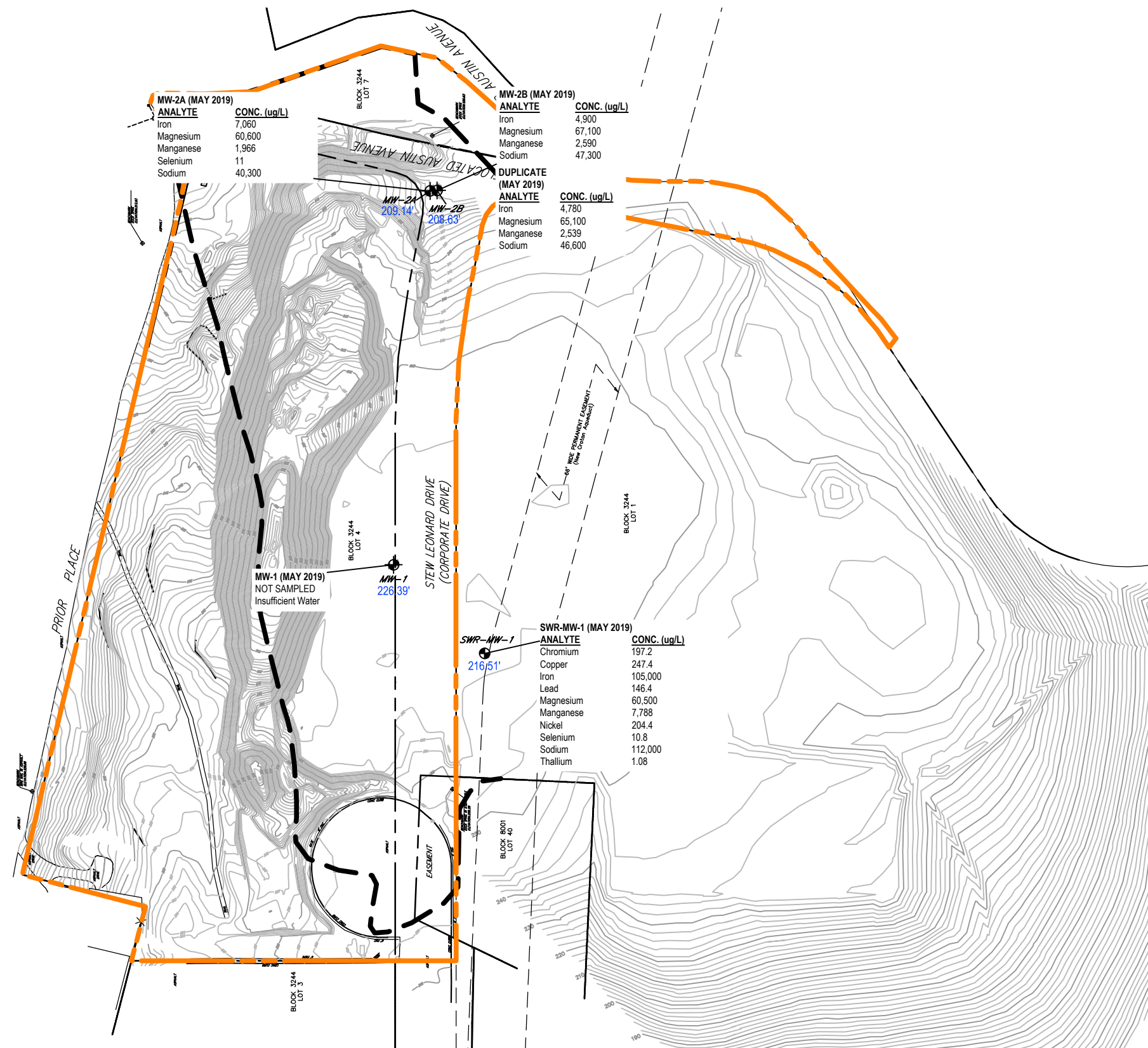
EXTENT OF ASH FROM EXISTING CONDITIONS, PLATE 1, MORRIS WESTCHESTER CONSTRUCTION COMPANY, L.L.P. HISTORIC AUSTIN AVENUE LANDFILL CLOSURE PLAN, LEGGETTE, BRASHEARS, & GRAHAM ENGINEERING SERVICES, P.C. MARCH 1988. REVISED BY S&W REDEVELOPMENT OF NORTH AMERICA, LLC, MAY 2011. FURTHER REVISED BY GHD CONSULTING ENGINEERS, LLC, DECEMBER 2012.



Morris Westchester Retail Associates, LLC
Lot 4 - Austin Ave and Prior Place BCP Site
Periodic Review Report
Soil Cover Areas

Job Number | 11144127
Revision | A
Date | 10.17.2019

Figure 3



LEGEND:

- LOT 4 BCP SITE PROPERTY BOUNDARY (SURVEYED)
- EXTENT OF ASH (APPROXIMATE)
- GROUNDWATER MONITORING WELL LOCATION AND ID (SURVEYED)
- GROUNDWATER ELEVATION (MAY 2019 MONITORING EVENT)
- LABORATORY ANALYTICAL RESULTS (MAY 2019 MONITORING EVENT)
- WELL ID (SAMPLE DATE)
ANALYTE CONC. (ug/L)

NOTES:

