FINAL REMEDIAL ACTION WORK PLAN

Former Drive & Park, Inc. Site
Brownfield Cleanup Program #C314111
28 IBM Road
Town of Poughkeepsie
Dutchess County, New York

Prepared for:
Avis Rent A Car System, Inc.

Prepared by:
AMEC Geomatrix, Inc.

November 9, 2010

Project 0093280000

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Jamie L. Verrigni
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Division of Environmental Remediation
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Subject: **Final Remedial Action Work Plan**
Former Drive & Park, Inc. Site
Brownfield Cleanup Program #C314111
28 IBM Road
Town of Poughkeepsie
Dutchess County, New York

Dear Ms. Verrigni:

Please find enclosed the *Final Remedial Action Work Plan*, dated November 9, 2010, for the Former Drive & Park, Inc. Site in Poughkeepsie, New York. This work plan was prepared by AMEC Geomatrix, Inc., on behalf of Avis Rent A Car System, Inc (Avis). Avis submitted a draft remedial action work plan to the New York State Department of Environmental Conservation (NYSDEC) on January 8, 2009. Avis received comments from the NYSDEC in electronic mail communications on March 6, 2009 and April 22, 2009 from Michelle Tipple of the NYSDEC, and in a telephone conference call on April 14, 2009 with Michelle Tipple, Mike Ryan and Janet Brown of the NYSDEC and Anthony Perretta of the NYS Department of Health (NYSDOH). Based on the NYSDEC comments, Avis submitted a revised draft remedial action work plan in April 2010. Avis then received additional comments from the NYSDEC in a letter dated June 23, 2010 and submitted the *Revised Draft Remedial Action Work Plan* on August 30, 2010. Avis received a final comment letter dated September 15, 2010 from the NYSDEC and NYSDOH, and sent an electronic mail containing the requested revisions to the NYSDEC on October 22, 2010. On November 2, 2010 the NYSDEC issued an email stating that the NYSDEC and NYSDOH had no further comment and requested that this *Final Remedial Action Work Plan* be issued for approval.

Please contact any of the undersigned if you have any questions about this document.

Sincerely yours,
AMEC GEOMATRIX, INC.

David Averill
Project Hydrogeologist

Edward P. Conti, CEG, CHG
Principal Geologist

Kelly McIntosh, Ph.D., P.E.
Principal Engineer

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Enclosure

cc: Rose Pelino, Director Environmental Affairs, Avis Rent A Car System, Inc.
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I, Kelly R. McIntosh, certify that I am currently a NYS registered Professional Engineer as defined in 6 NYCRR Part 375 and that this Remedial Action Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

11/9/2010

Kelly R. McIntosh, Ph.D., P.E.
Principal Engineer

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1.0 INTRODUCTION

AMEC Geomatrix, Inc. (AMEC), formerly known as Geomatrix Consultants, Inc. (Geomatrix),[1] has prepared this *Final Remedial Action Work Plan* (RAWP) on behalf of Avis Rent A Car System, Inc. (Avis) for remediation at the Former Drive & Park, Inc. Site located at 28 IBM Road in Poughkeepsie, New York (the site; Figure 1).

Avis submitted a draft remedial action work plan to the New York State Department of Environmental Conservation (NYSDEC) on January 8, 2009. Avis received comments from the NYSDEC in electronic mail communications on March 6, 2009 and April 22, 2009, and in a telephone conference call with NYSDEC and NYS Department of Health (NYSDOH) personnel on April 14, 2009. Based on the NYSDEC and NYSDOH comments, Avis submitted a revised draft remedial action work plan in April 2010. Avis then received additional comments from the NYSDEC in a letter dated June 23, 2010 requesting that the report be revised to reflect a Track 4 closure scenario, rather than the conditional Track 1 closure described in the April 2010 report. Based on the comments received from the NYSDEC, Avis submitted another revised draft remedial action work plan on August 30, 2010, and made the report available for public comment from September 13 to October 28, 2010. Avis received comments from the NYSDEC in a letter dated September 15, 2010, but no comments requiring changes to the work plan were received from the public. This RAWP incorporates the changes requested by the NYSEDC and is the final RAWP for the site.

Several interim remedial measures (IRMs) have been conducted. These include:

- High-vacuum extraction of petroleum product, groundwater and vapor;
- Soil excavation;
- Groundwater extraction and treatment; and
- Application of oxygen release compound.

The effectiveness of the IRMs was evaluated in the following reports:

- *Remedial Investigation and Interim Remedial Measure Implementation Report* (Geomatrix, 2007a);

[1] Geomatrix Consultants, Inc. and AMEC Geomatrix, Inc. are the same legal entity.

- *Supplement to Remedial Investigation and Interim Remedial Measure Implementation Report – Soil Vapor Intrusion Investigation Report* (Geomatrix, 2007b);
- *Resampling of Excavation Confirmation Soil Sample Locations* (AMEC, 2010a); and
- *Supplemental Remedial Investigation Report* (AMEC, 2010b).

This RAWP outlines the approach for achieving the remedial action objectives necessary for Track 4 cleanup and closure. This RAWP has been prepared in accordance with the Brownfield Site Cleanup Agreement (BCA) executed July 6, 2005, and NYSDEC's *DER-10 Technical Guidance for Site Investigation and Remediation* (NYSDEC, 2010a).

This RAWP is organized as follows:

Section 2.0, Background: This section provides a summary of the site history, current and anticipated site usage, previous investigations, and interim remedial measures. This section also summarizes the current and historical soil, groundwater, soil vapor, surface water and stream sediment conditions at the site and on the adjacent property to the south.

Section 3.0, Remedial Action Objectives and Site Cleanup Track: This section provides the remedial action objectives and their relationship to the proposed site cleanup track.

Section 4.0, Remedial Alternatives Analysis: This section provides the remedial alternatives analysis for the site based on its current conditions as described in Section 2.5. This includes a description of the alternatives, a comparison of each remedial alternative to remedy selection factors and to the other alternatives considered, and the selected alternative.

Section 5.0, Implementation of Selected Remedial Alternative: This section provides a summary of the proposed remedy and the implementation methods.

Section 6.0, References: This section lists the documents referenced in this RAWP.

2.0 BACKGROUND

Information regarding current and anticipated site use, site history, previous investigations and interim remedial measures is presented in this section. Soil, groundwater, soil vapor, surface water and stream sediment conditions are also discussed.

2.1 PHYSICAL SETTING AND ANTICIPATED SITE USE

The site is located at 28 IBM Road in Poughkeepsie, New York, within a commercial/residential section south of the city limits. It is currently an active car rental facility. Neighboring properties include an IBM business campus to the north, commercial facilities to the east and west, and residential property to the south. Approximately 14,000 square feet of the eastern portion of the property is occupied by office and attached maintenance bay structures (Figure 2). The

remainder of the site property is used primarily for vehicle storage and is paved with asphalt, with the exception of several landscaped traffic berms. The adjacent property to the south contains a child care facility and a designated wetland.

Future uses of the site are anticipated to be commercial, consistent with the current usage.

2.2 SITE HISTORY

A release of gasoline at the site was reported to the NYSDEC by Drive & Park, Inc. on December 9, 1986. The NYSDEC issued spill number 86-05706. The release was discovered when impacted soils were encountered during the removal of two gasoline underground storage tanks (USTs), which had been in use from approximately 1965 to 1986. In 1987, two USTs were installed in place of and at the same location as those removed.

At the time of the release, the site was owned by Broad Act Corporation and used as a car rental facility by Drive & Park, Inc. Avis purchased the property in 1991, five years after the leaking UST system was removed.

Avis installed groundwater monitoring wells in 1992 and collected water samples for analysis from the wells in 1992 and 1997. Analytical data for groundwater samples collected from the monitoring wells indicated that the release had extended onto the adjacent property to the south.

In 1998, the two USTs that were installed in 1987 were removed. The 1998 removal of the two USTs was witnessed by the NYSDEC, and it was determined that there was no evidence of a release from these gasoline USTs installed in 1987, although evidence of the preexisting soil contamination was observed. After removal of these USTs, the NYSDEC closed spill number 86-05706, although Avis was not informed of the case closure. Avis continued to monitor the site. The NYSDEC subsequently reopened the case, as discussed below.

In March 2003, Avis collected groundwater samples from eight monitoring wells on the site and from three monitoring wells on the adjacent property. Analytical results in groundwater were similar to previous sampling events conducted in 1992 and 1997. However, floating free product (gasoline) was found in one monitoring well (MW-2) near the location of the former USTs. Floating free product, other than a sheen, had not previously been reported at the site.

Avis conducted high-vacuum extraction at the site from mid-April 2003 until September 2003 to recover floating free product from the impacted monitoring well. In September 2003, extraction was discontinued when measurable floating free product was no longer observed. The monitoring well was then monitored at least semi-annually between September 2003 and September 2005. Free product was measured at 0.01 inches in the September 2005 monitoring event, shortly before commencement of the interim remedial measure excavation activities. The

area was excavated and the monitoring well was destroyed in conjunction with the interim remedial measure excavation.

Upon discovery of the floating free product in 2003, Avis met with representatives of the NYSDEC in September 2003 to discuss the status of the site. NYSDEC concurred with Avis that the contamination was related to the 1986 release and, therefore, re-opened spill number 86-05706. Avis conducted a soil boring investigation in November 2003, and no areas of recoverable floating free product were located. Avis collected discrete-depth groundwater samples on the adjacent property to the south to evaluate the extent of impacted groundwater. No floating free product was observed; however, one location contained dissolved petroleum constituents. Dissolved petroleum constituents were not found to extend below the building on the adjacent property. The results of the investigation were presented to the NYSDEC in the *November 2003 Soil and Groundwater Investigation Report* (Geomatrix, 2004).

Avis applied for entry to the Brownfield Cleanup Program in April 2004 and was accepted; a Brownfield Site Cleanup Agreement was executed in July 2005.

2.3 GEOLOGY AND HYDROGEOLOGY

The geology of the site and of the adjacent property to the south consists of silty sand overlying an intermittent peat layer and an intermittent gravel layer, with an underlying layer of fine-grained silt and clay. As also described in Section 2.5.1.2, a portion of the site has been backfilled with a combination of ¾-inch crushed stone, Item 4 aggregate base, and stone sand, and a portion of the adjacent property to the south has been backfilled with a combination of approved excavated soils, general fill, Item 4 aggregate base, stone sand, and topsoil. The shallow groundwater flow direction has generally ranged from southwest to south at the site and from southwest to southeast on the adjacent property to the south. A potentiometric surface map for February 17, 2010 is provided as Figure 3. National Environmental Technology Corporation (NETC) performed slug tests in wells MW-1 through MW-13 and analyzed the data using the Bouwer and Rice slug test method to estimate hydraulic conductivity (K) in fully or partially penetrating wells under unconfined aquifer conditions. NETC's values ranged from 9.62×10^{-6} feet per minute (ft/min) to 1.2×10^{-3} ft/min (NETC, 1992).

2.4 SUMMARY OF INTERIM REMEDIAL MEASURES

Several interim remedial measures have been conducted at the site since the discovery of free product in one monitoring well, MW-2, in 2003. These measures include high-vacuum extraction of free product, water, and vapor in the former UST area, excavation of impacted soil on the site and on the adjacent property to the south, extraction and treatment of impacted groundwater during excavation activities, and placement of oxygen release compound in the material used to backfill the excavation.

2.4.1 High-Vacuum Extraction

Avis conducted high-vacuum extraction at the site from mid-April 2003 until September 2003. The objective of the high-vacuum extraction was to remove free product at the water table, to enhance natural degradation of impacted soils in the vadose zone, and to reduce the potential for migration of petroleum-impacted groundwater from the site. High-vacuum extraction was implemented at well MW-2, the only well where free product had been observed, and at nearby wells MW-3, DP-1, DP-2, DP-3. High vacuum extraction was conducted by sealing off the top of the well and extracting water and vapor from the well through a tube placed at the top of the water column. High-vacuum extraction was discontinued in September 2003 when measurable floating free product was no longer observed in well MW-2.

2.4.2 Excavation

During a September 27, 2005 meeting, the NYSDEC and Avis agreed that Avis would implement an interim remedial measure consisting of source removal through excavation of petroleum-impacted soils at the site and at the adjacent property to the south using conventional earthmoving equipment. This interim remedial measure, including excavation and restoration, was conducted from December 2005 through June 2006. During the excavation, which extended below the water table to depths of 8 to 15 feet bgs, approximately 23,900 tons of soil were removed for off-site disposal. The excavation was extended laterally and vertically (Figures 4 and 5) to remove soil containing petroleum hydrocarbons at concentrations above cleanup objectives[2]. As discussed in Section 2.4.4, oxygen release compound, a proprietary material provided by Regenesis, Inc., was added to the backfill material in the on-site and off-site excavations to enhance the biodegradation of petroleum hydrocarbons in groundwater. Excavation and confirmation sampling activities are described in detail in the *Remedial Investigation and Interim Remedial Measure Implementation Report* (Geomatrix, 2007a).

2.4.3 Groundwater Extraction

Avis dewatered the excavation from December 2005 through March 2006 during both on-site and off-site excavation activities. Groundwater was treated on-site and discharged to the Town of Poughkeepsie sanitary sewer system. A total of 622,452 gallons of groundwater were extracted, treated, and discharged to the Town of Poughkeepsie sanitary sewer system during excavation activities. No measurable free product layer was observed on groundwater during excavation activities.

2 The soil cleanup objectives used during excavation were the NYSDEC Technical and Administrative Guidance Memorandum (TAGM) 4046 recommended soil cleanup objectives which are presented in TAGM 4046 Table 1 – Volatile Organic Contaminants (NYSDEC, 1994). These have been replaced by the soil cleanup objectives in 6 NYCRR Part 375, Subpart 375-6: Remedial Program Soil Cleanup Objectives (SCOs)(NYSDEC, 2006).

2.4.4 Oxygen Release Compound Application

To enhance biodegradation of remaining petroleum hydrocarbons, oxygen release compound was added to the backfill material. The oxygen release compound gradually releases oxygen into the subsurface and stimulates naturally occurring aerobic bacteria.

A 16.7% (by weight) solution of oxygen release compound was prepared and applied to the backfill material while the excavation was backfilled. The oxygen release compound was applied using a submersible pump and hose at approximate rates of 1 gallon of solution per 20 square feet of surface area on top of the first two 1-foot-thick lifts of backfill material, and 1 gallon of solution per 45 square feet of surface area on top of the remaining 1-foot thick lifts of backfill material, until the backfill level reached the water table (3 to 6 feet bgs).

2.5 SUMMARY OF ENVIRONMENTAL CONDITIONS

Remedial investigation activities conducted at the site and at the adjacent property to the south defined the nature of the contamination and identified the source of petroleum hydrocarbons. The following sections describe the environmental conditions prior to and following implementation of the 2005 to 2006 interim remedial measure excavation.

2.5.1 Soil

The native geology of the site and surrounding area consists of silty sand overlying intermittent peat and gravel layers, with an underlying layer of fine-grained silt and clay. The extent of gasoline constituents in the soil both prior to and following the interim remedial measure excavation are described below.

2.5.1.1 Soil Conditions Prior to 2005-2006 Excavation

Prior to the implementation of the interim remedial measure excavation, the extent of soil potentially containing residual product was delineated by membrane interface probe (MIP) and conventional soil borings (Figure 2). The estimated extent of residual product in soil was bounded to the north by MIP-4, MIP-15, MIP-21, MIP-3, and MIP-11; to the west by MIP-B-13W, MIP-19, and MIP-9, and earlier borings PZ-4, PZ-8, PZ-9, and MW-101; and to the east by MIP-2, MIP-10, and MIP-B-1. The estimated extent of residual product in soil extended onto the adjacent property to the south approximately 120 feet, as defined by soil borings GP-6, GP-7, and GP-8. Cross sections A-A' and B-B' (see Figure 2 for orientation of cross sections) are shown as Figures 6 and 7. These cross sections illustrate the subsurface lithology and the estimated extent of residual product in the soil based on the soil boring data. The extent of gasoline constituents in soil was further defined during the 2005 to 2006 interim remedial measure excavation activities, as described in Section 2.4.2.

Gasoline constituents were not detected in soil samples collected in the northwest corner of the site, which once contained a Gulf gasoline station.

2.5.1.2 Soil Conditions After 2005-2006 Excavation

During implementation of the interim remedial measure excavation, impacted soil was removed and replaced with clean backfill. The on-site portion of the excavation was backfilled with a combination of ¾-inch crushed stone, Item 4 aggregate base, and stone sand. The portion of the excavation on the adjacent property to the south was backfilled with approved excavated soils, general fill, Item 4 aggregate base, stone sand, and topsoil.

