

#### FINAL ENGINEERING REPORT

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.

December 29, 2010

Project 0093280000



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Jamie L. Verrigni Environmental Engineer New York State Department of Environmental Conservation Division of Environmental Remediation Remedial Bureau C, Section A 625 Broadway, 11<sup>th</sup> Floor Albany, NY 12233-7014

Subject: Final Engineering Report 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 Engineering Report*, dated December 29, 2010, for the Former Drive & Park, Inc. Site in Poughkeepsie, New York. This report was prepared by AMEC Geomatrix, Inc. on behalf of Avis Rent A Car System, Inc.

A draft *Final Engineering Report* (FER) was submitted to the New York State Department of Environmental Conservation (NYSDEC) on August 30, 2010. The NYSDEC provided comments on the draft FER in a letter dated September 29, 2010. Based on those comments, a revised draft FER was submitted to the NYSDEC on December 20, 2010.

The NYSDEC approved the December 20, 2010 FER for final certification in a telephone conversation and electronic mail communication between Jamie Verrigni of the NYSDEC and David Averill of AMEC Geomatrix on December 29, 2010.

Please contact either of the undersigned if you have any questions.

Sincerely yours, AMEC GEOMATRIX, INC.

David Avenil

Project Hydrogeologist

Edward P. Conti, CEG, CHG Principal Geologist

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Enclosure

cc: Rose Pelino, Director Environmental Affairs, Avis Rent A Car System, Inc. Jon Brooks, Esq., Phillips Nizer Michael J Ryan, PE, New York State, Department of Environmental Conservation Anthony Perretta, New York State Department of Health

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#### CERTIFICATION

I, Kelly McIntosh, am currently a registered professional engineer licensed by the State of New York, I had primary direct responsibility for implementation of the remedial program activities, and I certify that the Remedial Action Work Plan was implemented and that all construction activities were completed in substantial conformance with the Department-approved Remedial Action Work Plan.

I certify that the data submitted to the Department with this Final Engineering Report demonstrates that the remediation requirements set forth in the Remedial Action Work Plan and in all applicable statutes and regulations have been or will be achieved in accordance with the time frames, if any, established in the remedy.

I certify that all use restrictions, Institutional Controls, Engineering Controls, and/or any operation and maintenance requirements applicable to the site are contained in an environmental easement created and recorded pursuant ECL 71-3605 and that all affected local governments, as defined in ECL 71-3603, have been notified that such easement has been recorded.

I certify that a Site Management Plan has been submitted for the continual and proper operation, maintenance, and monitoring of all Engineering Controls employed at the site, including the proper maintenance of all remaining monitoring wells, and that such plan has been approved by Department.

068079

NYS Professional Engineer #

Date

Signature



AMEC Geomatrix, Inc.



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#### ACRONYMS

Acronym	Definition
bgs	below ground surface
CPP	Citizen Participation Plan
EC	Engineering Control
FER	Final Engineering Report
IC	Institutional Control
NYSDEC	New York State Department of Environmental Conservation
QAPP	Quality Assurance Project Plan
RAO	Remedial Action Objective
RAWP	Remedial Action Work Plan
SCO	Soil Cleanup Objective
SMP	Site Management Plan
TAGM	Technical and Administrative Guidance Memorandum
UST	Underground Storage Tank



#### FINAL ENGINEERING REPORT

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

#### 1.0 BACKGROUND AND SITE DESCRIPTION

Avis Rent A Car System, Inc. entered into a Brownfield Cleanup Agreement with the New York State Department of Environmental Conservation (NYSDEC) in July, 2005, to investigate and remediate a 2.7-acre property located in the town of Poughkeepsie, Dutchess County, New York. The property was remediated to commercial use and is being used as a rental car business.

The site is located in the County of Dutchess, New York and is identified as Block 04 and Lot 903139 on the town of Poughkeepsie Tax Map # 6060. The site is situated on an approximately 2.7-acre area bounded by IBM Road to the north, a child care business and wetland to the south, a commercial plaza and wooded / residential properties to the east, and Barnegat Road to the west (see Figure 1). The boundaries of the site are fully described in Appendix A: Survey Map, Metes and Bounds.

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. A small portion of the site at the extreme southeast is undeveloped and wooded. 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. Future uses of the adjacent property to the south are anticipated to be a child care facility and/or residential and a wetland.

Multiple investigations at the site determined that impacted soil and groundwater were present as the result of a release from a gasoline UST that was removed from the site in 1986. Free product was found in one monitoring well in the area of the former UST, and impacted soil and groundwater extended onto the adjacent property to the south. Interim remedial measures consisted of removal of free product from the surface of the water table in 2003, excavation of approximately 23,900 tons of impacted soil from the site and from the adjacent property in 2005 and 2006, extraction of 622,452 gallons of impacted groundwater from the interim remedial excavation in 2005 and 2006, and placement of oxygen release compound in backfill materials in 2006.



Confirmation soil sampling conducted at the completion of the interim remedial measure excavation indicated that four confirmation soil samples at the site contained concentrations of benzene above the unrestricted use soil cleanup objective. Two of these samples also contained total xylenes above the unrestricted use soil cleanup objective (SCO). Resampling of these four confirmation soil sample locations in August 2009 indicated that the concentration of benzene in only one sample at the site remained above the unrestricted use SCO. The concentration of benzene detected in the one floor sample (14 feet below ground surface) was 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. Benzene was either not detected or was below the unrestricted use SCO in the other three locations resampled in 2009 and in all other on-site confirmation samples. Toluene, ethylbenzene and total xylenes were either not detected or were detected at concentrations below unrestricted use SCOs in the four locations resampled in 2009 and in all other on-site confirmation samples.

Confirmation soil sampling conducted on the adjacent property to the south indicated three floor sample locations and three sidewall sample locations with concentrations of benzene, toluene, ethylbenzene and/or total xylenes above the unrestricted use SCOs. The concentrations of benzene detected in one floor sample (12 feet below ground surface) and one sidewall sample (5 feet below ground surface) were 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 concentration of benzene detected in one floor sample (14 feet below ground surface) was above the SCOs for residential use and protection of groundwater but was at or below the SCOs for restricted residential use, commercial use, industrial use, and protection of ecological resources. The concentration of total xylenes detected in one sidewall sample (10 feet below ground surface) was above the SCOs for protection of groundwater and protection of ecological resources but was below the SCOs for residential use, restricted residential use, commercial use and industrial use. The concentration of benzene detected in one floor sample (14 feet below ground surface) was 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 concentration of total xylenes detected in that same floor sample was 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. The concentrations of toluene, ethylbenzene and total xylenes detected in one sidewall sample (10 feet below ground surface) were above the SCOs for protection of groundwater and/or protection of ecological resources. The concentration of toluene was 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 concentration of ethylbenzene was above the SCO for protection of groundwater but below the SCOs for residential use, restricted residential use, commercial use, and industrial use. The concentration of total xylenes was above the SCO for protection of



groundwater and protection of ecological resources, but below the SCOs for residential use, restricted residential use, commercial use, and industrial use. Benzene was not detected at or above the laboratory reporting limit; however, the reporting limit was 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. Petroleum hydrocarbons were either not detected or were below unrestricted use SCOs in all the other off-site confirmation samples.

A very limited area of buried sediment within the designated wetland contains petroleum hydrocarbons above aquatic life sediment criteria.

Shallow soil samples were collected at the site and analyzed for polychlorinated biphenyls (PCBs) and pesticides in August 2009 (AMEC, 2010). Six soil samples were collected from approximately two feet below ground surface (bgs). The locations of the soil borings from which the samples were collected (SB-1 through SB-6) are shown in Figure 2. No PCBs or pesticides were detected above the unrestricted use SCOs.

Two on-site and one off-site groundwater monitoring wells contain concentrations of petroleum hydrocarbons above water quality standards.

An electronic copy of this FER with all supporting documentation is included as Appendix B.

#### 2.0 SUMMARY OF SITE REMEDY

#### 2.1 REMEDIAL ACTION OBJECTIVES

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, 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). Soil cleanup objectives are summarized in Table 1. The groundwater cleanup goals are the groundwater quality standards listed in NYSDEC 6 NYCRR Part 703: Surface Water and Groundwater Quality Standards and Effluent Limitations (NYSDEC, 1999a). Groundwater quality standards are listed in Table 2 with a summary of the chemical analysis results for groundwater samples collected after completion of the interim remedial measure excavation.

Based on the results of the Remedial Investigation, the following Remedial Action Objectives (RAOs) were identified for this site.

#### 2.1.1 Groundwater RAOs

The RAO for groundwater is to prevent ingestion of groundwater containing contaminant levels exceeding drinking water standards.



#### 2.1.2 Soil RAOs

The RAO for soil is to prevent human exposure to contaminants remaining in soil.

#### 2.2 DESCRIPTION OF SELECTED REMEDY

The site was remediated in accordance with the NYSDEC-approved *Interim Remedial Measure Work Plan* dated November 2005 (AMEC, 2005) and the remedy selected by the NYSDEC in the Decision Document dated December 14, 2010.