- ONLY ANALYTES THAT EXCEED CLASS GA GROUNDWATER STANDARDS ARE SHOWN HERE. REFER TO TABLES FOR A COMPLETE SUMMARY OF LABORATORY ANALYTICAL RESULTS.
- LOT 1 BASE MAP FROM A FIELD SURVEY CONDUCTED BY CONTRACTORS LINE AND GRADE SOUTH, LLC, MAY 11, 2011.
- LOT 4 BASE MAP FROM A FIELD SURVEY CONDUCTED BY JOHN MEYER CONSULTING, P.C. JUNE 30, 2011.
- EXTENT OF ASH FROM EXISTING CONDITIONS, PLATE 1, MORRIS WESTCHESTER CONSTRUCTION COMPANY, L.L.P. HISTORIC AUSTIN AVENUE LANDFILL CLOSURE PLAN, LEGGETTE, BRASHEARS, & GRAHAM ENGINEERING SERVICES, P.C. MARCH 1988. REVISED BY S&W REDEVELOPMENT OF NORTH AMERICA, LLC, MAY 2011. FURTHER REVISED BY GHD CONSULTING ENGINEERS, LLC, DECEMBER 2012.

0 70 140 210 280'
INSET SCALE 1"=140' AT ORIGINAL SIZE



Morris Westchester Retail Associates, LLC
Lot 4 - Austin Ave and Prior Place BCP Site
Periodic Review Report
Groundwater Elevation and Exceedances
of Groundwater Standards

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Date 10.17.2019

Figure 4

Tables



Table 1 (Page 1 of 1): Groundwater Elevation Data. Lot 4 - Austin Avenue and Prior Place BCP Site. Yonkers, NY.

Monitoring Well I.D.	Date	Reference Point	Reference Elevation (feet)	DTW (feet)	DOW (feet)	Water Elevation (feet)	Volume (gallons)
MW-1	4/19/2012	Top of PVC	253.30	Dry	28.42	Dry	Dry
	5/23/2017			26.17	28.70	227.13	0.41
	11/14/2017			Dry	28.70	Dry	Dry
	6/4/2018			27.20	28.70	226.10	0.24
	5/31/2019			26.91	28.70	226.39	0.29
MW-2A	4/19/2012	Top of PVC	233.03	25.32	35.95	207.71	1.72
	5/23/2017			25.55	36.30	207.48	1.74
	11/14/2017			27.23	36.20	205.80	1.45
	6/4/2018			24.44	36.20	208.59	1.91
	5/31/2019			23.89	36.20	209.14	1.99
MW-2B	4/19/2012	Top of PVC	232.96	25.93	55.05	207.03	4.72
	5/23/2017			24.10	55.30	208.86	5.05
	11/14/2017			27.68	55.30	205.28	4.47
	6/4/2018			24.92	55.30	208.04	4.92
	5/31/2019			24.33	55.30	208.63	5.02
SWR-MW-1	4/19/2012	Top of PVC	253.54	38.80	44.82	214.74	0.98
	5/23/2017			36.92	42.65	216.62	0.93
	11/14/2017			39.87	42.90	213.67	0.49
	6/4/2018			37.47	42.90	216.07	0.88
	5/31/2019			37.03	42.90	216.51	0.95

DTW - Depth to Water

DOW - Depth of Well



Table 2: Summary of Groundwater Field Parameters. Lot 4 - Austin Avenue and Prior Place BCP Site. Yonkers, NY.

Monitoring Well I.D.	Date	Time	Temp (°C)	Conductivity (mmhos/cm)	Dissolved Oxygen (mg/L)	pH (units)	ORP (mV)	Turbidity (NTU)	Amount Purged (liters)	Comments
MW-1	5/23/2017	9:15	14.7	1.150	1.18	6.73	-98.2	-	2.00	
		9:20	14.4	1.117	0.36	6.73	-103.4	22.2		
		9:25	14.5	1.123	0.24	6.74	-105.8	13.6		
		9:30	-	-	-	-	-	-		
		9:35	15.2	1.140	0.29	6.74	-104.7	9.0		
		9:40	15.2	1.144	0.26	6.74	-103.3	6.1		
		9:45	15.3	1.142	0.23	6.74	-102.1	5.5		
		9:50	15.0	1.137	0.18	6.74	-101.4	4.9		
		9:55	15.1	1.139	0.11	6.74	-104.3	5.4		
		10:00	15.7	1.156	0.08	6.74	-105.1	5.8		
	11/14/2017	-	-	-	-	-	-	-	-	Well was dry and not sampled.
	6/4/2018	14:40	12.6	1.690	1.19	6.19	76	100	6.00	Well dry after purging 4.0 liters, shut down pump to let recharge, purged an additional 2.0 liters. Cloudy brown water. No odor.
		14:45	12.5	1.640	0.41	6.22	79	192		
		14:50	12.4	1.630	0.40	6.14	82	66		
		14:55	-	-	-	-	-	-		
		18:00	12.2	1.700	0.41	6.19	90.0	79		
	5/30/2019	-	-	-	-	-	-	-	-	DRY-attempted to pump / no sample



Table 2: Summary of Groundwater Field Parameters. Lot 4 - Austin Avenue and Prior Place BCP Site. Yonkers, NY.