The results of confirmation soil samples collected during the interim remedial measure excavation are summarized in Table 1. The locations of these confirmation soil samples are shown on Figures 4 and 5. In accordance with the NYSDEC's November 29, 2005 letter, *Former Drive & Park, Inc. Site – IRMWP Review*, the confirmation soil samples were analyzed for the compounds included in the list of recommended soil cleanup objectives in the TAGM 4046 Table 1 - Volatile Organic Contaminants, in addition to oxygenates (NYSDEC, 1994). To achieve soil cleanup objectives for Track 1, unrestricted use, confirmation soil samples generally should not exceed 6 NYCRR Part 375, Subpart 375-6: Remedial Program Soil Cleanup Objectives (unrestricted use SCOs) (NYSDEC, 2006). Although these unrestricted use SCOs were not available as final guidance until December 2006, after the excavation was completed, of the 59 final confirmation soil samples, the results for 49 confirmation soil samples were below the more conservative unrestricted use SCOs.

Confirmation soil samples that exceeded the unrestricted use SCOs are discussed below and compared with all of the SCOs. The SCOs for protection of public health, protection of groundwater, and protection of ecological resources are summarized in Table 2.

- Two sidewall samples located adjacent to the wetland in the eastern sidewall of the off-site portion of the excavation contained constituents that exceeded the unrestricted use SCOs. Off-site sidewall sample SW-E21-10.0-123005, collected at a depth of approximately 10 feet bgs, contained toluene at a concentration of 15 mg/kg, above the SCO for protection of groundwater (0.7 mg/kg), but below the SCOs for residential use (100 mg/kg), restricted residential use (100 mg/kg), commercial use (500 mg/kg), industrial use (1,000 mg/kg) and protection of ecological resources (36 mg/kg). Ethylbenzene was detected in the sample at a concentration of 7.8 mg/kg, above the SCO for protection of groundwater (1 mg/kg), but below the SCOs for residential use (30 mg/kg), restricted residential use (41 mg/kg), commercial use (390 mg/kg), and industrial use (780 mg/kg) (there is no SCO developed for protection of ecological resources for ethylbenzene). Total xylenes were detected in the sample at 50 mg/kg, above the SCOs for protection of groundwater (1.6 mg/kg) and protection of ecological resources (0.26 mg/kg), but below the SCOs for residential use (100 mg/kg), restricted residential use (100 mg/kg), commercial use (500 mg/kg), and industrial use (1,000 mg/kg). Benzene was not detected at or above the laboratory reporting limit of 1.1 mg/kg; however, the laboratory reporting limit exceeded the SCO for protection of

groundwater (0.06 mg/kg). The laboratory reporting limit was below the SCOs for residential use (2.9 mg/kg), restricted residential use (4.8 mg/kg), commercial use (44 mg/kg), industrial use (89 mg/kg) and protection of ecological resources (70 mg/kg).

Off-site sidewall sample SW-E05-5.0-122805, collected at a depth of approximately 5 feet bgs, contained benzene at 0.11 mg/kg, which exceeded the SCO for protection of groundwater but was below the SCOs for residential use, restricted residential use, commercial use, industrial use and protection of ecological resources. Sample E05-5.0-122805 did not contain toluene, ethylbenzene or total xylenes at concentrations exceeding the SCOs for unrestricted use. Because extending the off-site excavation farther east would have resulted in encroachment upon federally designated wetlands, additional excavation was not performed in this area.

- Five floor samples collected from near the centers of the on- and off-site portions of the excavation at depths between 12 and 14 feet below original grade contained petroleum hydrocarbons at concentrations that exceeded the unrestricted use SCOs. Off-site floor sample FL-E26-12.0-010606, collected at a depth of approximately 12 feet bgs, contained benzene at a concentration of 1.6 mg/kg, above the SCO for protection of groundwater, but below the SCOs for residential use, restricted residential use, commercial use, industrial use, and protection of ecological resources. Sample FL-E26-12.0-010606 did not contain toluene, ethylbenzene or total xylenes at concentrations exceeding the SCOs for unrestricted use.

  Off-site floor sample FL-E28-14.0-011706, collected at a depth of approximately 14 feet bgs, contained benzene at a concentration of 0.53 mg/kg, above the SCO for protection of groundwater, but below the SCOs for residential use, restricted residential use, commercial use, industrial use, and protection of ecological resources. This sample also contained total xylenes at a concentration of 0.512 mg/kg, above the SCO for protection of ecological resources but below the SCOs for residential use, restricted residential use, commercial use, industrial use, and protection of groundwater. Sample FL-E28-14.0-011706 did not contain toluene or ethylbenzene at concentrations exceeding the SCOs for unrestricted use.

  Off-site floor sample FL-E29-14.0-011906, collected at a depth of approximately 14 feet bgs, contained benzene at 4.8 mg/kg, above the SCOs for protection of groundwater and for residential use, but at or below the SCOs for restricted residential use, commercial use, industrial use and protection of ecological resources. The sample did not contain toluene, ethylbenzene or total xylenes at concentrations above the SCOs for unrestricted use. Sample FL-E29-14.0-011906 also contained 1,2-dichloroethane at 0.16 mg/kg, which exceeded the SCO for protection of groundwater (0.02 mg/kg) but was below the SCOs for residential use (2.3 mg/kg), restricted residential use

(3.1 mg/kg), commercial use (30 mg/kg), industrial use (60 mg/kg) and protection of ecological resources (10 mg/kg).

On-site floor sample FL-ON-9-13.0-030106, collected at a depth of approximately 13 feet bgs, contained benzene at a concentration of 0.38 mg/kg, above the SCO for protection of groundwater, but below the SCOs for residential use, restricted residential use, commercial use, industrial use, and protection of ecological resources. Sample FL-ON-9-13.0-030106 did not contain toluene, ethylbenzene or total xylenes at concentrations exceeding the SCOs for unrestricted use. The location of on-site floor sample FL-ON-9-13.0-030106 was resampled in August 2009 and benzene, toluene, ethylbenzene and total xylenes were not detected at concentrations exceeding unrestricted use SCOs.

On-site floor sample FL-ON-11-13.0-030806, collected at a depth of approximately 13 feet bgs, contained benzene at a concentration of 0.061 mg/kg, above the SCO for protection of groundwater, but below the SCOs for residential use, restricted residential use, commercial use, industrial use, and protection of ecological resources. Sample FL-ON-11-13.0-030806 did not contain toluene, ethylbenzene or total xylenes at concentrations exceeding the SCOs for unrestricted use. The location of on-site floor sample FL-ON-11-13.0-030806 was resampled in August 2009. Benzene was detected in the sample at 0.092 mg/kg, above the SCO for protection of groundwater, but below the SCOs for residential use, restricted residential use, commercial use, industrial use, and protection of ecological resources. Toluene, ethylbenzene and total xylenes were not detected at concentrations exceeding unrestricted use SCOs in the August 2009 sample collected at the location of FL-ON-11-13.0-030806.

- Two sidewall samples collected near the water table on the western side of the on-site portion of the excavation contained benzene and total xylenes at concentrations that exceeded the unrestricted use SCOs. On-site sidewall sample SW-ON-3-7.0-030206, collected at a depth of approximately 7 feet bgs, contained benzene at a concentration of 0.09 mg/kg, above the SCO for protection of groundwater, but below the SCOs for residential use, restricted residential use, commercial use, industrial use, and protection of ecological resources. The sample also contained total xylenes at 0.61 mg/kg, above the SCO for protection of ecological resources but below the SCOs for residential use, restricted residential use, commercial use, industrial use, and protection of groundwater. Sample SW-ON-3-7.0-030206 did not contain toluene or ethylbenzene at concentrations exceeding the SCOs for unrestricted use.

  On-site sidewall sample SW-ON-9-8.0-032106, collected at a depth of approximately 8 feet bgs, contained benzene at a concentration of 0.25 mg/kg, above the SCO for protection of groundwater, but below the SCOs for residential use, restricted residential

use, commercial use, industrial use, and protection of ecological resources. The sample also contained total xylenes at 0.451 mg/kg, above the SCO for protection of ecological resources but below the SCOs for residential use, restricted residential use, commercial use, industrial use, and protection of groundwater. Sample SW-ON-9-8.0-032106 did not contain toluene or ethylbenzene at concentrations exceeding the SCOs for unrestricted use.

At the time of the excavation, further excavation and confirmation sampling were not conducted in the area of on-site samples SW-ON-3-7.0-030206 and SW-ON-9-8.0-032106 because the confirmation sidewall sample results were considered sufficiently close to the soil cleanup objectives. These locations were resampled in August 2009 (see below), and benzene, toluene, ethylbenzene and total xylenes were not detected at concentrations exceeding unrestricted use SCOs.

- Sidewall sample SW-E-06-10.0-122805, collected at the northwest corner of the off-site portion of the excavation at a depth of approximately 10 feet bgs, contained total xylenes at a concentration of 4.37 mg/kg, which exceeded SCOs for protection of ecological resources and protection of groundwater, but was below SCOs for residential use, restricted residential use, commercial use and industrial use. The laboratory reporting limit for benzene in the sample, 0.32 mg/kg, exceeded the SCO for protection of groundwater but was below the SCOs for residential use, restricted residential use, commercial use and industrial use and protection of ecological resources. Sample SW-E-06-10.0-122805 did not contain toluene or ethylbenzene at concentrations exceeding the unrestricted use SCOs. This sample location is close to several other sampled locations that did not contain soil that exceeded the unrestricted use SCOs.

In August 2009, four soil borings were advanced and four soil samples (one sample per boring) were collected at the approximate locations and depths of the four on-site excavation confirmation soil samples that exceeded one or more of the unrestricted use SCOs for petroleum hydrocarbons. The results of the excavation confirmation soil samples are presented in Table 3 and the locations are shown in Figure 4. Soil boring SB-3 was advanced at the approximate location of floor sample FL-ON-11-13.0-030806, and soil boring SB-4 was advanced at the approximate location of floor sample FL-ON-9-13.0-030106. Soil boring SB-7 was advanced at the approximate location of sidewall sample SW-ON-3-7.0-030206, and soil boring SB-8 was advanced at the approximate location of sidewall sample SW-ON-9-8.0-032106 (AMEC 2010a). In sample SB-3-14.0, collected at the approximate location of floor sample FL-ON-11-13.0-030806, benzene was detected at a concentration of 0.092 mg/kg, above the SCO for protection of groundwater, but below the SCOs for residential use, restricted residential use, commercial use, industrial use and protection of ecological resources. None of the other petroleum hydrocarbons was detected at or above the unrestricted use SCOs in sample SB-3-14.0. No petroleum hydrocarbons were detected at or above the unrestricted use

SCOs in the samples from the other three soil borings advanced to resample the on-site confirmation soil sample locations.

Unrestricted use SCOs have been met at the locations of floor sample FL-ON-9-13.0-030106 and sidewall samples SW-ON-3-7.0-030206 and SW-ON-9-8.0-032106. We anticipate that unrestricted use SCOs at floor sample FL-ON-11-13.0-030806 will be achieved through natural attenuation.

Also in August 2009, sediment samples were collected in the wetland area along the east side of the former excavation area on the adjacent property to the south (AMEC, 2010b). The results of the wetland sediment samples are presented in Table 4 and their locations are shown in Figure 2. Seven locations were sampled and petroleum hydrocarbons were detected at only one location. Benzene, toluene, ethylbenzene and xylenes were detected above laboratory reporting limits at location WS-1, near monitoring well MW-12. Petroleum hydrocarbons were not detected at or above laboratory reporting limits in sample WS-1-0.3, collected at a depth of 0.3 feet bgs. In sample WS-1-0.8, collected at a depth of 0.8 feet bgs, benzene was detected at 0.011 mg/kg, and total xylenes were detected at 0.036 mg/kg. Ethylbenzene and toluene were not detected at or above laboratory reporting limits in sample WS-1-0.8. In sample WS-1-1.8, collected at a depth of 1.8 feet bgs, benzene was detected at 2.3 mg/kg, toluene was detected at 27 mg/kg, ethylbenzene was detected at 170 mg/kg, and total xylenes were detected at 800 mg/kg. No petroleum hydrocarbons were detected at the other wetland sediment sampling locations.

Table 4 shows the results of the wetland sediment sampling and the sediment criteria for non-polar organic contaminants presented in the *Technical Guidance for Screening Contaminated Sediments* (NYSDEC, 1999a). The sediment criteria are used to generate site-specific criteria based on the organic carbon (OC) content of the samples. The site-specific criteria are generated by multiplying the sediment criteria listed in the *Technical Guidance for Screening Contaminated Sediments* by the organic carbon content of the samples. The method is valid for OC contents between 0.2% and 12%.

The samples collected appeared to be from the same silty sand layer found outside the wetland area and were not analyzed for OC; however, the concentrations of hydrocarbons detected can still be compared with the sediment criteria. The samples collected as part of this investigation did not appear to contain appreciable amounts of organic material and are likely near the lower range for OC. Table 4 presents the sediment analytical data with the sediment criteria for both 0.2% OC and 12% OC.

Benzene was detected in sample WS-1-0.8 (0.8 feet below ground surface) at a concentration of 0.011 mg/kg, above the human health bioaccumulation sediment criterion for 0.2% OC (0.0012 mg/kg) but below the criterion for 12% OC (0.072 mg/kg). The concentration of benzene

detected in WS-1-0.8 was below the benthic aquatic life acute sediment criteria at 0.2% OC (0.206 mg/kg) and 12% OC (12.306 mg/kg), and also below the benthic aquatic life chronic sediment criteria at 0.2% OC (0.056 mg/kg) and 12% OC (3.360 mg/kg). Total xylenes were detected at 0.036 mg/kg in sample WS-1-0.8. There is no human health bioaccumulation sediment criterion for total xylenes. The concentration of total xylenes detected was below the benthic aquatic life acute toxicity criteria at 0.2% OC (1.666 mg/kg) and 12% OC (99.96 mg/kg), and also below the benthic aquatic life chronic toxicity criteria at 0.2% OC (0.184 mg/kg) and 12% OC (11.04 mg/kg). Toluene and ethylbenzene were not detected in sample WS-1-0.8.

Benzene was detected in sample WS-1-1.8 (1.8 feet below ground surface) at a concentration of 2.3 mg/kg, above the human health bioaccumulation sediment criteria for 0.2% OC and 12% OC. The concentration of benzene detected was above the aquatic life acute toxicity criterion for 0.2% OC but below the criterion for 12% OC, and above the benthic aquatic life chronic toxicity criterion for 0.2% OC but below the criterion for 12% OC. Toluene was detected in sample WS-1-1.8 at a concentration of 27 mg/kg. There is no human health bioaccumulation sediment criterion for toluene. The concentration of toluene detected was above the benthic aquatic life acute toxicity criterion for 0.2% OC (0.470 mg/kg) but below the criterion for 12% OC (28.2 mg/kg), and above the benthic aquatic life chronic toxicity criteria for 0.2% OC (0.098 mg/kg) and 12% OC (5.88 mg/kg). Ethylbenzene was detected in sample WS-1-1.8 at a concentration of 170 mg/kg. There is no human health bioaccumulation sediment criterion for ethylbenzene. The concentration of ethylbenzene detected was above the benthic aquatic life acute toxicity criteria for 0.2% OC (0.424 mg/kg) and 12% OC (25.44 mg/kg), and above the benthic aquatic life chronic toxicity criteria for 0.2% OC (0.048 mg/kg) and 12% OC (2.88 mg/kg). Total xylenes were detected in sample WS-1-1.8 at a concentration of 800 mg/kg. There is no human health bioaccumulation sediment criterion for total xylenes. The concentration of total xylenes detected was above the benthic aquatic life acute toxicity criteria for 0.2% OC and 12% OC, and above the benthic aquatic life chronic toxicity criteria for 0.2% OC and 12% OC.

Concentrations of petroleum hydrocarbons exceeding sediment criteria for benthic aquatic life acute toxicity and benthic aquatic life chronic toxicity were detected at a depth of 1.8 feet bgs in one of the seven wetland locations sampled. At that location, shallow samples collected at 0.8 and 0.3 feet bgs did not contain hydrocarbons exceeding benthic aquatic life criteria. We anticipate that the sediment criteria will be achieved at sampling location WS-1 through natural attenuation.

Shallow soil samples at the site were analyzed for polychlorinated biphenyls (PCBs) and pesticides in August 2009 (AMEC, 2010b). Six soil samples were collected from approximately two feet bgs (Table 5). No PCBs or pesticides were detected above the unrestricted use cleanup objectives.

2.5.2 Groundwater

Groundwater is present at depths ranging from approximately 9 feet bgs in the central portion of the site to approximately 1 to 2 feet bgs in the lower elevation, landscaped portions of the adjacent property to the south. Groundwater is at or near the surface in the wetland on the adjacent property to the south. A recent (February 2010) potentiometric surface map for the site is included as Figure 3.

2.5.2.1 Groundwater Conditions Prior to 2005-2006 Excavation

Prior to the implementation of the interim remedial measure excavation, the extent of groundwater apparently impacted by the historical gasoline release was delineated by monitoring wells MW-6 through MW-10, MW-13, MW-102, MW-103, MW-104, MW-110, and MW-111, as illustrated on Figure 8. Floating hydrocarbon product was measured in well MW-2 in 2003, and as discussed in Section 2.4.1 above, high vacuum extraction was used to remove the product from the well. Floating product was not found in any other monitoring wells on the site or on the adjacent property to the south.