The factors considered during the selection of the remedy are those listed in 6NYCRR 375-1.8. The following are the components of the selected remedy:

- 1. Maintenance of 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 to prevent human exposure to remaining contamination at the site;
- 2. Maintenance of a network of monitoring wells;
- 3. Execution and recording of an Environmental Easement to restrict land use to commercial and/or industrial and prevent future exposure to any contamination remaining at the site;
- Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting; and
- 5. Periodic certification of the Institutional and Engineering Controls listed above.

#### 3.0 INTERIM REMEDIAL MEASURES

#### 3.1 INTERIM REMEDIAL MEASURES

Interim remedial measures were conducted at the site in accordance with the NYSDECapproved *Interim Remedial Action Work Plan* dated November, 2005. The interim remedial measures were conducted under the direction and supervision of Geomatrix Consultants, Inc. (Geomatrix), now AMEC Geomatrix, Inc., and are described in detail in the *Remedial Investigation and Interim Remedial Measure Implementation Report* dated April, 2007 (Geomatrix, 2007). The information and certifications made in the *Remedial Investigation and Interim Remedial Measure Implementation Report* were relied upon to prepare this report and certify that the remediation requirements for the site have been met.

The following is a summary of the interim remedial measures performed at the site:

- 1. Removal of floating free product from the surface of the water table, groundwater and vapor in the area of the former USTs using high vacuum extraction;
- 2. Excavation of approximately 23,900 tons of impacted soil to depths ranging from approximately 8 to 15 feet bgs;
- 3. Construction and maintenance of a site cover system consisting of at least one foot of clean soil or an impermeable surface;

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- 4. Extraction and treatment of approximately 622,452 gallons of impacted groundwater during excavation activities;
- 5. Placement of oxygen release compound in backfill material to enhance biodegradation of remaining petroleum hydrocarbons;
- 6. Restoration of the site and neighboring property with clean backfill, landscaping, and asphalt to pre-excavation conditions.

#### 3.1.1 High-Vacuum Extraction

Avis conducted high-vacuum extraction at the site from mid-April 2003 until September 2003. High-vacuum extraction was conducted by Clean Venture/CycleChem of Elizabeth, New Jersey, under observation of MFG, Inc. of Woburn, Massachusetts. The objective of the high-vacuum extraction was to remove free phase gasoline floating on groundwater, 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 product, 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. MW-2 was monitored at least semiannually until the well was destroyed during on-site excavation in 2006, and free product was not detected again until September 2005, shortly before excavation began, when 0.01 feet of free product was measured. All of the wells used for high-vacuum extraction were destroyed during the interim remedial excavation in 2006.

#### 3.1.2 Excavation, Backfilling and Restoration

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.

Excavation, backfilling and restoration activities were performed by Op-Tech Environmental, Inc. of Albany, New York (Op-Tech), under observation of Geomatrix.

#### 3.1.2.1 Excavation

During the interim remedial measure excavation, which extended below the water table to depths of 8 to 15 feet bgs, approximately 23,900 tons of soil was removed for off-site disposal. Three facilities received a total of 23,895.97 tons of impacted soil. These included the Soil Safe, Inc. facility in Logan Township, New Jersey (19,904.97 tons), the Clean Earth, Inc. facility in Carteret, New Jersey (3850.8 tons), and the Clean Earth, Inc. facility in New Castle, Delaware (140.2 tons). Waste manifests and certificates of destruction for the excavated soil are included

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in the *Remedial Investigation and Interim Remedial Measure Implementation Report*, included in electronic format as Appendix C of this report.

The excavation was extended laterally and vertically to remove petroleum hydrocarbons present in soil in excess of soil cleanup objectives<sup>1</sup>.

Oxygen release compound, a proprietary material provided by Regenesis, Inc., was added to the backfill material in the on-site and off-site excavation areas to enhance the biodegradation of petroleum hydrocarbons remaining in groundwater. 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 water table (3 to 6 feet bgs). A total of approximately 3,940 gallons of oxygen release compound solution was applied to the backfill material.

The area where excavation was performed is shown in Figure 2, and locations of confirmation soil samples are shown in Figures 3 and 4. Additional details on the source and quality of the backfill and site restoration activities are provided below. Excavation and confirmation sampling activities are described in detail in the April 2007 *Remedial Investigation and Interim Remedial Measure Implementation Report* (Geomatrix, 2007).

#### 3.1.2.2 Backfilling

The excavation was backfilled using excavated soil from the site that was tested and determined to be acceptable for re-use, and soil imported to the site from off-site sources. Oxygen release compound was applied to the backfill as it was placed. The sources and quantities of material used to backfill the excavation are summarized as follows:

- 1. Approximately 950 cubic yards of excavated soil that was determined to be suitable for re-use was used as backfill material, as discussed in the April 2007 *Remedial Investigation and Interim Remedial Measure Implementation Report.*
- Approximately 26,925 tons of fill material were imported for use in backfilling the excavation. Imported fill materials used for this project included <sup>3</sup>/<sub>4</sub>-inch drain rock (approximately 1,800 tons), Item 4 aggregate base (approximately 20,000 tons), and stone sand (approximately 1,000 tons) procured by Op-Tech from Tilcon Industries of New Hamburg, New York; general fill (approximately 3,800 tons) procured by Op-

<sup>&</sup>lt;sup>1</sup> 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).



Tech from Red Wing Sand and Gravel of Lagrangeville, New York; and topsoil (approximately 325 tons) procured by Op-Tech from Black Top Maintenance of Washington, New York.

3. To enhance biodegradation of petroleum hydrocarbons in the subsurface, 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. The added oxygen enhances aerobic degradation of remaining dissolved-phase petroleum hydrocarbons in groundwater.

Prior to utilizing imported backfill materials, Geomatrix inspected backfill material sources, reviewed existing analytical data from backfill samples, if available, and collected additional chemical analysis data from samples of the imported backfill material. Inspections of off-site backfill material sources and associated sample collection and analysis are described in Appendix Q of the April 2007 *Remedial Investigation and Interim Remedial Measure Implementation Report* (Geomatrix 2007), and the analytical results for these samples are presented in Appendix L of that report. Based on the results of backfill material source inspections and chemical analyses, material used to backfill the excavation during interim remedial measure implementation did not contain site-related chemicals of concern above the unrestricted SCOs published in 6 NYCRR Part 375, Subpart 375-6 (NYSDEC, 2006). The analytical results for the backfill samples confirm that the soils used to backfill and restore the excavation are suitable for unrestricted use.

#### 3.1.2.3 Restoration

Both the on-site excavation area and off-site excavation area on the adjacent property to the south were restored.

Off-site restoration activities following backfilling included the following:

- placing and compacting approximately 1 foot of topsoil,
- grading,
- removing all interim erosion control measures,
- installing new property boundary fencing,
- planting grass and trees, and
- installing new playground equipment and other amenities.

On-site restoration activities following backfilling included the following:

- repaving and re-striping,
- repairing a storm drain catch basin in the soil stockpile area that was damaged,
- reinstalling light poles removed to facilitate excavation, and
- installing groundwater monitoring wells to replace wells removed during the interim remedial measure excavation.



#### 3.1.3 Groundwater Extraction

The excavation was dewatered 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.

#### 4.0 DESCRIPTION OF REMEDIAL ACTIONS PERFORMED

Remedial activities completed at the site were conducted in accordance with the NYSDECapproved *Final Remedial Action Work Plan* (RAWP) for the Former Drive & Park, Inc. site, dated November 9, 2010 (AMEC, 2010b). There were no deviations from the RAWP.

Remedial actions include maintenance of the site cover system across the site, groundwater monitoring, and implementation of the Institutional Controls of restricting use of the site to commercial and industrial uses and restricting groundwater use at the site. Other than the building area and undisturbed paved areas, the site cover system was constructed during implementation of the interim remedial measures in 2006. All intrusive activities (excavation, dewatering, backfilling and restoration) were conducted as part of the interim remedial measure in 2005 and 2006 and were reported in the *Remedial Investigation and Interim Remedial Measure Implementation Report* dated April, 2007 (Geomatrix, 2007). Groundwater monitoring wells will be sampled next in 2011.

#### 4.1 GOVERNING DOCUMENTS

#### 4.1.1 Site Specific Health & Safety Plan

All remedial work performed under this remedial action was in full compliance with governmental requirements, including site and worker safety requirements mandated by Federal OSHA. Site-specific Health and Safety Plans were complied with during the interim remedial measure implementation and groundwater monitoring. A site-specific Health and Safety Plan will also be complied with during the ongoing groundwater monitoring.

#### 4.1.2 Air Monitoring Plan

All remedial work completed as part of the interim remedial measure was conducted in accordance with the air monitoring plan included in the *Interim Remedial Measure Work Plan* (Geomatrix, 2005) and as discussed in the *Remedial Investigation and Interim Remedial Measure Implementation Report (Geomatrix, 2007)*.