Monitoring Well I.D.	Date	Time	Temp (°C)	Conductivity (mmhos/cm)	Dissolved Oxygen (mg/L)	pH (units)	ORP (mV)	Turbidity (NTU)	Amount Purged (liters)	Comments
MW-2A	5/23/2017	14:25	14.6	1.337	0.41	6.50	65.0	93.2	3.00	MS/MSD taken at this location.
		14:30	13.7	1.310	0.18	6.51	87.1	21.4		
		14:35	13.7	1.311	0.14	6.51	90.9	16.2		
		14:40	14.1	1.322	0.08	6.52	95.9	16.5		
		14:45	14.2	1.325	0.05	6.52	97.4	16.5		
	11/14/2017	12:22	-	-	-	-	-	-	-	
		12:30	11.08	1.92	5.24	6.58	173	80		
		12:45	11.13	1.91	0	6.56	168	49.1		
		12:50	11.13	1.91	0	6.56	166	40.3		
		12:55	11.16	1.92	0	6.58	166	26.3		
		13:00	11.12	1.92	0	6.57	165	25.8		
		13:10	11.14	1.92	0	6.58	165	19.4		
		13:15	11.12	1.92	0	6.59	164	16.3		
		13:20	11.13	1.92	0	6.58	165	13.9		
		13:25	11.13	1.92	0	6.57	166	13.5		
	6/4/2018	13:10	15.8	1.820	2.48	6.22	148	376	18.00	Slightly cloudy water. No odor.
		13:15	12.9	1.790	0.96	6.19	153	211		
		13:20	12.6	1.770	0.32	6.14	166	196		
		13:25	12.5	1.780	0.29	6.15	167	169		
		13:30	12.5	1.780	0.22	6.15	164	164		
		13:35	12.6	1.780	0.17	6.15	168	168		
		13:40	12.6	1.780	0.15	6.15	169	169		
		13:45	12.6	1.780	0.14	6.15	167	167		
		13:50	12.6	1.790	0.13	6.15	165	165		
		13:55	12.6	1.780	0.13	6.15	165	165		
	5/30/2019	10:40	13.4	1.720	6.45	6.45	124	342	2.00	Cloudy to slightly cloudy with purge, light brown, no odor.
		10:45	13.2	1.710	6.44	6.44	125	200		
		10:50	13.2	1.710	6.43	6.43	126	140		
		10:55	13.1	1.710	6.43	6.43	125	119		
		11:00	13.1	1.710	6.43	6.43	125	112		
		11:05	13.1	1.710	6.43	6.43	124	109		
		11:10	13.1	1.710	6.45	6.45	124	100		



Table 2: Summary of Groundwater Field Parameters. Lot 4 - Austin Avenue and Prior Place BCP Site. Yonkers, NY.

Monitoring Well I.D.	Date	Time	Temp (°C)	Conductivity (mmhos/cm)	Dissolved Oxygen (mg/L)	pH (units)	ORP (mV)	Turbidity (NTU)	Amount Purged (liters)	Comments
MW-2B	5/23/2017	12:20	14.5	1.296	1.37	6.43	57.7	55.2	2.15	Blind field duplicate taken at this location.
		12:25	15.3	1.297	0.87	6.51	28.3	48.1		
		12:30	15	1.312	0.62	6.54	18.1	47.4		
		12:35	15	1.316	0.63	6.54	14.4	18.8		
		12:40	15.1	1.332	0.37	6.54	13.4	17.6		
		12:45	15.1	1.336	0.33	6.54	13.7	18.9		
	11/14/2017	9:35	-	-	-	-	-	-	-	
		10:00	9.05	1.68	4.08	6.53	66	30		
		10:05	8.98	1.72	2.56	6.4	99	28.5		
		10:10	8.98	1.75	1.35	6.36	104	21.2		
		10:15	8.83	1.76	1.08	6.32	104	17.1		
		10:20	8.82	1.77	0.73	6.39	103	14.2		
		10:25	8.99	1.79	0.16	6.38	101	9.1		
		10:30	9.15	1.79	0.03	6.39	98	5.9		
		10:40	9.54	1.81	0.0	6.39	92	2.5		
		10:45	9.49	1.81	0.0	6.4	88	2.1		
		10:50	9.34	1.51	0.0	6.4	85	0.0		
	6/4/2018	14:15	13.3	1.720	1.48	6.22	93	136	18.00	Clear water. No odor.
		14:20	12.9	1.710	0.61	6.20	93	122		
		14:25	12.8	1.680	0.33	6.14	93	119		
		14:30	12.8	1.690	0.24	6.14	88	92		
		14:35	12.8	1.720	0.21	6.14	71	82		
		14:40	12.7	1.740	0.19	6.14	59	82		
		14:45	12.7	1.740	0.15	6.14	54	79		
		14:50	12.7	1.750	0.14	6.15	49	83		
		14:55	12.7	1.750	0.13	6.13	48	92		
		15:00	12.7	1.740	0.12	6.13	46	90		
	5/30/2019	11:25	13.9	1.790	0.91	6.51	17	150	2.00	Water cloudy to clear with purge, no odor.
		11:30	13.4	1.540	0.09	6.47	14	42		
		11:35	13.2	1.560	0.00	6.46	15	39		
		11:40	13.0	1.570	0.00	6.44	15	30		
		11:45	13.1	1.600	0.00	6.43	16	32		
		11:50	13.1	1.610	0.00	6.43	16	29		
		11:55	13.1	1.610	0.00	6.42	15	27		



Table 2: Summary of Groundwater Field Parameters. Lot 4 - Austin Avenue and Prior Place BCP Site. Yonkers, NY.

