HydroEnvironmental SOLUTIONS, INC.

February 17, 2017

Mr. Kevin Carpenter, P.E.
Senior Environmental Engineer, Remedial Bureau C,
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7014

RE: Scope of Work for Source Areas 1 and 3 through 10
109 Marbledale Road
Tuckahoe, New York

BCP Site No. C360143

Dear Mr. Carpenter:

As requested by the Village of Tuckahoe (the Village) environmental consultant HDR and the New York State Department of Environmental Conservation (NYSDEC), HydroEnvironmental Solutions, Inc. (HES) has compiled the following Scope of Work detailing the methods and approach for excavation and removal of contaminated soil from Source Areas 1 (SA-1) and Source Areas 3 through 10 (SA-3 – SA-10) that will be implemented at the subject site (**Figure 1**). Based on the NYSDEC approved Remedial Action Work Plan, the following environmental work will be completed at the site in order to comply with the Source Area removal requirements. This Scope of Work is submitted for review and approval by the NYSDEC and the Village of Tuckahoe, and incorporates feedback received from the NYSDEC and HDR at the January 5 and 20, 2017 Construction Meetings.

A permit application for the work described herein has been filed with the Village Building Inspector and work will not proceed without an approved permit in accordance with the Village of Tuckahoe Resolution pertaining to the site. It is noted that this scope of work is specific to the on-site Source Areas as described herein.

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Discussion of Environmental Investigation Results

The laboratory analytical results of the forty-nine (49) pre-characterization borings installed in the contaminant source areas and throughout the site during the recent environmental investigation (EI) (September through November 2016), as outlined in the NYSDEC-BCP Investigation and Remedial Design Letter dated September 23, 2016, were tabulated, reviewed and compared to NYSDEC Commercial Use Soil Cleanup Objectives (CSCOs) to further define the dimensions of SA-1 and SA-3 through SA-10. These areas were identified based on original soil quality data collected during the Remedial Investigation (final RI report dated January 14, 2016). The soil pre-characterization test boring results for VOCs, SVOCs, PCBs, Pesticides and Target Analyte (TAL) Metals are summarized on **Tables 1** through **9**, which compares the findings of the recent EI pre-characterization soil sampling results with the results from the RI soil sampling. The EI soil pre-characterization data were also reviewed as part of this Scope of Work to confirm the vertical and aerial extent of the proposed source area excavations. As a result of this soil data, additional areas on the southern portion of the site were selected for excavation based on the elevated presence of heavy metals including lead and barium. Furthermore, a 5-foot by 5-foot area around SB-11 will be removed based on the elevated presence of SVOCs. The proposed additional areas are shown on **Appendix 1**, the site plan that outlines available fill and additional soil removal at the end of this Work Plan.

Based on RI data and the recent EI data, soil borings installed within SA-1 and SA-3 through SA-10 exceed CSCOs for SVOCs and metals to a depth of 15 ftbg (feet below grade). As discussed in the approved RAWP, the plan is to remove SVOC and metals source material to a maximum depth of 15 feet and to roughly maintain the dimensions determined in the approved RAWP. The estimated depths and volumes of soil to be excavated from each of the remaining nine (9) Source Areas and the dimensions of each are listed on **Table 10,** but may be more extensive given field observation of possible source materials and the future end-point soil sampling results. The aerial extent of the nine (9) remaining Source Areas and the soil pre-characterization test boring locations are shown on **Figures 2 and 2A,** a site plan of the subject site. A detail of each Source Area (SA-1, SA-3 – SA-10) with respect to prior soil sampling locations (RI, EI) is included on **Figures 2B through 2E**.

Environmental Work in Support of Source Areas 1 and 3-10 Removal

The environmental work proposed in this Scope will comply with NYSDEC-BCP Technical Guidance document DER-10, Part 375 regulations for conducting cleanups and the recommendations and technical approach discussed at the recent construction kick-off meeting for the initial site excavation activities conducted at SA-2. The proposed source area work includes NYSDEC-required work in accordance with the final approved RAWP for the BCP site and as outlined in NYSDEC's July 18, 2016 RAWP review letter and the Decision Document. The proposed soil removal, which will start after NYSDEC and Village approval of this Scope of Work, will be conducted "at risk" as none of the EI data has been validated to date. Therefore,

the proposed source removal work could change if data validation warrants additional sampling or excavation.

The Site-Specific Health and Safety Plan (HASP; HES), the Earthwork contractor's HASP, OSHA HAZWOPER training certifications / documentation, Quality Assurance Project Plan (QAPP) and Community Air Monitoring Plan (CAMP) contained in the RAWP will all be implemented during this work. Therefore, in accordance with the approved RAWP, the CAMP will be implemented to monitor air quality during <u>all</u> on-site intrusive work and soil moving, loading, truck cleaning, backfilling, and stockpiling activities associated with the SA-1 and SA-3 through SA-10 excavations. The "Work Area", which is defined as a 20-30 foot area measured from the sidewalls of the excavations (where possible, depending on the property fence line location relative to the excavation area) , will be monitored continuously during excavation activities by the HES on-site geologist / environmental scientist using: (1) a calibrated four gas meter (%LEL, %O_2, H_2S and CO); (2) photoionization detector (PID), both of which will be immediately adjacent to the excavation edge while the work is ongoing; and (3) CAMP monitors, two of which will be placed downwind, and one upwind of the Work Area. A fourth CAMP monitor will be placed outside of the Work Area between the excavation and the nearest building or any other potential receptor when excavating near the property line, and a fifth CAMP monitor is located near the Waverly School. An FID monitor will be used during excavation of source areas with known Freon impacts. Water and spray foam (RusFoam® OC [AC645] [see attached specifications sheet] or equivalent) will be available on-site should dust and/or VOC/odor control become necessary during this work. The spray foam was tested on January 25, 2017 to ensure contractors are familiar with application techniques. A schematic showing the general approach to source area excavations is included at the end of this Work Plan.

All field work will be conducted in accordance with the requirements of the HASPs and all collected soil data will be validated by an independent validator in accordance with the requirements of the QAPP. Prior to or at the start of this work, soil erosion and sediment controls and site fencing / signage will be installed along the site perimeter in accordance with the approved site-wide Storm Water Pollution Prevention Plan (SWPPP). In the event that soil stockpiling is necessary, stockpile staging areas will be constructed prior to the start of excavation activities. Areas of the site disturbed during the source area work will be covered as necessary to control odors or fugitive dusts. Covers will be maintained in accordance with the SWPPP. Temporary cover of disturbed area using off-site BUD approved material (e.g.: item 4) may be required as these areas become more widespread as construction progresses.

Source Areas 1 and 3 – 10 Excavation Work Plan

The Excavation Work Plan outlined in **Section 5** of the approved RAWP will be followed during all source area excavation activities. Although soil has been analytically pre-characterized before excavation, soil will be screened in accordance with the Standard Operating Procedure presented in **Section 12** of the RAWP. The New York One Call procedures were completed prior to excavation startup. Documentation of SA-1 and SA-3 through SA-10 remedial activities

will include, but not be limited to, photos of work areas and activities; soil excavation logs; disposal records for soils and materials excavated and removed from the site; an accounting of daily activities and personnel on and off site; endpoint sample data; and air monitoring logs from the excavation Work Areas – in addition to the CAMP data. Additionally, the dimensions, depth, and location of the excavations upon completion will be surveyed and documented, as well as the location of all end-point samples – as this will be required for the Final Engineering Report (FER). This information will be provided to the NYSDEC and the Village in the FER; however, a summary of the work will be provided in the monthly progress reports. It should be noted that the general practices will be enhanced for SA's close to property lines, especially SA-1. The source area excavations, along with continuous work area monitoring at the sides of excavation areas, will start in areas furthest away from the property line (and effectively work towards the property line, keeping pace with observations and field monitors during all work).

Stockpiling

Stockpiling of soil from the Source Area excavations is not anticipated as current plans are to direct load during excavation. However, stockpiling may be utilized under the following conditions if necessary, in accordance with the RAWP. Stockpiling on-site soil/fill with no evidence of contamination (i.e., no staining or elevated PID measurements) may take place in approved areas in approximately 50 cubic yard piles, until removed from the site or used for backfill. If stockpiling is to take place, stockpiles will be placed, graded, shaped, and covered for proper drainage. Soil materials shall be located and retained away from the edge of excavations.

Stockpiling of on-site soil/fill with evidence of contamination (staining and/or elevated PID measurements) may take place in approved areas in approximately 50 cubic yard piles, until sample analysis is completed. Stockpiles will be placed, graded, shaped, and covered for proper drainage. This will ensure effective weather proofing of potentially contaminated soil stockpiles. Materials shall be located and retained away from edge of excavations.

Stockpiles will be kept covered at all times with appropriately anchored polyethylene sheeting or tarps. Foam suppressants will be utilized based on field screening and observations, and at the direction of NYSDEC and the Village.

All stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced. Foam suppressants – if used – will be maintained and re-applied in accordance with manufacturer's specifications and/or as needed to suppress odors or vapors. The stockpiled soil/fill will be placed on top of and be completely covered using polyethylene sheeting with a minimum thickness of 6 milliliter (ml) to reduce the infiltration of precipitation and to eliminate the formation of dust. The stockpile area shall be protected from stormwater runoff. For a completed stockpile (50 cy), edges of the sheeting shall overlap a minimum of two feet and duct tape shall be applied along all seams to prevent movement of sheeting and infiltration of

precipitation into the stockpiled soil. Non-soil weights (e.g. tires or rock) may be necessary to inhibit movement of the cover sheeting by wind.

Soil stockpiles will be continuously encircled with a berm and/or silt fence. The berm wall shall be constructed around the stockpile using uncontaminated material covered with the same sheeting as the stockpiled material. Hay bales will be used as needed near catch basins other discharge points. As of the date of this Work Plan all SWPPP measures (excluding temporary catch basins) have been installed along with truck tracking pads at both entrances to the site.

Stockpiles will be inspected at a minimum once each week and after every storm event, and in accordance with the site SWPPP. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by NYSDEC.

Source Materials Excavation and Direct Loading

As noted above, the plan for SA-1 and SA-3 through SA-10 is to direct load the trucks unless one of the contingencies noted above occurs. A Roll-off container will be placed at the site for disposal of any encountered / excavated debris. The roll-off container will be covered when not in use or when filled. A minimum of 3 drum overpacks will be staged at the site prior to the excavation of the nine source areas, in the event that source material (e.g., buried drums / containers, or product) is encountered that would have to be overpacked. A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated SA-1 and SA-3 through SA-10 material. The Volunteer and its contractor are solely responsible for safe execution of all invasive and other work performed under this Excavation Work Plan. Contractor will have an OSHA competent person (trained in accordance with 29CFR 1926) on-site and responsible for excavation safety. The excavation shall be completed in accordance with the following measures:

- Employ a transport vehicle tracking pad for vehicle loading operations to control and contain contaminated soil and debris spillage along with a truck cleaning station. The site entrance and tracking pad detail and truck washing station description and detail are included at the end of this Scope (“Appendix B – Alternative to Truck Washing Station”). The Source Area excavations shall be an open excavation, which will comply with the trenching and excavation requirements of 29 CFR 1926.651 and 1926.652. During non-work hours – or when awaiting laboratory data from end-point samples – the excavations will be secured and covered with either 6 ml polyethylene sheeting and/or foam as required to control dust and vapor that could emanate from the open excavations. If foam is required, it will be reapplied as needed to control odors and dust. The excavations will be backfilled as soon as practicable (i.e., when sample results are received and reviewed with NYSDEC and the Village, given there are no safety, odor, or other nuisances issues related to the excavation), or immediately (i.e., if odors or other nuisance issues are noted, or for any safety reasons) even if backfill material has to be removed to perform more sampling or excavation at a later time. A demarcation layer will be installed at

completed excavations in case additional soil needs to be removed. For the remaining nine (9) source areas, the use of on-site material for backfill is proposed in accordance with the RAWP; however, off-site sources of fill (soil or stone) will be coordinated if needed as outlined below). The contractor will provide excavation protection system(s) required by ordinances, codes, laws and regulations to prevent injury to workers and to prevent damage to new and existing structures or utilities. It is not anticipated that any on-site staff will be required to enter excavation areas that are more than 4 feet deep. Unless shown or specified otherwise, protection system(s) shall be utilized under the following conditions.

- Excavations Less Than 5 Feet Deep: Excavations in stable rock or in soil conditions where there is no potential for a cave-in may be made with vertical sides.

- During source area removal, all trucks will be direct loaded. Stockpiling is not planned for the nine (9) remaining source areas. During excavation, a covered Roll-off container will be staged on-site for encountered / excavated debris (e.g. metal debris, tires, lumber, etc.). Materials contained in the roll-off will be disposed of off-site in accordance with all applicable rules and regulations, with disposal information retained for the FER.

- A minimum of 3 drum overpacks will be mobilized and staged at the site prior to the excavation of SA-1 and SA-3 through SA-10, in the event that source material (e.g., buried drums / containers, or product) is encountered.

- Excavations More Than 5 Feet Deep: Excavations in stable rock may be made with vertical sides. Under all other conditions, the side walls of the excavations may be required to be sloped or shored to sufficiently provide for safe excavation, which may slightly expand the footprint. The OSHA excavation competent person overseeing the excavation activities will be responsible for the configuration of the excavation as it pertains to the trenching and excavation requirements of 29 CFR 1926.651 and 1926.652, and on decisions to backfill a source area that is completed. If the footprint is expanded, the material from outside any of the remaining nine (9) Source Area footprints shall be handled in the same manner as all material in this scope of work. It is not anticipated that benching, shielding or shoring and bracing will be required. The excavation hole will be secured with a 6 milliliter (ml) polyethylene sheeting and/or foam as required to control dust and vapor that could emanate from the open excavation as noted above or will be backfilled with material (from on-site or off-site sources) approved by NYSDEC (and a BUD, if applicable - see below) if material is imported from off-site pursuant to applicable regulations and DER-10.

- Debris and Waste (non-soil) that are encountered: If debris and wastes (non-soil; wire, metal, scrap/metal) are encountered, a roll-off container will be available.

Overpacks will also be available if a buried drum or tank is encountered. All solid wastes, such as these, will be appropriately characterized and disposed of off-site in accordance with all applicable local, State, and Federal rules and regulations.

- A roll-off for debris such as wire, metal, scrap/metal will be staged on-site to address (see above comment) this potential waste stream. All wastes such as these will be appropriately characterized and disposed of off-site in accordance with all applicable local, State, and Federal rules and regulations.

The excavation or disturbances will be either temporarily covered with a tarp or sprayed with foam if odors are present until the endpoint sample results have been received (as further described here), or backfilled with on-Site material for any nuisance condition or safety reasons. Backfill material which is sourced on site shall be placed cautiously into the excavations to avoid generation of dust. Monitoring for dust and odors/emissions shall be performed per the CAMP. Excavation will proceed cautiously due to the possibility of previously unknown sources such as tanks or drums that could be encountered. If such sources are encountered, they will be cautiously removed as further described below. Readings on the air monitors that are set up in the excavation Work Areas will be constantly assessed so that the appropriate pace of work can be determined. Following source area soil removal in accordance with OSHA excavation safety requirements, the excavations will be secured using orange snow fencing (at completion or at the end of each work day). If the excavations remain open prior to receiving backfill, they will be covered with 6 ml polyethylene sheeting and/or foam as required based on Work Area monitoring to control dust and vapor that could emanate from the open excavation. It is anticipated that one SA will be worked on/completed at a time, before proceeding to a new SA. Excavations may be kept open and secured, as described above, until endpoint sample data is received.

- The remaining nine (9) source areas will ultimately be backfilled in accordance with the RAWP (i.e., with BUD approved material, as required and approved by NYSDEC – see below). If foam is required, it will be reapplied as needed to control odors and dust. Unless for safety reasons, the excavations will be secured in this manner until laboratory end-point soil samples are obtained, the results are compared to the CSCOs and Decision Document criteria, the data is provided to the NYSDEC and the Village, and NYSDEC confirms that the source area (for the nine (9) remaining areas) has been completed. Backfilling that may occur prior to obtaining endpoint data will be done with a demarcation layer in place (plastic sheeting or similar) in the event that additional excavation at a source area is required by NYSDEC.