Groundwater samples collected in the area of the former Gulf gasoline station, upgradient of the Former Drive & Park, Inc. UST source area, did not show evidence of petroleum hydrocarbons or other fuel constituents, except methyl tert butyl ether (MTBE) which was detected in groundwater samples collected from wells MW-8 and MW-104.

Downgradient of the Former Drive & Park, Inc. UST source area, grab groundwater (grab groundwater samples are discrete-depth groundwater samples collected from a temporary boring) sample results and monitoring well sample results suggested that petroleum hydrocarbons in groundwater did not extend to the child care facility building, as illustrated by the non-detect results for samples HA-3, HA-4, HA-6, and MW-110.

The fuel oxygenates tertiary amyl methyl ether (TAME), MTBE and/or tertiary butyl alcohol (TBA) were detected in groundwater samples collected from wells and temporary borings upgradient and crossgradient of the Former Drive & Park, Inc. UST source area (Figure 9). In an investigation of potential off-site sources of fuel oxygenates to the north and west of the site, MTBE was found in five of six grab groundwater boring locations and 10 of 13 grab groundwater samples collected from different depths in those borings. TBA and TAME were also detected in some of the grab groundwater samples. These data suggest that the source(s) of the MTBE, TAME, and TBA in groundwater is not related to the historical gasoline release at the site.

2.5.2.2 Groundwater Conditions After 2005-2006 Excavation

The chemical analysis results for groundwater samples collected from wells present at the site and on the adjacent property to the south since completion of the interim remedial measure excavation are included in Table 6 and the monitoring well locations are shown on Figure 3. The concentrations detected in the monitoring wells are compared to the groundwater quality

standards listed in 6 NYCRR, Part 703: Surface Water and Groundwater Quality Standards and Effluent Limitations, (NYSDEC, 1999b) where available.

The results from the four quarters of monitoring (June 2006 to June 2007), the September 2007 sampling event, the October 2008 sampling event, and the February 2010 sampling event indicate that concentrations of benzene, toluene, ethylbenzene, and xylenes are below the groundwater quality standards, with the exception of three areas. Groundwater quality standards have been exceeded in samples collected from on-site monitoring wells just to the north of (MW-1) and within (MW-203) the excavation area, and on the adjacent property to the south in the northwest corner of the wetland (MW-12). The groundwater chemical analysis results for these wells for the February 2010 sampling event are summarized as follows. In the sample from well MW-1, the concentrations of ethylbenzene (14 µg/L) and total xylenes (43 µg/L) exceeded the groundwater quality standards. In the sample from well MW-203, the concentration of benzene (27 µg/L) exceeded the groundwater quality standard. In the sample from well MW-12, the concentrations of benzene (6.8 µg/L), ethylbenzene (10 µg/L), and total xylenes (19 µg/L) exceeded the groundwater quality standards. The groundwater quality standards for benzene, toluene, ethylbenzene, and xylenes are 1 µg/L, 5 µg/L, 5 µg/L and 5 µg/L, respectively.

As described earlier in this report, oxygen release compound was added to the backfill material to enhance biodegradation of petroleum hydrocarbons remaining in groundwater. As discussed in Section 4.3, Remedy Selection, we anticipate that the groundwater quality standards will be achieved through natural attenuation.

2.5.3 Soil Vapor

In the early 1990s, NETC conducted a soil vapor survey in an attempt to refine the proposed monitoring well locations on the adjacent property to the south of the site (NETC, 1992). Based on the soil sample analytical results from shallow soil borings conducted by NETC and the topographic relief across the study area, NETC installed soil vapor tubes, left them overnight, and returned to sample the vapor content within each tube with an HNU Systems, Inc., Model PI-101 (HNU) PID, utilizing a 10.2 eV ultraviolet light. The results of the investigation indicated that some soil vapor readings exceeded five times the designated background concentrations. Soil in this area was subsequently excavated to a depth of approximately 10 to 12 feet bgs as part of the interim remedial measure excavation in 2005 and 2006.

Geomatrix conducted soil vapor surveys in December 2005 (prior to the interim remedial measure excavation activities) and in May 2006 (after the interim remedial measure excavation activities) on the adjacent property to the south of the site. The soil vapor surveys were conducted to evaluate the presence of petroleum hydrocarbon vapors in the subsurface near the child care facility. The results of the soil vapor investigations were reported to the NYSDEC in the *Soil Vapor Investigation Report* (Geomatrix, 2006) that was appended to the *Remedial*

Investigation and Interim Remedial Measure Implementation Report (Geomatrix, 2007a). In March 2007, Geomatrix also conducted a subslab vapor intrusion study at the child care facility building on the adjacent property to the south of the site. The findings of this study were reported to the NYSDEC in the *Supplement to Remedial Investigation and Interim Remedial Measure Implementation Report- Soil Vapor Intrusion Investigation Report* (Geomatrix, 2007b). The report concluded that the concentrations of benzene and toluene detected in indoor air during the vapor intrusion investigation were lower than concentrations associated with fuel-oil heated homes based on a NYSDOH study (NYSDOH, 2006) and consistent with average indoor air concentrations across the state. The NYSDEC issued a letter dated July 18, 2007 that accepted the *Remedial Investigation and Interim Remedial Measure Implementation Report* and concurred with the conclusion that additional indoor air sampling is not necessary.

2.5.4 Surface Water

On August 19, 1992, NETC conducted a surface water investigation to assess the occurrence of petroleum constituents in the wetland area south of the site. NETC collected three surface water samples from the stream that passes through the wetland: upstream (at the storm water outfall), midstream (near well MW-13), and downstream (at Barnegat Road overpass). The surface water samples were analyzed for benzene, toluene, ethylbenzene, and xylenes by EPA Method 602 (NETC, 1992). Benzene, ethylbenzene, and xylenes were not detected in any of the samples. Toluene was detected at a concentration of 1 part per billion (ppb) in the upstream sample, but was not detected in the other two samples.

2.5.5 Stream Sediment

In August 2009, AMEC evaluated the unnamed stream in the east portion of the wetland for a sheen either in the sediment or on the surface water. The sediment at the banks, sides, and bottom of the stream was probed using a hand auger at five transects: one just below the upstream culvert, one just above the downstream culvert, and three east and southeast of the remedial excavation area (Figure 2). No hydrocarbon sheen was detected in the sediment or surface water. During the probing study, three sediment samples were collected and analyzed for benzene, toluene, ethylbenzene and xylenes to confirm that a blocky sheen observed was not hydrocarbon related. No petroleum hydrocarbons were detected in the sediment samples.

2.6 IRM EVALUATION

The combined interim remedial measures (free product removal followed by soil excavation, groundwater extraction and addition of oxygen release compound to the backfill) generally achieved the criteria required by the NYSDEC for a final remedial action at the site. With respect to the on-site interim remedial measures, soil exceeding soil cleanup objectives for unrestricted use remains in a limited area at the base of the former excavation, and concentrations of petroleum hydrocarbons exceed groundwater quality standards in two on-site monitoring wells. On the adjacent property to the south of the site, soils exceeding soil cleanup objectives for

unrestricted use remain in limited areas on the floor of the former excavation (three soil sample locations), on the sidewall of the northwest portion of the off-site portion of the former excavation (one soil sample location), and on the east sidewall of the off-site portion of the former excavation (two soil sample locations). One monitoring well on the off-site property contains concentrations of petroleum hydrocarbons exceeding groundwater quality objectives. Additionally, one wetland sediment sampling location, near impacted monitoring well MW-12, contains sediment exceeding site-specific sediment criteria.

The interim remedial measures implemented to date meet the remedial objectives for the site and achieve the nine criteria outlined in the *DER-10 Technical Guidance for Site Investigation and Remediation* (NYSDEC, 2010a). The soil source was removed in compliance with applicable standards, criteria and guidance at the time of implementation under oversight of the NYSDEC and NYSDOH, thereby protecting human health and the environment. The soil was removed and disposed of as nonhazardous waste with the appropriate waste manifests at three soil treatment/recycling facilities. Extracted groundwater was treated using an on-site treatment system and discharged via an on-site manhole to the Town of Poughkeepsie sanitary sewer system. The remedial measures provided a permanent solution by removing the source material, achieving both short and long-term effectiveness and reducing the toxicity, mobility, and volume of gasoline constituents in the subsurface. Oxygen release compound mixed in the backfill is intended to enhance further reduction in toxicity and volume of constituents present at low concentrations. The remedial measures were implementable with community acceptance and were based on consideration of the existing and future land use of the site as a car rental facility and of the property to the south of the site as a child care facility and wetland.

3.0 REMEDIAL ACTION OBJECTIVES AND SITE CLEANUP TRACK

Remedial action objectives are medium-specific goals for protecting human health and the environment based on contaminant-specific cleanup goals. Based on the current conditions of the site, as described in Section 2.0, the media of concern are soil and groundwater. The contaminant-specific site cleanup goals are based on a Track 4 commercial use scenario. This cleanup track utilizes the generic soil cleanup goals shown in NYSDEC 6 NYCRR Part 375, Subpart 375-6: Remedial Program Soil Cleanup Objectives (NYSDEC, 2006), and groundwater cleanup goals based on the groundwater quality standards listed in NYSDEC 6 NYCRR Part 703: Surface Water and Groundwater Quality Standards and Effluent Limitations (NYSDEC, 1999b).

To protect human health and the environment and achieve Track 4 commercial use for the site, the following remedial action objectives are established:

- Prevent ingestion of groundwater containing contaminant levels exceeding drinking water standards.
- Prevent human exposure to contaminants remaining in soil.

It should be noted that concentrations of contaminants in soil do not exceed SCOs for residential, restricted residential, commercial or industrial use, or protection of ecological resources. The concentration of contaminants (just benzene) in only one confirmation soil sample exceeds the SCO for protection of groundwater.

4.0 REMEDIAL ALTERNATIVES ANALYSIS

This section presents descriptions and evaluations of the remedial alternatives considered for obtaining closure for the site under the Brownfield Cleanup Program. As described above, free product and impacted soil and groundwater were removed from the site for off-site disposal, and oxygen release compound was added to backfill material to enhance aerobic degradation of remaining hydrocarbons as interim remedial measures. Benzene remains in on-site soil at one location at a concentration higher than the SCO for protection of groundwater but below the SCOs for residential use, restricted residential use, commercial use, and industrial use and protection of ecological resources. Groundwater in two on-site monitoring wells and one off-site monitoring well contain concentrations of benzene, ethylbenzene, toluene and/or total xylenes at concentrations exceeding NYSDEC water quality standards.

The remedial alternatives considered were to obtain Track 1 closure for the site and to obtain Track 4 closure for the site. These alternatives were evaluated using the criteria provided in the NYSDEC Environmental Regulations Chapter IV-Quality Services, Subpart 375-1: General Remedial Program Requirements (NYSDEC, 2006b). These criteria are as follows:

- Protection of public health and the environment. The selected remedy will be protective of public health and the environment by reducing or removing contamination, containment or the use of engineering or institutional controls.
- Compliance with standards, criteria, and guidance. The selected remedy will conform to official and generally acceptable and applicable standards, criteria and guidance, unless good cause exists for nonconformance.
- Long-term effectiveness and permanence. The selected remedy will achieve as complete and long-term a cleanup of the site as possible, and any remaining contamination will be evaluated for risks to ecological receptors, human exposures and impacts to the environment.
- Reduction of toxicity, mobility or volume with treatment. The selected remedy will reduce the volume, mobility and toxicity of contamination through removal of contamination, treatment, isolation, or other means.
- Short-term impact and effectiveness. The selected remedy will have minimal negative short-term impacts and human exposures during implementation.
- Implementability. The selected remedy will be technically and administratively feasible to implement.
- Cost-effectiveness. The selected remedy will be cost effective, both for the initial costs as well as for the follow-up and maintenance costs.
- Community acceptance. The selected remedy will be acceptable to the community.

- Land use. The selected remedy will allow reasonable uses of the land, based on historic use of the site, zoning regulations, and other considerations.

4.1 TRACK 1 CLOSURE

4.1.1 Description

A Track 1 (unrestricted use) alternative was considered for the site. Concentrations of contaminants in all confirmation soil samples collected at the site except for one are below the unrestricted use SCOs. The concentration of benzene in one sample is above the SCO for protection of groundwater but below the SCOs for residential, restricted residential, commercial and industrial use as well as the SCO for protection of ecological resources. In order to consider a Track 1 closure for the site, however, additional sampling of soil for metals, semi-volatile organic compounds, pesticides and PCBs would be necessary across the site, as required by the NYSDEC (NYSDEC, 2010b).

The concentrations of petroleum hydrocarbons in groundwater samples collected from two on-site monitoring wells and one off-site monitoring well after completion of the interim remedial measure excavation have exceeded water quality standards. Groundwater concentrations are expected to continue to decline and meet water quality standards through natural attenuation.

4.1.2 Evaluation

A Track 1 closure for the site would be protective of public health and the environment because concentrations of petroleum hydrocarbons in soil are below the SCOs for residential, restricted residential, commercial, and industrial use, as well as for protection of ecological resources. One confirmation soil sample contains benzene above the SCO for protection of groundwater. The concentration of benzene in this area is expected to decline through natural attenuation. Groundwater in two on-site monitoring wells and one off-site monitoring well contains concentrations of petroleum hydrocarbons exceeding water quality standards, but concentrations are expected to continue to decline and meet water quality standards through natural attenuation. A conditional Track 1 closure would allow time for natural attenuation to lower concentrations in groundwater to meet water quality standards; however, according to the NYSDEC, the potential occurrence of compounds in soil not associated with a gasoline release (i.e., PCBs, pesticides, metals and semi-volatile organic compounds) is not sufficiently studied at the site to support a Track 1 closure (NYSDEC, 2010b).

Track 1 closure conforms with standards and guidance because concentrations of petroleum hydrocarbons in soil have been reduced to concentrations below unrestricted use SCOs in all site confirmation soil samples except for one, where the SCO for protection of groundwater was exceeded for benzene. Groundwater concentrations in three monitoring wells (two on-site and one off-site) exceed water quality standards, but concentrations are expected to continue to decline and meet water quality standards through natural attenuation. Conditional Track 1

closure would allow time for natural attenuation to lower concentrations in the groundwater to meet water quality standards.

Track 1 closure would be effective in the long term because concentrations of petroleum hydrocarbons in soil have been reduced to concentrations below unrestricted use SCOs in all site confirmation soil samples except for one, where the SCO for protection of groundwater was exceeded for benzene. Groundwater concentrations in the three monitoring wells (two on-site and one off-site) exceed water quality standards but are expected to continue to decline and meet water quality standards through natural attenuation. Conditional Track 1 closure would allow time for natural attenuation to lower concentrations in the groundwater to meet water quality standards.

Track 1 closure would not actively reduce the toxicity, mobility or volume of remaining contamination; however, as discussed above, soil concentrations remaining are already below unrestricted use SCOs in all site confirmation sampling locations but one. Groundwater concentrations in the three monitoring wells (two on-site and one off-site) exceed water quality standards but are expected to continue to decline and meet water quality standards through natural attenuation. Conditional Track 1 closure would allow time for natural attenuation to lower concentrations in the groundwater to meet water quality standards.

Track 1 closure would have no negative short-term impacts because unrestricted use SCOs are met in all but one of the on-site confirmation soil samples, and shallow groundwater is not used and is not anticipated to be used in the area. Conditional Track 1 closure would allow time for natural attenuation to lower concentrations in the groundwater to meet water quality standards.

Track 1 closure could be easily implemented since unrestricted use SCOs are met in all but one site confirmation soil sample and conditional Track 1 closure would allow time for natural attenuation to lower concentrations in the groundwater to meet water quality standards.

There would be no capital costs and minimal annual site maintenance costs for Track 1 closure because unrestricted use SCOs are met in all but one confirmation soil sample. Groundwater would be monitored to document that concentrations of hydrocarbons remaining in groundwater diminish through natural attenuation.

It is likely that members of the community would approve of Track 1 closure for the site since the potential for exposure to site related contaminants would be eliminated and land use restrictions would not be imposed.

Track 1 closure for the site would be consistent with existing land uses because SCOs for protection of human health have been achieved at the site, and groundwater in the area is not

used and is not anticipated to be used while petroleum hydrocarbon concentrations diminish through natural attenuation. In addition, land use restrictions would not be imposed.

Track 1 closure was not selected for the site because of the additional expense and time associated with collecting soil samples across the site and at depths as deep as bedrock to verify that concentrations of pesticides, PCBs, metals and semi-volatile organic compounds do not exceed unrestricted use SCOs, in accordance with the NYSDEC requirements (NYSDEC, 2010b).

4.2 TRACK 4 CLOSURE

4.2.1 Description

A Track 4 alternative was considered for the site after the NYSDEC concluded that a Track 1 closure would not be possible without a more comprehensive evaluation of pesticides, PCBs, metals, and SVOCs across the site (NYSDEC, 2010b). In order to achieve Track 4 closure, a site cover consisting of either an impermeable surface or at least one foot of clean soil will be maintained to prevent access to remaining contamination, a monitoring well network will be maintained, and an environmental easement will be established for the site to restrict site use to commercial or industrial and to place a restriction on the use of groundwater at the site. The site will be subject to a Site Management Plan, which requires periodic certification that all institutional controls (the site restrictions in the easement) and all engineering controls (the site cover) remain in place and effective.