Monitoring Well I.D.	Date	Time	Temp (°C)	Conductivity (mmhos/cm)	Dissolved Oxygen (mg/L)	pH (units)	ORP (mV)	Turbidity (NTU)	Amount Purged (liters)	Comments
SWR-MW-1	5/23/2017	10:50	14.9	0.306	0.58	6.84	66.0	14.8	1.9	Well dry after purging 1.9 liters. Water yellowish tint, slightly turbid with some sediment, no sheen, slight odor.
		10:56	15	0.313	0.42	6.85	69.3	18.1		
		11:01	15.3	0.317	0.34	6.86	74.3	24.7		
		11:13	16.2	0.327	0.57	6.86	58.7	49.7		
	11/14/2017	8:35	-	-	-	-	-	-	-	Water level was at a level below the meter's ability to read so shut down well to let recharge. MS/MSD and blind field duplicate taken at this location.
		8:50	8.63	1.05	1.62	6.09	59	105		
		8:55	8.96	1.02	0.99	6.08	0.0	87.1		
	6/4/2018	12:50	12.7	1.960	1.96	6.19	119	823	5	Well dry after purging 3.0 liters, shut down well to let recharge, purged an additional 2.0 liters. Cloudy brown water. No odor.
		12:55	12.6	1.980	0.96	6.23	102	811		
		13:00	12.5	1.990	0.19	6.31	100	614		
		13:05	12.3	1.980	0.22	6.31	96	510		
		13:10	-	-	-	-	-	-		
		17:10	12.3	1.960	0.22	6.39	101	410		
		17:15	12.4	1.990	0.21	6.40	96	519		
		17:20	12.5	1.920	0.23	6.42	101	631		
	5/30/2019	16:50	12.2	2.110	1.99	6.11	100	>999	3	Water was cloudy with no odor. Well dry after 3 liters of purge. Let recharge then sampled.
		16:55	12.4	1.980	0.77	6.11	67	>999		
		17:00	12.6	1.950	0.33	6.11	70	899		
		17:05	12.2	1.900	0.24	6.10	77	877		
		17:10	12.2	1.870	0.10	6.10	78	822		
		17:15	12.2	1.880	0.11	6.10	76	816		

Field parameters collected using a multi-parameter water quality meter equipped with a flow-thru cell during purging the well with a stainless steel bladder pump

(-) - No field parameters collected

Table 3
Summary of Groundwater Laboratory Analytical Results



Analyte (ug/L)	GW Std^ (ug/L)	Sample Identification									
		MW-1									
Date Sampled		Apr-12		May-17		Nov-17		Jun-18		May-19	
			R.L.		R.L.		R.L.		R.L.		R.L.
Metals by EPA Methods											
6020A/7470A											
Aluminum, Total		NS		64.5		NS		883	10	NS	
Antimony, Total	3	NS		0.72 J		NS		0.75 J	4	NS	
Arsenic, Total	25	NS		3.36		NS		2.96	0.5	NS	
Barium, Total	1,000	NS		287.2		NS		264.5	0.5	NS	
Beryllium, Total	3	NS			U 0.5	NS			U 0.5	NS	
Cadmium, Total	5	NS			U 0.2	NS			U 0.2	NS	
Calcium, Total		NS		191,000		NS		175,000	100	NS	
Chromium, Total	50	NS		2.49		NS		4.32	1	NS	
Cobalt, Total		NS		1.07		NS		1.48	0.5	NS	
Copper, Total	200	NS		0.5 J		NS		3.04	1	NS	
Iron, Total	300	NS		40,800		NS		39,200	50	NS	
Lead, Total	25	NS			U 0.5	NS		4.02	1	NS	
Magnesium, Total	35,000	NS		25,900		NS		23,800	70	NS	
Manganese, Total	300	NS		2,464		NS		2,166	1	NS	
Mercury, Total	0.7	NS			U 0.2	NS			U 0.2	NS	
Nickel, Total	100	NS		1.25 J		NS		1.86 J	2	NS	
Potassium, Total		NS		22,300		NS		19,200	100	NS	
Selenium, Total	10	NS			U 5	NS			U 5	NS	
Silver, Total	50	NS			U 0.4	NS		0.59 J	1	NS	
Sodium, Total	20,000	NS		43,700		NS		31,800	200	NS	
Thallium, Total	0.5	NS			U 0.5	NS			U 0.5	NS	
Vanadium, Total		NS		1.93 J		NS		3.88 J	5	NS	
Zinc, Total	2,000	NS			U 10	NS		9.11 J	10	NS	

All values reported as ug/L (parts per billion)

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(reflects all addendum to criteria through June 2004)