- Subsequent to obtaining NYSDEC approval, the excavations can be backfilled using appropriate backfill material in accordance with the regulations and DER-10 guidance requirements or with imported backfill material that also meet these requirements and has received an NYSDEC approval (e.g., BUD). The plan is to use as much on-site material as possible for backfill material in the nine (9) remaining source area

excavations. Backfill material for the nine (9) remaining source areas that will be derived from on-Site soils will originate from non-source area excavations on the Site that will be created from the installation of two temporary detention basins (part of the approved SWPPP; located near SA-1 and SA-8; final excavation depth of 4 to 6 ft below existing grade, with a liner to be installed) and, after these source areas are removed; from the two underground retention systems located in the southeast and northwest corners of the Site; and from two high elevation areas located on the northern third of the Site. As discussed with NYSDEC, on-site areas from where backfill material is obtained will be covered with plastic sheeting to suppress dusts. The covers will be maintained until a future time (i.e., installation of a more permanent stabilization measure including installation of approved soil or gravel from an off-site source). In the unlikely event that field monitoring during the removal of fill soils from these areas designated on the Available Fill Areas Figure (**Appendix 1**) – indicates odors or VOCs, foam or other approved vapor retarder shall be applied and maintained until a more permanent measure is approved by NYSDEC and installed. The detention basin and retention system areas of the site are shown in the SESI Consulting Engineers (SESI) drawings Figure G-1 (Overall Grading and Utility Plan) and SE-1 (Soil Erosion Plan) and the high elevation areas (depicted in an orange-red color) on a topographic drawing. See **Appendix 2** which includes these drawings. The RAWP allows reuse of such on-Site soils for backfill provided that the soils are found to be free of odors, debris / source materials as defined in the approved RAWP, and there are no field screening indications of source material present. A Source Area excavation hole may have to be filled even before data is obtained to avoid any potential safety issues (e.g., due to vehicle traffic, equipment near the hole) or if any nuisance conditions / excessive odors are being encountered. It is understood that backfill placed under these circumstances may need to be removed in order to conduct additional source area removal work, and a demarcation layer will be placed prior to backfill.

- All loading and transportation activities will be conducted in accordance with all applicable federal, state, and local regulations, including but not limited to United States Department of Transportation (USDOT) and United States Environmental Protection Agency (USEPA) regulations 40 CFR 172-179. Proteck from New Haven, Connecticut will be on-site during all soil removal activities to ensure compliance.

- The NYSDEC and the Village will be notified in writing when loading of contaminated soil/fill will occur and include the name and location of the disposal facility to be used. . The acceptance letter and disposal facility information for Bayshore Recycling is included at the end of this Work Plan.

- Loading and transport of contaminated soil and debris will not occur until receipt of approval from the disposal facility in which the contaminated soil and debris will be disposed. Presently, the site contractor, Siteworks, Inc. has secured soil disposal at Bayshore Recycling, an approved soil disposal facility located in Keasbey, New Jersey.

- All loading activities will be conducted in a manner to minimize the formation of dust. Contaminated soil and debris transport containers will be covered to prevent release of dust and particulates and exposure of the contaminated soil and debris to precipitation.

- Confirmation sampling of the sidewalls and excavation bottom per DER-10 Section 5.4(b) 5 will be used to determine that the hot spot has been removed within the completed dimensions of the nine (9) remaining Source Areas. Any confirmation sampling results that demonstrate a hot spot is still present (i.e., grossly contaminated soil, including elevated concentrations as utilized to define source areas and NYSDEC Decision Document criteria) will require further excavation and sampling to a maximum depth of 15 feet below ground surface, which is the extent of reach for the backhoe equipment being used. It is not anticipated that all end-points will achieve the CSCOs because landfill materials are being left at the site. If there are significant end-point exceedances of the CSCOs, the sidewall samples will be compared to existing data points from that area and applicable property boundary data to determine if further excavation is required by the NYSDEC. For example, the type of contaminant and whether it is volatile or not will be considered, and the location of the excavation in relation to other site conditions and data will be considered. Observations made during source area excavations will also be considered to determine if the excavation is completed, or if further excavation is needed (e.g., debris or stained soil visible on sidewall).

- The source area end-point soil samples will be analyzed for:
  - VOCs via EPA Method 8260
  - SVOCs via EPA Method 8270
  - TAL Metals
  - PCBs
  - Pesticides

- The areas that are scheduled to be backfilled will be done so on an “at risk” basis, because final, validated data may not be received (with a DUSR being performed on the laboratory data package) at the time of backfilling. This is proposed as a safety precaution for the Site (to avoid a deep hole being left open longer than it has to be). Analytical results for end-point sampling will typically require five business days.

- The NYSDEC and/or HDR will be on-Site during excavation activities at the remaining nine (9) Source Areas to observe site conditions. NYSDEC may collect a subset of split samples for analysis.

- As required by the NYSDEC and NYSDOH, dust and odor suppression (water and foam) will be available during all excavation work and documented. As of January 25, 2017, foam has been tested.

- A truck cleaning and inspection station will be operated on-Site. The truck cleaning station will be used for all vehicles leaving the site. Trucks will be brushed and/or scrubbed clean as required when exiting the Site and the site truck exit areas will be inspected periodically. To the extent that any dirt has exited the site, the exit ramp and street will be cleaned. If necessary, in order to prevent soil from collecting on truck tires and parts during loading, a polyethylene tarp will be constructed by attaching plastic to a large 2 x 8-inch board equivalent to the length of the triaxle bed that will be draped over the side of the dump trailer bed during loading. The tarp will protect the loading side of the truck from soil accumulation and dust during loading. Trucks transporting waste from the site will adhere to the following load covering:

    - Solid vinyl or equivalent tops;

    - Trucks will be required to have gasketed or tightly fitting tail gates;

    - Foaming of loaded materials may be required to control odors.

- Trucks transporting clean material on-Site (from off-site sources or from on-site borrow areas) will not be the same trucks removing contaminated material from the site. The proposed truck cleaning and inspection station details for the project are included at the end of this Scope.

- Egress points for truck and equipment transport from the Site will also be kept clean of dirt and other materials during site remediation and development. Locations where vehicles enter or exit the site will be inspected daily to ensure there is no off-site soil tracking. Soil that has been tracked off-Site will be swept or cleaned as appropriate. The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the Site are clean of dirt and other materials derived from the site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to Site-derived materials.

- Loaded transport vehicle tires and undercarriages will be inspected and cleaned to remove any adhering contaminated soil and debris prior to vehicle departure from the site. Loaded vehicles leaving the site will be appropriately tarped, securely covered, manifested (if needed), secured, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements). Trucks used for transportation of contaminated soil and debris will travel on authorized roads in accordance with all federal, state and local regulations. Queuing of trucks will be performed on-site in order to minimize off-site disturbances around the

site entrance. Off-site queuing will be prohibited. Bayshore Recycling is the current transporter and disposal facility that has been selected based on the data gathered at the Site to date. If additional disposal options are identified for the source areas, the NYSDEC and the Village will be notified.

- Planned truck transport routes are defined in the RAWP as follows:
    - Trucks coming from Interstate Route 87 will approach the Site from the north at the intersection of Tuckahoe Road and Interstate 87. Trucks will then proceed east on Tuckahoe Road and Main Street until the intersection of Main Street and Marbledale Road. While heading in the northerly direction on Marbledale Avenue, trucks will enter the site at a southern driveway, drive north in front of the work site, turn west at the northern site boundary, then head south then east, exiting the site at the same point as they entered, and then head south away from the site, see **Figure 3**. All trucks loaded with site materials will exit the vicinity of the site using only these approved truck routes. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport. Trucks will be prohibited from stopping and idling in the neighborhood outside the project site. The planned truck route for Source Area removal is included on **Figure 3**.

- All manifests will be signed by the on-site contractor Siteworks, Inc. soil disposal representative on behalf of the Volunteer and they will retain all disposal and waste characterization documentation, which shall be provided to HES to be included in the FER.

Source Materials Disposal Off-Site

All soil/fill/solid waste excavated and removed from the Site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6 NYCRR Part 360) and Federal regulations. If disposal of soil/fill from this Site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. However, this is not anticipated at this time. Unregulated off-site management of materials from this Site will not occur without formal NYSDEC approval. During source material excavation, whenever materials that are encountered that would point to a company that may have historically dumped material in the landfill, the items will be segregated and photo-documented.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C&D recycling facility, etc. Waste classification soil sampling was completed for all source areas during January 2017. The waste classification was completed by HES using a Geoprobe 54DT and collecting an appropriate number of soil samples to properly classify the soil slated for disposal. Based on the waste classification soil sampling results, all source areas were approved by Bayshore Recycling after being provided by Proteck to the facility. The approval letter for these soils is attached at the end of this letter.

Actual disposal quantities and associated documentation will be reported to the NYSDEC and the Village in the applicable monthly progress report and in the Final Engineering Report (FER). This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts. As noted above, at present, it is anticipated that all soil excavated from the remaining nine (9) Source Areas will be disposed of at Bayshore Recycling. Information on the recycling facility and the acceptance letter are attached at the end of this letter. Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6 NYCRR Part 360-1.2. Material that does not meet Track 1 unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6 NYCRR Part 360-16 Registration Facility). Under the BCP the Volunteer is responsible for classifying soils and disposing of them properly.

Based on elevated Freon concentrations in soil gas samples collected during the EI in the vicinity of SVE-2 and SVE-3, test pits will be excavated along the eastern property boundary at these locations. Six test pits will be excavated to 10 to 15 ftbg following the approved RAWP and Scope of Work protocols. The purpose of the test pits will be to determine if a known source of Freon (i.e.: dumped compressor or refrigeration equipment) can be located, and if found, removed in accordance with the RAWP and the approved Scope of Work. The exact location of test pits is not known at this time; however, it is anticipated that three test pits will be excavated around each of these two SVE well locations.

Contingency Plan

If underground storage tanks (USTs), drums, free product, or other previously unidentified contaminant sources are found during excavation, excavation activities will be suspended and the NYSDEC will be immediately notified. The excavation will be re-covered if necessary, based on “at hole” air monitoring data. Drum overpacks will be available as a contingency to containerize debris or product to the extent possible. If necessary, the site / area will be secured and covered until an agency-approved plan is in place to delineate, characterize, and remedy any new source area finding. Any drums and/or underground storage tanks or other source material encountered will be evaluated and a removal plan will be submitted for NYSDEC approval. Appropriately trained personnel will excavate and handle all source area materials in accordance with all applicable Federal, State, and local regulations.

Removed drums and storage tanks will be properly characterized and disposed off-site. The soil/fill surrounding the buried drums or underground storage tanks will be considered as potentially contaminated will be direct-loaded for off-site disposal (or, temporarily stockpiled and characterized, as needed).

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), unless the Site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC Spills Hotline. These findings will also be included in the Monthly Progress Reports and the Final Engineering Report.

Community Air Monitoring Plan

The number of CAMP monitoring stations operating will be five (5). Considering the Work Area as defined above, there will be: two (2) stations in downwind locations and one (1) station in the upwind location of the Work Area. HES will monitor wind directions throughout the work day, and the CAMP stations will be re-positioned as necessary as noted on the excavation schematic at the end of this Work Plan. Two additional CAMP stations will also be located outside the Work Area, with one (1) station set up between the Work Area and the nearest occupied structure and one (1) station set up on Morgan Street, between the site and Waverly School. It is noted that the locations and operations of the CAMP system are subject to modification by the NYSDEC / NYSDOH and the Village, based on observations during work at the remaining nine (9) source areas and air results warranting such modification. For source area SA-1, and any disturbance proposed under this scope that is in close proximity to a property line, a site meeting shall be held with NYSDEC and the Village to determine the best approaches to pace the work, load trucks, and monitor the excavation work area. The locations for the CAMP stations will also be discussed at this time. As is stated in the approved RAWP, depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements will be determined in consultation with NYSDOH.

Monitoring for VOCs will be performed at each of the CAMP station locations with a PID. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background concentration.

Additionally, a FID, PID, and 4-gas meter will be used within the Work Area immediately adjacent to the excavations perimeter edge to monitor for VOCs and gas concentrations at the excavations during soil removal activities. A FID and PID will also be used to scan the soils at the end-point sampling locations. The FID will be taken upwind periodically during the excavation activities to establish background concentrations.

For the CAMP stations, if the ambient air concentration of total organic vapors (PID) at the downwind perimeter of the work area exceeds 5 parts per million (ppm) above background for a 15-minute average, work activities will be temporarily halted and monitoring continued. If the ambient air FID readings at the downwind perimeter of the work area exceeds 5 parts per million (ppm) above background for a 15-minute average, work activities will be temporarily halted and monitoring continued If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will resume with continued monitoring. If total organic vapor levels at the downwind perimeter of the Work Area persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps bring the vapor levels below 5 ppm over background for the 15-minute average, work activities will resume provided that the total organic vapor level 200 feet downwind of the work area or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less, remains below 5 ppm over background for the 15-minute average. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities will be shutdown and the area backfilled or otherwise covered with foam suppressant and plastic sheeting.

Particulate concentrations will be monitored at each of the CAMP station locations. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work will continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m3 above the upwind level and provided that no visible dust is migrating from the work area. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m3 above the upwind level, work will be stopped and re-evaluation of activities will be initiated. Work will resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m3 of the upwind level and in preventing visible dust migration.

CAMP data will continue to be reported to the NYSDEC and NYSDOH on a weekly basis with the exception of exceedances of action levels that will be reported at the time of exceedance. Additionally, daily CAMP and summary sheets will continue to be sent to the Village's environmental consultant (weekly summaries to NYSDEC and NYSDOH). The CAMP will provide air monitoring data in real-time via Environet at the Site so that there is no delay in responding to VOCs or particulates that approach or exceed the action levels. The CAMP systems will be setup to notify site personnel of exceedances (or "near-exceedance levels") so

the contractor can respond promptly as necessary with corrective measures if the elevated readings are caused by the excavation activities.

Odor Control Plan

Based on the primary constituents of concern, metals, VOCs and SVOCs, as well as the field experience that odors were observed on-site, odors are anticipated to be a possible issue or concern.

This odor control plan is capable of controlling the migration of nuisance odors off-site. If nuisance odors are identified at the site boundary work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events. The agencies will be notified of any other complaints from the community such as dust or noise that arise directly from the project activities. Implementation of all odor controls, including the halt of work, is the responsibility of the property owner's remediation environmental consultant.

All necessary means will be employed to prevent on- and off-site nuisance odors. In accordance with the RAWP, these measures may include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other cover systems; and (c) using foams or water to cover exposed odorous soils (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor wind conditions and odors at the immediate excavation area, property line, and – if necessary – beyond property lines.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems as per Section 10 of the RAWP.

Clean Fill Imported to the Site for Backfill

As this time, the plan for backfill is to reuse as much material on-site as possible. The on-site material proposed for reuse is outlined on the Usable Fill Areas Figure (**Appendix 1**). The proposed usable fill areas were outlined based on a review of RI and EI soil data, and all areas slated for reuse as fill are compliant with CSCOs, a total of five (5) fill areas were outlined on the drawing along with a summary table of the volume of fill available from each location. Some recycled concrete aggregate (RCA) will be utilized in some of the utility trenches and under the foundations. As stated in the RAWP, all materials proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with provisions in this EWP prior to receipt at the site. Information on potential / proposed clean fill materials (source, soil / stone type) will be submitted to NYSDEC and the Village via a

Beneficial Use Determination (BUD) application, which requires, at a minimum, sampling of the material and disclosure of the source. The source locations for off-site material (structural fill including item 4 and dense aggregate) that have been approved to date include:

- Edison Avenue Recycle in Mount Vernon, New York
- Thalle Industries in Elmsford, New York

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the site.

All imported soils will meet the backfill and cover soil quality standards established in 6 NYCRR 375-6.7(d). Soils that meet “exempt" fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this site, will not be imported onto the site without prior approval by NYSDEC. Solid waste will not be imported onto the site.

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be used immediately for backfill, or stockpiled separately from excavated materials and covered to prevent dust releases.

Off-site borrow soils will be documented as having originated from locations having no evidence of disposal or release of hazardous, toxic or radioactive substances, wastes or petroleum products. Off-site borrow soils intended for use as site backfill cannot otherwise be defined as a solid waste in accordance with 6 NYCRR Part 360-1.2(a).

If the contractor designates a source as "virgin" soil, it shall be further documented in writing to be native soil material from areas not having supported any known prior industrial or commercial development or agricultural use. Virgin soils should be subject to collection of one representative composite sample per source. The sample should be analyzed for TCL VOCs, SVOCs, pesticides, PCBs, and TAL metals. The soil will be acceptable for use as backfill provided that all parameters meet the Allowable Constituent Levels for Imported Fill or Soil, provided as Appendix 5 of DER-10 (May 2010).

Health and Safety Procedures for Intrusive Activities

Contractors engaged in subsurface excavation activities will be required to implement appropriate health and safety procedures. These procedures will involve, at a minimum, donning adequate personal protective equipment, performing appropriate air monitoring, and implementing other engineering controls, as necessary, to mitigate potential ingestion, inhalation and contact with residual constituents in the soils. A site-specific, activity-specific Health and Safety Plan (HASP) has been prepared for the Site by the Construction Contractor (Contactor) and has taken into account the RI and pre-characterization sampling results for soil and soil gas. All required on-site construction and technical personnel who are required to be OSHA 40-hour HAZWOPER training and 10-hour OSHA Construction training will maintain up

to date training. An OSHA Competent Person in accordance with 29CFR-1926 will be on-site and responsible for excavation safety.

If you have any questions regarding the Scope of Work for Source Area 1 and Source Area 3 through Source Area 10, please contact me at (914) 276-2560. We look forward to continuing to work with you on this project.

Very truly yours,
HydroEnvironmental Solutions, Inc.