4.2.2 Evaluation

The proposed Track 4 closure would be protective of public health and the environment by preventing contact with remaining contamination through use of a site cover and a restriction on groundwater use at the site. An environmental easement will restrict site use to commercial or industrial.

The proposed Track 4 closure will conform with standards and guidance because site cover, groundwater use restrictions, groundwater monitoring and environmental easements are methods frequently used in New York state to prevent exposure to potentially impacted soil and/or groundwater. In addition, Track 4 closure would be effective in the long term because concentrations of petroleum hydrocarbons in soil have been reduced to concentrations below unrestricted use SCOs in all site confirmation soil samples except for one, where the SCO for protection of groundwater was exceeded for benzene. The long term effectiveness of the proposed Track 4 closure will be monitored using an existing network of monitoring wells.

The proposed Track 4 closure will not actively reduce the toxicity, mobility and volume of contamination; however, confirmation soil sample concentrations at the site are below residential SCOs and natural attenuation is expected to reduce any remaining contamination.

The proposed Track 4 closure would have no adverse short term impacts because confirmation soil sample concentrations at the site are below residential SCOs. In addition, the area of remaining impacted soil at the site occurs below clean fill at a depth of approximately 14 feet below ground surface, and groundwater is not used.

The proposed Track 4 closure could be easily implemented. The area of the former excavation has been backfilled with clean soil and the site has been paved, groundwater is not used, and the existing site use is commercial.

The proposed Track 4 closure has low up-front costs, but the site will need to be monitored indefinitely to ensure that the groundwater monitoring well network, site cover and site use restrictions are maintained. Consequently, there will be significant long-term operation and maintenance costs.

It is likely that members of the community would approve the proposed Track 4 closure because it will not impact existing land uses and because confirmation soil sample concentrations at the site are below residential SCOs.

The proposed Track 4 closure will not change the use of the site and will not restrict likely future uses of the site.

4.3 REMEDY SELECTION

The selected remedial alternative is Track 4 cleanup and closure. The Track 4 remedy includes the following:

- Maintaining a cover system consisting of at least one foot of clean soil or an impermeable surface (such as concrete slab, asphalt parking, etc.) across the site;
- Maintaining a monitoring well network to assess contaminant concentrations in groundwater over time;
- Placing a restriction on groundwater use at the site to control exposure to contamination; and
- Restricting use of the site to commercial or industrial.

The site will be subject to a Site Management Plan, which requires periodic certification that all institutional controls (the site restrictions in the easement) and all engineering controls (the site cover and the monitoring well network) remain in place and effective. The selected remedy meets all of the NYSDEC criteria for a final remedy, as described in detail in Section 4.2.

Confirmation soil and groundwater sampling has demonstrated that the soil cleanup objectives and groundwater quality standards have been achieved in most of the previously impacted area. We anticipate that the unrestricted use soil cleanup objectives and groundwater quality standards will be achieved in the few remaining locations through natural attenuation.

5.0 IMPLEMENTATION OF SELECTED REMEDIAL ALTERNATIVE

Implementation of the selected remedy will be described in the site's *Site Management Plan* (SMP). The SMP will include procedures for handling of soils and groundwater when conducting excavation work that may encounter remaining contamination, the environmental easement restricting use of the site and use of groundwater, the schedule for periodic certification of the site engineering and institutional controls, and the scope and schedule for sampling the existing monitoring well network.

6.0 REFERENCES

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TABLES

TABLE 1

SUMMARY OF CONFIRMATION SOIL SAMPLE ANALYTICAL RESULTS, DECEMBER 2005 to MARCH 2006[1]

Former Drive & Park, Inc., Site
28 IBM Road
Poughkeepsie, New York

All results in milligrams per kilogram of soil (mg/kg)

Sample Type and Identification	Sample Location	Date Collected	Collection Depth (feet bgs)	Benzene	Toluene	Ethyl benzene	m,p-Xylenes	o-Xylene	Total Xylenes	TPHg	TPHd	MTBE	TBA	TAME	Other
NYSDEC Unrestricted Use Cleanup Objectives[2] in mg/kg:				**0.06**	**0.7**	**1**	**NA**	**NA**	**0.26**	**NA**	**NA**	**0.93**	**NA**	**NA**	**Acetone 0.05 2-butanone NA Methylene chloride 0.05 1,2-Dichloroethane 0.01**
Sidewall Samples															
SW-G02-7.0-122605	Off Site sidewall, W Boundary	12/26/2005	7	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<12	<12	<0.03	<0.61	<0.061	**Methylene chloride 0.034**
SW-G05-7.5-122605	Off-site sidewall, W Boundary	12/26/2005	7.5	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<11	<11	<0.042	<0.84	<0.084	
SW-G07-3.0-122605	Off-site sidewall, SE corner	12/26/2005	3	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<13	<13	<0.039	<0.79	<0.079	
SW-G09-5.0-122605	Off-site sidewall, SE corner	12/26/2005	5	<0.053	<0.053	<0.053	**0.084**	<0.053	**0.084**	<14	<14	<0.053	<1.1	<0.11	
SW-E01-6.0-122705	Off-site sidewall, S boundary	12/27/2005	6	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<13	<13	<0.007	<0.13	<0.013	
SW-E02-5.0-122705	Off-site sidewall, SW corner	12/27/2005	5	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<13	<13	<0.006	<0.13	<013	
SW-E03-5.0-122705	Off-site sidewall, E boundary	12/27/2005	5	<0.007	<0.007	**0.014**	**0.026**	<0.007	**0.026**	<13	<13	<0.007	<0.13	<013	
SW-E04-5.0-122705	Off-site sidewall, E boundary	12/28/2005	5	**0.016**	<0.006	<0.006	<0.006	<0.006	<0.006	<12	<12	<0.006	<0.12	0.012	
SW-E05-5.0-122805	Off-site sidewall, E boundary	12/28/2005	5	**0.11**	<0.006	**0.033**	**0.16**	<0.006	**0.16**	<13	<13	<0.006	<0.13	<0.013	
SW-E06-10.0-122805	Off-site sidewall, NW Corner	12/28/2005	10	<0.32	<0.32	**0.71**	**3.5**	**0.87**	**4.37**	<13	<13	<0.32	<6.4	<0.64	
SW-E14-11.0-123005	Off-site sidewall, NW corner (S facing sidewall)	12/30/2005	11	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<12 UJ	<12 UJ	<0.006	<0.12	<0.012	**Methylene chloride 0.007**
SW-E20-8.0-123005	Off-site sidewall, E boundary	12/30/2005	8	**0.045**	<0.006	<0.006	**0.017**	<0.006	**0.017**	<11 UJ	<11 UJ	<0.006	<0.11	<0.011	
SW-E21-10.0-123005	Off-site sidewall, NE Corner, adjacent to wetlands	12/30/2005	10	<1.1	**15**	**7.8**	**37**	**13**	**50**	<13 UJ	<13 UJ	<1.1	<22	<2.2	

TABLE 1

SUMMARY OF CONFIRMATION SOIL SAMPLE ANALYTICAL RESULTS, DECEMBER 2005 to MARCH 2006[1]

Former Drive & Park, Inc., Site
28 IBM Road
Poughkeepsie, New York

All results in milligrams per kilogram of soil (mg/kg)

Sample Type and Identification	Sample Location	Date Collected	Collection Depth (feet bgs)	Benzene	Toluene	Ethyl benzene	m,p-Xylenes	o-Xylene	Total Xylenes	TPHg	TPHd	MTBE	TBA	TAME	Other
NYSDEC Unrestricted Use Cleanup Objectives[2] in mg/kg:				**0.06**	**0.7**	**1**	**NA**	**NA**	**0.26**	**NA**	**NA**	**0.93**	**NA**	**NA**	**Acetone 0.05 2-butanone NA Methylene chloride 0.05 1,2-Dichloroethane 0.01**
SW-E23-11.0-010206	Off-site sidewall, NW corner	1/2/2006	11	**0.038 J**	<0.006	**0.054 J**	**0.09 J**	<0.006	**0.09 J**	<12 UJ	<12 UJ	**0.024 J**	<0.12	<0.021	
SW-E24-11.0-010206	Off-site sidewall, NW corner	1/2/2006	11	**0.021 J**	<0.006	<0.006	<0.006	<0.006	<0.006	<12 UJ	<12 UJ	**0.022 J**	**0.13 J**	<0.012	
SW-E30-3.0-012006	Off-site sidewall	1/20/2006	3	<0.007	<0.007	<0.007	**0.056**	<0.007	**0.056**	<14	<14	<0.007	<0.14	<0.014	
SW-E38-8.0-020206	On-site sidewall	2/2/2006	8	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<13	<13	**0.013 J**	<0.13	<0.013	**Methylene chloride 0.016U Acetone 0.013UJ**
SW-E39-8.0-020206	On-site sidewall	2/2/2006	8	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<13	<13	<0.007	<0.13	<0.013	**Methylene chloride 0.013J**
SW-ON-1-7.0-022406	On-site sidewall	2/24/2006	7	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<13	<13	<0.006 UJ	<0.13 UJ	<0.013 UJ	**Acetone 0.018J**
SW-ON-2-7.5-022406	On-site sidewall	2/24/2006	7.5	**0.021**	<0.006	<0.006	**0.012**	<0.006	**0.012**	<12	<12	<0.006 UJ	<0.12	<0.012	**Acetone 0.015**
SW-ON-3-7.0-030206	On-Site sidewall, SW area	3/2/2006	7	**0.09 J**	**0.11**	**0.098 J**	**0.44 J**	**0.17 J**	**0.61 J**	<13	<13	<0.006	<0.13	<0.013	**Acetone 0.150J**
SW-ON-4-7.0-030206	On-site sidewall, SW area	3/2/2006	7	**0.03 J**	**0.007**	**0.015 J**	**0.066 J**	**0.024 J**	**0.09 J**	<11	<11	**0.007**	<0.11	<0.011	**Acetone 0.013J**
SW-ON-6-7.0-030706	On-site sidewall, NW area	3/7/2006	7	**0.011 J**	<0.006	**0.016**	**0.054**	**0.012**	**0.066**	<12	<12	<0.006	<0.12	<0.012	**Acetone 0.022**
SW-ON-8-7.0-030906	On-site sidewall, NE corner	3/9/2006	7	<0.006	<0.006	<0.006 UJ	**0.011 J**	<0.006 UJ	**0.011 J**	<11	<11	**0.008**	<0.11	<0.011 UJ	**Acetone 0.016**
SW-ON-9-8.0-032106	On-site sidewall, N boundary	3/21/2006	8	**0.25**	**0.041**	**0.26 J**	**0.42**	**0.031**	**0.451**	<13	<13	<0.013	<0.26	<0.026	**Acetone 0.039J Methylene chloride 0.024**
TP-1-032306	On-site test pit	2/23/2006	7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<11	<11	<0.005	<0.11	<0.011	

TABLE 1

SUMMARY OF CONFIRMATION SOIL SAMPLE ANALYTICAL RESULTS, DECEMBER 2005 to MARCH 2006[1]

Former Drive & Park, Inc., Site
28 IBM Road
Poughkeepsie, New York

All results in milligrams per kilogram of soil (mg/kg)

Sample Type and Identification	Sample Location	Date Collected	Collection Depth (feet bgs)	Benzene	Toluene	Ethyl benzene	m,p-Xylenes	o-Xylene	Total Xylenes	TPHg	TPHd	MTBE	TBA	TAME	Other
NYSDEC Unrestricted Use Cleanup Objectives[2] in mg/kg:				**0.06**	**0.7**	**1**	**NA**	**NA**	**0.26**	**NA**	**NA**	**0.93**	**NA**	**NA**	**Acetone 0.05 2-butanone NA Methylene chloride 0.05 1,2-Dichloroethane 0.01**
TP-2-032306	On-site test pit	2/23/2006	7	<0.005	<0.005	<0.005	<0.005	**0.008**	**0.008**	<11	<11	<0.005	<0.11	<0.011	**Acetone 0.016J**
TP-3-032306	On-site test pit	2/23/2006	7	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<11	<11	<0.006	<0.11	<0.011	
Floor Samples															
FL-E10-12.0-122905	Off-site floor, NW area	12/29/2005	12	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<12 UJ	<12 UJ	<0.006 UJ	<0.12 UJ	<0.012 UJ	**Acetone 0.012**
FL-E15-8.0-123005	Off-site floor, S-Central area	12/30/2005	8	<0.006	<0.006	**0.009**	**0.037**	<0.006	**0.037**	<0.013 UJ	<0.013 UJ	<0.006	<0.13	<0.013	**Methylene chloride 0.009**
FL-E16-8.0-123005	Off-site floor, S-Central area	12/30/2005	8	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<14 UJ	<14 UJ	<0.007	<0.14	<0.014	**Methylene chloride 0.010**
FL-E17-8.0-123005	Off-site floor, S-Central area	12/30/2005	8	<0.007	<0.007	**0.027**	**0.160**	**0.018**	**0.178**	<13 UJ	<13 UJ	<0.007	<0.13	<0.013	**Methylene chloride 0.008**
FL-E19-8.0-123005	Off-site floor, S-Central area	12/30/2005	8	**0.011**	<0.006	**0.048**	**0.2**	**0.023**	**0.223**	<12 UJ	<12 UJ	<0.006	<0.12	<0.012	**Acetone 0.014**
FL-E22-12.0-010206	Off-site floor, NE corner	1/2/2006	12	<0.006	**0.008 J**	<0.006	**0.022 J**	**0.008 J**	**0.03 J**	<12 UJ	<12 UJ	<0.006	<0.12	<0.012	**Methylene chloride 0.008J**
FL-E26-12.0-010606	Floor, N-Central	1/6/2006	12	**1.6**	**0.086**	<0.062	<0.062	<0.062	<0.062	<12	<12	<0.062	<1.2	<0.12	
FL-E27-14.0-011706	Off-site floor	1/17/2006	14	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<12	<12	<0.006	<0.12	<0.012	**Methylene chloride 0.012**
FL-E28-14.0-011706	Off-site floor	1/17/2006	14	**0.53 J**	**0.06**	**0.400**	**0.5**	**0.012**	**0.512**	<12	<12	**0.036 J**	<0.25	<0.025	**Acetone 0.047J Methylene chloride 0.029**

TABLE 1

SUMMARY OF CONFIRMATION SOIL SAMPLE ANALYTICAL RESULTS, DECEMBER 2005 to MARCH 2006[1]

Former Drive & Park, Inc., Site
28 IBM Road
Poughkeepsie, New York

All results in milligrams per kilogram of soil (mg/kg)

Sample Type and Identification	Sample Location	Date Collected	Collection Depth (feet bgs)	Benzene	Toluene	Ethyl benzene	m,p-Xylenes	o-Xylene	Total Xylenes	TPHg	TPHd	MTBE	TBA	TAME	Other
NYSDEC Unrestricted Use Cleanup Objectives[2] in mg/kg:				**0.06**	**0.7**	**1**	**NA**	**NA**	**0.26**	**NA**	**NA**	**0.93**	**NA**	**NA**	**Acetone 0.05 2-butanone NA Methylene chloride 0.05 1,2-Dichloroethane 0.01**
FL-E29-14.0-011906	Off-site floor	1/19/2006	14	**4.8 J**	<0.130	<0.130	<0.130	<0.130	<0.130	<13	<13	<0.130	<2.6	<0.26	**Methylene chloride 0.19 1, 2-Dichloroethane 0.16**
FL-E30-14.0-011906	Off-site floor	1/19/2006	14	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<12	<12	<0.006	<0.12	<0.012	
FL-E35-15.0-012606	Off-site floor	1/26/2006	15	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<13 UJ	<13 UJ	<0.006 UJ	**1.5 J**	<0.013 UJ	**Acetone 0.053J**
FL-E36-15.0-020106	On-site floor	2/1/2006	15	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<13	<13	**0.24** J **J**	<0.25	<0.025	
FL-E37-15.0-020206	On-site floor	2/2/2006	15	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<12	<12	**0.150 J**	<0.12	<0.012	**Methylene chloride 0.007UJ**
FL-E40-15.0-020206	On-site floor	2/2/2006	15	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<12	<12 UJ	<0.006	<0.12	<0.012	
FL-E41-15.0-020206	On-site floor	2/2/2006	15	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<12	<12 UJ	<0.006	<0.12	<0.012	
FL-ON-1-13.0-021506	On-site floor	2/15/2006	13	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<11	<11	<0.006	<0.11	<0.011	
FL-ON-2-13.0-021606	On-site floor	2/16/2006	13	<0.006	<0.006	<0.006	**0.008**	**0.006**	**0.014**	<11	<11	<0.006	<0.11	<0.011	
FL-ON-3-13.0-021606	On-site floor	2/16/2006	13	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<11	<11	<0.005	<0.11	<0.011	
FL-ON-4-13.0-022406	On-site floor	2/24/2006	13	<0.006 R	<0.006 R	<0.006 R	<0.006 R	<0.006 R	<0.006 R	<12	<12	<0.006 R	<0.12 R	<0.012 R	**Acetone 0.014R**
FL-ON-5-13.0-022406	On-site floor	2/24/2006	13	<0.006 UJ	<0.006 UJ	<0.006 UJ	**0.016 J**	**0.01 J**	**0.026 J**	<12	<12	<0.006 UJ	<0.12 UJ	<0.012 UJ	**Acetone 0.025J**
FL-ON-6-13-022706	On-site floor, buried drum area	2/27/2006	13	<0.006 UJ	<0.006 UJ	<0.006 UJ	**0.007 J**	<0.006 UJ	**0.007 J**	<12	<12	<0.006 UJ	**0.12 J**	<0.012 UJ	**Acetone 0.03J**
FL-ON-8-13.0-030106	On-site floor, SW area	3/1/2006	13	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<13	<13	**0.014**	<0.13	<0.013	