NS - No sample collected because well was dry during sampling event

R.L. - Laboratory reporting limit

(-) - Indicates analyte was not analyzed for

U - Analyzed for but not detected above laboratory detection limit

J - Estimated value

Bold and thick outlined cells indicate an exceedance of applicable standards

Table 3
Summary of Groundwater Laboratory Analytical Results



Analyte (ug/L)	GW Std^ (ug/L)	Sample Identification									
		MW-2A									
Date Sampled		Apr-12		May-17		Nov-17		Jun-18		May-19	
		R.L.		R.L.		R.L.		R.L.		R.L.	
Metals by EPA Methods											
6020A/7470A											
Aluminum, Total		11,000		354		706		1,910	10	4,100	10
Antimony, Total	3	1.5		0.82	J	1.61	J	2.43	J 4	2.71	J 4
Arsenic, Total	25		U 5	0.38	J	0.58		0.45	J 0.5	1.19	0.5
Barium, Total	1,000	151		38.45		50.26		57.44	0.5	90.2	0.5
Beryllium, Total	3	0.3	J		U 0.5		U 0.5		U 0.5	0.11	J 0.5
Cadmium, Total	5		U 5	0.11	J	0.08	J	0.1	J 0.2	0.11	J 0.2
Calcium, Total		250,000		300,000		378,000		296,000	100	353,000	100
Chromium, Total	50	30		1.35		2.63		5.71	1	13.54	1
Cobalt, Total		25		19.48		18.70		22.34	0.5	35.63	0.5
Copper, Total	200	81		14.05		12.23		30.18	1	47.19	1
Iron, Total	300	16,000		603		1,150		3,080	50	7,060	50
Lead, Total	25	44		1.67		1.89		12.63	1	20.83	1
Magnesium, Total	35,000	52,000		58,600		65,800		56,000	70	60,600	70
Manganese, Total	300	2,530		1,554		1,489		1,637	1	1,966	1
Mercury, Total	0.7		U 0.2		U 0.2		U 0.2		U 0.2		U 0.2
Nickel, Total	100	34		6.9		7.95		11.09	2	18.16	2
Potassium, Total		26,000		23,000		23,600		20,500	100	23,700	100
Selenium, Total	10	5	J	11.1		8.37		8.42	5	11	5
Silver, Total	50		U 7		U 0.4		U 0.4	0.91	J 1	0.37	J 0.4
Sodium, Total	20,000	43,000		44,300		50,900		33,000	200	40,300	100
Thallium, Total	0.5	0.2	J		U 0.5		U 0.5	0.18	J 0.5	0.27	J 0.5
Vanadium, Total		35			U 5	3.09	J	6.19	5	16.73	5
Zinc, Total	2,000	95		3.43	J	6.33	J	15.79	10	28.23	10

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NS - No sample collected because well was dry during sampling event

R.L. - Laboratory reporting limit

(-) - Indicates analyte was not analyzed for

U - Analyzed for but not detected above laboratory detection limit

J - Estimated value

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Table 3
Summary of Groundwater Laboratory Analytical Results



Analyte (ug/L)	GW Std [^] (ug/L)	Sample Identification									
		MW-2B									
Date Sampled		Apr-12		May-17		Nov-17		Jun-18		May-19	
Metals by EPA Methods											
6020A/7470A			R.L.		R.L.		R.L.		R.L.		R.L.
Aluminum, Total		400		6.06	J	9.80	J	28.3	10	86.5	10
Antimony, Total	3	0.6		0.46	J		U 4	0.45	J 4		U 4
Arsenic, Total	25		U 5	0.52		0.63		0.29	J 0.5	1.48	0.5
Barium, Total	1,000	81		37.16		47.21		42.25	0.5	51.63	0.5
Beryllium, Total	3		U 0.5		U 0.5		U 0.5		U 0.5		U 0.5
Cadmium, Total	5		U 5		U 0.2		U 0.2		U 0.2		U 0.2
Calcium, Total		260,000		260,000		296,000		269,000	100	280,000	100
Chromium, Total	50		U 10	0.33	J	0.49	J	0.62	J 1	0.86	J 1
Cobalt, Total		6	J	5.07		6.18		5.31	0.5	5.9	0.5
Copper, Total	200		U 10	1.49		0.86	J	1.36	1	1.61	1
Iron, Total	300	8,300		3,040		3,850		3,630	50	4,900	50
Lead, Total	25		U 10		U 0.5		U 1		U 1	0.58	J 1
Magnesium, Total	35,000	65,000		60,900		67,700		64,800	70	67,100	70
Manganese, Total	300	3,040		2,413		2,722		2,532	1	2,590	1
Mercury, Total	0.7		U 0.2		U 0.2		U 0.2		U 0.2		U 0.2
Nickel, Total	100	17	J	14.64		16.06		16.21	2	19.52	2
Potassium, Total		37,000		26,200		27,700		24,500	100	28,400	100
Selenium, Total	10		U 10		U 5		U 5		U 5	3.02	J 5
Silver, Total	50		U 7		U 0.4		U 0.4	0.35	J 1		U 0.4
Sodium, Total	20,000	46,000		41,700		46,400		35,700	200	47,300	100
Thallium, Total	0.5		U 0.5		U 0.5		U 0.5		U 0.5		U 0.5
Vanadium, Total			U 10		U 5		U 5		U 5		U 5
Zinc, Total	2,000	16	J	4.22	J	4.55	J		U 10	4.25	J 10

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(reflects all addendum to criteria through June 2004)

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R.L. - Laboratory reporting limit

(-) - Indicates analyte was not analyzed for

U - Analyzed for but not detected above laboratory detection limit

J - Estimated value

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Table 3
Summary of Groundwater Laboratory Analytical Results



Analyte (ug/L)	GW Std [^] (ug/L)	Sample Identification									
		SWR-MW-1									
Date Sampled		Apr-12		May-17		Nov-17		Jun-18		May-19	
		R.L.		R.L.		R.L.		R.L.		R.L.	
Metals by EPA Methods											
6020A/7470A											
Aluminum, Total		25,000		1,260		33		13,600	10	37,400	10
Antimony, Total	3	0.6		0.69	J		U 4		U 4	0.54	J 4
Arsenic, Total	25		U 5	1.51		1.11		3.85	0.5	13.11	0.5
Barium, Total	1,000	424		67.49		304.7		410.5	0.5	984.1	0.5
Beryllium, Total	3	0.7			U 0.5		U 0.5		U 0.5	1.12	0.5
Cadmium, Total	5		U 5	0.21			U 0.2	0.88	0.2	3	0.2
Calcium, Total		120,000		62,200		197,000		204,000	100	223,000	100
Chromium, Total	50	70		3.32		1.95		54.13	1	197.2	1
Cobalt, Total		26		4.04		2.15		22.25	0.5	52.18	0.5
Copper, Total	200	89		11.52		0.59	J	96.06	1	247.4	1
Iron, Total	300	80,000		2,760		45,700		76,300	50	105,000	50
Lead, Total	25	54		5.21			U 1	33.38	1	146.4	1
Magnesium, Total	35,000	24,000		9,370		40,300		41,400	70	60,500	70
Manganese, Total	300	1,600		1,974		3,132		8,459	1	7,788	1
Mercury, Total	0.7	0.2			U 0.2	0.1	J		U 0.2		U 0.2
Nickel, Total	100	52		10.94		2.17		56.1	2	204.4	2
Potassium, Total		40,000		11,300		46,100		40,800	100	71,100	100
Selenium, Total	10		U 10		U 5		U 5		U 5	10.8	5
Silver, Total	50		U 7		U 0.4		U 0.4	1.61	1	2.78	0.4
Sodium, Total	20,000	88,000		6,550		116,000		62,500	200	112,000	100
Thallium, Total	0.5	0.6			U 0.5		U 0.5		U 0.5	1.08	0.5
Vanadium, Total		74		3.82	J	1.69	J	42.73	5	129.6	5
Zinc, Total	2,000	155		20.74			U	169.6	10	492.3	10