#### 4.1.3 Quality Assurance Project Plan (QAPP)

The QAPP was included as Appendix F of the Site Management Plan approved by the NYSDEC. The QAPP describes the specific policies, objectives, organization, functional activities and quality assurance/quality control activities designed to achieve the project data



quality objectives. The QAPP will be followed during sampling of the groundwater monitoring well network.

#### 4.1.4 Community Participation Plan

A Citizen Participation Plan (CPP) was prepared as part of the *Interim Remedial Measure Work Plan* (Geomatrix, 2005). As part of the CPP, document repositories were established at the Adriance Memorial Public Library in Poughkeepsie and at the NYSDEC Region 3 Office in New Paltz. A mailing list of potentially affected/interested individuals and groups was also prepared. A fact sheet advising the public of the Draft Remedial Action Work Plan's availability for review was mailed to those on the mailing list in September 2010. A fact sheet announcing the completion of the remedial action and review of the *Final Engineering Report* was mailed to those on the site's mailing list on November 17, 2010. Future activities will include a fact sheet within 10 days of signing the Certificate of Completion.

#### 4.2 REMEDIAL PROGRAM ELEMENTS

Work conducted as part of the interim remedial measures described in Section 3 consists of high-vacuum extraction conducted from April to September 2003 and excavation, backfilling and restoration conducted from December 2005 to June 2006. Remedial actions conducted after completion of the interim remedial measure excavation include maintaining the site cover system and maintaining and sampling the monitoring well network.

#### 4.2.1 Contractors and Consultants

Clean Venture/Cycle Chem of Elizabeth, New Jersey, conducted high-vacuum extraction at the site. Op-Tech Environmental, Inc. (Op-Tech), of Albany, New York, a licensed remediation contractor, was the remediation contractor for excavation, backfilling and restoration work. Geomatrix performed construction management for implementation of the interim remedial measure. Geomatrix field representatives were on site during work performed by Op-Tech and/or their subcontractors. Tasks conducted by the Geomatrix field representatives included daily planning and interaction with Op-Tech personnel; management, oversight and documentation of construction activities; health and safety monitoring for Geomatrix personnel; perimeter air monitoring and sampling; screening the excavation floor and sidewalls for chemicals of concern; and soil and water sample collection for laboratory chemical analysis. Geomatrix personnel recorded and documented remediation activities and conditions, including:

- types and volumes of material excavated and/or replaced;
- weather conditions, including precipitation and wind conditions;
- air quality conditions and dust and/or vapor suppression activities;
- storm water management measures used to control runoff during wet conditions;
- details of testing completed on samples collected for laboratory analysis;
- visitors to the site;



- unforeseen conditions encountered during the work;
- equipment present and in use at the site; and
- health and safety measures and issues.

Kelly McIntosh of AMEC Geomatrix is the Engineer of Record for the work completed.

#### 4.2.2 Site Preparation

Site preparation consisted of utility clearance, establishment of survey control, realignment of natural gas service, and removal of existing site features. Site preparation activities are discussed below.

#### 4.2.2.1 Utility Clearance

Prior to the start of excavation-related activities, Dig Safely New York was contacted. Premier Locating LLC (Premier), a private utility locating service, was also hired by Geomatrix to identify the locations of nearby public and private underground utilities. Premier performed underground locating services at the site on December 20, 2005.

#### 4.2.2.2 Survey Control

Prior to excavation activities, Morris Associates, P.S., L.L.C. (Morris Associates), of Poughkeepsie, New York, established local horizontal and vertical survey control for the project. Morris Associates also marked the corners of the excavation for use in establishing excavation boundaries, as needed, during the work. Morris Associates then returned on July 24, 2006 to perform the as-built topographic survey of the area to document grades following excavation, backfilling and repaving. A copy of the as-built topographical survey was attached as Appendix I of the *Remedial Investigation and Interim Remedial Measure Implementation Report*.

#### 4.2.2.3 Realignment of Natural Gas Service Pipeline

An existing subsurface natural gas service pipeline was identified within the planned on-site excavation area. On January 19, 2006, Central Hudson Gas and Electric (CHG&E) rerouted the gas service to a new alignment that passed approximately 15 feet north of the planned on-site excavation area (Figure 2).

#### 4.2.2.4 Monitoring Well Removal

Eight monitoring wells located within the excavation area were removed during excavation activities. In accordance with the approved work plan, Op-Tech removed the entire lengths of monitoring wells MW-2, MW-3, DP-1, DP-2, DP-3, MW-4, MW101, and MW-11, including all casing, filter pack material, and seal material, using conventional construction equipment.

A Geomatrix field engineer oversaw the removal of these monitoring wells.



#### 4.2.2.5 Removal of Existing Site Features

The off-site excavation area was cleared prior to excavation activities. Seven large trees were removed, along with assorted shrubbery and other landscaping. Child care facility equipment was temporarily relocated away from the excavation area. Existing site boundary fencing was also removed and temporary fencing was installed to isolate the excavation area.

#### 4.2.3 General Site Controls

During construction activities, the entire work area was surrounded by fencing to prevent access by the public.

#### 4.2.4 Nuisance Controls

Excavated soil was temporarily stockpiled on the southeast portion of the site prior to characterization and off-site transportation and disposal. A vapor suppressant (Bio-Solve) was applied by Op-Tech to soil stockpiles in active soil loading areas when needed.

Stockpile management practices were consistent with the storm water pollution prevention plan prepared for the interim remedial measure activities. Hay bales were placed around the perimeter of the soil stockpile area, and stockpiled soil was placed on plastic sheeting and covered with weighted plastic sheeting at the end of each work day.

#### 4.2.5 Air Monitoring Plan Results

Geomatrix performed air monitoring in accordance with the Air Monitoring Plan issued as Appendix B of the *IRM Work Plan*. Air monitoring began on December 23, 2005, and ended on March 22, 2006, after excavation, backfill, and soil off-haul activities were substantially completed.

#### 4.2.5.1 Work Zone Monitoring

To identify potential hazards to Geomatrix personnel, Geomatrix performed work zone air monitoring periodically during applicable work. Airborne concentrations of VOCs were monitored with RAE Systems MiniRAE 2000 photoionization detectors. Airborne dust was measured using MIE pDR-1000 portable aerosol monitors. Both photoionization detectors and portable aerosol monitors were calibrated daily, and Geomatrix personnel maintained written records of work zone air quality. Op-Tech mitigated VOC and dust emissions in the work zone with Engineering Controls and best work practices, including application of a vapor suppressant (Bio-Solve) in active excavation areas as needed. Concentrations of airborne VOCs and airborne dust never exceeded work zone action levels presented in the Air Monitoring Plan.

#### 4.2.5.2 Perimeter Monitoring

Geomatrix monitored and sampled perimeter air to assess and record the levels of airborne dust and VOCs at the perimeter of the work areas. Geomatrix initially established two perimeter air monitoring stations, as follows: one at the off-site southernmost work zone boundary near the

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child care facility building, and one at the northernmost work zone boundary adjacent to the existing rental car office. The air monitoring station located near the child care facility during offsite excavation work was moved on-site to the southern site property boundary during on-site excavation work. In response to VOC odors observed during soil loading in the soil stockpile area, Geomatrix established a third perimeter air monitoring station on February 3, 2006, located between the soil stockpile area and an adjacent office building at 26 IBM Road. The locations of the air monitoring stations are shown on Figure 13 of *Remedial Investigation and Interim Remedial Measure Implementation Report* (Geomatrix, 2007).

Perimeter air monitoring initially consisted of continuously monitoring and logging airborne dust using a data-logging portable aerosol monitor (MIE pDR-1000) and VOC concentrations using a data-logging photoionization detector (RAE Systems MiniRAE 2000) installed at each monitoring station. Each instrument was periodically monitored throughout the day and when work was likely to mobilize VOCs and/or dust (e.g., during loading of stockpiled soil onto trucks for off-site disposal). In addition, the data from each instrument were downloaded at the end of each work day and reviewed to confirm compliance with the Air Monitoring Plan. Perimeter air monitoring dust and VOC data for all monitoring stations are included as Appendixes N and O of the *Remedial Investigation and Interim Remedial Measure Implementation Report (Geomatrix, 2007)*.

On February 14, 2006, Geomatrix augmented the perimeter air monitoring program by collecting air samples at perimeter air monitoring stations using SUMMA® canisters. Air sampling was instituted to collect speciated VOC data. Concentrations of several VOCs were detected in air samples. The VOC data were compared to Minimal Risk Levels (MRLs) published by the Agency for Toxic Substances and Disease Registry (ATSDR, 2006). Concentrations of VOCs detected in air samples were below MRLs for the appropriate exposure periods. Table 13 of the *Remedial Investigation and Interim Remedial Measure Implementation Report (Geomatrix, 2007)* summarizes the speciated VOC data collected in February 2006. The air sampling laboratory analytical reports are included as Appendix P of the *Remedial Investigation and Interim Report* (Geomatrix, 2007). Geomatrix communicated results of air sampling to the NYSDEC regularly as part of monthly progress reports submitted to the NYSDEC.