TABLE 1

SUMMARY OF CONFIRMATION SOIL SAMPLE ANALYTICAL RESULTS, DECEMBER 2005 to MARCH 2006[1]

Former Drive & Park, Inc., Site
28 IBM Road
Poughkeepsie, New York

All results in milligrams per kilogram of soil (mg/kg)

Sample Type and Identification	Sample Location	Date Collected	Collection Depth (feet bgs)	Benzene	Toluene	Ethyl benzene	m,p-Xylenes	o-Xylene	Total Xylenes	TPHg	TPHd	MTBE	TBA	TAME	Other
NYSDEC Unrestricted Use Cleanup Objectives[2] in mg/kg:				**0.06**	**0.7**	**1**	**NA**	**NA**	**0.26**	**NA**	**NA**	**0.93**	**NA**	**NA**	**Acetone 0.05 2-butanone NA Methylene chloride 0.05 1,2-Dichloroethane 0.01**
FL-ON-9-13.0-030106	On-site floor, SW area	3/1/2006	13	**0.38**	<0.031	<0.031	<0.031	<0.031	<0.031	<12	<12	**0.15**	<0.62	<0.062	**Methylene chloride 0.14J**
FL-ON-10-13.0-030706	On-site floor, central area	3/7/2006	13	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<12	<12	<0.006	<0.12	<0.012	**Acetone 0.017**
FL-ON-11-13.0-030806	On-site floor, NW area	3/8/2006	13	**0.061 J**	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<12	<12	**0.046 J**	<0.12 UJ	<0.012 UJ	**Acetone 0.016J**
FL-ON-12-13.0-030906	On-site floor, N boundary	3/9/2008	13	<0.006	<0.006	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<11	<11	<0.006	<0.11	<0.011 UJ	
Trench Samples[3]															
TR-1-011706	Utility trench	1/17/2006	2	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<11	<11	<0.006	<0.11	<0.011	
TR-2-011706	Utility trench	1/17/2006	2	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<11	<11	<0.006	<0.11	<0.011	**Acetone 0.016**
TR-3-011706	Utility trench	1/17/2006	2	<0.006	<0.006	<0.006	**0.024**	**0.009**	**0.033**	<11	<11	<0.006	<0.11	<0.011	
TR-4-011706	Utility trench	1/17/2006	2	<0.005	<0.005	<0.005	**0.014**	<0.005	**0.014**	<11	<11	<0.005	<0.11	<0.011	

Notes

1. Soil samples analyzed by Adirondack Environmental Services of Albany, New York. Volatile Organic compounds, including oxygenates, analyzed by EPA Method 8260B. TPHg and TPHd analyzed by modified EPA Method 8015M.
2. NYSDEC, 2006, 6 NYCRR Part 375, Subpart 375-6: Remedial Program Soil Cleanup Objectives, December 14.
3. Trench samples are not excavation confirmation samples, but do provide analytical information on in-place soil.

Abbreviations

< = Not detected at or above the reporting limit shown.
bgs = below ground surface.
"BOLD" = Detected concentration.
"BOLD UNDERLINED" = Detected concentration above unrestricted use cleanup objective for volatile organic compounds in soil.
J = The analyte was positively identified; the associated numerical value is the estimated concentration of the analyte in the sample.
UJ = The analyte was not detected at or above the laboratory reporting limit shown. The reporting limit is estimated.
NA = Not Available.
R = Result was rejected because of laboratory quality assurance/quality control issues.
SW = sidewall sample; TR = utility trench sample; TP = test pit sample; FL = floor sample
TPHd = total petroleum hydrocarbons quantified as diesel.
TPHg = total petroleum hydrocarbons quantified as gasoline.
MTBE= methyl tertiary-butyl ether, TBA=tertiary-butyl alcohol, TAME= tertiary-amyl methyl ether

TABLE 2

SOIL CLEANUP OBJECTIVES

Former Drive & Park, Inc. Site
28 IBM Road
Poughkeepsie, New York

All results in milligrams per kilogram of soil (mg/kg)

			Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
Subpart 375-6 Remedial Program Soil Cleanup Objectives	Protection of Public Health	Residential	2.9	100	30	100	62
		Restricted Residential	4.8	100	41	100	100
		Commercial	44	500	390	500	500
		Industrial	89	1,000	780	1,000	1,000
	Protection of Ecological Resources		70	36	NA	0.26	NA
	Protection of Groundwater		0.06	0.7	1	1.6	0.93
	Unrestricted Use		0.06	0.7	1	0.26	0.93

Abbreviations

MTBE = methyl tertiary butyl ether.

NA = Protection of ecological resources soil cleanup objectives not developed.

TABLE 3

SUMMARY OF CONFIRMATION SOIL SAMPLE ANALYTICAL RESULTS, AUGUST 2009[1,2]

Former Drive & Park, Inc. Site
28 IBM Road
Poughkeepsie, New York

Concentrations in milligrams per kilogram (mg/kg)

Boring ID	Sample ID	Sample Date	Sample Depth (feet bgs)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE
SB-3	SB-3-14.0	8/5/2009	14.0	**0.092**	< 0.0042	**0.019**	**0.037**	**0.055**
	FL-ON-11-13.0-030806	3/8/2006	13.0	**0.061**	< 0.006	< 0.006	< 0.012	**0.046**
SB-4	SB-4-13.5	8/5/2009	13.5	< 0.0044	< 0.0044	< 0.0044	< 0.0088	**0.039**
	FL-ON-9-13.0-030106	3/1/2006	13.0	**0.38**	< 0.031	< 0.031	< 0.062	**0.15**
SB-7	SB-7-7.0	8/5/2009	7.0	< 0.0049	< 0.0049	< 0.0049	< 0.0097	< 0.0049
	SW-ON-3-7.0-030206	3/2/2006	7.0	**0.09**	**0.11**	**0.098**	**0.61**	< 0.006
SB-8	SB-8-8.0	8/5/2009	8.0	< 0.0047	< 0.0047	< 0.0047	< 0.0094	< 0.0047
	SW-ON-9-8.0-032106	3/21/2006	8.0	**0.25**	**0.41**	**0.26**	**0.451**	<0.013
Subpart 375-6 Remedial Program Unrestricted Use Soil Cleanup Objective				0.06	0.7	1	0.26	0.93

Notes

1. Samples collected from soil borings advanced at approximate locations and depths of excavation confirmation samples collected in 2006 that exceeded soil cleanup objectives. Sample SB-3-14.0 is from soil boring SB-3 and is at the approximate location and depth of sample FL-ON-11-13.0-030806. Sample SB-4-13.5 is from soil boring SB-4 and is at the approximate location and depth of sample FL-ON-9-13.0-030106. Sample SB-7-7.0 is from soil boring SB-7 and is at the approximate location and depth of sample SW-ON-3-7.0-030206. Sample SB-8-8.0 is from soil boring SB-8 and is at the approximate location and depth of sample SW-ON-9-8.0-032106.
2. Soil samples field preserved using EPA Method 5035 and analyzed using EPA Method 8260B.

Abbreviations

< = not detected at or above the laboratory reporting limit shown.
bgs = below ground surface.
"**BOLD**" = Detected concentration.
"BOLD UNDERLINED" = Detected concentration exceeds unrestricted use soil cleanup objective.
MTBE = methyl tertiary butyl ether.

TABLE 4

SUMMARY OF WETLAND SEDIMENT ANALYTICAL RESULTS FOR BTEX and MTBE[1]

Former Drive & Park, Inc. Site
28 IBM Road
Poughkeepsie, New York

Concentrations in milligrams per kilogram (mg/kg)

Sample Location	Sample ID	Sample Date	Sample Depth (feet bgs)	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
WS-1	WS-1-0.3	8/4/2009	0.3	< 0.0068	< 0.0068	< 0.0068	< 0.014	< 0.0068
	WS-1-0.8	8/4/2009	0.8	**0.011**	< 0.005	< 0.005	**0.036**	< 0.0050
	WS-1-1.8	8/4/2009	1.8	**2.3**	**27**	**170**	**800**	< 0.097
WS-2	WS-2-0.3	8/6/2009	0.3	<0.012	<0.012	<0.012	< 0.025	< 0.012
	WS-2-0.8	8/6/2009	0.8	<0.0053	<0.0053	<0.0053	< 0.011	< 0.0053
	WS-2-1.8	8/6/2009	1.8	<0.0047	<0.0047	<0.0047	< 0.0093	< 0.0047
WS-3	WS-3-0.3	8/6/2009	0.3	< 0.0082	< 0.0082	< 0.0082	< 0.016	< 0.0082
	WS-3-0.8	8/6/2009	0.8	< 0.0049	< 0.0049	< 0.0049	< 0.0098	< 0.0049
	WS-3-1.8	8/6/2009	1.8	<0.0047	<0.0047	<0.0047	< 0.0095	< 0.0047
WS-4	WS-4-0.3	8/6/2009	0.3	< 0.0067	< 0.0067	< 0.0067	< 0.013	< 0.0067
	WS-4-0.8	8/6/2009	0.8	< 0.0053	< 0.0053	< 0.0053	< 0.011	< 0.0053
	WS-4-1.8	8/6/2009	1.8	< 0.0047	< 0.0047	< 0.0047	< 0.0095	< 0.0047
WS-5	WS-5-0.3	8/5/2009	0.3	< 0.018	< 0.018	< 0.018	< 0.035	< 0.018
	WS-5-0.8	8/5/2009	0.8	< 0.0049	< 0.0049	< 0.0049	< 0.0098	< 0.0049
	WS-5-1.8	8/5/2009	1.8	< 0.0053	< 0.0053	< 0.0053	< 0.011	< 0.0053
WS-6	WS-6-1.5	8/6/2009	1.5	< 0.0048	< 0.0048	< 0.0048	< 0.0096	< 0.0048
WS-7	WS-7-1.5	8/6/2009	1.5	< 0.0052	< 0.0052	< 0.0052	< 0.010	< 0.0052
Site-specific Sediment Criteria [2]	Human Health Bioaccumulation	0.2% OC		0.0012	NA	NA	NA	NA
		12% OC		0.072	NA	NA	NA	NA
	Benthic Aquatic Life Acute Toxicity	0.2% OC		0.206	0.47	0.424	1.666	NA
		12% OC		12.306	28.2	25.44	99.96	NA
	Benthic Aquatic Life Chronic Toxicity	0.2% OC		0.056	0.098	0.048	0.184	NA
		12% OC		3.36	5.88	2.88	11.04	NA

Notes

1. All samples analyzed for BTEX and MTBE by EPA Method 8260B.
2. Site-specific criteria calculated by multiplying the NYSDEC sediment criteria by the end points of the range of organic carbon (0.2% or 12%) cited in NYSDEC's document *Technical Guidance for Screening Contaminated Sediments*, January, 1999.

Abbreviations

< = not detected at or above the laboratory reporting limit shown
bgs = below ground surface
"**BOLD**" = Detected concentration.
"BOLD UNDERLINED" = Detected concentration exceeds sediment criteria.
BTEX = benzene, toluene, ethylbenzene and xylenes
MTBE = Methyl tertiary butyl ether
OC = Organic carbon

TABLE 5

SUMMARY OF ON-SITE SOIL ANALYTICAL RESULTS FOR PESTICIDES AND PCBs, AUGUST 2009 [1]

Former Drive & Park, Inc. Site
28 IBM Road
Poughkeepsie, New York

Concentrations in milligrams per kilogram (mg/kg)

Boring ID	Sample ID	Sample Date	Sample Depth (feet bgs)	4-4'-DDD	4-4'-DDT	PCBs
SB-1	SB-1-2.1	8/5/2009	2.1	< 0.0089	< 0.0089	< 0.018
SB-2	SB-2-2.3	8/5/2009	2.3	< 0.0019	< 0.0019	< 0.018
SB-3	SB-3-2.5	8/5/2009	2.5	< 0.0017	< 0.0017	< 0.017
SB-4	SB-4-2.5	8/5/2009	2.5	< 0.0017	< 0.0017	< 0.017
SB-5	SB-5-2.4	8/5/2009	2.4	< 0019	< 0019	< 0.019
SB-6	SB-6-2.3	8/5/2009	2.3	**0.0023**	**0.003**	< 0.019
Subpart 375-6 Remedial Program Soil Cleanup Objectives	Protection of Public Health	Residential		2.6	1.7	1
		Restricted Residential		13	7.9	1
		Commercial		92	47	1
		Industrial		180	94	25
	Protection of Ecological Resources			0.0033	0.0033	1
	Protection of Groundwater			14	136	3.2
	Unrestricted Use			0.0033	0.0033	1

Notes

1. All samples analyzed for pesticides by EPA Methods 8081A and 8270, and for PCBs by EPA Method 8082.

Abbreviations

< = not detected at or above the laboratory reporting limit shown.
bgs = below ground surface.
"**BOLD**" = detected concentration.
PCBs = polychlorinated biphenyls.

TABLE 6

POST-EXCAVATION GROUNDWATER ANALYTICAL RESULTS FOR BTEX[1] AND OXYGENATES [2]

Former Drive & Park, Inc. Site
28 IBM Road
Poughkeepsie, New York

Concentrations in micrograms per liter (ug/L)

Well ID	Sample ID	Sample Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Methyl tert-Butyl Ether	Di-isopropyl ether	Ethyl tertiary-butyl ether	Tertiary butyl alcohol	Tertiary-amyl methyl ether
NYSDEC Water Quality Standards[3,4]			**1**	**5**	**5**	**5**	**10**	**NA**	**NA**	**NA**	**NA**
MW-1	MW-1-062106	06/21/06	**10.9**	**8.6 J**	**163**	**676**	**28.7 J**	<1.0	<1.0	<25.0	<1.0
	MW-1-092206	09/22/06	**8**	**3.1**	**92.3**	**374**	**25.7 J**	<1.0	<1.0	<25.0	<1.0
	MW-1-121506	12/15/06	**7.7**	**1.5**	**25.7**	**204**	**25.7**	<1.0	<1.0	<25.0	<1.0
	MW-1-022207	02/22/07	**6.8**	<1.0	**2.3**	**60.3**	**18.6**	<1.0	<1.0	<25.0	<1.0
	MW-1-060707	06/07/07	**4.6**	**2.4**	**79.7**	**804**	**9 J**	<1.0	<1.0	<25.0	<1.0
	MW-1-092707	09/27/07	**7.6**	<1.0	**15.2**	**43.5**	**22.8**	<1.0	<1.0	<25.0	<1.0
	MW-1-102108	10/21/08	**4 J**	**0.5 J**	**68 J**	**130 J**	**14**	--	--	<20	<1
	MW-1-021810	02/18/10	<1.0	<1.0	**14**	**43.0**	**9.9 J**	--	--	<20	<1.0
MW-7	MW-7-062106	06/21/06	<1.0	<1.0 UJ	<1.0	<3.0	**473**	<1.0	<1.0	**107**	**2.82**
	MW-7-092106	09/21/06	<1.0	<1.0	<1.0	<3.0	**257**	<1.0	<1.0	**105**	<1.0
	MW-7-121406	12/14/06	<1.0	<1.0	<1.0	<3.0	**290**	<1.0	<1.0	**135**	**1.43 J**
	MW-7-022207	02/22/07	<1.0	<1.0	<1.0	<3.0	**243**	<1.0	<1.0	**56.9**	**1.54**
	MW-7-060707	06/07/07	<1.0	<1.0	<1.0	<3.0	**194 J**	<1.0	<1.0	**46.2**	<1.0
	MW-7-092707	09/27/07	<1.0	<1.0	<1.0	<3.0	**93.3**	<1.0	<1.0	**47.2**	<1.0
	MW-7-102208	10/22/08	<1	<1	<1	<2	**69.0**	--	--	**67**	<1
	MW-7-021810	02/18/10	<1.0	<1.0	<1.0	<2.0	**74 J**	--	--	**72**	<1.0
MW-8	MW-8-121406	12/14/06	<1.0	<1.0	<1.0	<3.0	**19.5**	<1.0	<1.0	<25.0	<1.0
	MW-8-022107	02/21/07	<1.0	<1.0	<1.0	<3.0	**24.8**	<1.0	<1.0	<25.0	<1.0
	MW-8-060607	06/06/07	<1.0	<1.0	<1.0	<3.0	**19.7 J**	<1.0	<1.0	<25.0	<1.0
	MW-8-092707	09/27/07	<1.0	<1.0	<1.0	<3.0	**50.0**	<1.0	<1.0	<25.0	<1.0