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NS - No sample collected because well was dry during sampling event

R.L. - Laboratory reporting limit

(-) - Indicates analyte was not analyzed for

U - Analyzed for but not detected above laboratory detection limit

J - Estimated value

Bold and thick outlined cells indicate an exceedance of applicable standards

Table 3
Summary of Groundwater Laboratory Analytical Results



Analyte (ug/L)	GW Std^ (ug/L)	Sample Identification									
		DUPLICATE									
Date Sampled		Apr-12 (MW-2A)		17-May (MW-2B)		Nov-17 (SRW-MW1)		Jun-18 (MW-2B)		May-19 (MW-2B)	
Metals by EPA Methods 6020A/7470A		R.L.		R.L.		R.L.		R.L.		R.L.	
Aluminum, Total		11,000		5.38	J	37.1		25.9	10	85.4	10
Antimony, Total	3	1.5			U	4	U	0.44	J	4	U
Arsenic, Total	25		U	5	0.53		1.27	0.26	J	0.5	1.42
Barium, Total	1,000	164			36.87		314.5	41.61		0.5	49.84
Beryllium, Total	3	0.3	J			U	0.5		U	0.5	U
Cadmium, Total	5		U	5		U	0.2		U	0.2	U
Calcium, Total		300,000			274,000		206,000	266,000		100	273,000
Chromium, Total	50	30			0.48	J	2.03	0.58	J	1	0.79
Cobalt, Total		28			5.25		2.21	5.28		0.5	5.93
Copper, Total	200	94			1.2		U	1	1.1	1	1.49
Iron, Total	300	16,000			3,030		48,200	3,560		50	4,780
Lead, Total	25	49				U	0.5		U	1	0.57
Magnesium, Total	35,000	61,000			63,100		41,600	64,000		70	65,100
Manganese, Total	300	3,020			2,456		3,271	2,510		1	2,539
Mercury, Total	0.7		U	0.2		U	0.2		U	0.2	U
Nickel, Total	100	37			15.09		1.97	J	2	16.29	2
Potassium, Total		30,000			27,100		48,100	24,400		100	27,600
Selenium, Total	10	5	J			U	5		U	5	2.93
Silver, Total	50		U	7		U	0.4	0.28	J	1	U
Sodium, Total	20,000	51,000			43,400		120,000	34,900		200	46,600
Thallium, Total	0.5	0.2	J			U	0.5		U	0.5	U
Vanadium, Total		35				U	5	1.58	J	5	U
Zinc, Total	2,000	104			4.1	J		U	10	4.28	J

All values reported as ug/L (parts per billion)

^ - New York TOGS 111 Ambient Water Quality Standards
(reflects all addendum to criteria through June 2004)

NS - No sample collected because well was dry during sampling event

R.L. - Laboratory reporting limit

(-) - Indicates analyte was not analyzed for

U - Analyzed for but not detected above laboratory detection limit

J - Estimated value

Bold and thick outlined cells indicate an exceedance of applicable standards

Appendices

Appendix A

Institutional and Engineering Controls Certification Form



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



Site No. **C360116** **Site Details** **Box 1**

Site Name Lot 4 - Austin Ave and Prior Place

Site Address: 45 Stew Leonard Drive and 65 Austin Avenue Zip Code: 10710
City/Town: Yonkers
County: Westchester
Site Acreage: 9.929

Reporting Period: September 27, 2018 to October 01, 2019

- | | YES | NO |
|--|-------------------------------------|-------------------------------------|
| 1. Is the information above correct? | ☒ | ☐ |
| If NO, include handwritten above or on a separate sheet. | | |
| 2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period? | ☐ | ☒ |
| 3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))? | ☐ | ☒ |
| 4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period? | ☐ | ☒ |
| 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? | ☐ | ☒ |

- | | Box 2 | |
|--|-------------------------------------|--------------------------|
| | YES | NO |
| 6. Is the current site use consistent with the use(s) listed below?
Commercial and Industrial | ☒ | ☐ |
| 7. Are all ICs/ECs in place and functioning as designed? | ☒ | ☐ |

**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

		Box 2A	
		YES	NO
8.	Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☒
If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.			
9.	Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☒	☐
If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.			