#### 4.2.6 Reporting

Geomatrix regularly updated NYSDEC and Avis regarding the work status. Ms. Michelle Tipple of NYSDEC visited the site regularly throughout the course of the work. All monthly reports prepared during the remedial program are included in electronic format as Appendix D.

#### 4.3 CONTAMINATED MATERIALS REMOVAL

Contaminated soil and groundwater were removed from the site as part of an interim remedial measure conducted in 2005 and 2006. That work is discussed in detail in the *Remedial* 



Investigation and Interim Remedial Measure Implementation Report (Geomatrix, 2007) and is summarized in Section 3.0 of this FER. Monitoring well purge water generated during periodic groundwater monitoring has been and will be containerized and disposed of off-site in accordance with all applicable federal, state and local regulations.

#### 4.4 REMEDIAL PERFORMANCE/DOCUMENTATION SAMPLING

No soil sampling was performed as part of the selected remedy, but soil sampling was conducted as part of the interim remedial measure. Soil sampling during and after the interim remedial measure excavation activities indicated that those remedial activities removed all but trace amounts of residual contamination from the soil, as reported in the April 2007 *Remedial Investigation and Interim Remedial Measure Implementation Report* (Geomatrix, 2007) and the February 2010 *Resampling of Excavation Confirmation Soil Sample Locations* (AMEC, 2010a). Groundwater sampling is part of the selected remedy and will be performed in conjunction with the ongoing groundwater monitoring program. Groundwater sampling conducted after interim remedial measure excavation activities indicated that two on-site monitoring wells and one off-site monitoring well have concentrations of petroleum hydrocarbons above groundwater quality standards.

Tables and figures summarizing all end-point soil sampling are included as Table 3 and Figures 3 and 4. All exceedances of unrestricted use SCOs are underlined in the table.

A data quality evaluation was conducted on the data from the interim remedial measure confirmation soil samples and is included as Appendix K of the *Remedial Investigation and Interim Remedial Measures Implementation Report (Geomatrix, 2007).* Data quality and usability for soil samples collected in 2009 are discussed in the *Resampling of Excavation Confirmation Soil Sampling Locations* report (AMEC, 2010a). Data quality and usability for groundwater samples collected after completion of the interim remedial measure excavation have been and will be discussed in the groundwater monitoring reports submitted to the NYSDEC. All data collected to date were found to be representative and usable, with the exception of one confirmation soil sample collected on the floor of the on-site excavation in 2006.

#### 4.5 IMPORTED BACKFILL

No backfilling was performed as part of the selected remedy. Backfilling was performed as part of the interim remedial measure in 2006. Chemical analytical results for reused overburden and imported material used to backfill the interim remedial measure excavation were included in Tables 10 and 11 and Appendix L of the *Remedial Investigation and Interim Remedial Measure Implementation Report* (Geomatrix, 2007). Backfill was used in the entire excavation area shown on Figure 2. Approximately 26,900 tons of fill material were imported for use in backfilling the excavation area. Imported fill materials used for this project included <sup>3</sup>/<sub>4</sub>-inch drain rock (approximately 1,800 tons), Item 4 aggregate base (approximately 20,000 tons), and stone sand

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(approximately 1,000 tons) procured by Op-Tech from Tilcon Industries of New Hamburg, New York; general fill (approximately 3,800 tons) procured by Op-Tech from Red Wing Sand and Gravel of Lagrangeville, New York; and topsoil (approximately 325 tons) procured by Op-Tech from Black Top Maintenance of Washington, New York.

#### 4.6 CONTAMINATION REMAINING

Soil that exceeded an unrestricted SCO remained in one on-site area at the bottom of the former excavation, and groundwater exceeding water quality standards was present in two monitoring wells on the site. Table 1 and Figure 5 summarize the results of the single soil sample at the site that exceeded the Track 1 (unrestricted) SCO for benzene.

Soil that exceeded unrestricted use SCOs remained at six off-site confirmation soil sample locations following excavation, as follows: on the floor (three samples), on the east sidewall (2 samples) and on the northwest sidewall (one sample). Groundwater exceeding water quality standards was present in one off-site monitoring well. Sediment exceeding benthic aquatic life sediment criteria remained at one location in the wetland, near monitoring well MW-12. Table 1 and Figure 6 summarize the results of the off-site confirmation soil samples that exceeded Track 1 (unrestricted) SCOs. Table 4 summarizes the results of the wetland sediment samples, and the wetland sediment sampling locations are shown in Figure 2.

Figures 7 and 8 summarize the results of confirmation soil samples collected on the site and on the adjacent property to the south that meet the SCOs for unrestricted use. Table 2 summarizes the chemical analysis results for groundwater samples collected since completion of the interim remedial measure excavation. Figures 9 and 10 summarize the most recent groundwater data for the two on-site monitoring wells and one off-site monitoring well that have concentrations of petroleum hydrocarbons above groundwater quality standards.

At the site, soil at one location at the bottom (approximately 14 feet bgs) of the former excavation contained benzene at a concentration of 0.092 milligrams per kilogram (mg/kg), exceeding the SCO of 0.060 mg/kg for unrestricted use (the SCO for protection of groundwater). The concentration of benzene detected is below the SCOs for residential use, restricted residential use, commercial use, industrial use and protection of ecological resources. No other petroleum hydrocarbons exceeded their respective SCOs for unrestricted use.

A natural gas utility line crosses the area of potentially impacted soil and groundwater at the site (Figures 5 and 9). The gas line is less than 5 feet below ground surface, above the bottom of the former excavation and above groundwater. The gas line was relocated during the interim remedial measure excavation and soil samples were collected from the bottom of the relocated utility trench for laboratory analysis. The chemical analysis results were included in Table 9 and Appendix L of the *Remedial Investigation and Interim Remedial Measure Implementation Report* (Geomatrix, 2007). Total xylenes were detected in two samples, at 0.014 mg/kg and



0.033 mg/kg, below the unrestricted use SCO. No other petroleum hydrocarbons were detected at or above laboratory reporting limits.

On the adjacent property to the south, six confirmation soil samples exceeded 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 but below the SCOs for residential use, restricted residential use, commercial use, industrial use and protection of ecological resources. Ethylbenzene was detected in the sample at a concentration of 7.8 mg/kg, above the SCO for protection of groundwater but below the SCOs for residential use, restricted residential use, and industrial use (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 residential use, restricted residential use, commercial use, restricted residential use, commercial use, restricted residential use, so for residential use, restricted residential use. Benzene was not detected at or above the laboratory reporting limit of 1.1 mg/kg; however, the laboratory reporting limit was above the SCOs for residential use, restricted residential use. The laboratory reporting limit was above the SCOs for residential use, restricted residential use, restricted residential use, restricted residential use, commercial use, industrial use and protection of ecological resources.

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, 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 SW-E05-5.0-122805 did not contain toluene, ethylbenzene or total xylenes at concentrations exceeding the SCOs for unrestricted use.

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, industrial use, industrial use, restricted residential use, commercial use, and protection 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. Sample FL-E29-14.0-011906 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, above the SCO for protection of groundwater (0.02 mg/kg) but 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).

Off-site sidewall sample SW-E-06-10.0-122805, collected at the northwest corner of the off-site excavation at a depth of approximately 10 feet bgs, contained total xylenes at a concentration of 4.37 mg/kg, above the SCOs for protection of ecological resources and protection of groundwater, but below the SCOs for residential use, restricted residential use, commercial use, and industrial use. The laboratory reporting limit for benzene in the sample was 0.32 mg/kg, above the SCO for protection of groundwater, but below the SCOs for residential use, restricted residential use, restricted residential use, restricted set as 0.32 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 SW-E-06-10.0-122805 did not contain toluene or ethylbenzene at concentrations above the unrestricted use SCOs.

A very limited area of buried sediment within the designated wetland contained petroleum hydrocarbons above aquatic life sediment criteria identified in the NYSDEC *Technical Guidance for Screening Contaminated Sediments*, dated 1999 (NYSDEC, 1999b). Benzene, toluene, ethylbenzene and xylenes were detected at location WS-1, near monitoring well MW-12. Benzene, toluene, ethylbenzene, and total xylenes 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 sample location WS-1-1.8 exceeded sediment criteria for benthic aquatic life chronic toxicity and benthic aquatic life acute toxicity. Benzene, toluene, ethylbenzene, and total xylenes were not detected at the other wetland shallow sediment sampling locations.

Petroleum hydrocarbons above unrestricted use SCOs that remain on the floor of the on-site and off-site portions of the interim remedial measure excavation occur in silt with fine sand beneath the material used to backfill the excavation. The impacted soil is at a depth of approximately 12 to 14 feet below ground surface, immediately beneath the <sup>3</sup>/<sub>4</sub>-inch stone backfill. Petroleum hydrocarbons above unrestricted use SCOs that remained at the northwest

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corner of the off-site portion of the excavation occur at a depth of approximately ten feet below ground surface, in the native silty sand adjacent to the backfilled excavation. Petroleum hydrocarbons above unrestricted use SCOs that remained at the east side of the off-site portion of the excavation occur at a depth of approximately five to ten feet bgs, in the native silty sand adjacent to the backfilled excavation. Petroleum hydrocarbons above aquatic life criteria that remained in the wetland occur at a depth of approximately one foot below ground surface, in the native silty sand beneath the surface organic layer.