William A. Canavan, PG, LSRP
President

Enclosures

cc: Mr. Bill Weinberg – Bilwin Development Affiliates, LLC
Linda Shaw, Esq. – Knauf Shaw LLP
Mr. Mike Musso, PE, HDR – Village Environmental Consultant
Mr. Bill Williams – Village of Tuckahoe Building Inspector
Mr. Lee Crewson – PEAK Construction Group, LLC
Mr. Arthur Rossi – Siteworks Contracting Corp.
Mr. Arthur Ragone – Siteworks Contracting Corp.
File

TABLES

TABLE 1

109 Marbledale Road
Tuckahoe, New York
BCP Site No. C360143

Comparison Summary of Soil Objective Exceedances - Source Area 1

Sample ID Sampling Date Client Matrix	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives-Commercial	SA-1-1 (8-10.1 ftbg) 11/7/2016 Soil	SA-1-2 (7-8 ftbg) 11/7/2016 Soil	SA-1-3 (4.5-8 ftbg) 11/7/2016 Soil	SA-1-4 (2-3 ftbg) 11/7/2016 Soil	TB-2 (2-4 ftbg) 4/15/2015 Soil	TB-2 (18-20 ftbg) 4/15/2015 Soil	TB-3 (2-4 ftbg) 3/3/2015 Soil	SB-4 (1-4 ftbg) 11/23/2016 Soil	SB-5 (1-4 ftbg) 11/23/2016 Soil
Compound		Result	Result	Result	Result	Result	Result	Result	Result	Result
Semivolatiles (mg/Kg)										
Benzo(a)anthracene	5.6	ND	ND	ND	0.08	ND	ND	5.60	ND	ND
Benzo(a)pyrene	1	ND	ND	ND	ND	ND	ND	**5.80**	ND	ND
Benzo(b)fluoranthene	5.6	ND	ND	ND	0.07	ND	ND	**7.70**	ND	ND
Dibenzo(a,h)anthracene	0.56	ND	ND	ND	ND	ND	ND	**0.79**	ND	ND
Metals, Total (mg/Kg)										
Barium	400	**544.00**	**534.00**	81.30	90.60	**576.00**	210.00	155.00	**1,170.00**	328.00
Copper	270	**1,470.00**	**494.00**	69.70	79.10	**649.00**	**605.00**	34.10	**512.00**	**682.00**
Lead	1000	**4,800.00**	944.00	26.40	130.00	745.00	402.00	180.00	**1,800.00**	**2,600.00**

NOTES:
Any Regulatory Exceedances are highlighted.
ND=Non-Detect
NT=Not Tested

TABLE 2

109 Marbledale Road
Tuckahoe, New York
BCP Site No. C360143

Compairson Summary of Soil Objective Excedences - Source Area 3

Sample ID Sampling Date Client Matrix	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives- Commercial	SA-3-1 (9-11.4 ftbg) 11/8/2016 Soil	SA-3-2 (14-15 ftbg) 11/8/2016 Soil	TB-10 (4-6 ftbg) 3/2/2015 Soil	TB-10 (32-34 ftbg) 3/2/2015 Soil	SB-11 (0-4 ftbg) 11/28/2016 Soil
Compound		Result	Result	Result	Result	Result
Semivolatiles (mg/Kg)						
Benzo(a)anthracene	5.6	**18.80**	ND	4.50	1.50	3.98
Benzo(a)pyrene	1	**8.58**	ND	**4.00**	**1.20**	**4.55**
Benzo(b)fluoranthene	5.6	**9.11**	ND	**5.90**	1.50	3.89
Dibenzo(a,h)anthracene	0.56	**0.94**	ND	ND	ND	**1.27**
Metals, Total (mg/Kg)						
Arsenic	16	1.29	1.07	3.30	**17.10**	2.25
PCBs (mg/Kg)						
Total PCBs	1	ND	ND	0.19	0.13	ND

NOTES:
Any Regulatory Exceedences are color coded by Regulation
ND=Non-Detect
NT=Not Tested

TABLE 3

109 Marbledale Road
Tuckahoe, New York
BCP Site No. C360143

Compairson Summary of Soil Objective Excedences - Source Area 4

Sample ID Sampling Date Client Matrix	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives-Commercial	SA-4-1 (8-12 ftbg) 11/9/2016 Soil	SA-4-2 (0-4 ftbg) 11/9/2016 Soil	SA-4-3 (4-8 ftbg) 11/9/2016 Soil	TB-7 (6-8 ftbg) 3/11/2015 Soil	TB-7 (10-12 ftbg) 3/11/2015 Soil	SB-14 (8-11.5 ftbg) 11/28/2016 Soil	SB-15 (0-4 ftbg) 11/28/2016 Soil
Compound		Result	Result	Result	Result	Result	Result	Result
Semivolatiles (mg/Kg)								
Benzo(a)anthracene	5.6	0.10	0.13	0.21	0.65	ND	**5.72**	0.82
Benzo(a)pyrene	1	ND	ND	0.14	0.66	ND	**2.39**	**1.21**
Dibenzo(a,h)anthracene	0.56	ND	ND	ND	ND	ND	**1.26**	0.35
PCBs (mg/Kg)								
Total PCBs	1	0.08	ND	0.06	ND	**1.30**	ND	0.70

NOTES:
Any Regulatory Exceedences are color coded by Regulation
ND=Non-Detect
NT=Not Tested

TABLE 4

109 Marbledale Road
Tuckahoe, New York
BCP Site No. C360143

Comparison Summary of Soil Objective Exceedances - Source Area 5

Sample ID Sampling Date Client Matrix	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives-Commercial	SA-5-1 (4-6.75 ftbg) 11/10/2016 Soil	SA-5-2 (8-12 ftbg) 11/10/2016 Soil
Compound		Result	Result
No Exceedences			

NOTES:
Any Regulatory Exceedances are highlighted.
ND=Non-Detect
NT=Not Tested

TABLE 5

109 Marbledale Road
Tuckahoe, New York
BCP Site No. C360143

Comparison Summary of Soil Objective Exceedances - Source Area 6

Sample ID Sampling Date Client Matrix	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives-Commercial	SA-6-1 (12-15 ftbg) 11/10/2016 Soil	TB-9 (2-4 ftbg) 3/2/2015 Soil	TB-9 (7-9 ftbg) 3/2/2015 Soil	SB-22 (12-15 ftbg) 12/1/2016 Soil	SB-23 (4-8 ftbg) 12/1/2016 Soil	SB-24 (4-8 ftbg) 12/2/2016 Soil
Compound		Result	Result	Result	Result	Result	Result
Semivolatiles (mg/Kg)							
Benzo(a)pyrene	1	ND	**1.20**	**2.00**	0.17	0.17	0.63

NOTES:
Any Regulatory Exceedances are highlighted.
ND=Non-Detect
NT=Not Tested

TABLE 6

109 Marbledale Road
Tuckahoe, New York
BCP Site No. C360143

Comparison Summary of Soil Objective Exceedances - Source Area 7

Sample ID Sampling Date Client Matrix	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives-Commercial	SA-7-1 (0-4 ftbg) 11/14/2016 Soil	TB-11 (4-6 ftbg) 2/27/2015 Soil	TB-11 (21-23 ftbg) 2/27/2015 Soil	SB-17 (0-2.25 ftbg) 12/1/2016 Soil	SB-20 (0-4 ftbg) 12/1/2016 Soil	SB-21 (0-4.9 ftbg) 12/1/2016 Soil
Compound		Result	Result	Result	Result	Result	Result
Semivolatiles (mg/Kg)							
Benzo(a)pyrene	1	**2.68**	**3.40**	**3.00**	0.12	0.13	0.87

NOTES:
Any Regulatory Exceedances are highlighted.
ND=Non-Detect
NT=Not Tested

TABLE 7

109 Marbledale Road
Tuckahoe, New York
BCP Site No. C360143

Comparison Summary of Soil Objective Exceedances - Source Area 8

Sample ID Sampling Date Client Matrix	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives-Commercial	SA-8-1 (4-8 ftbg) 11/14/2016 Soil	TB-8 (2-4 ftbg) 2/27/2015 Soil	TB-8 (20-22 ftbg) 2/27/2015 Soil	SB-18 (12-15 ftbg) 12/1/2016 Soil	SB-19 (0-4 ftbg) 12/1/2016 Soil	SS-8 4/23/2015 Soil
Compound		Result	Results	Results	Result	Result	Result
Benzo(a)pyrene	1	ND	0.26	ND	0.085	ND	**1.9**

NOTES:
Any Regulatory Exceedances are highlighted.
ND=Non-Detect
NT=Not Tested

TABLE 8
109 Marbledale Road
Tuckahoe, New York
BCP Site No. C360143

Comparison Summary of Soil Objective Exceedances - Source Area 9

Sample ID Sampling Date Client Matrix	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives-Commercial	SA-9-1 (12-15 ftbg) 11/14/2016 Soil	TB-12 (4-6 ftbg) 2/26/2015 Soil	TB-12 (28-30 ftbg) 2/26/2015 Soil	SB-26 (0-4 ftbg) 12/2/2016 Soil
Compound		Result	Result	Result	Result
Semivolatiles (mg/Kg)					
Benzo(a)anthracene	5.6	**38.50**	1.40	ND	**5.77**
Benzo(a)pyrene	1	**12.20**	**2.10**	ND	**1.34**
Benzo(b)fluoranthene	5.6	**20.90**	2.30	ND	1.61
Dibenzo(a,h)anthracene	0.56	**3.23**	ND	ND	0.078
Indeno(1,2,3-cd)pyrene	5.6	**7.98**	1.20	ND	0.65

NOTES:
Any Regulatory Exceedances are highlighted.
ND=Non-Detect
NT=Not Tested

TABLE 9

109 Marbledale Road
Tuckahoe, New York
BCP Site No. C360143

Comparison Summary of Soil Objective Exceedances - Source Area 10

Sample ID Sampling Date Client Matrix	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives-Commercial	SA-10-1 (8-12 ftbg) 11/14/2016 Soil	TB-13 (4-6 ftbg) 2/26/2015 Soil	TB-13 (26-28 ftbg) 2/26/2015 Soil	SB-25 (0-4 ftbg) 12/2/2016 Soil
Compound		Result	Result	Result	Result
Semivolatiles (mg/Kg)					
Benzo(a)anthracene	5.6	ND	**5.90**	ND	ND
Benzo(a)pyrene	1	ND	**5.20**	ND	ND
Benzo(b)fluoranthene	5.6	ND	**6.40**	ND	ND

NOTES:
Any Regulatory Exceedances are highlighted.
ND=Non-Detect
NT=Not Tested

TABLE 10

109 MARBLEDALE ROAD
TUCKAHOE, NEW YORK
BCP #C360143

Source Areas 1 and 3 through 10 – Estimated Removal Volumes

Source Area No.	Length (ft)	Width (ft)	Depth (ft)[2]	Area (cubic feet) [1]	Estimated Total Volume to be Removed (cubic yards)[5]	Previously Estimated Total Volumes to be Removed (cubic yards)[6]
1[A]	60	35	12	25,200	933	283
1[B]	45	35	6	9,450	350	--
3	35	25	12	10,500	389	110
4	47	30	5[3]	7,050	261	187
5[4]	--	--	--	--	--	43
6	26	22	10	5,720	212	85
7	29	23	15	10,005	371	127
8	28	24	2	1,344	50	85
9	28	24	15	10,080	373	85
10	29	24	7	4,872	180	127

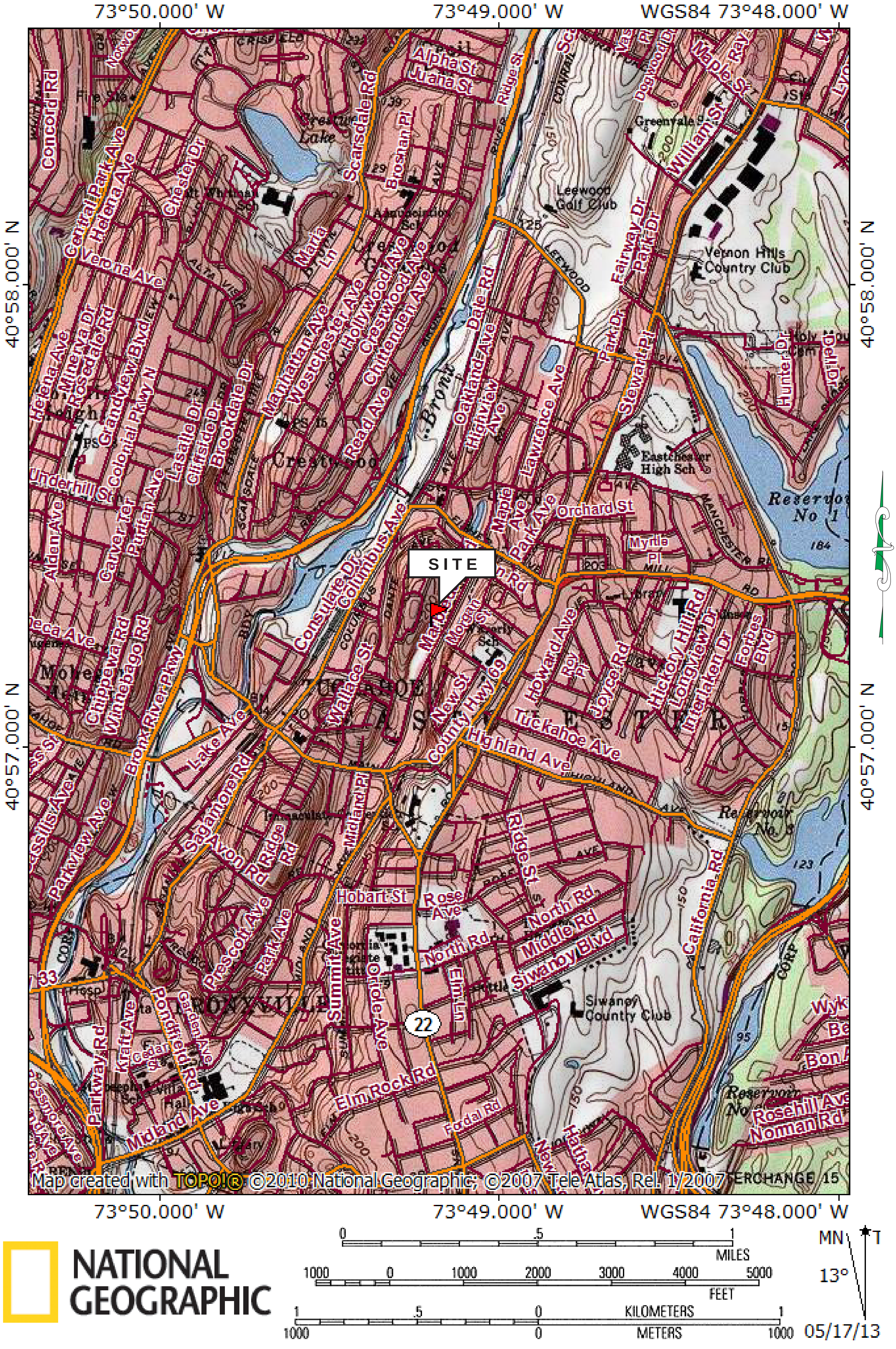
NOTES:

1. All areas were estimated from **Figures 2B** through **2D**
2. Depths of excavations were redefined from RAWP based on additional EI data
3. SA-4 soils will be removed from 8 to 13 ftbg based on PCB data (**Table 3**)
4. SA-5 eliminated based on RI and EI data compared to CSCOs
5. Estimated Total to be Removed = 3,119 cubic yards
6. Previously Estimated Total to be Removed = 1,264 cubic yards (based on **Table 4** of RAWP)
7. SA-1[A] is the southernmost and SA-1[B] is the northernmost portion of SA-1