SITE NO. C360116	Box 3
Description of Institutional Controls	

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Control</u>
3-3244-4	Morris Westchester Retail Associates LLC	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan
Controls at the site include:		
1. Construction and maintenance of a cover system consisting of either a geotextile demarcation layer overlain by a minimum of 12-inches of crushed shot rock seeded to promote vegetative growth a minimum of 3-feet of shot rock, or a minimum of 6-inches of asphalt pavement to prevent human exposure to remaining contaminated soil/fill at the site; 2. End use restrictions at the Site limited to Commercial uses, unless there is an expressed written waiver from an appropriate New York State Department; 3. Execution and recording of an Environmental Easement to restrict land use, restrict the use of groundwater underlying the site, and prevent future exposure to any contamination remaining at the site; 4. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting. The SMP also include a requirement for the installation of a sub-slab depressurization system in any future structures constructed on-site, to preclude the potential for soil vapor intrusion; and 5. Periodic certification of the institutional and engineering controls listed above.		
3-3244-7	Morris Westchester Retail Associates LLC	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan
Controls at the site include:		
1. Construction and maintenance of a cover system consisting of either a geotextile demarcation layer overlain by a minimum of 12-inches of crushed shot rock seeded to promote vegetative growth a minimum of 3-feet of shot rock, or a minimum of 6-inches of asphalt pavement to prevent human exposure to remaining contaminated soil/fill at the site; 2. End use restrictions at the Site limited to Commercial uses, unless there is an expressed written waiver from an appropriate New York State Department; 3. Execution and recording of an Environmental Easement to restrict land use, restrict the use of groundwater underlying the site, and prevent future exposure to any contamination remaining at the site; 4. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting. The SMP also include a requirement for the installation of a sub-slab depressurization system in any future structures constructed on-site, to preclude the potential for soil vapor intrusion; and 5. Periodic certification of the institutional and engineering controls listed above.		
3-8001-40 (p/o)	Morris Westchester Retail Associates LLC	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan

Controls at the site include:

1. Construction and maintenance of a cover system consisting of either a geotextile demarcation layer overlain by a minimum of 12-inches of crushed shot rock seeded to promote vegetative growth a minimum of 3-feet of shot rock, or a minimum of 6-inches of asphalt pavement to prevent human exposure to remaining contaminated soil/fill at the site;
2. End use restrictions at the Site limited to Commercial uses, unless there is an expressed written waiver from an appropriate New York State Department;
3. Execution and recording of an Environmental Easement to restrict land use, restrict the use of groundwater underlying the site, and prevent future exposure to any contamination remaining at the site;
4. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting. The SMP also include a requirement for the installation of a sub-slab depressurization system in any future structures constructed on-site, to preclude the potential for soil vapor intrusion; and
5. Periodic certification of the institutional and engineering controls listed above.

Box 4**Description of Engineering Controls**

<u>Parcel</u>	<u>Engineering Control</u>
3-3244-4	Cover System
3-3244-7	Cover System
3-8001-40 (p/o)	Cover System

Periodic Review Report (PRR) Certification Statements

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

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. C360116

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 Keith Morris at Morris Westchester Retail Associates, LLC
350 Veterans Boulevard, Rutherford, New Jersey 07070
print name print business address

am certifying as Owner and Designated Representative (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 **Keith E. Morris**
Vice President

11/22/18
Date

IC/EC CERTIFICATIONS

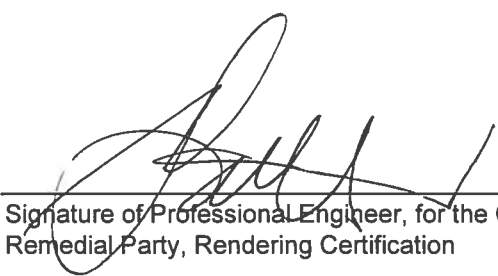
Box 7

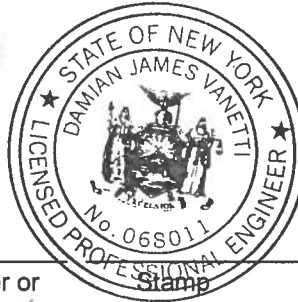
Professional Engineer Signature

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 Damian J. Vanetti, P.E. at GHD Consulting Services Inc.
One Remington Park Drive, Cazenovia, New York 13035
print name print business address

am certifying as a Professional Engineer for the Owner and Designated Representative
(Owner or Remedial Party)


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



Stamp
(Required for PE)

11-22-19
Date

Appendix B

Site Inspection Form

SITE INSPECTION FORM

Inspections to be conducted annually

SITE: Austin Avenue and Prior Place BCP Site (LOT 4)
BCP # C360116

DATE/TIME: 9/29/2019 14:20

WEATHER: Sunny 80
Ground surface dry

INSPECTORS NAME: Damian Vanetti

COMPANY NAME: GHD

GENERAL SITE CONDITIONS:

Site Access Control	Gate at Stew Leonard Drive was locked, gate at Austin Ave was locked
Change in Use	None identified, some storage of equipment on-site, otherwise site was vacant
Unauthorized Activities	small amount of concrete block left on site south of MW-2, lead acid battery left on picnic table

ENGINEERING CONTROLS

SOIL COVER

Soil Cover Condition	No identified erosion, no identified disturbance of soil cover. Thick vegetation present limited direct observation of majority of ground surface.
Vegetative Cover	Thick vegetation in all areas. Access road from Stew Leonard Drive was mowed
Breach of the Soil Cover	None observed, vegetation was thick and limited ability to observe all areas
Woody Growth	Woody growth is present in limited areas, woody growth on retaining wall
Surface Settling	None observed, vegetation was thick and limited ability to observe all areas
Burrowing Animals	None observed, vegetation was thick and limited ability to observe all areas
Sediment/Erosion Controls	N/A
Surface Erosion	None observed, vegetation was thick and limited ability to observe all areas
Off-site Sediment Transport	None observed