Since contaminated soil and groundwater remains beneath the site after completion of the remedial action, Engineering and Institutional Controls (ECs/ICs) are required to protect human health and the environment. These ECs/ICs are described in the following sections. Long-term management of these ECs/ICs and residual contamination will be performed under the Site Management Plan (SMP) approved by the NYSDEC.

Electronic copies of laboratory analytical data sheets for interim remedial measure excavation confirmation soil sample analyses, soil backfill sample analyses, treated water effluent sample analyses, and waste disposal characterization sample analyses, are included in Appendix E.

#### 4.7 SITE COVER SYSTEM

Exposure to remaining contamination in soil at the site is prevented by a site cover system over the site. This cover system is comprised of a minimum of 12 inches of clean soil, asphalt pavement or concrete slabs. Figure F-01 in Appendix F shows the as-built cross section for the soil and asphalt cover used on the site in the area of the interim remedial excavation. Figure F-02 in Appendix F shows the location of each cover type at the site, and Figure F-03 in Appendix F shows the depth of the interim remedial measure excavation and the locations of the confirmation soil samples. An Excavation Work Plan, which outlines the procedures required in the event the cover system and underlying remaining contamination are disturbed, is provided in Appendix A of the SMP.

#### 4.8 OTHER ENGINEERING CONTROLS

The remedy for the site did not require the construction of any other Engineering Control systems.

#### 4.9 INSTITUTIONAL CONTROLS

The site remedy requires that an environmental easement be placed on the property to (1) implement, maintain and monitor the Engineering Controls; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the site to commercial or industrial uses only.

The environmental easement for the site was executed by the Department on December 23, 2010, and filed with the Dutchess County Clerk on December 29, 2010. The County Recording



Identifier number for this filing is 02 2010 6492. A copy of the easement and proof of filing is provided in Appendix G.

#### 4.10 DEVIATIONS FROM THE REMEDIAL ACTION WORK PLAN

There were no deviations from the Remedial Action Work Plan.

#### 5.0 REFERENCES

- Agency for Toxic Substances and Disease Registry (ATSDR), 2006, ATSDR Minimal Risk Levels, December.
- AMEC, 2010a, Resampling of Excavation Confirmation Soil Sample Locations, February.
- AMEC, 2010b, Final Remedial Action Work Plan, November 9.
- Geomatrix, 2005, Interim Remedial Measure Work Plan, November.
- Geomatrix, 2007, Remedial Investigation and Interim Remedial Measure Implementation Report, April.
- New York State Department of Environmental Conservation (NYSDEC), 1994, Determination of Soil Cleanup Objectives and Cleanup Levels (TAGM 4046), January 24.
- NYSDEC, 1999a, 6 NYCRR Part 703: Surface Water and Groundwater Quality Standards and Effluent Limitations, August 4.
- NYSDEC, 1999b, Technical Guidance for Screening Contaminated Sediments, January.
- NYSDEC, 2006, 6 NYCRR Part 375, Subpart 375-6: Remedial Program Soil Cleanup Objectives, December 14.





#### SUMMARY OF CONFIRMATION SOIL SAMPLE ANALYTICAL RESULTS EXCEEDING SOIL CLEANUP OBJECTIVES

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

Sample Depth Total (feet bas) Ethylbenzene Sample ID Sample Date Toluene **Xylenes** MTBE Benzene SB-3-14.0 8/5/2009 14 0.092 < 0.0042 0.019 0.037 0.055 < 0.006 0.033 < 0.006 < 0.006 0.11 SW-E05-5.0-122805 12/28/2005 5 SW-E-06-10.0-122805 12/28/2005 < 0.32 < 0.32 0.71 4.37 < 0.32 10 7.8 SW-E21-10.0-123005 12/30/2005 10 <u>< 1.1</u> 15 <u>50</u> < 1.1 0.086 < 0.062 < 0.062 FL-E26-12.0-010606 1/6/2006 12 1.6 < 0.062 0.06 0.036 J 0.4 0.512 FL-E28-14.0-011706 1/17/2006 14 0.53 J FL-E29-14.0-011906 1/19/2006 14 < 0.130 < 0.130 < 0.130 4.8 < 0.130 Protection of Public Health 2.9 100 30 100 62 Residential Subpart 375-6 Remedial Program Soil Cleanup Objectives 4.8 100 41 100 100 **Restricted Residential** 390 44 500 500 500 Commercial 89 1,000 780 1,000 1,000 Industrial 70 36 NA 0.26 NA Protection of Ecological Resources Protection of Groundwater 0.06 0.7 1 0.93 1.6 0.93 0.06 0.7 1 0.26 **Unrestricted Use** 

Concentrations in milligrams per kilogram (mg/kg)

#### <u>Notes</u>

1. 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.

2. 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.

"<u>BOLD UNDERLINED</u>" = detected concentration or reporting limit exceeds unrestricted use cleanup objective MTBE = methyl tertiary butyl ether.

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

J = The analyte was positively identified; the associated numerical value is the estimated concentration of the analyte in the sample.

#### POST-EXCAVATION GROUNDWATER ANALYTICAL RESULTS AND GROUNDWATER QUALITY STANDARDS<sup>1</sup>

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 (	Groundwater Quality Standar	ds <sup>2,3</sup>	1	5	5	5	10	NA	NA	NA	NA
MW-1	MW-1-062106	06/21/06	<u>10.9</u>	<u>8.6</u> J	163	<u>676</u>	<u>28.7</u> J	<1.0	<1.0	<25.0	<1.0
	MW-1-092206	09/22/06	<u>8</u>	3.1	<u>92.3</u>	<u>374</u>	<u>25.7</u> J	<1.0	<1.0	<25.0	<1.0
	MW-1-121506	12/15/06	<u>7.7</u>	1.5	<u>25.7</u>	<u>204</u>	<u>25.7</u>	<1.0	<1.0	<25.0	<1.0
	MW-1-022207	02/22/07	<u>6.8</u>	<1.0	2.3	<u>60.3</u>	<u>18.6</u>	<1.0	<1.0	<25.0	<1.0
	MW-1-060707	06/07/07	<u>4.6</u>	2.4	<u>79.7</u>	<u>804</u>	9 J	<1.0	<1.0	<25.0	<1.0
	MW-1-092707	09/27/07	<u>7.6</u>	<1.0	<u>15.2</u>	<u>43.5</u>	<u>22.8</u>	<1.0	<1.0	<25.0	<1.0
	MW-1-102108	10/21/08	<u>4 J</u>	0.5 J	<u>68</u> J	<u>130</u> J	<u>14</u>			<20	<1
	MW-1-021810	02/18/10	<1.0	<1.0	<u>14</u>	<u>43.0</u>	9.9 J			<20	<1.0
MW-7	MW-7-062106	06/21/06	<1.0	<1.0 UJ	<1.0	<3.0	<u>473</u>	<1.0	<1.0	107	2.82
	MW-7-092106	09/21/06	<1.0	<1.0	<1.0	<3.0	<u>257</u>	<1.0	<1.0	105	<1.0
	MW-7-121406	12/14/06	<1.0	<1.0	<1.0	<3.0	<u>290</u>	<1.0	<1.0	135	1.43 J
	MW-7-022207	02/22/07	<1.0	<1.0	<1.0	<3.0	<u>243</u>	<1.0	<1.0	56.9	1.54
	MW-7-060707	06/07/07	<1.0	<1.0	<1.0	<3.0	<u>194</u> J	<1.0	<1.0	46.2	<1.0
	MW-7-092707	09/27/07	<1.0	<1.0	<1.0	<3.0	<u>93.3</u>	<1.0	<1.0	47.2	<1.0
	MW-7-102208	10/22/08	<1	<1	<1	<2	<u>69.0</u>			67	<1
	MW-7-021810	02/18/10	<1.0	<1.0	<1.0	<2.0	<u>74</u> J			72	<1.0
MW-8	MW-8-121406	12/14/06	<1.0	<1.0	<1.0	<3.0	<u>19.5</u>	<1.0	<1.0	<25.0	<1.0
	MW-8-022107	02/21/07	<1.0	<1.0	<1.0	<3.0	<u>24.8</u>	<1.0	<1.0	<25.0	<1.0
	MW-8-060607	06/06/07	<1.0	<1.0	<1.0	<3.0	<u>19.7</u> J	<1.0	<1.0	<25.0	<1.0
	MW-8-092707	09/27/07	<1.0	<1.0	<1.0	<3.0	<u>50.0</u>	<1.0	<1.0	<25.0	<1.0