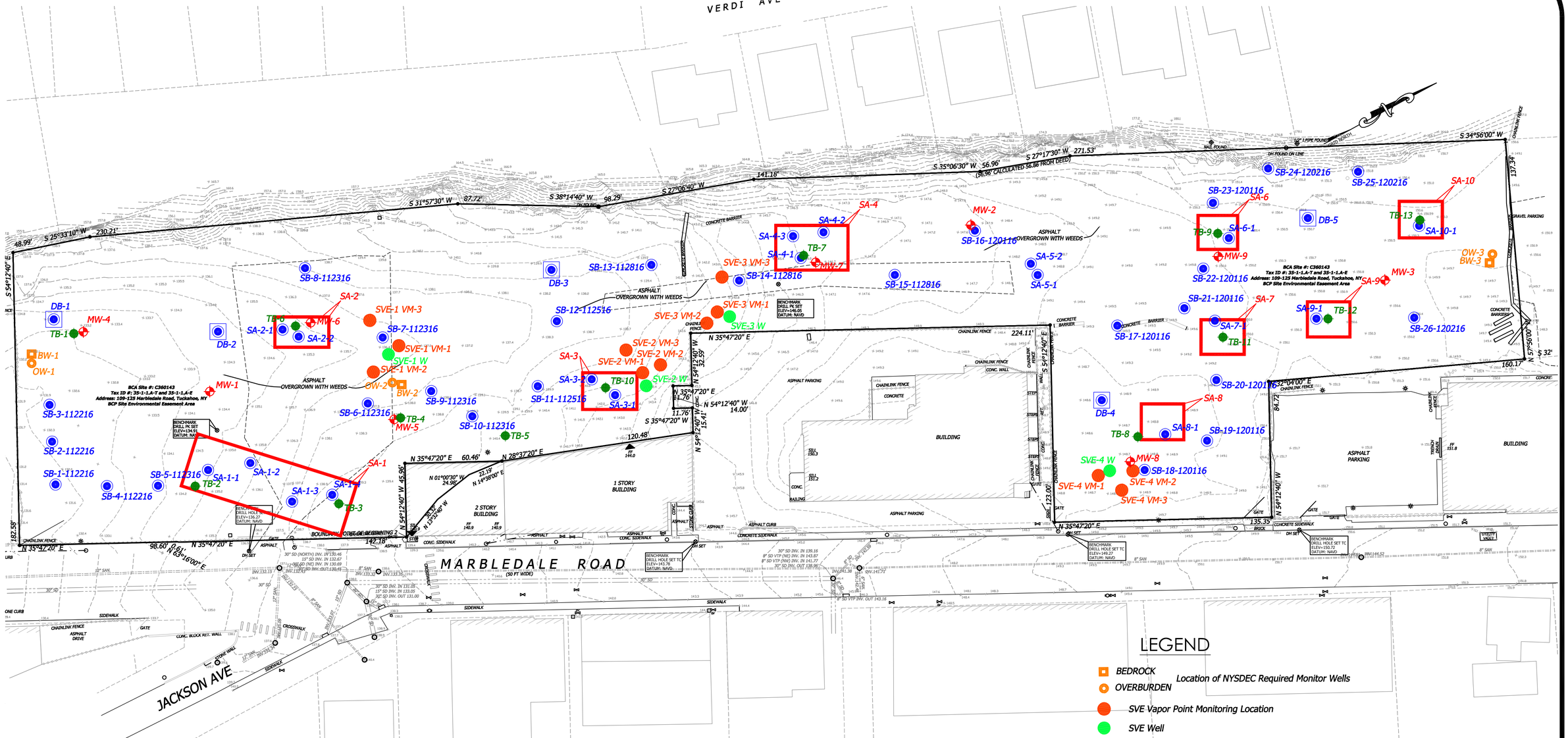
FIGURES

FIGURE 1
SITE LOCATION MAP

109-125 MARBLEDALE ROAD
TUCKAHOE, NEW YORK



NATIONAL GEOGRAPHIC



SITE PLAN

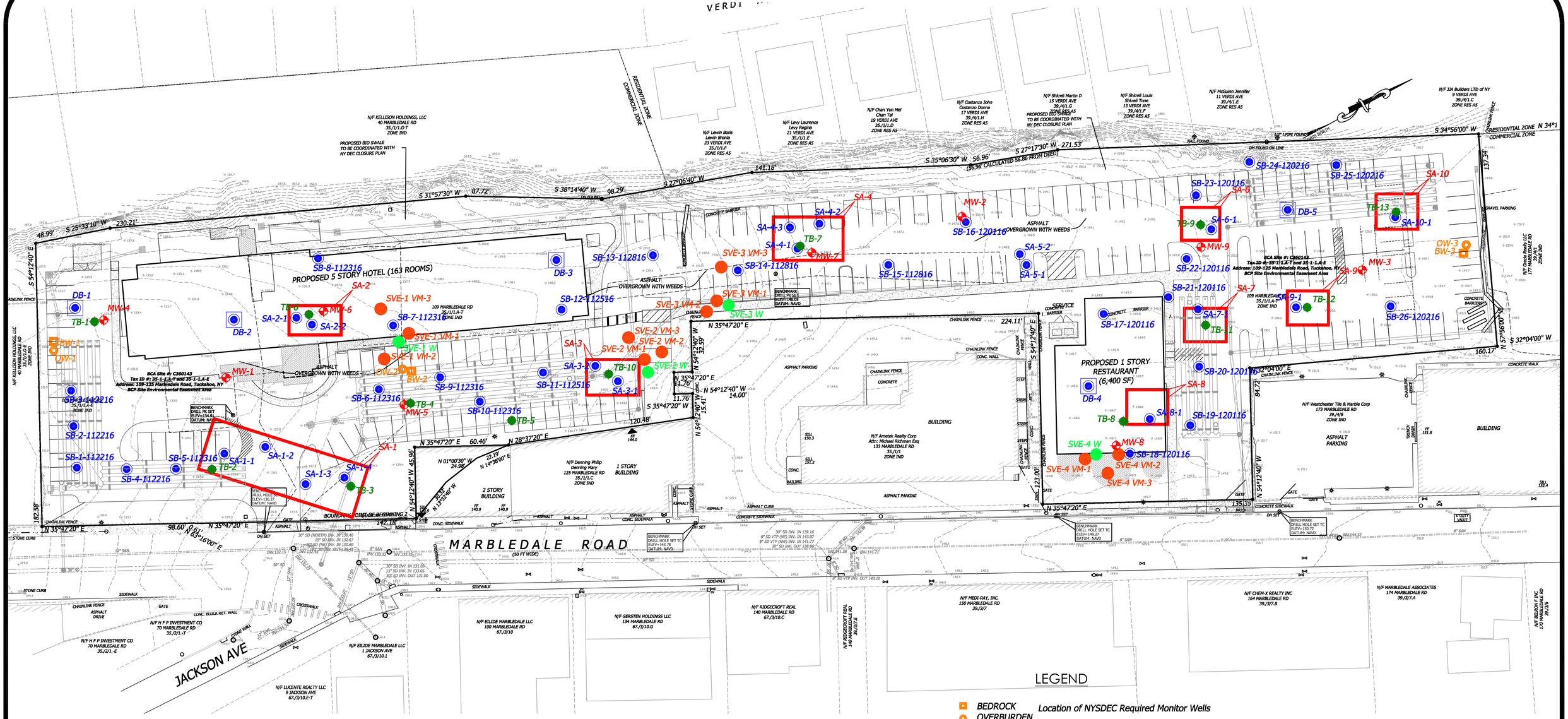
SCALE: 1" - 20'

109-125 MARBLEDALE ROAD
TUCKAHOE, NEW YORK

SITE PLAN
SHOWING TB'S, MONITORING, SVE WELL LOCATIONS AND SOIL CONTAMINANT SOURCE AREA LOCATIONS

FIGURE 2
ENVIRONMENTAL INVESTIGATION & REMEDIAL DESIGN PLAN

HydroEnvironmental SOLUTIONS, INC.
One Deans Bridge Road
Somers, New York 10589



SITE PLAN

SCALE: 1" = 30'

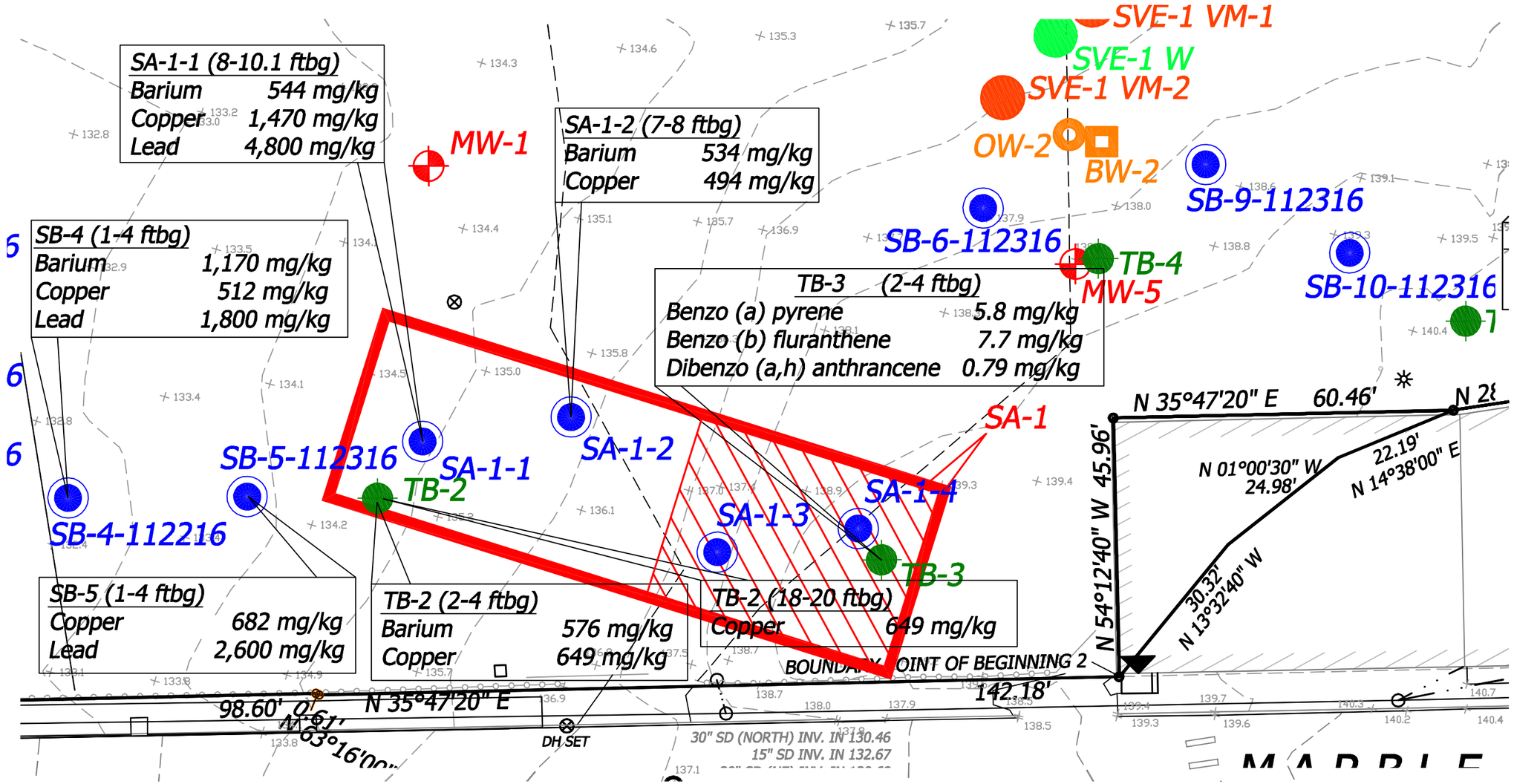
FIGURE ADAPTED FROM PLAN BY SESI CONSULTING ENGINEERS, PC.

109-125 MARBLEDALE ROAD
TUCKAHOE, NEW YORK

SITE PLAN
SHOWING TB'S, MONITORING, SVE WELL LOCATIONS AND SOIL CONTAMINANT SOURCE AREA LOCATIONS

FIGURE 2A
ENVIRONMENTAL INVESTIGATION & REMEDIAL DESIGN PLAN

HydroEnvironmental SOLUTIONS, INC.
One Deans Bridge Road
Somers, New York 10589

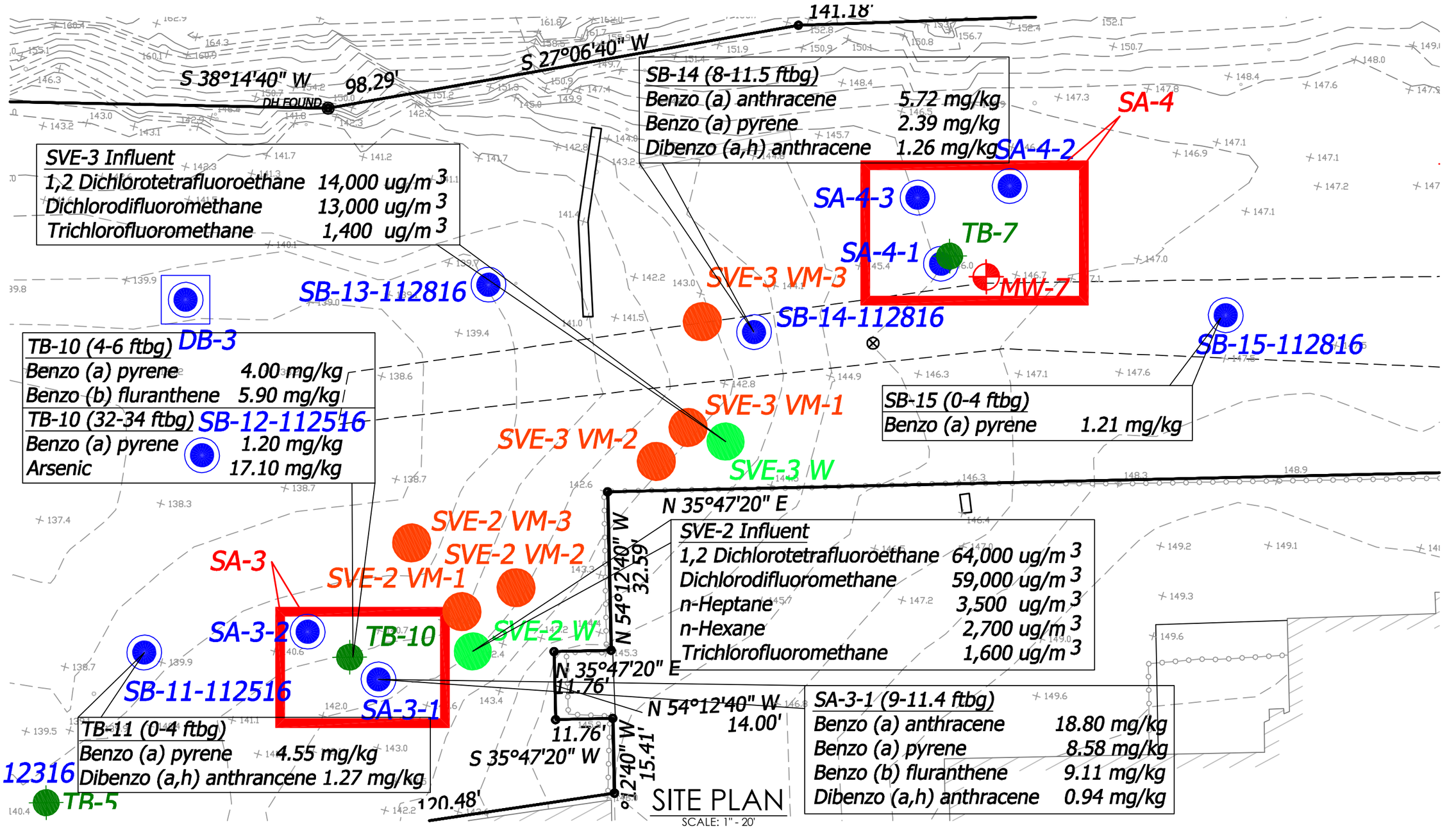


SITE PLAN
SCALE: 1" - 20'

$SA\text{-}1^A$ = 60ft x 35 ft x 12 ft

$SA\text{-}1^B$ = 45 ft x 35 ft x 6 ft

109-125 MARBLEDALE ROAD TUCKAHOE, NEW YORK	DETAIL OF SOURCE AREA SA-1	FIGURE 2B	HydroEnvironmental SOLUTIONS, INC. One Deans Bridge Road Somers, New York 10589