SOIL VAPOR MITIGATION

System In Place	N/A Site not developed
System Operating	
Component Conditions	
Damaged Equipment	

ENVIRONMENTAL MONITORING

GROUNDWATER MONITORING WELLS

Condition of Monitoring Wells	Wells that were observed were in good condition
Well Caps In Place	Yes - for those found
Locks In Place and Secure	Yes - for those found

Identify Groundwater Samples Taken: N/A Samples taken during Spring Monitoring Event

Identify Photos Taken: General Site photos were taken from various angles and locations

OTHER COMMENTS:

An abandoned lead acid battery was observed on one of the picnic tables adjacent to the Stew Leonard entrance - battery should be removed and disposed of off-site
Woody vegetation should be removed from top surfaces and top surfaces brush hogged

INSPECTOR SIGNATURE:



Appendix C

NYSDEC EQuIS Approvals

Ian McNamara

From: dec.sm.NYENVDATA <NYENVDATA@dec.ny.gov>
Sent: Friday, September 20, 2019 10:47 AM
To: Ian McNamara
Cc: Squire, Michael H (DEC)
Subject: RE: EDDs for Lot 4 - Austin Avenue and Prior Place BCP Site (Site #C360116)

CompleteRepository: 011144127
Description: MORRIS WESTCHESTER RETAIL ASSOC
JobNo: 11441
OperatingCentre: 01
RepoEmail: 011144127@ghd.com
RepoType: Proposal
SubJob: 27

Ian,

We have successfully uploaded the revised data package I shared with you earlier in this thread. The data's available for use within the system.

Thank you,
Aaron
NYSDEC EIMS Team



From: dec.sm.NYENVDATA
Sent: Wednesday, September 18, 2019 5:38 PM
To: 'Ian McNamara' <Ian.McNamara@ghd.com>
Cc: Squire, Michael H (DEC) <michael.squire@dec.ny.gov>
Subject: RE: EDDs for Lot 4 - Austin Avenue and Prior Place BCP Site (Site #C360116)

I'll get on with loading the data I shared with you on Friday. That should close the thread. I'll let you know when it's done.

Aaron
NYSDEC EIMS Team



From: Ian McNamara <Ian.McNamara@ghd.com>
Sent: Wednesday, September 18, 2019 5:00 PM
To: dec.sm.NYENVDATA <NYENVDATA@dec.ny.gov>

Cc: Squire, Michael H (DEC) <Michael.Squire@dec.ny.gov>

Subject: RE: EDDs for Lot 4 - Austin Avenue and Prior Place BCP Site (Site #C360116)

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

My apologies, yes, the locations should have been MW-2A, MW-2B, and SWR-MW-1.

Please let me know if I need to do anything to make this change or if you can upload the previously submitted EDD based on that change.

Thanks,
Ian

Ian McNamara
Scientist
Environment

GHD

Proudly employee owned

T: +315 679 5732 | M: +315 368 8432 | E: ian.mcnamara@ghd.com
One Remington Park Drive Cazenovia NY 13035 USA | www.ghd.com

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From: dec.sm.NYENVDATA <NYENVDATA@dec.ny.gov>

Sent: Wednesday, September 18, 2019 4:45 PM

To: Ian McNamara <Ian.McNamara@ghd.com>

Cc: Squire, Michael H (DEC) <Michael.Squire@dec.ny.gov>

Subject: RE: EDDs for Lot 4 - Austin Avenue and Prior Place BCP Site (Site #C360116)

Ian,

Thank you for your EDD submission. NYSDEC has successfully uploaded the data from the EDD "20190813 1343.C360116.NYSDEC_MERGE" to Lot 4 - Austin Ave and Prior Place in the NYSDEC database and the data is available for use within the system.

Our attempt to upload data from your Chemistry EDD 20190813 1351.C360116.NYSDEC_MERGE by contrast was not successful (see attached error log from our attempt). Turns out 20190813 1351.C360116.NYSDEC_MERGE attempts to reference three location codes which haven't been uploaded to our database, MW2A, MW2B, and SWRMW1. What's the story there? We have like locations in the database, MW-2A, MW-2B, and SWR-MW-1, from location data you submitted back in 2012. Something happen to your EQuIS records in the meantime? Let us know if you need a copy of the location data we've got on our end, and or if MW2A, MW2B, and SWRMW1 were meant to refer to distinct locations from the locations submitted back in 2012. If you meant, instead, to reference MW-2A, MW-2B, and SWR-MW-1, let us know. We can upload the attached revised copy of your EDD.

Aaron
NYSDEC EIMS Team



From: Ian McNamara <Ian.McNamara@ghd.com>
Sent: Tuesday, August 13, 2019 1:53 PM
To: dec.sm.NYENVDATA <NYENVDATA@dec.ny.gov>
Cc: Squire, Michael H (DEC) <Michael.Squire@dec.ny.gov>
Subject: EDDs for Lot 4 - Austin Avenue and Prior Place BCP Site (Site #C360116)

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Hello,

Attached are the Field Measurements and Chemistry Results EDDs for the Spring 2019 monitoring event performed at the above referenced site.

Please let me know if revisions are needed for successful upload.

Thanks,
Ian

Ian McNamara
Scientist
Environment

GHD
Proudly employee owned
T: +315 679 5732 | M: +315 368 8432 | E: ian.mcnamara@ghd.com
One Remington Park Drive Cazenovia NY 13035 USA | www.ghd.com

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about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

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