#### POST-EXCAVATION GROUNDWATER ANALYTICAL RESULTS AND GROUNDWATER QUALITY STANDARDS<sup>1</sup>

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 (	Groundwater Quality Standar	rds <sup>2,3</sup>	1	5	5	5	10	NA	NA	NA	NA
MW-12	MW-12-062106 / DUP <sup>4</sup>	06/21/06	<u>313</u> / <u>310</u>	<u>166</u> J / <u>85.8 J</u>	<u>43.2</u> / <u>35.8</u>	<u>1010 / 825</u>	<u>14.5</u> J / <u>15</u> J	<1.0 / <1.0	<1.0 / <1.0	47.1 / 47.6	<1.0 / <1.0
	MW-12-092106 / DUP <sup>5</sup>	09/21/06	<u>300</u> / <u>333</u>	<u>229</u> / <u>265</u>	<u>556</u> / <u>618</u>	<u>1820</u> / <u>2070</u>	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 <sup>4</sup>	12/14/06	<u>109</u> / <u>119</u>	<u>11.8</u> / <u>12.4</u>	<u>208</u> / <u>235</u>	<u>312 / 252</u>	<u>18.8</u> / <u>20.2</u>	<1.0/<1.0	<1.0/<1.0	63.6 / 81.3	<1.0 / <1.0
	MW-12-022207 / DUP <sup>4</sup>	02/22/07	<u>122</u> J / <u>220 J</u>	<u>31.8</u> / <u>29.3</u>	<u>339</u> J / <u>493</u> J	<u>708</u> J <u>/ 1130</u> 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 <sup>4</sup>	06/07/07	<u>171</u> / <u>184</u>	<u>33.3</u> / <u>35.3</u>	<u>496</u> / <u>509</u>	<u>846</u> / <u>845</u>	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 <sup>4</sup>	09/27/07	<u>210</u> / <u>337</u>	<u>99.9</u> / <u>94.0</u>	<u>701</u> / <u>963</u>	<u>762</u> / <u>1570</u>	4.7 / 4.5	<1.0/<1.0	<1.0 / <1.0	<25.0 / <25.0	<1.0 / <1.0
	MW-12-102108 / DUP <sup>5</sup>	10/21/08	<u>31</u> J	14 J	<u>148</u> J	<u>238</u> J	4 J			<100	<5
	MW-12-021810 / DUP <sup>4</sup>	02/18/10	<u>6.8</u> / <u>6.4</u>	2.6 / 2.9	<u>9.8</u> / <u>10</u>	<u>19</u> / <u>19</u>	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	<u>65.2</u>	<1.0	<1.0	<25.0	1.28
	MW-103-092106	09/21/06	<1.0	<1.0	<1.0	<3.0	<u>31.7</u> 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	<u>28.6</u> J	<1.0	<1.0	<25.0	<1.0
	MW-103-092707	09/27/07	<1.0	<1.0	<1.0	<3.0	<u>30.7</u>	<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	<u>19.2</u> 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	<u>32.8</u>	<1.0	<1.0	25.9	<1.0
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



#### POST-EXCAVATION GROUNDWATER ANALYTICAL RESULTS AND GROUNDWATER QUALITY STANDARDS<sup>1</sup>

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	Groundwater Quality Standar	rds <sup>2,3</sup>	1	5	5	5	10	NA	NA	NA	NA
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	<u>23.2</u> J	<1.0	<1.0	<25.0	<1.0
MW-201	MW-201-062106	06/21/06	<u>8.7</u>	<1.0 UJ	<1.0	<3.0	<u>25.1</u>	<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	<u>15</u>			<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	<u>1.5</u>	<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	<u>1.1</u>	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<25.0	<1.0



#### POST-EXCAVATION GROUNDWATER ANALYTICAL RESULTS AND GROUNDWATER QUALITY STANDARDS<sup>1</sup>

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

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 (	Groundwater Quality Standar	ds <sup>2,3</sup>	1	5	5	5	10	NA	NA	NA	NA
MW-203	MW-203-062106	06/21/06	<u>3.1</u>	<1.0 UJ	<1.0	<u>9.6</u>	<u>13.2</u>	<1.0	<1.0	<25.0	<1.0
	MW-203-092106	09/21/06	<u>73.9</u>	<1.0	<1.0	<3.0	6.5 J	<1.0	<1.0	<25.0	<1.0
	MW-203-121406	12/14/06	<u>88.4</u>	<1.0	<u>5.0</u>	<u>9.4</u>	6.1	<1.0	<1.0	<25.0	<1.0
	MW-203-022207	02/22/07	<u>94.8</u>	<1.0	<u>14</u>	<u>18.2</u>	5.9	<1.0	<1.0	<25.0	<1.0
	MW-203-060707	06/07/07	<u>46.8</u>	2.4	<u>16.4</u>	<u>12.4</u>	3.8 J	<1.0	<1.0	<25.0	<1.0
	MW-203-092707	09/27/07	<u>60.5</u>	1.4	<u>65.2</u>	<3.0	5.5	<1.0	<1.0	<25.0	<1.0
	MW-203-102108	10/21/08	<u>97 J</u>	<3	2 J	3 J	5			<50	<3
	MW-203-021810	02/18/10	<u>27</u>	<1.0	<1.0	<2.0	3.3 J			<20	<1.0

Concentrations in micrograms per liter (ug/L)

Notes

1. All samples analyzed using EPA Method 8260B.

2. NYSDEC groundwater quality standards for benzene, toluene, ethylbenzene, and total xylenes from NYSDEC, 1999, 6 NYCRR Part 703: Surface Water and Groundwater Quality Standards and Effluent Limitations, August 4.

3. 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.

4. Duplicate results provided in format "sample / duplicate."

5. Results provided are from the duplicate sample with the highest detected concentrations.

Abbreviations

**"BOLD"** = Detected concentration.

"**<u>BOLD UNDERLINED</u>**" = Detected concentration exceeds water quality standard.

< = Not detected at or above the laboratory reporting limit shown.

-- = Sample not analyzed for compound.

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.



#### SUMMARY OF CONFIRMATION SOIL SAMPLE ANALYTICAL RESULTS<sup>1</sup>

#### 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	ТВА	ТАМЕ	Other
N	IYSDEC TAGM 4046 Objectives <sup>2,3</sup> in mg/kg:			0.08	1.5	5.5	NA	NA	1.2	NA	NA	0.12	NA	NA	Acetone 0.2 2-butanone 0.3 Methylene chloride 0.1 1,2-Dichloroethane 0.1
NYSDE	C Unrestricted Use Cleanup Objectives <sup>4</sup> in mg	ı/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	<u>0.11</u>	<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	<u>3.5</u>	<u>0.87</u>	<u>4.37</u>	<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	<u>15</u>	<u>7.8</u>	<u>37</u>	<u>13</u>	<u>50</u>	<13 UJ	<13 UJ	<1.1	<22	<2.2	
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



#### SUMMARY OF CONFIRMATION SOIL SAMPLE ANALYTICAL RESULTS<sup>1</sup>

#### 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	ТВА	ТАМЕ	Other
N	YSDEC TAGM 4046 Objectives <sup>2,3</sup> in mg/kg:			0.08	1.5	5.5	NA	NA	1.2	NA	NA	0.12	NA	NA	Acetone 0.2 2-butanone 0.3 Methylene chloride 0.1 1,2-Dichloroethane 0.1
NYSDEC	C Unrestricted Use Cleanup Objectives <sup>4</sup> in mg	g/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-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	<u>0.09</u> J	0.11	0.098 J	<u>0.44</u> J	0.17 J	<u>0.61</u> 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	<u>0.25</u>	0.041	0.26 J	<u>0.42</u>	0.031	<u>0.451</u>	<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	
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	Off-site floor, N-Central	1/6/2006	12	<u>1.6</u>	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



#### SUMMARY OF CONFIRMATION SOIL SAMPLE ANALYTICAL RESULTS<sup>1</sup>

#### 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	МТВЕ	ТВА	ТАМЕ	Other
N	YSDEC TAGM 4046 Objectives <sup>2,3</sup> in mg/kg:			0.08	1.5	5.5	NA	NA	1.2	NA	NA	0.12	NA	NA	Acetone 0.2 2-butanone 0.3 Methylene chloride 0.1 1,2-Dichloroethane 0.1
NYSDEC	C Unrestricted Use Cleanup Objectives <sup>4</sup> in mo	g/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-E28-14.0-011706	Off-site floor	1/17/2006	14	<u>0.53</u> J	0.06	0.400	<u>0.5</u>	0.012	<u>0.512</u>	<12	<12	0.036 J	<0.25	<0.025	Acetone 0.047J Methylene chloride 0.029
FL-E29-14.0-011906	Off-site floor	1/19/2006	14	<u>4.8</u> 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	
FL-ON-9-13.0-030106	On-site floor, SW area	3/1/2006	13	<u>0.38</u>	<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	<u>0.061</u> 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	



#### SUMMARY OF CONFIRMATION SOIL SAMPLE ANALYTICAL RESULTS<sup>1</sup>

#### 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	МТВЕ	ТВА	ТАМЕ	Other
N	0.08	1.5	5.5	NA	NA	1.2	NA	NA	0.12	NA	NA	Acetone 0.2 2-butanone 0.3 Methylene chloride 0.1 1,2-Dichloroethane 0.1			
NYSDEC	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			
August 2009 Samples⁵															
SB-3-14.0	Location of sample FL-ON-11-13.0-030806	8/5/2009	14	<u>0.092</u>	<0.0042	0.019	NM	NM	0.037	NM	NM	0.055	NM	NM	
SB-4-13.5	Location of sample FL-ON-9-13.0-030106	8/5/2009	13.5	<0.0044	<0.0044	<0.0044	NM	NM	<0.0088	NM	NM	0.039	NM	NM	
SB-7-7.0	Location of sample SW-ON-3-7.0-030206	8/5/2009	7	<0.0049	<0.0049	<0.0049	NM	NM	<0.0097	NM	NM	<0.0049	NM	NM	
SB-8-8.0	Location of sample SW-ON-9-8.0-32106	8/5/2009	8	<0.0047	<0.0047	<0.0047	NM	NM	<0.0094	NM	NM	<0.0047	NM	NM	

Notes

1. Volatile Organic compounds, including oxygenates, analyzed by EPA Method 8260B. TPHg and TPHd analyzed by modified EPA Method 8015M.