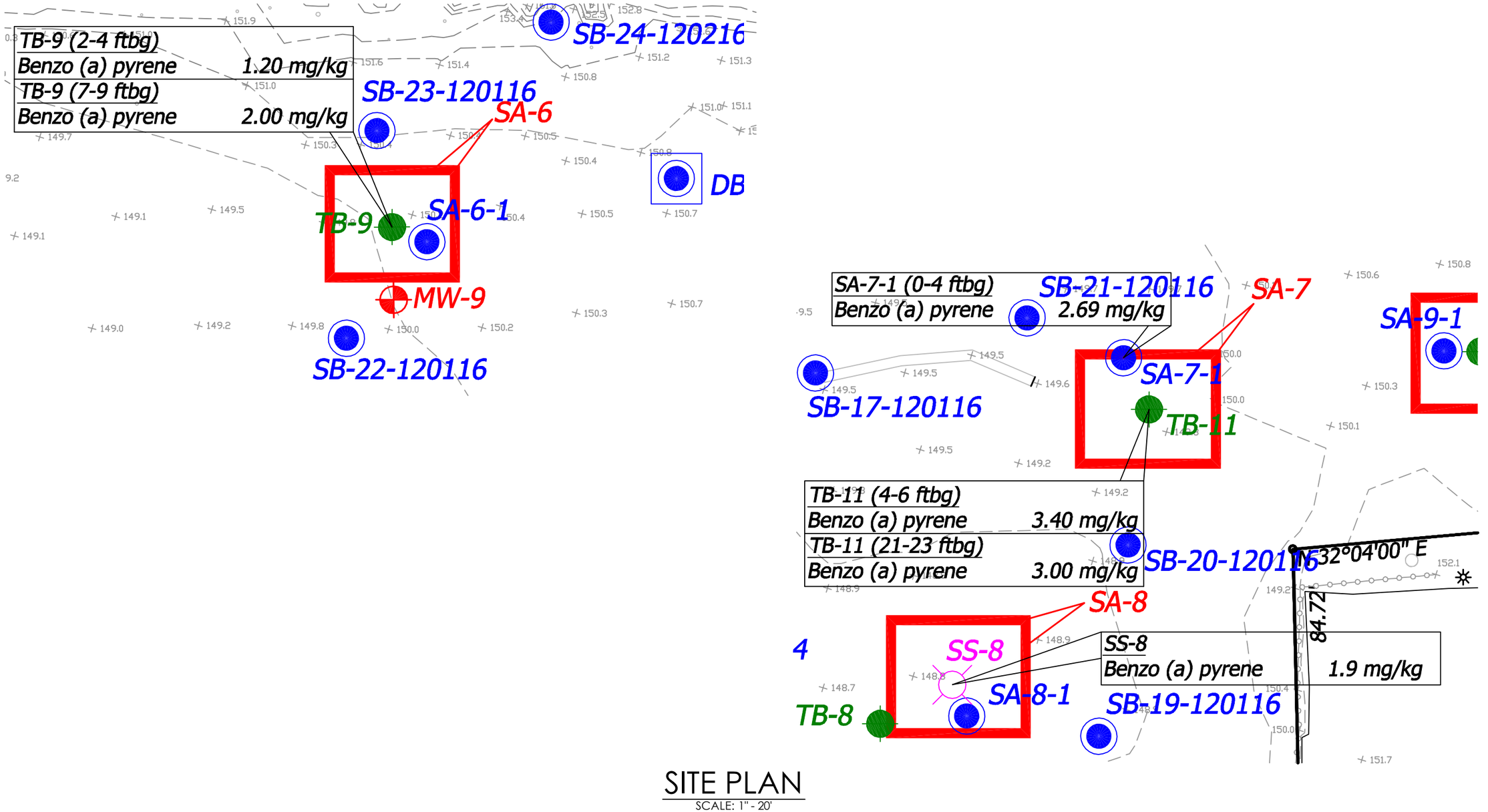


109-125 MARBLEDALE ROAD
TUCKAHOE, NEW YORK

DETAIL OF SOURCE
AREA SA-3 & SA-4

FIGURE 2C

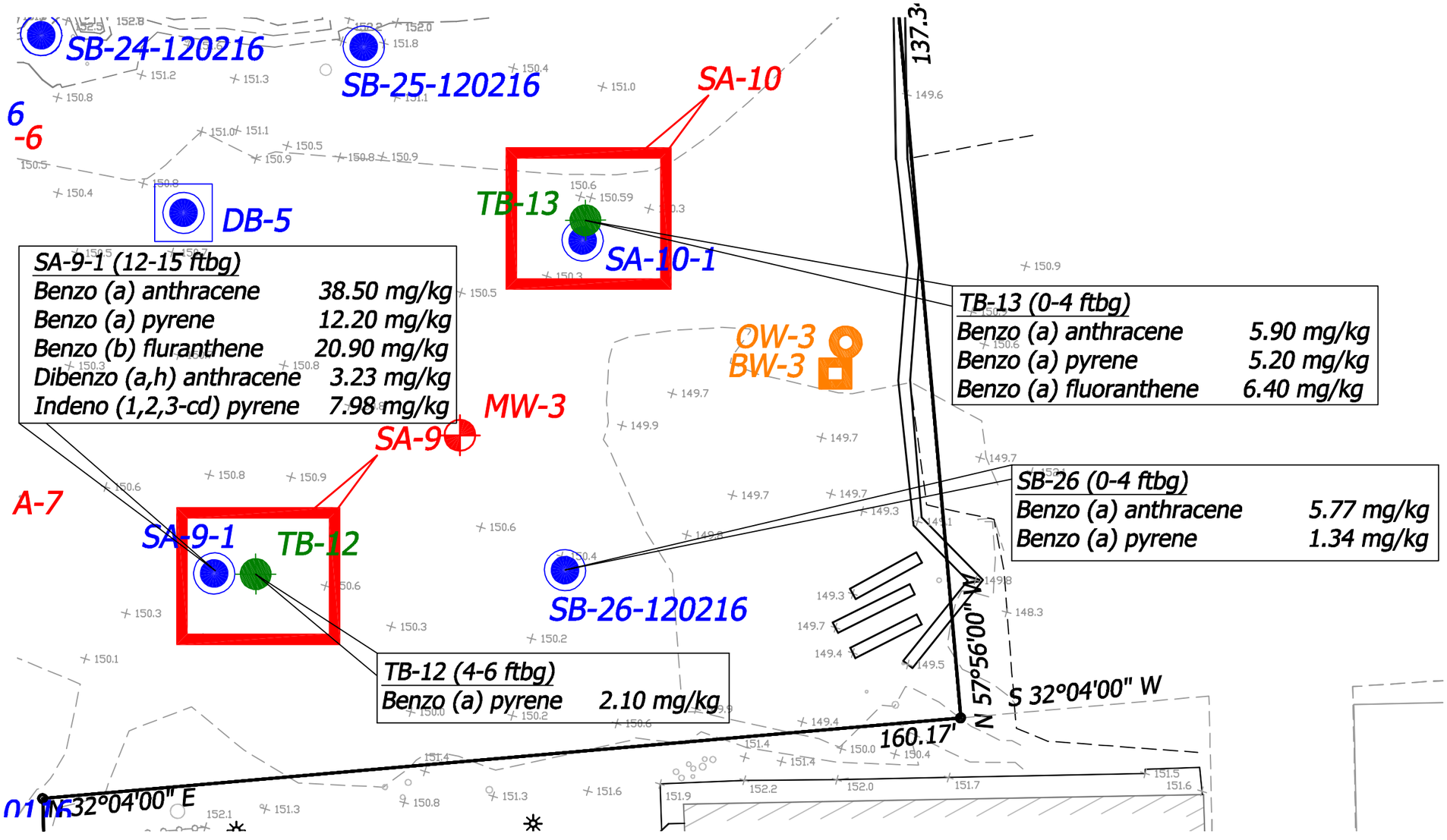
HydroEnvironmental
SOLUTIONS, INC.
One Deans Bridge Road
Somers, New York 10589



SITE PLAN

SCALE: 1" - 20'

109-125 MARBLEDALE ROAD TUCKAHOE, NEW YORK	DETAIL OF SOURCE AREA SA-6 THROUGH SA-8	FIGURE 2D	HydroEnvironmental SOLUTIONS, INC. One Deans Bridge Road Somers, New York 10589



SITE PLAN

SCALE: 1" - 20'

109-125 MARBLEDALE ROAD TUCKAHOE, NEW YORK	DETAIL OF SOURCE AREA SA-9 THROUGH SA-10	FIGURE 2E	HydroEnvironmental SOLUTIONS, INC. One Deans Bridge Road Somers, New York 10589

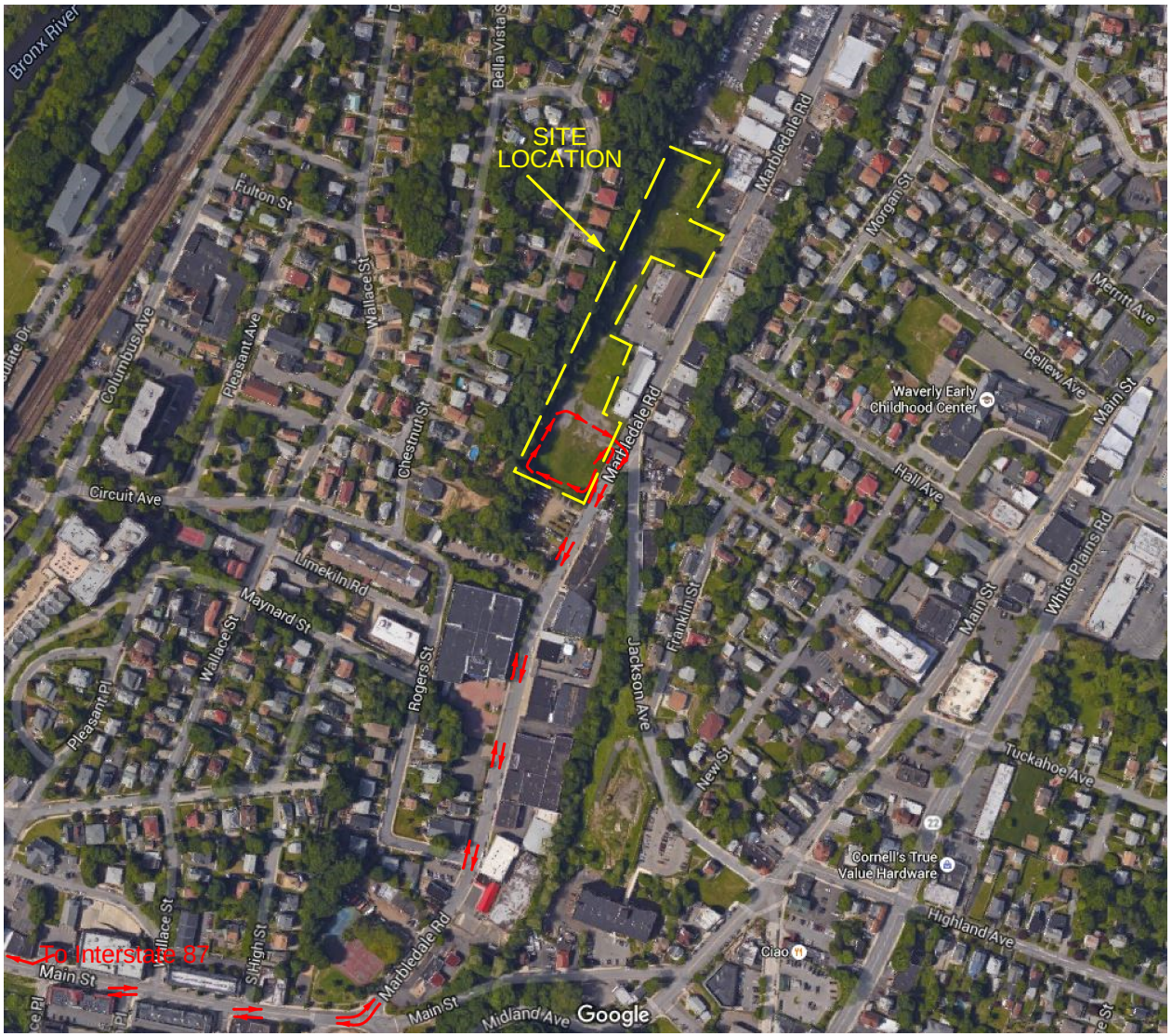


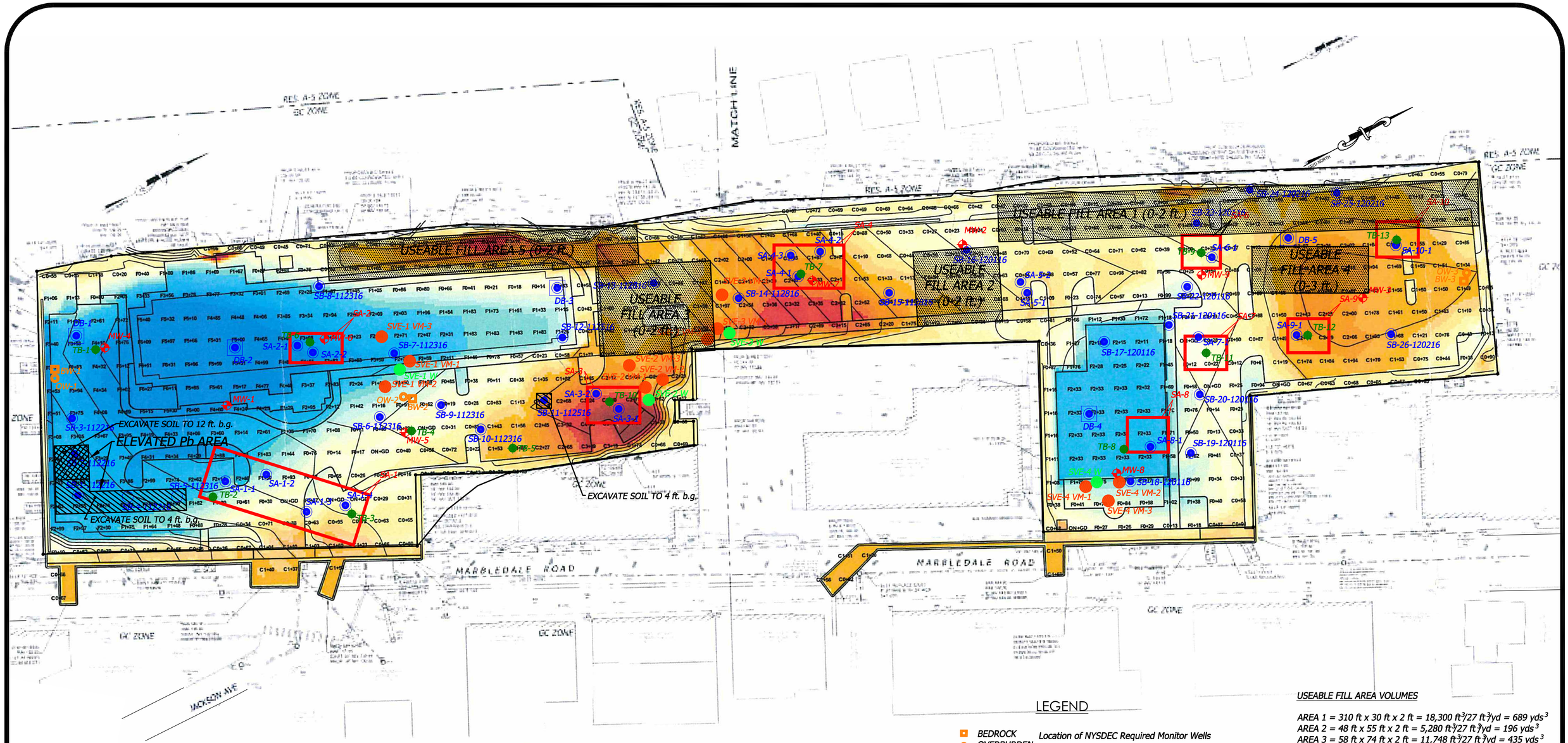
FIGURE 3

109-125 MARBLEDALE ROAD TUCKAHOE, NEW YORK	PLANNED TRUCK ROUTE	NOT TO SCALE JANUARY 2017 SOURCE AREA 2 SCOPE OF WORK	HydroEnvironmental SOLUTIONS, INC. One Deans Bridge Road Somers, New York 10589

APPENDICES

APPENDIX 1:

Proposed Additional Removal Areas and Fill Source Areas



CUT & FILL LEGEND

- FILL
- SHALLOW/ MODERATE CUTS
- DEEP CUTS

LEGEND

LEGEND

- BEDROCK
- OVERBURDEN
- Location of NYSDEC Required Monitor Wells
- SVE Vapor Point Moinitoring Location
- SVE Well
- Pre-Characterization Soil Sampling Locations (to 15 ft below grade)
- Deep Test Boring with Continuous Split Spoon Soil Sampling to Bedrock Location
- MW-7= 113.48 ft — Monitoring Well Location
- TB-5= 140.57 ft — Remedial Investigatin Test Boring Locations
- Approximate Area of Proposed Contaminant Source Area Excavation

USEABLE FILL AREA VOLUMES

AREA 1 = 310 ft x 30 ft x 2 ft = 18,300 ft^3/27 ft^3/yd = 689 yds^3
AREA 2 = 48 ft x 55 ft x 2 ft = 5,280 ft^3/27 ft^3/yd = 196 yds^3
AREA 3 = 58 ft x 74 ft x 2 ft = 11,748 ft^3/27 ft^3/yd = 435 yds^3
AREA 4 = 75 ft x 30 ft x 3 ft = 6,750 ft^3/27 ft^3/yd = 250 yds^3
AREA 5 = 200 ft x 25 ft x 2 ft = 10,000 ft^3/27 ft^3/yd = 370 yds^3
=1,940 yds^3

SITE PLAN

SCALE: 1" = 20'

FIGURE ADAPTED FROM CUT & FILL PLAN BY SITEWORKS CONTRACTING CORP.