TABLE 6

POST-EXCAVATION GROUNDWATER ANALYTICAL RESULTS FOR BTEX[1] AND OXYGENATES[2]

Former Drive & Park, Inc. Site
28 IBM Road
Poughkeepsie, New York

Concentrations in micrograms per liter (ug/L)

Well ID	Sample ID	Sample Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Methyl tert-Butyl Ether	Di-isopropyl ether	Ethyl tertiary-butyl ether	Tertiary butyl alcohol	Tertiary-amyl methyl ether
NYSDEC Water Quality Standards[3,4]			**1**	**5**	**5**	**5**	**10**	**NA**	**NA**	**NA**	**NA**
MW-10	MW-10-060707	06/07/07	<1.0	<1.0	<1.0	<3.0	**4.4 J**	<1.0	<1.0	<25.0	<1.0
MW-12	MW-12-062106 / DUP[5]	06/21/06	**313 / 310**	**166 J / 85.8 J**	**43.2 / 35.8**	**1010 / 825**	**14.5 J / 15 J**	<1.0 / <1.0	<1.0 / <1.0	**47.1 / 47.6**	<1.0 / <1.0
	MW-12-092106 / DUP[5]	09/21/06	**300 / 333**	**229 / 265**	**556 / 618**	**1820 / 2070**	**8.1 J / 7.2 J**	<1.0 / <1.0	<1.0 / <1.0	<25.0 / <25.0	<1.0 / <1.0
	MW-12-121406 / DUP[5]	12/14/06	**109 / 119**	**11.8 / 12.4**	**208 / 235**	**312 / 252**	**18.8 / 20.2**	<1.0 / <1.0	<1.0 / <1.0	**63.6 / 81.3**	<1.0 / <1.0
	MW-12-022207 / DUP[5]	02/22/07	**122 J / 220 J**	**31.8 / 29.3**	**339 J / 493 J**	**708 J / 1130 J**	**9.7 / 9.7**	<1.0 / <1.0	<1.0 / <1.0	<25.0 / <25.0	<1.0 / <1.0
	MW-12-060707 / DUP[5]	06/07/07	**171 / 184**	**33.3 / 35.3**	**496 / 509**	**846 / 845**	**2.8 J / 3.2 J**	<1.0 / <1.0	<1.0 / <1.0	<25.0 / <25.0	<1.0 / <1.0
	MW-12-027707 / DUP[5]	09/27/07	**210 / 337**	**99.9 / 94.0**	**701 / 963**	**762 / 1570**	**4.7 / 4.5**	<1.0 / <1.0	<1.0 / <1.0	<25.0 / <25.0	<1.0 / <1.0
	MW-12-102108 / DUP[6]	10/21/08	**31 J**	**14 J**	**148 J**	**238 J**	**4 J**	--	--	<100	<5
	MW-12-021810 / DUP[5]	02/18/10	**6.8 / 6.4**	**2.6 / 2.9**	**9.8 / 10**	**19 / 19**	**2.1 J / 1.8 J**	--	--	<20	<1.0
MW-103	MW-103-062106	06/21/06	<1.0	<1.0 UJ	<1.0	<3.0	**65.2**	<1.0	<1.0	<25.0	**1.28**
	MW-103-092106	09/21/06	<1.0	<1.0	<1.0	<3.0	**31.7 J**	<1.0	<1.0	<25.0	<1.0
	MW-103-121406	12/14/06	<1.0	<1.0	<1.0	<3.0	**90.2**	<1.0	<1.0	**41.5**	**1.04 J**
	MW-103-022207	02/22/07	<1.0	<1.0	<1.0	<3.0	**37.4**	<1.0	<1.0	<25.0	<1.0
	MW-103-060707	06/07/07	<1.0	<1.0	<1.0	<3.0	**28.6 J**	<1.0	<1.0	<25.0	<1.0
	MW-103-092707	09/27/07	<1.0	<1.0	<1.0	<3.0	**30.7**	<1.0	<1.0	<25.0	<1.0
MW-104	MW-104-062106	06/21/06	<1.0	<1.0 UJ	<1.0	<3.0	**7.5**	<1.0	<1.0	<25.0	<1.0
	MW-104-092106	09/21/06	<1.0	<1.0	<1.0	<3.0	**19.2 J**	<1.0	<1.0	<25.0	<1.0
	MW-104-121506	12/15/06	<1.0	<1.0	<1.0	<3.0	**2.6**	<1.0	<1.0	<25.0	<1.0
	MW-104-022207	02/23/07	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<25.0	<1.0
	MW-104-060707	06/07/07	<1.0	<1.0	<1.0	<3.0	**1.3 J**	<1.0	<1.0	<25.0	<1.0
	MW-104-092707	09/27/07	<1.0	<1.0	<1.0	<3.0	**32.8**	<1.0	<1.0	**25.9**	<1.0

TABLE 6

POST-EXCAVATION GROUNDWATER ANALYTICAL RESULTS FOR BTEX[1] AND OXYGENATES[2]

Former Drive & Park, Inc. Site
28 IBM Road
Poughkeepsie, New York

Concentrations in micrograms per liter (ug/L)

Well ID	Sample ID	Sample Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Methyl tert-Butyl Ether	Di-isopropyl ether	Ethyl tertiary-butyl ether	Tertiary butyl alcohol	Tertiary-amyl methyl ether
NYSDEC Water Quality Standards[3,4]			**1**	**5**	**5**	**5**	**10**	**NA**	**NA**	**NA**	**NA**
MW-110	MW-110-062106	06/21/06	<1.0	<1.0 UJ	<1.0	<3.0	<1.0	<1.0	<1.0	<25.0	<1.0
	MW-110-092106	09/21/06	<1.0	<1.0	<1.0	<3.0	<1.0 UJ	<1.0	<1.0	<25.0	<1.0
	MW-110-121406	12/14/06	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	**37.3**	<1.0
	MW-110-022207	02/22/07	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<25.0	<1.0
	MW-110-060707	06/07/07	<1.0	<1.0	<1.0	<3.0	<1.0 UJ	<1.0	<1.0	<25.0	<1.0
	MW-110-092707	09/27/07	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<25.0	<1.0
	MW-110-102108	10/21/08	<1	<1	<1	<2	<1	--	--	<20	<1
	MW-110-021810	02/18/10	<1.0	<1.0	<1.0	<2.0	<1.0	--	--	<20	<1.0
MW-111	MW-111-062106	06/21/06	<1.0	<1.0 UJ	<1.0	<3.0	**2.8**	<1.0	<1.0	<25.0	<1.0
	MW-111-092106	09/21/06	<1.0	<1.0	<1.0	<3.0	**1.7 J**	<1.0	<1.0	<25.0	<1.0
	MW-111-121406	12/14/06	<1.0	<1.0	<1.0	<3.0	**1.7**	<1.0	<1.0	<25.0	<1.0
	MW-111-022207	02/22/07	<1.0	<1.0	<1.0	<3.0	**2.0**	<1.0	<1.0	<25.0	<1.0
	MW-111-060707	06/07/07	<1.0	<1.0	<1.0	<3.0	**1.5 J**	<1.0	<1.0	<25.0	<1.0
	MW-111-092707	09/27/07	<1.0	<1.0	<1.0	<3.0	**23.2 J**	<1.0	<1.0	<25.0	<1.0
MW-201	MW-201-062106	06/21/06	**8.7**	<1.0 UJ	<1.0	<3.0	**25.1**	<1.0	<1.0	<25.0	<1.0
	MW-201-092106	09/21/06	<1.0	<1.0	<1.0	<3.0	**4.5 J**	<1.0	<1.0	<25.0	<1.0
	MW-201-121406	12/14/06	<1.0	<1.0	<1.0	<3.0	**8.2**	<1.0	<1.0	**105**	<1.0
	MW-201-022307	02/23/07	<1.0	<1.0	<1.0	<3.0	**4.7**	<1.0	<1.0	<25.0	<1.0
	MW-201-060607	06/06/07	<1.0	<1.0	<1.0	<3.0	**2.7 J**	<1.0	<1.0	<25.0	<1.0
	MW-201-092607	09/26/07	<1.0	<1.0	<1.0	<3.0	**6.2**	<1.0	<1.0	<25.0	<1.0
	MW-201-102108	10/21/08	<1	<1	<1	<2	**15**	--	--	<20	<1
	MW-201-021810	02/18/10	<1.0	<1.0	<1.0	<2.0	**8.2 J**	--	--	<20	<1.0
MW-202	MW-202-062106	06/21/06	**1.5**	<1.0 UJ	<1.0	<3.0	**2.2**	<1.0	<1.0	<25.0	<1.0
	MW-202-092106	09/21/06	<1.0	<1.0	<1.0	<3.0	<1.0 UJ	<1.0	<1.0	<25.0	<1.0
	MW-202-121406	12/14/06	<1.0	<1.0	<1.0	<3.0	**1.5**	<1.0	<1.0	<25.0	<1.0
	MW-202-022207	02/22/07	<1.0	<1.0	<1.0	<3.0	**1.6**	<1.0	<1.0	<25.0	<1.0
	MW-202-060607	06/06/07	<1.0	<1.0	<1.0	<3.0	<1.0 UJ	<1.0	<1.0	<25.0	<1.0
	MW-202-092607	09/26/07	**1.1**	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<25.0	<1.0

TABLE 6

POST-EXCAVATION GROUNDWATER ANALYTICAL RESULTS FOR BTEX[1] AND OXYGENATES [2]

Former Drive & Park, Inc. Site
28 IBM Road
Poughkeepsie, New York

Concentrations in micrograms per liter (ug/L)

Well ID	Sample ID	Sample Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Methyl tert-Butyl Ether	Di-isopropyl ether	Ethyl tertiary-butyl ether	Tertiary butyl alcohol	Tertiary-amyl methyl ether
NYSDEC Water Quality Standards[3,4]			**1**	**5**	**5**	**5**	**10**	**NA**	**NA**	**NA**	**NA**
MW-203	MW-203-062106	06/21/06	**3.1**	<1.0 UJ	<1.0	**9.6**	**13.2**	<1.0	<1.0	<25.0	<1.0
	MW-203-092106	09/21/06	**73.9**	<1.0	<1.0	<3.0	**6.5 J**	<1.0	<1.0	<25.0	<1.0
	MW-203-121406	12/14/06	**88.4**	<1.0	**5.0**	**9.4**	**6.1**	<1.0	<1.0	<25.0	<1.0
	MW-203-022207	02/22/07	**94.8**	<1.0	**14**	**18.2**	**5.9**	<1.0	<1.0	<25.0	<1.0
	MW-203-060707	06/07/07	**46.8**	**2.4**	**16.4**	**12.4**	**3.8 J**	<1.0	<1.0	<25.0	<1.0
	MW-203-092707	09/27/07	**60.5**	**1.4**	**65.2**	<3.0	**5.5**	<1.0	<1.0	<25.0	<1.0
	MW-203-102108	10/21/08	**97 J**	<3	**2 J**	**3 J**	**5**	--	--	<50	<3
	MW-203-021810	02/18/10	**27**	<1.0	<1.0	<2.0	**3.3 J**	--	--	<20	<1.0

Notes

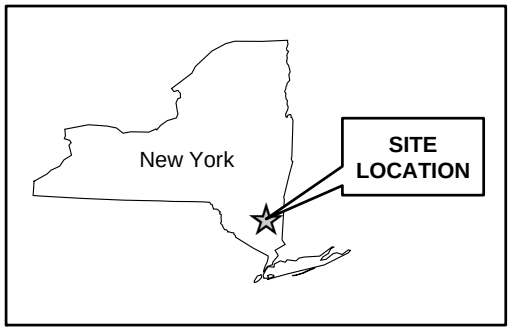
1. BTEX = benzene (B), toluene (T), ethyl benzene (E), and total xylenes (X); analyzed using EPA Method 8260B.
2. Fuel Oxygenates = methyl tertiary-butyl ether (MTBE), ethyl tertiary-butyl ether (ETBE), tertiary-butyl alcohol (TBA), di-isopropyl ether (DIPE), tertiary-amyl methyl ether (TAME); analyzed using EPA Method 8260B.
3. NYSDEC water quality standards for benzene, toluene, ethylbenzene, and xylenes from NYSDEC, 1999, 6 NYCRR Part 703: Surface Water and Groundwater Quality Standards and Effluent Limitations, August 4.
4. NYSDEC water quality guidance value for methyl tert-butyl ether from NYSDEC, 1999, Draft Addendum to the Division of Water Technical and Operational Guidance Series (TOGS) No. 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.
5. Duplicate results provided in format "sample / duplicate."
6. Results provided are from the duplicate sample with the highest detected concentrations.

Abbreviations

< = Not detected at or above the laboratory reporting limit shown.
"BOLD" = Detected concentration.
"BOLD UNDERLINED" = Detected concentration exceeds water quality standard.
J = The analyte was positively identified; the associated numerical value is the estimated concentration of the analyte in the sample.
NA = Not Available.
UJ = The analyte was not detected at or above the laboratory reporting limit shown. The reporting limit is estimated.

FIGURES

Basemap from U.S.G.S. Poughkeepsie, New York (1982)
7.5' topographic quadrangle.



N

0 2,000 4,000 Feet

SITE LOCATION MAP
Former Drive & Park, Inc. Site
28 IBM Road
Poughkeepsie, New York