2. NYSDEC, 1994, Determination of Soil Cleanup Objectives and Cleanup Levels (TAGM 4046), January 24.

3. Guidance value for MTBE provided in the December 20, 2000 NYSDEC Memorandum Determination of Soil Cleanup Levels Attachment: Recommended Soil Cleanup Objectives for Gasoline Contaminated Soils.

4. NYSDEC, 2006, 6 NYCRR Part 375, Subpart 375-6: Remedial Program Soil Cleanup Objectives, December 14.

5. Samples collected at location and depth of previous on-site on-site confirmation samples (FL-ON-11-13.0-030806, FL-ON-9-13.0-030106, SW-ON-3-7.0-030206, and SW-ON-9-8.0-32106) that exceeded soil cleanup objective for benzene in 2006.

#### Abbreviations

"BOLD" = Detected concentration.

"BOLD UNDERLINED" = Detected concentration above 6 NYCRR Subpart 375-6 remedial program soil cleanup objectives for unrestricted use.

< = Not detected at or above the reporting limit shown.

bgs = below ground surface.

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.

R = Result was rejected because of laboratory quality assurance/quality control issues.

NA = Not Available.

NM = Sample not analyzed for compound.

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





#### SUMMARY OF WETLAND SEDIMENT ANALYTICAL RESULTS<sup>1</sup>

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

Concentrations in milligrams per kilogram (mg/kg)

Sample			Sample Depth				Total	
Location	Sample ID	Sample Date	(feet bgs)	Benzene	Toluene	Ethylbenzene	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	<u>0.011</u>	< 0.005	< 0.005	0.036	< 0.0050
	WS-1-1.8	8/4/2009	1.8	2.3	<u>27</u>	<u>170</u>	<u>800</u>	< 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
		Human Health	0.2% OC	0.0012	NA	NA	NA	NA
		Bioaccumulation	12% OC	0.072	NA	NA	NA	NA
Site-speci	fic Sediment	Benthic Aquatic Life	0.2% OC	0.206	0.47	0.424	1.666	NA
Cri	teria <sup>2</sup>	Acute Toxicity	12% OC	12.306	28.2	25.44	99.96	NA
		Benthic Aquatic Life	0.2% OC	0.056	0.098	0.048	0.184	NA
		Chronic Toxicity	12% OC	3.36	5.88	2.88	11.04	NA

#### Notes

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

<sup>1.</sup> All samples analyzed for BTEX and MTBE by EPA Method 8260B.



FIGURES





#### EXPLANATION

- - — Site boundary
- Subsurface natural gas service
- - - Former potential conduit (abandoned 2" steel line)
  - 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 post-excavation 2006)

 Approximate hand augered soil sample location (September 2005)

₹X-4

- 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)

	2		
	0 Scale in Feet	60 	
	SITE PLAN Former Drive & Park, 28 IBM Road Poughkeepsie, New	Inc. Site / York	
By: DA		Project No.	9328.000
AME	<b>Geomatrix</b>	Figure	2











By: DA	Date: 12/3/2010	Project No.	9328.000
AMEC Ge	eomatrix	Figure	3











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- Subsurface natural gas service UG
  - 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)

V		——— Sample I.D.
SB-4	8/5/2009	Sample date
Benzene	< 0.0044	1-1
Toluene	< 0.0044	Constituents (results in
Ethylbenzene	< 0.0044	milligrame per kilogram)
Total Xylenes	< 0.0088	
L	1	

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







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#### APPENDIX A

Survey Map, Metes and Bounds



LEGEND		
-0	UTILITY POLE	
V	HYDRANT	
	CATCH BASIN	
\$	LIGHT POLE	
$\otimes$	SOIL BORING	
O MW4	MONITORING WELL	
OH	OVERHEAD UTILITIES	
	UNDERGROUND ELECTRIC	
<i>G</i>	UNDERGROUND GAS LINE	
WL	WATER LINE	
8 411/	WATER VALVE	
$\otimes^{GV}$	GAS VALVE	
⊗ <sup>UKV</sup>	UNKNOWN VALVE	
Ū	TELEPHONE MANHOLE	
Ø	DRAINAGE MANHOLE	
S	SANITARY MANHOLE	
$\mathbb{W}$	UNKNOWN MANHOLE	
0	SIGN	
T-BOX	TELEPHONE BOX	
-000	CHAINLINK FENCE	
-000	STOCKADE FENCE	

#### NOTES:

- 1. MONITORING WELLS TAKEN FROM PREVIOUS SURVEY PREPARED BY MORRIS ASSOCIATES AND DATED SEPTEMBER 1, 2006.
- 2. SUBJECT TO AN EASMENT TO NEW YORK TELEPHONE COMPANY AND CENTRAL HUDSON GAS & ELECTRIC CO. AS PER LIBER 471, PAGE 124. THE EASEMENT IS UNPLOTTABLE.
- 3. PARCELS I & II ARE EASEMENTS CONVEYED TO THE TOWN OF POUGHKEEPSIE PER DEED LIBER 1432, PAGE 624. PARCEL I IS PLOTTABLE BASED ON IDENTIFIABLE DEED CALLS. PARCEL II IS ONLY DEFINED AS BEGINNING ON THE SOUTHERLY LINE OF IBM ROAD. ITS PLACEMENT HEREON IS ADJUDGED TO KEEP PARCEL II ENTIRELY WITHIN THE LANDS OF AVIS RENT A CAR SYSTEM, INC. CAUSING AN OVERLAP OF PARCEL I.

#### CERTIFIED TO:

dskiProji205184\dwg\205184svy.dwg 11/24/2010 8:16:21 AM EST

NEW YORK STATE - DEPARTMENT OF ENVIRONMENTAL CONSERVATION

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MAP MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S INKED SEAL OR HIS EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.

IT IS HEREBY CERTIFIED THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYOR'S ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYOR'S.

CERTIFICATIONS INDICATED HEREON SIGNIFY THAT THIS SURVEY WAS PRE-PARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEY'S ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL AND SURVEYOR'S SAID CERTIFICATIONS SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED, AND ON HIS BEHALF TO THE TELESON FOR WHOM THE SURVEY IS PREPARED, AND ON HIS BEHALF TO THE TILE COMPANY, LENDING INSTITUTION AND GOVERNMENTAL AGENCY LISTED HEREON, AND TO THE ASSIGNESS OF THE LENDING INSTITUTION. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.

SURVEYED AS PER MAPS AND DEEDS OF RECORD AND AS IN INDICATED POSSESSION ON OR BEFORE MAY 10, 2010.

6	AMENDED NOTES, GENERAL REVISIONS	11/24/10	JJV
5	ADDED NOTES	11/05/10	JJV
4	NYSDEC CHANGES	10/21/10	JAB
3	MONITORING WELL DESIGNATIONS	7/9/10	BJ
2	GENERAL REVISIONS	06/18/10	BJ
1	GENERAL REVISIONS	06/09/10	BJ
REV. No.	DESCRIPTION	DATE	BY

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON TO ALTER THESE PLANS, SPECIFICATIONS OR REPORTS IN ANY WAY, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED LAND SURVEYOR.