109-125 MARBLEDALE ROAD
TUCKAHOE, NEW YORK

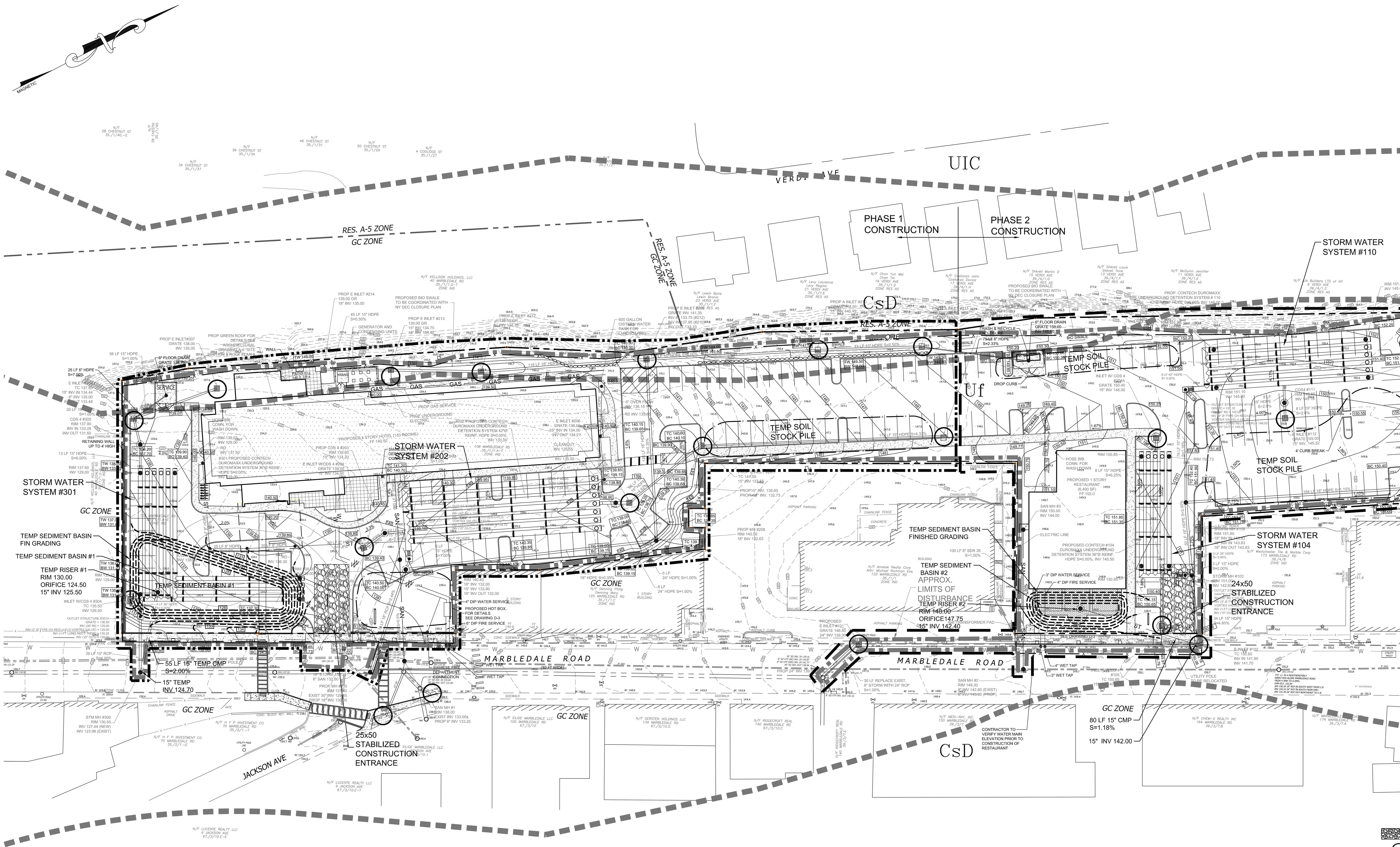
SITE PLAN
SHOWING USEABLE ON-SITE FILL AREAS AND ADDITIONAL SOIL REMOVAL AREA

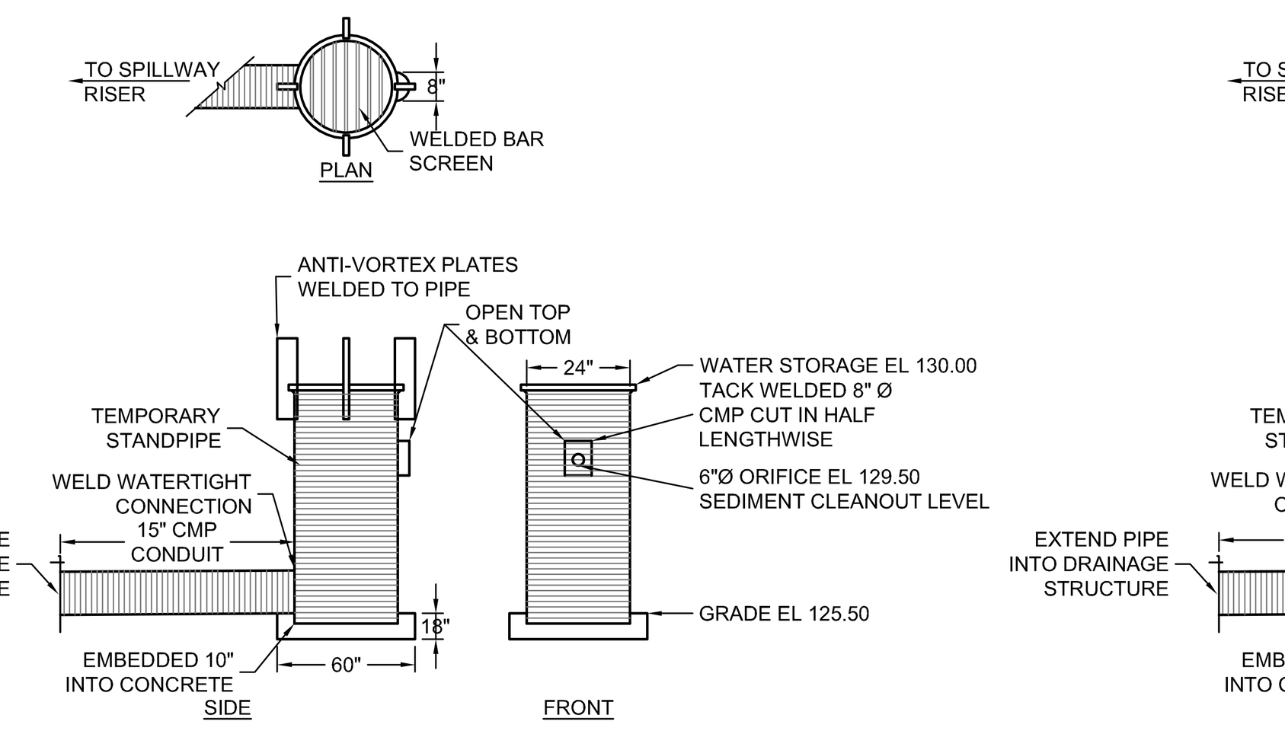
SOURCE AREA REMOVAL SCOPE

HydroEnvironmental
SOLUTIONS, INC.
One Deans Bridge Road
Somers, New York 10589

APPENDIX 2:

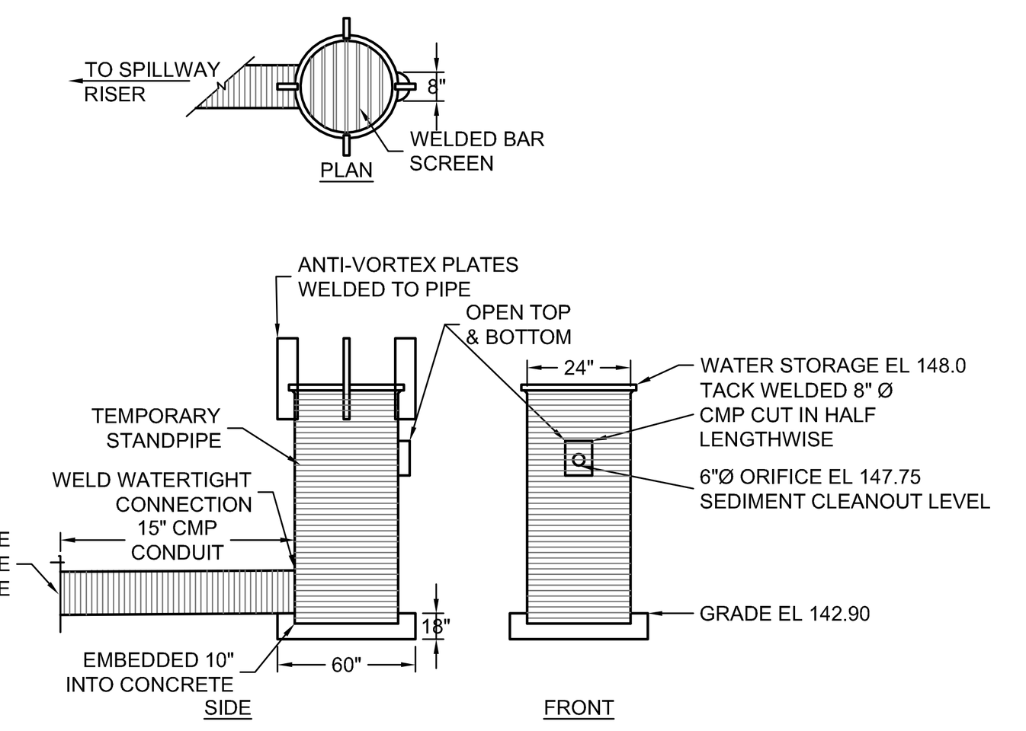
Additional Drawings





TEMPORARY SEDIMENT RISER #1 DETAIL
NTS

NOTES:
1. TOP SHALL BE 12 GA. CORRUGATED STEEL OR $\frac{1}{8}$" STEEL PLATE
2. THE ANTI-VORTEX PLATES SHALL BE FIRMLY FASTENED TO THE TOP OF THE RISER.
3. SUPPORT BARS SHALL BE WELDED TO THE TOP OF THE RISER OR ATTACHED BY STRAPS BOLTED TO THE TOP OF THE RISER.
4. TEMPORARY RISER & ANTI VORTEX DEVICE SHALL BE CONSTRUCTED & INSTALLED IN ACCORDANCE WITH THE "NEW YORK STANDARDS & SPECIFICATIONS FOR EROSION & SEDIMENT CONTROL AUGUST 2005."



TEMPORARY SEDIMENT RISER #2 DETAIL
NTS

NOTES:
1. TOP SHALL BE 12 GA. CORRUGATED STEEL OR $\frac{1}{8}$" STEEL PLATE
2. THE ANTI-VORTEX PLATES SHALL BE FIRMLY FASTENED TO THE TOP OF THE RISER.
3. SUPPORT BARS SHALL BE WELDED TO THE TOP OF THE RISER OR ATTACHED BY STRAPS BOLTED TO THE TOP OF THE RISER.
4. TEMPORARY RISER & ANTI VORTEX DEVICE SHALL BE CONSTRUCTED & INSTALLED IN ACCORDANCE WITH THE "NEW YORK STANDARDS & SPECIFICATIONS FOR EROSION & SEDIMENT CONTROL AUGUST 2005."

TEMP. SEDIMENT BASIN #1 STORAGE CALCS

128.0 = 3450 SF
(3450 SF + 4000 SF)/2 X 1 FT = 3725 CF
129.0 = 4000 SF
(4000 SF + 4578 SF)/2 X 1 FT = 4289 CF
130.0 = 4578 SF
(4578 SF + 5182 SF)/2 X 1 FT = 4880 CF
131.0 = 5182 SF
TOTAL STORAGE VOLUME = 12894 CF
STORAGE VOLUME REQUIRED = 11700 CF
* STORAGE VOLUME REQUIRED = 3.25 ACRE X 3600 CF/ACRE = 11700 CF

TEMP. SEDIMENT BASIN #2 STORAGE CALCS

145.0 = 570 SF
(570 SF + 844 SF)/2 X 1 FT = 707 CF
146.0 = 844 SF
(844 SF + 1143 SF)/2 X 1 FT = 994 CF
147.0 = 1143 SF
(1143 SF + 1467 SF)/2 X 1 FT = 1305 CF
148.0 = 1467 SF
(1467 SF + 1817 SF)/2 X 1 FT = 1642 CF
149.0 = 1817 SF
TOTAL STORAGE VOLUME = 4648 CF
STORAGE VOLUME REQUIRED = 4500 CF
* STORAGE VOLUME REQUIRED = 1.25 ACRE X 3600 CF/ACRE = 4500 CF

CONSTRUCTION SEQUENCE:

1. HOLD A PRECONSTRUCTION CONFERENCE WITH VILLAGE PROFESSIONALS AT LEAST ONE WEEK PRIOR TO STARTING CONSTRUCTION
2. INSTALL SILT FENCE AND HAYBALE PROTECTION ALONG PROPERTY PERIMETER
3. INSTALL SEDIMENT INLET FILTERS IN ALL EXISTING CATCH BASINS ON OR ADJACENT TO THE PROPERTY.
4. INSTALL STABILIZED CONSTRUCTION ENTRANCE PADS AT THE NORTH AND SOUTH CONSTRUCTION ENTRANCES AS SHOWN ON THE PLANS
5. BROWNFIELD CLOSURE TO COMMENCE ALONG WITH SITE CLEARING, TO BE OPERATED UNDER DEC AND DOH GUIDELINES. SITE MATERIAL IMPORT/EXPORT TO OCCUR UNTIL BROWNFIELD PROJECT IS COMPLETE AND PROPOSED HOTEL IS PAD READY.
6. CLEAR AND GRADE AN AREA FOR ONSITE PARKING OF CONSTRUCTION WORKERS, MAKING DELIVERIES AND STORING CONSTRUCTION MATERIALS
7. SETUP SOIL STOCKPILE LOCATIONS AS PER THE DETAILS ON THE PLANS
8. PHASE 1 CONSTRUCTION:
   a. INSTALL MH #300.
   b. INSTALL TEMPORARY SEDIMENT BASIN #1 NEAR THE SOUTH CONSTRUCTION ENTRANCE, INCLUDING TEMP RISER AND 24" PIPE. TEMPORARILY CONNECT TO MH #300.
   c. STRIP TOPSOIL, STOCKPILE AND COVER.
   d. BEGIN HOTEL CONSTRUCTION
   e. ROUGH GRADE SITE TO DRAIN TOWARD TEMPORARY SEDIMENT BASIN
   f. UPON COMPLETION OF HOTEL FOUNDATION BACKFILLING, INSTALL STORMWATER SYSTEM #202 (UNDERGROUND DETENTION, PIPES AND INLETS). INSTALL SEDIMENT FILTERS ON INLETS AND PUT SYSTEM INTO SERVICE.
   g. INSTALL CURBS AND ASPHALT BASE COURSE.
   h. FINISH HOTEL CONSTRUCTION.
   i. REMOVE TEMPORARY SEDIMENT BASIN #1.
   j. INSTALL STORMWATER SYSTEM #301 (UNDERGROUND DETENTION, PIPES AND INLETS). INSTALL SEDIMENT FILTERS ON INLETS AND PUT SYSTEM INTO SERVICE
   k. CONSTRUCT REMAINING FLATWORK
   l. INSTALL FINAL ASPHALT PAVEMENT.
   m. REMOVE REMAINING TEMPORARY SOIL AND EROSION CONTROL DEVICES
9. PHASE 2 CONSTRUCTION:
   a. STRIP TOPSOIL, STOCKPILE AND COVER.
   b. INSTALL TEMPORARY SEDIMENT BASIN #2 INCLUDING TEMP RISER AND PIPE.
   c. ROUGH GRADE TO TEMP SEDIMENT BASIN.
   d. INSTALL STORMWATER SYSTEM #104 (UNDERGROUND DETENTION, PIPES AND INLETS). INSTALL SEDIMENT FILTERS ON INLETS AND PUT SYSTEM INTO SERVICE.
   e. BEGIN RESTAURANT CONSTRUCTION
   f. UPON COMPLETION OF RESTAURANT FOUNDATION BACKFILLING, INSTALL STORMWATER SYSTEM #110 (UNDERGROUND DETENTION, PIPES AND INLETS). INSTALL SEDIMENT FILTERS ON INLETS AND PUT SYSTEM INTO SERVICE.
   g. REGRADE SITE TO FINAL SUBGRADE.
   h. REMOVE TEMPORARY SEDIMENT BASIN #2.
   i. INSTALL CURBS AND ASPHALT BASE COURSE.
   j. FINISH RESTAURANT CONSTRUCTION
   k. CONSTRUCT REMAINING FLATWORK
   l. INSTALL FINAL ASPHALT PAVEMENT.
   m. REMOVE REMAINING TEMPORARY SOIL AND EROSION CONTROL DEVICES
10. PAINT CROSSWALK AT INTERSECTION OF JACKSON AND MARBLEDALE. PEDESTRIAN AND VEHICULAR TRAFFIC WILL BE MAINTAINED ON MARBLEDALE ROAD AND JACKSON AVENUE AT ALL TIMES IN ACCORDANCE WITH THE REQUIREMENTS OF MAINTENANCE AND PROTECTION OF TRAFFIC CHAPTER IN THE FEDERAL MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

CONSTRUCTION NOTE:

HOURS OF CONSTRUCTION OPERATION SHALL BE BETWEEN THE HOURS OF 7 AM AND 7 PM MONDAYS THROUGH FRIDAYS, AND BETWEEN 9 AM AND 5 PM ON SATURDAYS OR AS PERMITTED BY THE VILLAGE CODE. WE WILL WORK CLOSELY WITH THE VILLAGE AND FOLLOW ALL REQUIREMENTS REGARDING SOUND, STORM WATER AND EROSION CONTROLS AS REQUIRED BY THE CIVIL ENGINEER OF RECORD AS WELL AS LOCAL, STATE AND FEDERAL REQUIREMENTS AND WILL ALSO FOLLOW ALL LOCAL TRAFFIC ORDINANCES. WITH THE 109 MARBLEDALE ROAD SITE CONSISTING OF 149,650 SF AND THE EVENTUAL PARKING CONSISTING OF 198 STALLS THERE WILL BE NO NEED FOR OFFSITE PARKING OR STAGING AREAS DURING CONSTRUCTION.