By: YH	Date: 7/10/2008	Project No. 9328.000
AMEC Geomatrix		Figure 1

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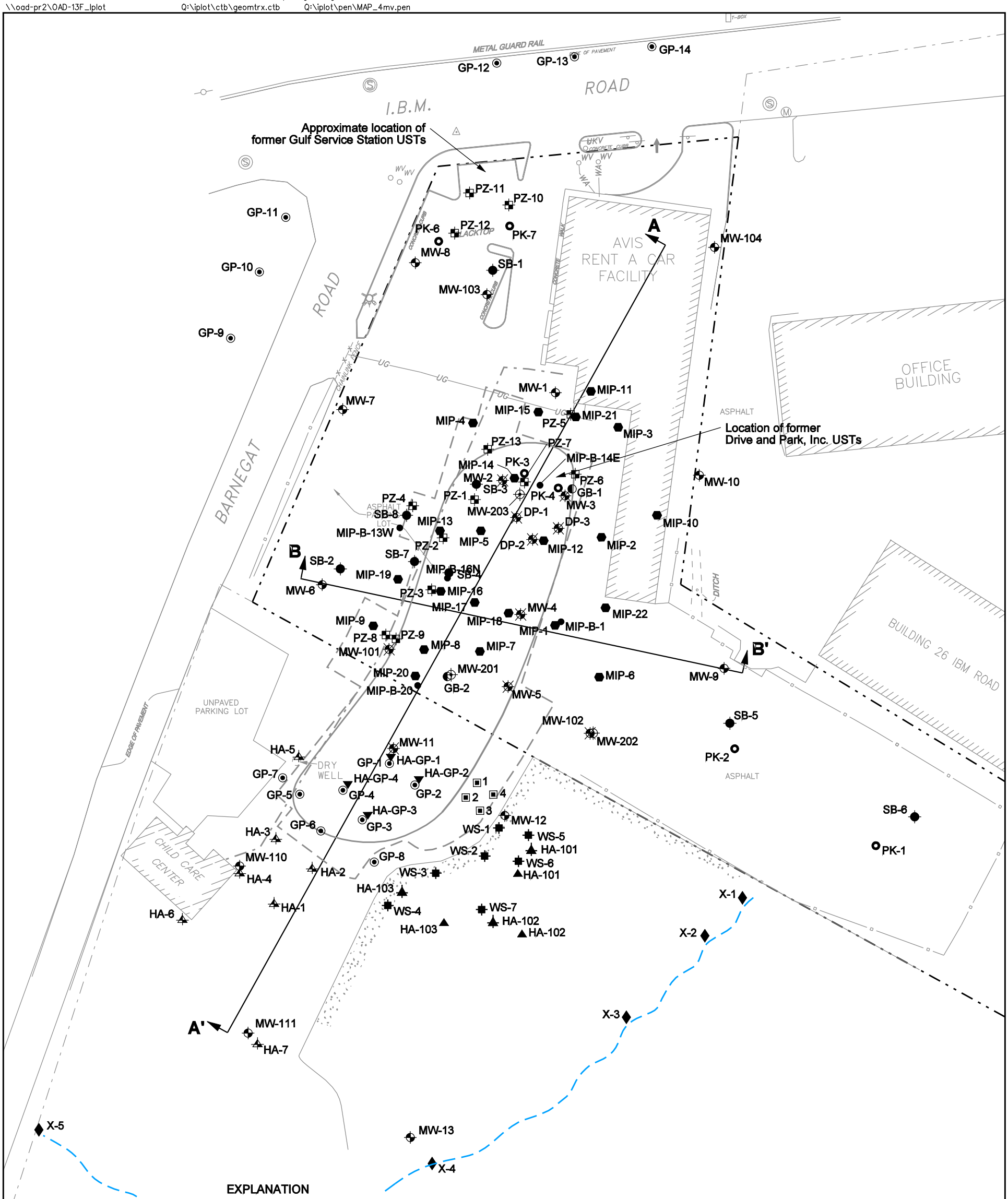
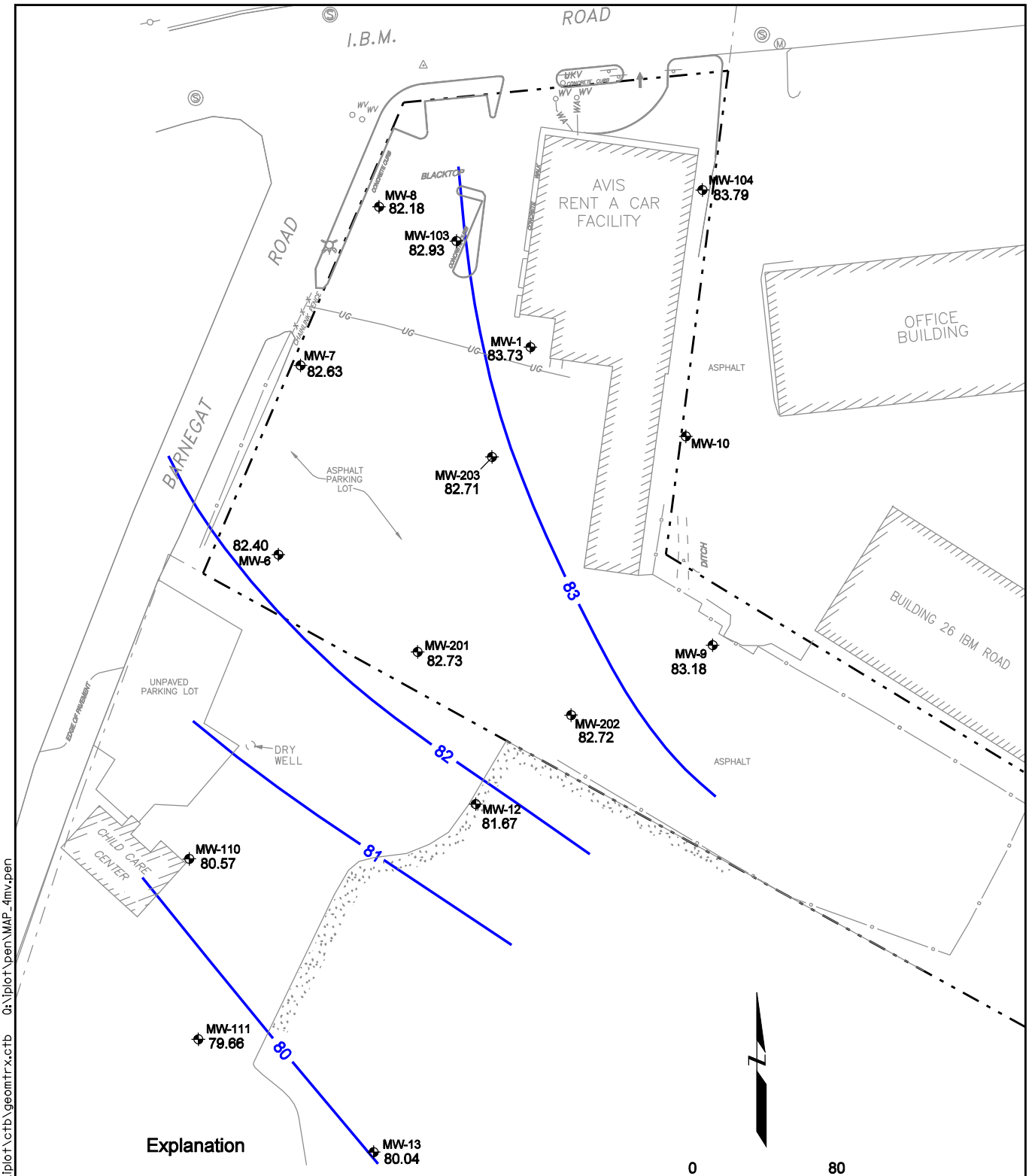


EXPLANATION

- Site boundary
- Subsurface natural gas service
- Former potential conduit (abandoned 2" steel line)
- Cross section location (Figures 3, 4)
- Former extent of residual product in soil
- Area of excavation
- Approximate soil boring/temporary piezometer location (November 2003)
- Approximate surface soil sample location (April 2003)
- Approximate grab groundwater location (November 2003)
- Approximate hollow stem auger soil sample location (December 1990)
- Monitoring well location
- Monitoring well location (installed June 2006 following IRM excavation)
- Approximate hand augered soil sample location (September 2005)
- Approximate grab groundwater location (July 2005)
- Approximate soil boring (July 2005)
- Approximate membrane interface probe/electrical conductivity boring location (June - July 2005)
- Approximate geoprobe boring location (July 2005 and July 2006)
- Destroyed monitoring well location
- Approximate geotechnical boring location (October 2005)
- Approximate wetland sediment sample location (August 2009)
- Approximate stream sediment sample location (August 2009)
- Approximate soil boring location (August 2009)

SITE PLAN
Former Drive & Park, Inc. Site
28 IBM Road
Poughkeepsie, New York

By: DA	Date: 11/9/2010	Project No. 9328.000
AMEC Geomatrix		Figure 2



Explanation

- Site boundary
- Monitoring well location
- 80 Approximate shallow groundwater surface contour; contour interval one foot
- 80.04 Groundwater elevation

Notes:

1. Elevations of wells from Morris & Associates.
2. Well MW-10 under standing water. Depth to water not measured.

POTENTIOMETRIC SURFACE MAP
February 17, 2010
Former Drive & Park, Inc. Site
28 IBM Road
Poughkeepsie, New York

By: DA	Date: 8/26/2010	Project No. 9328.000
AMEC Geomatrix		Figure 3

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Rerouted underground gas line

UG

CHAINLINK FENCE

TP-3-032306

TP-1-032306

TP-2-032306

SW-ON-8-7.0-030906

FL-ON-12-13.0-030906

FL-ON-1-13.0-021506

SW-ON-6-7.0-030706

FL-ON-11-13.0-030806

SB-3

FL-ON-2-13.0-021606

SW-ON-9-8.0-032106

SB-8

Asphalt Parking Lot

FL-ON-10-13.0-030706

FL-ON-3-13.0-021606

SW-ON-3-7.0-030206

SB-7

FL-ON-9-13.0-030106

SB-4

FL-ON-5-13.0-022406

SW-ON-4-7.0-030206

SW-ON-2-7.5-022406

FL-ON-8-13.0-030106

SW-E38-8.0-020206

FL-E40-15.0-020206

FL-ON-4-13.0-022406

FL-ON-6-13.0-022706

SW-ON-1-7.0-022406

FL-E36-15.0-020106

FL-E37-15.0-020206

FL-E41-15.0-020206

SW-E39-8.0-020206

DITCH

EXPLANATION

- Site boundary
- UG — Subsurface natural gas service
- Final extent of on-site excavation
- Sidewall confirmation sample location (approximate)
- Floor confirmation sample location (approximate)
- Sidewall confirmation sample resampling location, August 2009 (approximate)
- Floor confirmation sample resampling location, August 2009 (approximate)

N

0 30

Scale in Feet

ON-SITE EXCAVATION CONFIRMATION
SOIL SAMPLES
Former Drive & Park, Inc. Site
28 IBM Road
Poughkeepsie, New York

By: KLU	Date: 11/8/2010	Project No. 9328.000
AMEC Geomatrix		Figure 4

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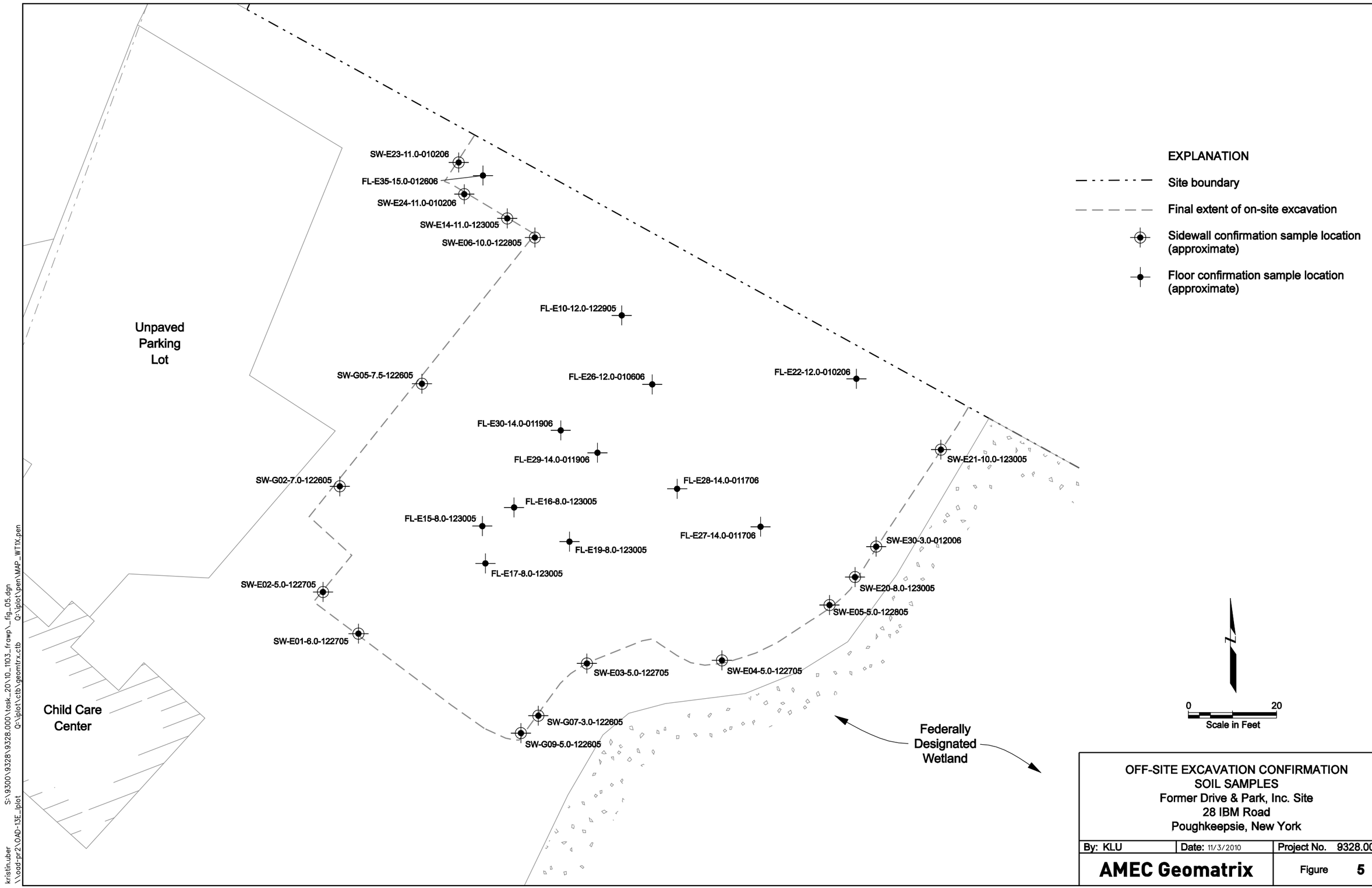

OFF-SITE EXCAVATION CONFIRMATION
SOIL SAMPLES
Former Drive & Park, Inc. Site
28 IBM Road
Poughkeepsie, New York

By: KLU	Date: 11/3/2010	Project No. 9328.000
AMEC Geomatrix		Figure 5

kristin.uber
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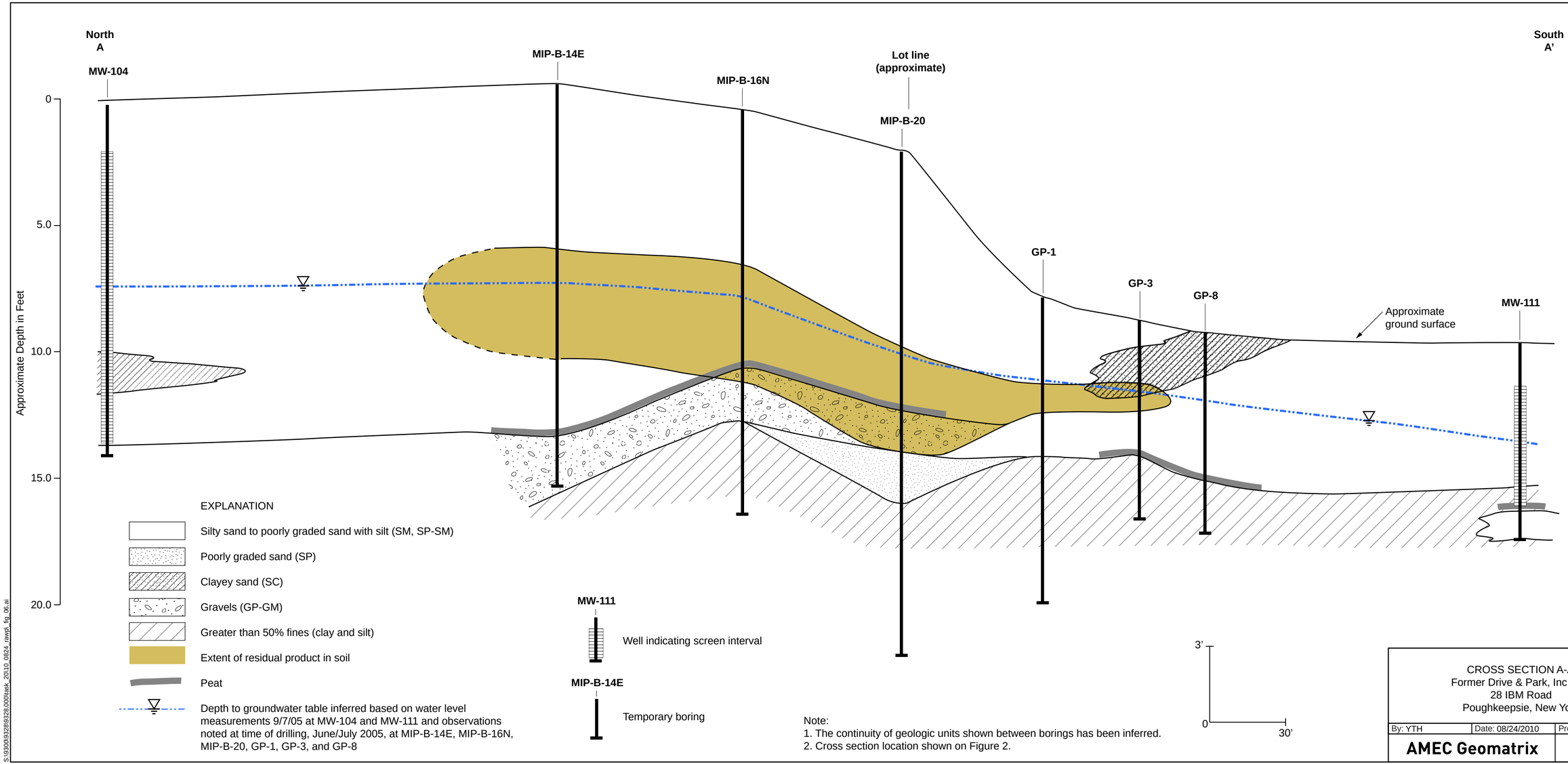
Q:\plot\ctb\geomtrx.ctb



Note:
1. The continuity of geologic units shown between borings has been inferred.
2. Cross section location shown on Figure 2.