## BOUNDARY SURVEY



**MORRIS ASSOCIATES** ENGINEERING CONSULTANTS-LAND SURVEYORS 9 Elks Lane, Poughkeepsie, New York 12601 TEL:845-454-3411 (c) Copyright 2010 DESIGNED BY: JAB PROJECT No. DRAWING No SCALE DRAWN BY: JV, JAB 1" = 40' 205184.02 1 of 1 CHECKED BY: JAE



#### APPENDICES ON CD

Appendix B Electronic Copy of the FER

- Appendix C Electronic Copy of *Remedial Investigation and Interim Remedial Measure Implementation Report* (Geomatrix, 2007)
- Appendix D Electronic Copies of Monthly Reports to NYSDEC
- Appendix E Electronic Copies of Laboratory Analytical Data Sheets



APPENDIX F

As-Built Drawings



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#### Cover Type:

3 feet soil cover in area of excavation

Asphalt cover in parking areas

Concrete cover below building

FRANCE 2 March 10 CH	(V 12/24	0 Scale in Feet	60	
		SITE COVER SY Former Drive & Park 28 IBM Road Poughkeepsie, Ne	STEM , Inc. Site d w York	
	By: DA	Date: 12/21/2010	Project No.	9328.000
	AME	C Geomatrix	Figure	F-2





APPENDIX G

Environmental Easement

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#### ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this <u>23</u><sup>H0</sup> day of <u>Vecching</u>, 20(6) between Owner(s) Avis Rent A Car System, LLC, having an office at 6 Sylvan Way, Parsippany, New Jersey, 07054 (the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petrolcum; and

WHEREAS, Grantor, is the owner of real property located at the address of 28 IBM Road in the Town of Poughkeepsie, County of Dutchess and State of New York, known and designated on the tax map of the County Clerk of Dutchess as tax map parcel numbers: District 4869 Section 6060 Block 04 Lot(s) 903139 being the same as that property conveyed to Grantor by deed dated October 16, 1991 and recorded October 28, 1991 in the Dutchess County Clerk's Office in Liber 1902 at page 192, comprising approximately  $2.70 \pm$  acres, and hereinafter more fully described in the Land Title Survey dated May 18, 2010 and revised November 5, 2010 and November 24, 2010 prepared by Morris Associates Engineering Consultants-Land Surveyors, which will be attached to the Site Management Plan. The property description and survey (the "Controlled Property") is set forth in and attached hereto as Schedule A; and

WHEREAS, the Department accepts this Environmental Easement in order to ensure the protection of human health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of BCA Index Number: W3-1011-04-07, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein (AEnvironmental Easement@)

1. <u>Purposes</u>. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. <u>Institutional and Engineering Controls</u>. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor=s successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

# Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv)

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP.

(4) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(5) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(6) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(7) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP.

(8) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP.

(9) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for Residential or Restricted Residential purposes, and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor=s assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department=s determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Regional Remediation Engineer NYSDEC – Region 3 Division of Environmental Remediation 21 South Putt Corners Road New Paltz, NY 12561-1620, Phone: (845) 256 -3031

or

Site Control Section Division of Environmental Remediation NYSDEC 625 Broadway Albany, New York 12233 Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation Law.

Grantor covenants and agrees that this Environmental Easement shall be F. incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

Grantor covenants and agrees that it shall annually, or such time as NYSDEC may G. allow, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require,

the inspection of the site to confirm the effectiveness of the institutional and (1)engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3). (2)

the institutional controls and/or engineering controls employed at such site: (i) are in-place;

are unchanged from the previous certification, or that any identified (ii) changes to the controls employed were approved b the NYSDEC and that all controls are in the Department-approved format; and

that nothing has occurred that would impair the ability of such (iii) control to protect the public health and environment; (3)

the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls; (4)

nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls; (5

the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification; (6)

to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and (7)

the information presented is accurate and complete.

Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the 3. State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

Reserved Grantor =s Rights. Grantor reserves for itself, its assigns, representatives, and 4. successors in interest with respect to the Property, all rights as fee owner of the Property, including:

Use of the Controlled Property for all purposes not inconsistent with, or limited by Α. the terms of this Environmental Easement;

The right to give, sell, assign, or otherwise transfer part or all of the underlying fee Β. interest to the Controlled Property, subject and subordinate to this Environmental Easement;

#### 5. Enforcement

This Environmental Easement is enforceable in law or equity in perpetuity by A. Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a

defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. <u>Notice</u>. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:

Site Number: C 314111 Office of General Counsel NYSDEC 625 Broadway Albany New York 12233-5500

With a copy to:

Site Control Section Division of Environmental Remediation NYSDEC 625 Broadway Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. <u>Recordation</u>. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

GRANTOR: AVIS RENT A CAR SYSTEM, LLC.

By: \_\_\_\_\_ Bohnto Briet

Date:\_\_\_\_/8/10 Title:

### Grantor=s Acknowledgment

STATE OF NEW TORK	)
COUNTY OF Horris	) ss: )

On the 8th day of November, in the year 20 10, before me, the undersigned, personally appeared Robert Bouta, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

HARDEN FOM.

CYNTIA M. HERMES NOTARY PUBLIC STATE OF NEW JERSEY NO. 2284899 MY COMM. EXP. 4-23-12

Robert Bonta, Schlor Vice President For Properties & Facilities for Avis Budget Car Rental LLC. an authorized representative of Avis Rent A Car System, LLC

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner, By: Dale A. Desnoyers, Director Division of Remediation

Grantee=s Acknowledgment

10

STATE OF NEW YORK ) ss: COUNTY OF Allson

On the  $\frac{120}{100}$  day of  $\frac{1200}{1000}$  in the year 2010, before me, the undersigned, personally appeared  $\frac{1200}{1000}$   $\frac{12000}{1000}$ , personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, creeved the instrument.

An \$tate of New York ry Public

David J. Chinsano Notary Public, State of New York No. 01CH5032146 Qualified in Schenectady County, Commission Expires August 22, 20

#### SCHEDULE "A" ENVIRONMENTAL EASEMENT PROPERTY DESCRIPTION

28 IBM Road Poughkeepsie, NY District: 4869 Section: 6060 Block 04 Lot(s) 903139

All that certain parcel of land situate in the Town of Poughkeepsie, County of Dutchess, State of New York and being more particularly bounded and described as follows:

Beginning at the point of intersection of the Southerly line of IBM Road and the Easterly line of Barnegat Road, said point being the Northwesterly corner of the lands, now or formerly, of Avis Rent A Car, Inc. (Deed Liber 1902, Page 192); thence Easterly along the Southerly Line of IBM Road North<sup>o</sup> 84<sup>o</sup> 24<sup>'</sup> 58" East as per North American Datum 1983 (NAD83) 180.79 feet to its point of intersection with the dividing line between the herein described parcel on the West and the lands, now or formerly, of Hark Kandr LLC (Deed Liber 2205, Page 10851) on the East; thence Southerly and Southeasterly along said dividing line the following two (2) courses:

- 1. South 07° 21' 33" West 270.16 feet and
- 2. South 58° 43' 27" East 350.00 feet

to a point on the Westerly line of Lot 3, Block 6 as shown on a map entitled "South Park Estates" and filed in the Dutchess County Clerk's office as Map No. 2331; thence Southerly along the Westerly line of Lots 3 and 4 as shown on Map No. 2331 South 07° 21' 33" West 127.20 feet to its point of intersection with the dividing line between the herein described premises on the North and the lands, now or formerly, of Andrews (Deed Liber 1993, page 3521); thence Northwesterly along said dividing line North 61° 07' 57" West 615.88 feet to a point on the Easterly line of the aforementioned Barnegat Road, from which point an angle iron found bears North 33° 49' 00" West 7.76 feet; thence Northerly along the Easterly line of Barnegat Road North 23° 04' 58" East 283.56 feet (283.57 per deed Liber 1902, page 192) to the point or place of beginning and containing 2.71 acres of land, more or less.

Being the same premises described in the Deed made by Broad Act Corp. to Avis Rent a Car System Inc. dated October 16, 1991 and Recorded in Liber 1902 Page 192 of the Land Records of the County of Dutchess.

Environmental Easement Page 8

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#### **SURVEY**

Environmental Easement Page 9

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Document	Acce	ount		Amount	Comment		Pages
02 Deed # 64	92						
	010	Record Deeds		75.00	ease		11
	030	Affidavit	na An ann	5.00			1
	070	Records Mgmt - Lo	ocal Fee	1.00			1
	504	Records Mgmt - S	tate Fee	4.75			1
	511	Cultural Ed - State	Fee	14.25			1
	030	Reference		0.00			1
11 TRANSFE	R TAX	# 2318					
	290	Real Estate Trans	fer Tax	0.00			1
Grantor Grantee	AVI NY:	S RENT A CAR SY	STEM LLC		Tax District:	14 Town of	Poughkeepsie

Fidelity Title # 57580 Avis

rec 12/29/10 11:07 AM doc # 6492/2010



## **Dutchess County Clerk Recording Page**

Record & Return To :

FIDELITY NATL TITLE INSURANCE CO 1415 KELLUM PL STE 202 GARDEN CITY , NY 11530Date Recorded : 12/29/2010 Time Recorded : 11:07:00

Document #: 02 2010 6492

Tax District : Town of

Poughkeepsie

Received From : FIDELITY NATL TITLE INSURANCE CO

Grantor : AVIS RENT A CAR SYSTEM LLC Grantee : NYS PEOPLE

Recorded In : Deed Instrument Type : ease

ease ease

Examined and Charged As Follows :

Recording Charge :	\$100.00	Number of Pages : 11	
Transfer Tax Amount :	\$0.00		
Transfer Tax Number :	#2318	*** Do Not Dotton This Du	
Red Hook Transfer Tax :	 4	*** This is Not A Bill	
E & A Form: N			
TP-584 ; Y			

County Clerk By : Receipt # : Batch Record :

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Bradford Kendall County Clerk





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