LEGEND

STABILIZED CONSTRUCTION ENTRANCE
DROP INLET PROTECTION
SEDIMENT FILTER FENCE OR STRAW BALE DIKE
APPROX. LIMITS OF DISTURBANCE
132 PROPOSED CONTOUR
SOIL TYPE BOUNDARY LINE

HYDROLOGIC SOIL GROUP MAPPING SYMBOL & NAME

CsD CHATFIELD - CHARLTON COMPLEX, HILLY, VERY ROCKY
Uf URBAN LAND

NOTES:

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSPECTED WEEKLY AND AFTER RAINFALL EVENTS. NECESSARY REPAIRS SHALL BE CONDUCTED IMMEDIATELY.
2. INSPECT AND CLEAN ALL STORMWATER SYSTEMS UPON COMPLETION OF SITE CONSTRUCTION.

Scale: 1"= 30'
0 15 30 60 90 120

REFERENCE:
- "EXISTING CONDITIONS SURVEY, ARDMAR REALTY, 109 MARBLEDALE RD., TUCKAHOE, NY"; PREPARED BY EARTH IMAGE DOT NET, LLC. DATED 10/16/2014.
- UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS PLAN ARE A VIOLATION OF SECTION 7209 (2) OF THE NEW YORK STATE EDUCATION LAW. COPIES OF THIS MAP NOT HAVING THE SEAL OF THE ENGINEER SHALL NOT BE VALID.

N:\ACAD\8627 TUCKAHOE\8627 SITE PLAN.DWG 10/25/16 02:55:35PM, jenny, LAYOUT:SE-1 30X42

N:\ACAD\8627 tuckahoe\8627 SITE PLAN.DWG, SE-1 30x42, 10/25/2016 2:55:34 PM, 1:1

rev	date	description	by
5	5/6/16	OWNER REVIEW	yy
4	3/29/16	REV PER LATEST AGENCY COMMENTS	yy
3	2/22/16	REV PER 1/14/16 ENGINEER COMMENTS	yy
2	11/9/15	REV PER 10/27/15 VILLAGE PLANNER MEMO	yy
1	1/12/15	PER PLANNING BOARD REVIEW COMMENTS	yy

drawn by: LH
checked by: AC
scale: 1" = 30'
date: 11/21/14

SESI
CONSULTING ENGINEERS D.P.C.
SOILS / FOUNDATIONS
SITE DESIGN
ENVIRONMENTAL
12A MAPLE AVE. PINE BROOK, N.J. 07058 PH: 973-808-9050

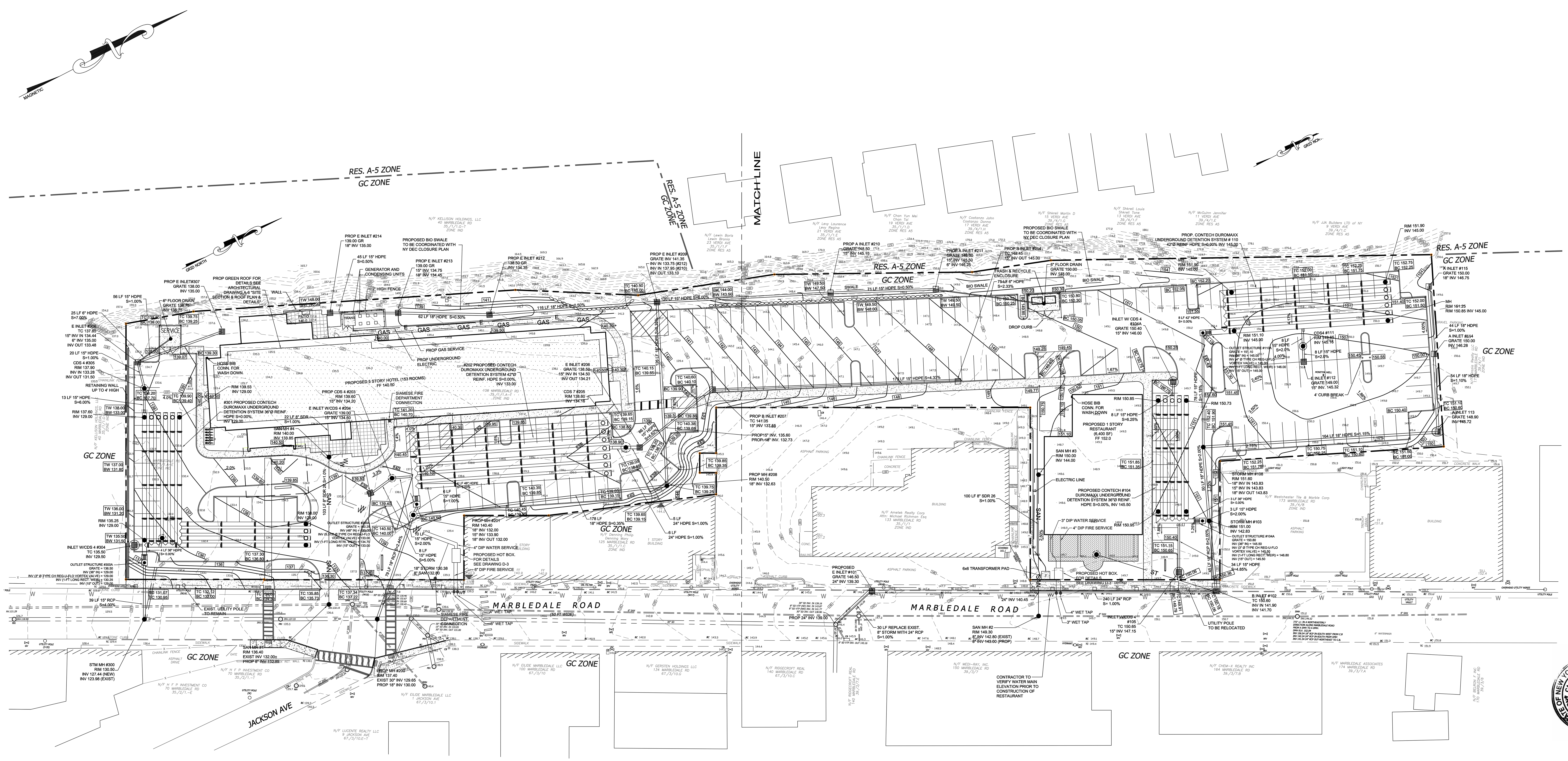
ANTHONY CASTILLO, P.E.
PROFESSIONAL ENGINEER
N.Y. LIC. NO. 084421

STATE OF NEW YORK · ANTHONY CASTILLO · 084421 · LICENSED PROFESSIONAL ENGINEER

MARRIOTT SPRINGHILL SUITES
at MARBLEDALE ROAD
VILLAGE OF TUCKAHOE, NEW YORK

drawing title:
SOIL EROSION CONTROL PLAN

job no. 8627
drawing no.
SE-1



LEGEND

PROPOSED CURB	PROPOSED WATER SERVICE
EXISTING EDGE OF PAVEMENT	EXISTING WATER MAIN
PROPERTY LINE	PROPOSED GAS SERVICE
EXISTING CONTOUR	PROPOSED E INLET
132 PROPOSED CONTOUR	PROPOSED MANHOLE
+ 127.29 EXISTING SPOT ELEVATION	EXISTING MANHOLE
+ 133.00 PROPOSED SPOT ELEVATION	PROPOSED CONC. FLATWORK
EXISTING STORM LINE	INDICATED DROP CURB
ST PROPOSED STORM LINE	
EXISTING SANITARY LINE	
SAN PROPOSED SANITARY LINE	
PROPOSED DECORATIVE FENCE	

REFERENCE:
- "EXISTING CONDITIONS SURVEY, ARDMAR REALTY, 109 MARBLEDALE RD., TUCKAHOE, NY"; PREPARED BY EARTH IMAGE DOT NET, LLC. DATED 10/16/2014.
- UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS PLAN ARE A VIOLATION OF SECTION 7209 (2) OF THE NEW YORK STATE EDUCATION LAW. COPIES OF THIS MAP NOT HAVING THE SEAL OF THE ENGINEER SHALL NOT BE VALID.

NOTE:
- TEST PITS ARE TO BE PERFORMED AT ALL ANTICIPATED UTILITY CROSSINGS.
- FINAL HOSE BIBS LOCATIONS AT HOTEL AND RESTAURANT FOR EXTERIOR WASH DOWN SHALL BE COORDINATED WITH ARCHITECT.
- ELEVATIONS ARE SHOWN IN NAVD1988 TO CONVERT TO NGVD1929 ADD 1.03' TO ALL ELEVATIONS

Scale: 1"= 30'
0 15 30 60 90 120

rev	date	description	by
6	4/15/16	REV PER LATEST AGENCY COMMENTS	
5	3/29/16	REV PER LATEST AGENCY COMMENTS	yy
4	3/3/16	REV WATER MAIN LOCATION	yy
3	2/22/16	REV PER 1/14/16 ENGINEER COMMENTS	yy
2	11/9/15	REV PER 10/27/15 VILLAGE PLANNER MEMO	yy
1	1/12/15	PER PLANNING BOARD REVIEW COMMENTS	yy

drawn by: LH
checked by: AC
scale: 1" = 30'
date: 11/21/14

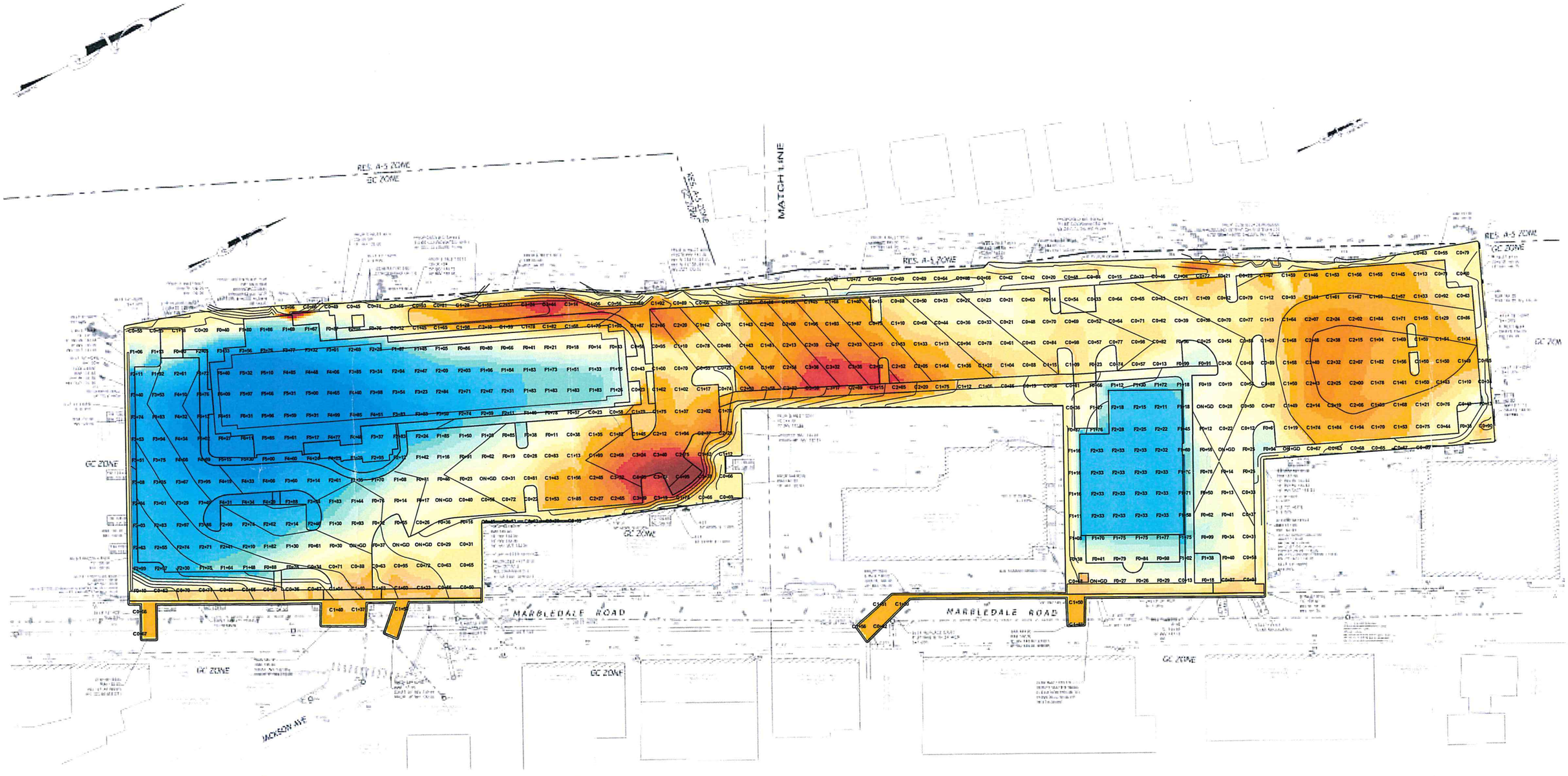
SESI
CONSULTING ENGINEERS, PC
SOILS / FOUNDATIONS
SITE DESIGN
ENVIRONMENTAL
12A MAPLE AVE. PINE BROOK, N.J. 07058 PH: 973-808-9050

ANTHONY CASTILLO, P.E.
PROFESSIONAL ENGINEER
N.Y. LIC. NO. 084421

MARRIOTT SPRINGHILL SUITES
at MARBLEDALE ROAD
VILLAGE OF TUCKAHOE, NEW YORK

drawing title:
OVERALL GRADING & UTILITY PLAN

job no. 8627
drawing no.
G-1



LEGEND

- PROPOSED CURB
- EXISTING EDGE OF PAVEMENT
- PROPERTY LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- W — PROPOSED WATER SERVICE
- W — EXISTING WATER MAIN
- GAS — GAS — PROPOSED GAS SERVICE
- PROPOSED INLET
- PROPOSED MANHOLE
- EXISTING MANHOLE
- PROPOSED CONC. FLATWORK

ATTACHMENTS

APPENDIX B

109-125 Marbledale Road
Tuckahoe, New York

NYSDEC BCP No. C 360143

Remedial Design – Excavation Work Plan
Truck Cleaning and Inspection Station

May 2016

The remediation excavation activities are planned for the upcoming spring and summer months. The following truck cleaning and maintenance plan is proposed during all site excavation and cleanup activities:

- Installation and maintenance of two stabilized construction entrances at the site entry and exit points. A stabilized construction entrance detail is attached.

- The site access road will be constructed and maintained as shown on the approved stormwater pollution prevention plan. No trucks will be allowed to drive off of the roadway during excavation and loading activities at any time. A plan for the proposed truck roadways is included on drawing **SP-1**. Two truck access points will be installed on the north and south ends of the site so that truck access will be feasible from each end of the site the cut and fill and excavation progresses north to south.

- Placement of a full time gatekeeper at the site to control truck entry and departure from the site. The gatekeeper will be a competent person, OSHA HAZWOPER trained and experienced in construction, excavation and dump trailer operation. The gatekeeper will be responsible for ensuring that no truck leaves the site with excavated soil from the site on any part of the truck exterior.

- After each truck is loaded by the on-site excavator, the gatekeeper will visually inspect the entire truck on the temporary access driveway or the stabilized construction entrance for the presence of fugitive soil before the truck leaves the site. If soil is observed anywhere on the truck exterior, the material will be removed using a bristle broom or other hand tools to the satisfaction of the gatekeeper. The driveway and stabilized construction entrance will also be kept free of loose excavated material through maintenance with a shovel and broom. Polyethylene

sheeting may be used to shroud the side of the truck that is being loaded. The sheeting will prevent fugitive soil from accumulating on the dump trailer exterior.

- Prior to departure and signing the soil manifests, the on-site geologist or environmental scientist will visually observe each truck for the presence of spillage on the truck exterior, and if present will require that it be swept and removed.

- An on-site water source will be maintained on standby at all times in case trucks need to be spot-washed to ensure that no soil from the site leaves the designated loading and on-site truck staging inspection area. Whenever required, a water and Alconox solution will be used to clean the trucks.

- If the above-outlined alternative truck cleaning plan is not effective at ensuring soil from the excavation area does not get tracked off-site, then the Contractor shall be prepared to implement a full-blown truck washing station.