CROSS SECTION A-A'
Former Drive & Park, Inc. Site
28 IBM Road
Poughkeepsie, New York

By: YTH	Date: 08/24/2010	Project No. 9328.000
AMEC Geomatrix	Figure 6	

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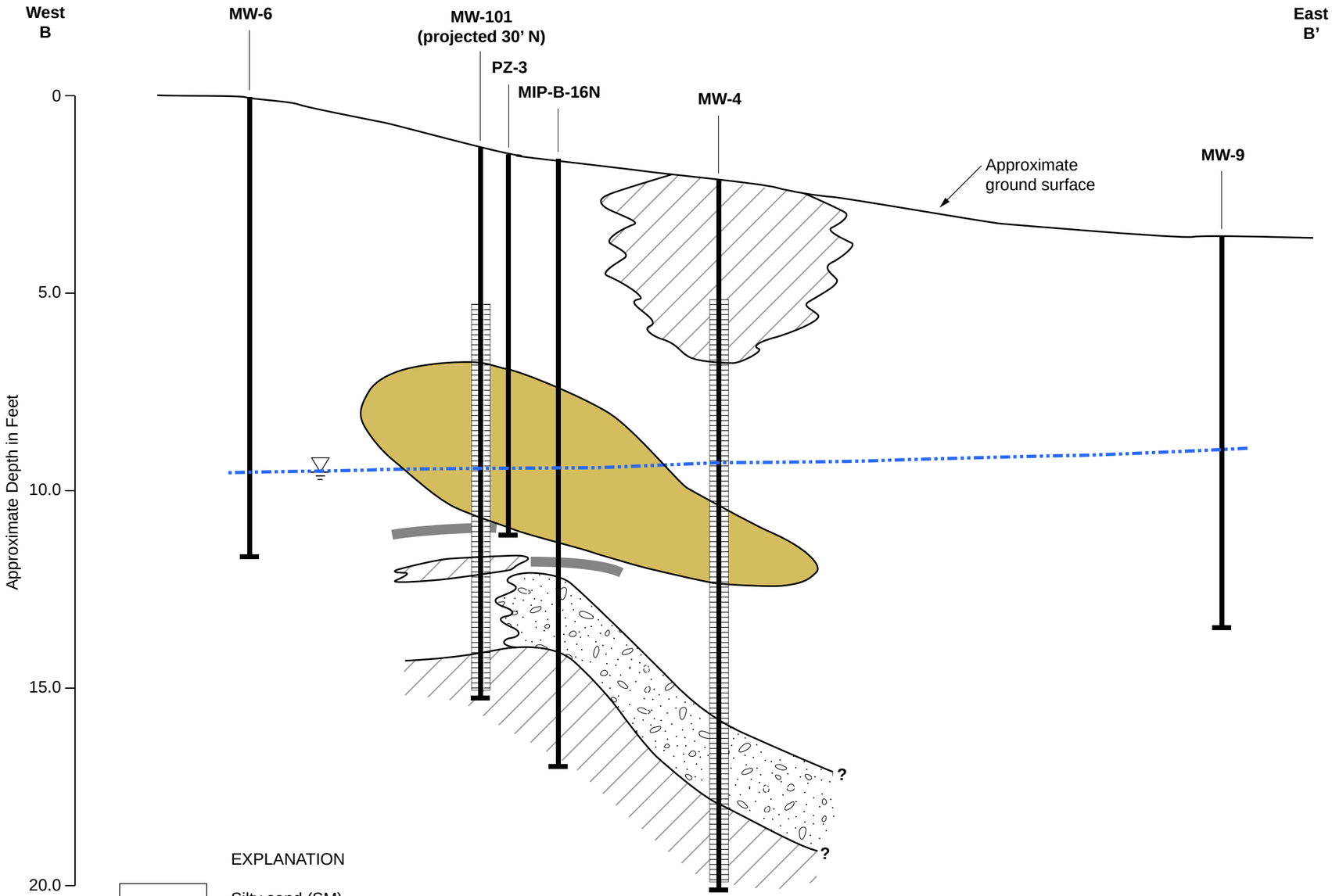

EXPLANATION

- Silty sand (SM)
- Gravels (GM, GP-GM)
- Greater than 50% fines (ML, CL/ML)
- Extent of residual product in soil
- Peat
- Depth to groundwater table inferred based on water level measurements 9/7/05 at monitoring wells MW-4, MW-6, MW-9, and MW-101

MW-4

Well indicating screen interval

MIP-B-16N

Temporary boring and monitoring wells MW-6 and MW-9, for which screened intervals not available

3’
0
30’

Notes:

1. Well completion and lithologic logs unavailable for MW-6 and MW-9. Data for this figure derived from Figure 9A of NETC’s “Final Phase II Hydrogeological Investigation,” October 15, 1992.
2. The continuity of geologic units shown between borings has been inferred.
3. Cross section location shown on Figure 2.

CROSS SECTION B-B’
Former Drive & Park, Inc. Site
28 IBM Road
Poughkeepsie, New York

By: YTH	Date: 08/24/2010	Project No. 9328.000
AMEC Geomatrix		Figure 7

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MW-8	11/03	9/05
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Xylenes	<1.0	<3.0

GP-12 (7/06)	7.5'-11'	11'-14'	14.5'-18'
Benzene	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0
Xylenes	<3.0	<3.0	<3.0

GP-13 (7/06)	7'-10.5'	11'-14'	15'-18'
Benzene	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0
Xylenes	<3.0	<3.0	<3.0

GP-14 (7/06)	7'-10.5'	11'-14'	15'-18'
Benzene	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0
Xylenes	<3.0	<3.0	<3.0

GP-10 (7/06)	10.5'-14'	15'-18'
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Xylenes	<3.0	<3.0

GP-11 (7/06)	11'-14'
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<3.0

GP-9 (7/06)	10.5'-14'
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<3.0

MW-7	11/03	9/05
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Xylenes	<1.0	<3.0

MW-6	11/03	9/05
Benzene	<1.0	22.9
Toluene	<1.0	0.2J
Ethylbenzene	<1.0	0.7J
Xylenes	<1.0	<3.0

MW-2	11/03
Benzene	433
Toluene	5820
Ethylbenzene	2650
Xylenes	12600

MW-101	11/03	9/05
Benzene	1,630	3,340
Toluene	4,520	9,010
Ethylbenzene	1,830	3,610
Xylenes	10,800	19,200

MW-11	11/03	9/05
Benzene	1,180	2,190
Toluene	14,600	586
Ethylbenzene	2,830	1,860
Xylenes	15,800	3,450

HA-5	11/03
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<2.0

HA-3	11/03
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<2.0

MW-110	7/05	9/05
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Xylenes	<3.0	<3.0

HA-6	11/03
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<2.0

HA-4	11/03
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<2.0

MW-111	7/05	9/05
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Xylenes	<3	<3.0

HA-7	11/03
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<2.0

HA-1	11/03
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<2.0

MW-13	11/03	9/05
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Xylenes	<1.0	<3.0

HA-2	11/03
Benzene	<100
Toluene	112
Ethylbenzene	630
Xylenes	2890

MW-103	11/03
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<1.0

MW-104	11/03
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<2.0

MW-1	11/03	9/05
Benzene	50.5	22.1
Toluene	4.71	1.6
Ethylbenzene	81.8	11.2
Xylenes	902	38.1

MW-3	11/03
Benzene	328
Toluene	83.9
Ethylbenzene	186
Xylenes	962

MW-10	11/03	9/05
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Xylenes	<1.0	<3.0

MW-4	11/03
Benzene	1150
Toluene	1160
Ethylbenzene	517
Xylenes	2880

MW-9	11/03	9/05
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Xylenes	<1.0	<3.0

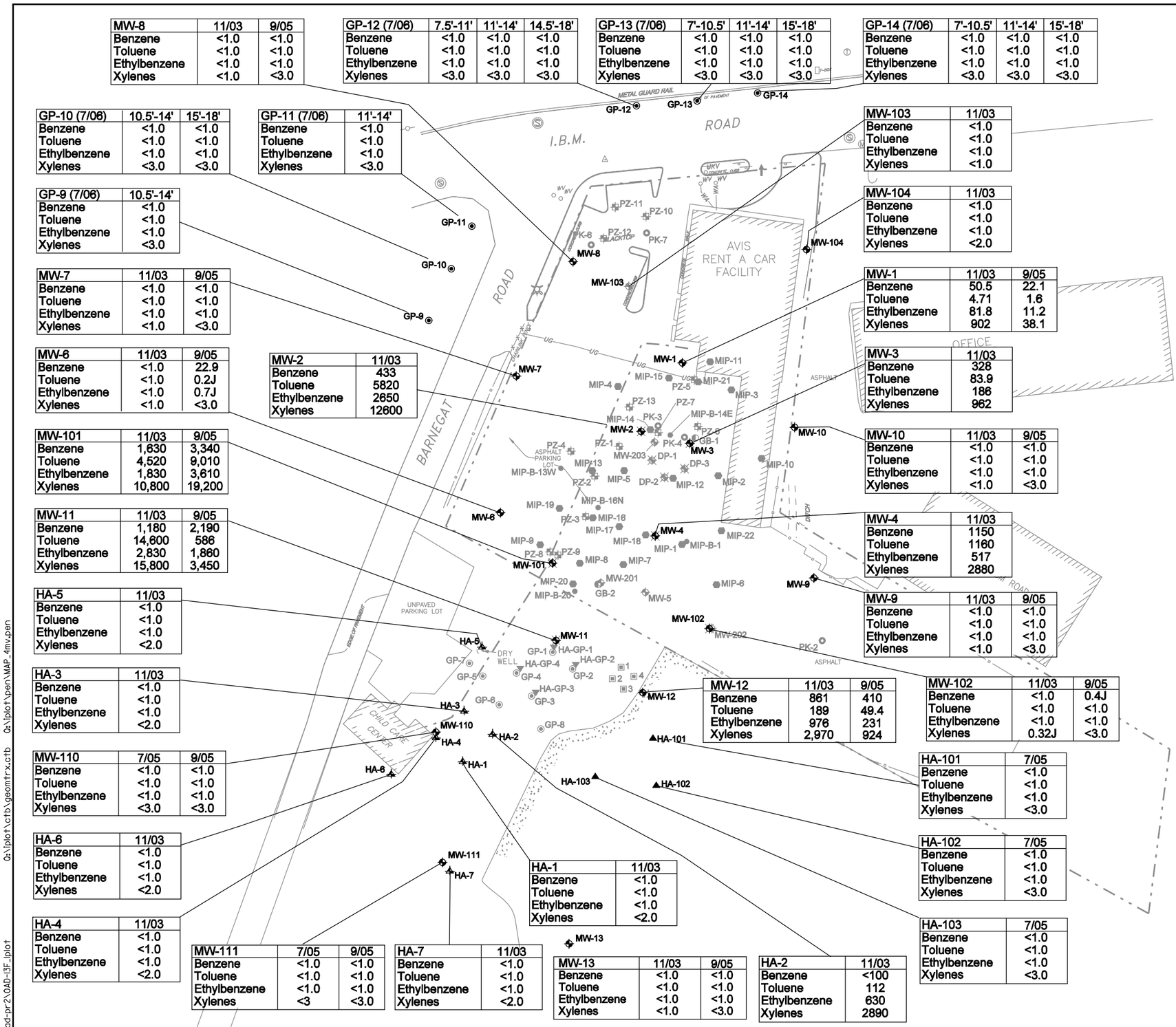
MW-12	11/03	9/05
Benzene	861	410
Toluene	189	49.4
Ethylbenzene	976	231
Xylenes	2,970	924

MW-102	11/03	9/05
Benzene	<1.0	0.4J
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Xylenes	0.32J	<3.0

HA-101	7/05
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<3.0

HA-102	7/05
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<3.0

HA-103	7/05
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<3.0



Explanation

- Approximate hand augered soil sample location (Sept. 2005)
- Approximate grab groundwater location (July 2005)
- Approximate soil boring location (July 2005)
- Approximate membrane interface probe/electrical conductivity boring location (June - July 2005)
- Approximate geoprobe boring location (July 2005 and July 2006)
- Approximate grab groundwater location (November 2003)
- Monitoring well location
- Approximate soil boring/temporary piezometer location (November 2003)
- Approximate surface soil sample location (April 2003)
- UG — Subsurface natural gas service
- Site boundary
- Former potential conduit (abandoned 2" steel line)

Boring number/Well I.D.

MW-2	11/03
Benzene	433
Toluene	5820
Ethylbenzene	2650
Xylenes	12600

Sample date

Constituents (results in micrograms per liter)

J = Result considered an estimate
< = Analyte not detected at or above laboratory reporting limit indicated

Grab groundwater sample number and date

GP-11 (7/06)	11'-14'
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<3.0

Grab groundwater sample depth

Constituents (results in micrograms per liter)

N

0 80

Scale in Feet

APPROXIMATE AERIAL DISTRIBUTION OF PETROLEUM COMPOUNDS IN GROUNDWATER PRIOR TO INTERIM REMEDIAL MEASURE EXCAVATION
Former Drive & Park, Inc. Site
28 IBM Road
Poughkeepsie, New York

By: YTH | Date: 8/26/2010 | Project No. 9328.000

AMEC Geomatrix | Figure 8

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MW-8	11/03	9/05
MTBE	40.4	86.5
TAME	<1.0	0.72J
TBA	NS	<25.0

GP-12 (7/06)	7.5'-11'	11'-14'	14.5'-18'
MTBE	21.1	28.9	48.6
TAME	<1.0	<1.0	1.10
TBA	<25.0	<25.0	<25.0

GP-13 (7/06)	7'-10.5'	11'-14'	15'-18'
MTBE	39.7	86.8	16.2
TAME	<1.0	1.19	<1.0
TBA	<25.0	<25.0	<25.0

GP-14 (7/06)	7'-10.5'	11'-14'	15'-18'
MTBE	23.7	32.5	<1.0
TAME	<1.0	1.16	<1.0
TBA	<25.0	<25.0	<25.0

GP-10 (7/06)	10.5'-14'	15'-18'
MTBE	1.8	<1.0
TAME	<1.0	<1.0
TBA	<25.0	<25.0

GP-11 (7/06)	11'-14'
MTBE	<1.0
TAME	<1.0
TBA	<25.0

GP-9 (7/06)	10.5'-14'
MTBE	3.3
TAME	<1.0
TBA	96.1

MW-7	11/03	9/05
MTBE	645	549
TAME	9.45	2.33
TBA	NS	139

MW-6	11/03	9/05
MTBE	154	182
TAME	<1.0	0.91J
TBA	NS	3270J

MW-2	11/03
MTBE	17.5
TAME	<1.0
TBA	NS

MW-101	11/03	9/05
MTBE	227	134
TAME	<100	<1.0
TBA	NS	3180

MW-11	11/03	9/05
MTBE	<100	209
TAME	<100	<1.0
TBA	NS	308

HA-5	11/03
MTBE	<1.0
TAME	<1.0
TBA	NS

HA-3	11/03
MTBE	<1.0
TAME	<1.0
TBA	NS

MW-110	7/05	9/05
MTBE	<1.0	<1.0
TAME	<1.0	<1.0
TBA	<25.0	<25.0

HA-6	11/03
MTBE	<1.0
TAME	<1.0
TBA	NS

HA-4	11/03
MTBE	<1.0
TAME	<1.0
TBA	NS

MW-111	7/05	9/05
MTBE	2.6	11.2
TAME	<1.0	<1.0
TBA	<25.0	41.1

HA-7	11/03
MTBE	<1.0
TAME	<1.0
TBA	NS

HA-1	11/03
MTBE	<1.0
TAME	<1.0
TBA	NS

HA-2	11/03
MTBE	<100
TAME	<100
TBA	NS

HA-103	7/05
MTBE	41.4
TAME	<1.0
TBA	<25.0

MW-13	11/03	9/05
MTBE	1.31	1.4
TAME	<1.0	<1.0
TBA	NS	<25.0

MW-103	11/03
MTBE	6.35
TAME	<1.0
TBA	NS

MW-104	11/03
MTBE	9.77
TAME	<1.0
TBA	NS

MW-1	11/03	9/05
MTBE	13.1	20.1
TAME	<1.0	<1.0
TBA	NS	<25.0

MW-3	11/03
MTBE	21.1
TAME	<1.0
TBA	NS

MW-10	11/03	9/05
MTBE	24	16.3
TAME	<1.0	0.32J
TBA	NS	<25.0

MW-4	11/03
MTBE	77.4
TAME	<1.0
TBA	NS

MW-9	11/03	9/05
MTBE	1.3	1.3
TAME	<1.0	<1.0
TBA	NS	<25.0

MW-102	11/03	9/05
MTBE	1.12	2.3
TAME	<1.0	<1.0
TBA	NS	<25.0

MW-12	11/03	9/05
MTBE	9.7J	13.4
TAME	<10	<10
TBA	NS	<25.0

HA-101	7/05
MTBE	2.9
TAME	<1.0
TBA	<25.0

HA-102	7/05
MTBE	3.3
TAME	<1.0
TBA	<25.0

Explanation

- Approximate hand augered soil sample location (Sept. 2005)
- Approximate grab groundwater location (July 2005)
- Approximate soil boring (July 2005)
- Approximate membrane interface probe/electrical conductivity boring location (June - July 2005)
- Approximate geoprobe boring location (July 2005 and July 2006)
- Approximate grab groundwater location (November 2003)
- Monitoring well location
- Monitoring well location (installed post-excavation 2006)
- Approximate soil boring/temporary piezometer location (November 2003)
- Approximate surface soil sample location (April 2003)
- Subsurface natural gas service
- Site boundary
- Former potential conduit (abandoned 2" steel line)

MW-2	11/03
MTBE	17.5
TAME	<1.0
TBA	NS

Boring number
Sample date
Constituents (results in micrograms per liter)

Grab groundwater number and sample date

GP-11 (7/06)	11'-14'
MTBE	<1.0
TAME	<1.0
TBA	<25.0

Grab groundwater sample depth
Constituents (results in micrograms per liter)

MTBE = methyl-tert butyl ether
TAME = tertiary-amyl methyl either
TBA = tert butyl alcohol
NS = not sampled
J = Result considered an estimate
< = Analyte not detected at or above laboratory reporting limit indicated

0 80
Scale in Feet

APPROXIMATE AERIAL DISTRIBUTION OF
FUEL OXYGENATES IN GROUNDWATER
PRIOR TO INTERIM REMEDIAL MEASURE EXCAVATION
Former Drive & Park, Inc. Site
28 IBM Road
Poughkeepsie, New York

By: YTH | Date: 8/26/2010 | Project No. 9328.000

AMEC Geomatrix | Figure 9

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