BAYSHORE
Soil Management, LLC
75 Crows Mill Road, P.O. Box 290
Keasbey, New Jersey 08832
Phone: (732) 738-6000 • Fax: (732) 738-0620
www.bayshorerecycling.com

February 15, 2017

Mr. Rob Ives
Pro-Teck, LLC
85 Willow Street, Bldg. B Floor 3
New Haven, CT 06511

RE: 109-125 Marbledale Road Project
109 Marbledale Rd
Tuckahoe, NY 10707

Dear Mr. Ives:

Bayshore Soil Management, LLC (BSM) has reviewed the provided analytical results for soils from the 109-125 Marbledale Road Project in Tuckahoe, NY. In review of the data in York Analytical Laboratories reports: 17A1014, 17A1049, 17B0026, and 17B0095, samples: WC1(0-15), WC2(0-15), WC3, WC4, WC5, WC6, WC7(0-10), WC8(0-8), WC9(0-8), WC10(0-10), WC11(0-14), WC12(0-10), WC13(0-14.5), WC14(0-10), WC15(0-12), and WC16(-10), BSM has identified soils that appear to meet our acceptance criteria for Petroleum Contaminated Soils. This decision was based on the submitted generator waste profile, provided site information, and analytical testing results stemming from site remedial investigation work.

Bayshore Soil Management, LLC can only accept non-hazardous contaminated soil and based on our review of the soil chemistry data, the material is acceptable under the guidelines of our operating permits.

This job has been approved under **BSM# 2717-0162**, contingent upon BSM collection of samples for pesticides on inbound material, to satisfy the facility 1 per 1,200-ton frequency requirement. Materials beyond 9,600 tons and up to 19,200 tons would require additional samples for Total EPH, which BSM can also sample on inbound material. Should you have any questions or require further information, feel free to contact me at 732.738.6000.

Kind Regards,

Kassandra Lacerda
Compliance Manager

RUSMAR FOAM TECHNOLOGIES™

Recognized Globally
For Superior Odor And Emissions Control

RusFoam® OC
(AC645)

The Odor-Control Foam

RusFoam® OC long duration foam produces a thick, long-lasting, viscous foam barrier for immediate control of dust, odors and volatile organic compounds (VOCs).

RusFoam® OC is recognized by the U.S. Environmental Protection Agency, the U.S. Army Corps of Engineers, state agencies and major corporations as providing superior emission control for a period up to 17 hours. It has been specified for use at Superfund and other hazardous waste sites across the United States and Canada, and elsewhere in the world. RusFoam® OC is designed for use with all Rusmar Pneumatic Foam Units.

FEATURES

- Biodegradable
- Non-hazardous
- Non-combustible
- Non-reactive
- No ambient temperature limits
- Requires only water dilution
- Covers any contamination source
- Duration can be varied by dilution

BENEFITS

- Easy to use
- Safe for workers and environment
- No clean up necessary
- Will not add to soil volume
- Will not add to treatment costs
- More effective than the competition

APPLICATIONS

The primary application for RusFoam® OC is control of odors, VOCs and dust during active excavation and for overnight coverage of contaminated soils at hazardous waste sites. RusFoam® OC can also be applied on liquid surfaces, such as lagoons and retention ponds.

ODOR CONTROL FOR CHALLENGING PROBLEMS

The remediation of hazardous waste sites often includes excavation of soil contaminated with odorous compounds. RusFoam® OC has no odor itself, although a pleasant wintergreen or vanilla scent can be added. It forms a barrier between contaminants and the atmosphere and can be applied during active excavation to provide an immediate and effective barrier to minimize odors. It is completely biodegradable and poses no threat to workers, neighboring residents or ground water.

(continued)

RUSMAR FOAM TECHNOLOGIES™

Recognized Globally
For Superior Odor And Emissions Control

RusFoam® OC
(AC645)

SOLVES TRANSPORTATION PROBLEMS

RusFoam® OC can also be applied on top of trucks, railcars and barges for odor and emission control during transport of materials such as contaminated soils or sewage sludge. Ammonia tests performed on trucks containing sewage sludge resulted in a drop of concentration levels from 170 ppm prior to foaming down to 6 ppm after coverage with RusFoam® OC.

- Minimizes worker exposure
- Maintains fence-line odor and VOC emission limits
- Effective on lagoon and pond closures
- Can be applied to near vertical or liquid surfaces

CONTROLS FUGITIVE DUST

At hazardous waste sites, fugitive dust can present a health hazard. RusFoam® OC can be applied on top of the dusty material to prevent any wind-borne emissions. There is no need to mobilize equipment to immediately cover with soil or tarps. The Pneumatic Foam Unit can be filled and placed at the site to be used at a moment's notice.

CLEANS UP EMERGENCY SPILLS

In emergency spills, odor and VOC control is often difficult because of the terrain and accident conditions. RusFoam® OC can be applied to any shaped object, as well as steep slopes, water, mud, snow and ice. It is non-flammable and non-reactive. Difficult spill problems can be accommodated.

METHOD OF APPLICATION

RusFoam® OC is supplied in either 450 pound (200L) drums or in bulk. Bulk shipments can be stored outside in a Rusmar Bulk Storage-Dilution System. The Bulk Storage and Dilution system is comprised of a 7000 gallon (26,500L) heated and stirred chemical storage tank with a microprocessor to accurately dilute and transfer the chemical.

RusFoam® OC is designed to be applied with a Rusmar Pneumatic Foam Unit. The Pneumatic Foam Units are available in a variety of sizes to accommodate a range of site conditions and application needs.

Rusmar Incorporated
216 Garfield Avenue, West Chester, PA 19380
1-800-733-3626, 610-436-4314 office, 610-436-8436 fax
rusmarinc.com

SAFETY DATA SHEET

LONG DURATION FOAM AC-645

Section 1. Identification

GHS product identifier : LONG DURATION FOAM AC-645

Chemical name : Proprietary Surfactant.

Other means of identification : Aqueous anionic surfactant mixture.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Aqueous Surfactant. Spray application for VOC and Odor control.

Area of application : Industrial applications.

Supplier/Manufacturer : Rusmar, Inc.
216 Garfield Avenue
West Chester, PA 19380
Phone: 610-436-4314
Fax: 610-436-8436

e-mail address of person responsible for this SDS : info@rusmarinc.com
Website: www.rusmarinc.com

Emergency telephone number (with hours of operation) : 888 488 8044 or 212 682 1200
CHEMTREC 800 424 9300

Section 2. Hazards identification

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture : Not classified.

GHS label elements

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Substance

Chemical name : Proprietary Surfactant.

Other means of identification : Aqueous anionic surfactant mixture.

CAS number/other identifiers

CAS number : Not available.

Product code : Not available.

Ingredient name	Other names	%	CAS number
Proprietary Surfactant.	-	100	-

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Section 4. First aid measures

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

Large spill : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid. [Clear viscous liquid.]

Color : Translucent. White.

Odor : Odorless.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Boiling point : 99°C (210.2°F)

Flash point : Not applicable.

Evaporation rate : Not available.

Flammability (solid, gas) : Not applicable.

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : 3.3 kPa (25 mm Hg) [room temperature]

Vapor density : Not available.

Relative density : 1.01 to 1.06

Solubility : Easily soluble in the following materials: cold water and hot water.

Solubility in water : Easily soluble.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

SADT : Not available.

Viscosity : Not available.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to avoid : Keep away from heat.

Incompatible materials : No specific data.

Hazardous decomposition products : Low levels of sulfur oxides on exposure to high temperatures (concentrate).

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Conclusion/Summary : Not expected.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Section 11. Toxicological information

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Section 12. Ecological information

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **United States inventory (TSCA 8b)**: Not determined.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients

No products were found.

SARA 313

Not applicable.

State regulations

Massachusetts : This material is not listed.

New York : This material is not listed.

New Jersey : This material is not listed.

Pennsylvania : This material is not listed.

California Prop. 65

None of the components are listed.

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

United States

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	0
Flammability	0
Physical hazards	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
Not classified.	

History

Date of issue/Date of revision : 05/28/2015

Date of previous issue : No previous validation

Version : 1

Prepared by : IHS

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Section 16. Other information

References : HCS (U.S.A.)- Hazard Communication Standard
International transport regulations

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: DB-3
	PAGE 1 **OF** 3 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 9/30/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Truck Mounted Diedrich D-120	**SETTING:**
SAMPLING METHOD: Stainless Steel Split Spoon	**SEAL TYPE:**
OBSERVER: MJS	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**: 32 ftbg
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES: Soil screened with FID	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	Blow Count	REC. (FEET)	PID READING (PPM)	FID READING (PPM)	DESCRIPTION
FROM	TO						
0	2	SS	5-11-13-48	0.75	24.9	6.2	SILT and SAND (fine – coarse), some WOOD, some WEATHERED ROCK; brown; moist; no hydrocarbon odor
2	4	SS	40-50/5	0.5	39.6	5.1	SILT and SAND (fine – coarse); brown; moist; no hydrocarbon odor
4	6	SS	21-22-28-25	0.75	34.8	106	Fill Consisting of: ASPHALT and CONCRETE, some SILT; black; moist; slight hydrocarbon odor
6	8	SS	49-42-35-33	0.75	49.9	130	Fill Consisting of: SILT and SAND, some ASPHALT; black; moist; slight hydrocarbon odor
8	10	SS	36-35-17-14	1.5	51.8	53.2	Fill Consisting of: SILT and SAND, some ASPHALT; black; moist; slight hydrocarbon odor
10	12	SS	9-5-50/3	0.25	57.5	80.2	Fill Consisting of: SILT and ASH, some WOOD; black; moist; slight hydrocarbon odor
12	14	SS	42-22-12-12	0.75	22.9	20.1	Fill Consisting of: ASH and ROCK FRAGMENTS; black; moist; slight hydrocarbon odor
14	16	SS	9-12-17-19	0.75	24.4	155.1	Fill Consisting of: ASH, some WOOD; black; moist; slight hydrocarbon odor

OWNER: BILWIN DEVELOPMENT

WELL NO.: DB-3 **PAGE** 2 **OF** 3 **PAGES**

DEPTH (FEET)		SAMPLE TYPE	Blow Count	REC. (FEET)	PID READING (PPM)	FID READING (PPM)	DESCRIPTION
FROM	TO						
16	18	SS	21-22-17-12	1.25	6.5	85.2	Fill Consisting of: SILT and SAND (fine – medium), some WEATHERED ROCK; gray; moist; slight hydrocarbon odor
18	20	SS	9-7-5-5	0.75	13.3	109	Fill Consisting of: SILT and SAND (fine – medium), some PEAT, trace ASH; dark gray; moist; slight hydrocarbon odor
20	22	SS	6-67-50/0	0.75	9.8	75.1	Fill Consisting of: SILT and SAND, some ASPHALT, some BRICK; gray; moist; slight hydrocarbon odor
22	24	SS	21-61-94-67	0.75	10.2	9.5	Fill Consisting of: SILT and SAND (fine – medium), some ASH; black; moist; slight hydrocarbon odor
25	27	SS	19-22-37-40	1.0	6.6	20.5	Fill Consisting of: SILT and SAND (fine – coarse) and GRAVEL (small – large, angular); black; moist; no hydrocarbon odor
27	29	SS	31-35-34-33	0.75	5.1	21	Fill Consisting of: SILT and SAND (fine – coarse), trace ASH; black; moist; no hydrocarbon odor
30	32	SS	19-20-27-33	1.0	7.8	76.8	Fill Consisting of: ASPHALT, some SILT, some SAND (fine – medium); black; moist; no hydrocarbon odor
32	34	SS	50/2	0.1	3.9	22.7	Fill Consisting of: SILT, some GRAVEL (large, angular); gray; wet; no hydrocarbon odor
35	37	SS	29-64-33-20	1.0	9.2	107	Fill Consisting of: ASPHALT and WEATHERED ROCK; black; wet; no hydrocarbon odor
37	39	SS	75/4	0.25	5.7	63.2	Fill Consisting of: SAND (fine – coarse) and GRAVEL (medium – large, angular); black; wet; no hydrocarbon odor
40	42	SS	11-10-8-11	1.0	18.8	160	Fill Consisting of: SAND (fine – coarse), some SILT, some ASH, some GLASS; black; wet; no hydrocarbon odor
42	44	SS	15-14-53-20	1.25	24.1	450	Fill Consisting of: SAND (fine – coarse) and GRAVEL (small – medium, angular) and GLASS; black; wet; no hydrocarbon odor
45	47	SS	4-6-76-95	0.5	29.8	146	Fill Consisting of: SAND (fine – coarse) and GRAVEL (small – large, angular), some ASH; black; wet; no hydrocarbon odor

OWNER: BILWIN DEVELOPMENT

WELL NO.: DB-3 **PAGE** 3 **OF** 3 **PAGES**

DEPTH (FEET)		SAMPLE TYPE	Blow Count	REC. (FEET)	PID READING (PPM)	FID READING (PPM)	DESCRIPTION
FROM	TO						
47	49	SS	50/5	0.5	32.9	117	Fill Consisting of: SAND (fine – coarse), some GRAVEL (small – medium, subangular), some LEAVES; trace SILT; black; wet; no hydrocarbon odor
50	52	SS	3-5-57-11	1.0	1.9	735	Fill Consisting of: SILT, trace LEAVES, trace WOOD, trace PLASTIC; black; wet; no hydrocarbon odor; slight sheen noted in spoon
52	54	SS	11-12-16-19	1.0	1.3	840	Fill Consisting of: SAND (fine – coarse), some CONCRETE, some GLASS, some WOOD; black; wet; hydrocarbon odor present
55	57	SS	16-12-10-11	1.25	10.9	1830	Fill Consisting of: SILT and SAND (fine – coarse), and WOOD, some CONCRETE, trace GLASS, trace GRAVEL (medium, subangular); black; wet; no hydrocarbon odor
57	59	SS	11-11-15-65	1.25	25.8	1105	Fill Consisting of: SAND (fine – coarse) and WOOD, some GLASS, some PLASTIC; black; wet; no hydrocarbon odor
60	62	SS	5-11-7-11	0.25	4.6	948	Fill Consisting of: SAND (fine – coarse) and GRAVEL (fine, subangular), trace PLASTIC; black; wet; no hydrocarbon odor
62	64	SS	17-21-23-27	0.1	5.8	234	Fill Consisting of: SAND (fine – coarse) and GRAVEL (fine, subangular), trace PLASTIC; black; wet; no hydrocarbon odor
65	67	SS	100/4	0.25	33.7	450	Fill Consisting of: SILT and WOOD with trace GLASS; black; wet; no hydrocarbon odor
67	69	SS	16-15-6-6	1.0	13.0	100	Fill Consisting of: WOOD, trace BRICK and GLASS and SILT; black; wet; no hydrocarbon odor
70	72	SS	6-4-10-23	0.25	4.5	440	SILT and WOOD; wet; black; no hydrocarbon odor
72	74	SS	34-12-10-8	0.25	1.9	550	Fill Consisting of: SILT, some GLASS, some METAL; wet; black; no hydrocarbon odor
75	77	SS	100/1	1.25	22.6	1500	Fill Consisting of: WOOD, trace SILT; black; wet; slight anaerobic odor
							Refusal @ 78 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: DB-4
	PAGE 1 **OF** 2 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 9/29/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Truck Mounted Diedrich D-120	**SETTING:**
SAMPLING METHOD: Stainless Steel Split Spoon	**SEAL TYPE:**
OBSERVER: MJS	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	Blow Count	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	2	SS	11-50/4	0.25	5.2	SILT and SAND (fine – medium), some GRAVEL (small – large, subangular); brown; moist; no hydrocarbon odor
2	4	SS	14-21-30-19	0.75	2.7	SILT and SAND (fine – medium), some GRAVEL (small – large, subangular); brown; moist; no hydrocarbon odor
4	6	SS	22-50/4	1.0	3.0	SAND (fine – medium), some SILT, trace ASPHALT; brown; moist; no hydrocarbon odor
6	8	SS	19-31-18-8	0.75	4.2	SILT, some ASPHALT; brown and white; moist; no hydrocarbon odor
8	10	SS	17-16-5-3	0.5	4.8	SILT, some ASPHALT; brown and white; moist; no hydrocarbon odor
10	12	SS	3-1-12-10	0.25	3.0	SILT and SAND (fine – coarse), some GRAVEL (small – medium, angular) and CLOTH; black; moist; no hydrocarbon odor
12	14	SS	14-15-17-19	0.0	---	WOOD and WIRE
14	15	SS	11-50/1	0.2	9.1	SILT and SAND (fine – medium), some WOOD, some CONCRETE; brown; moist; no hydrocarbon odor

OWNER: BILWIN DEVELOPMENT

WELL NO.: DB-4

DEPTH (FEET)		SAMPLE TYPE	Blow Count	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
16	18	SS	12-14-14-14	1.0	3.0	SILT and SAND (fine – medium), some WOOD, some CONCRETE, trace RUBBER; black; moist; no hydrocarbon odor
20	22	SS	19-50/4	0.5	47.4	ASPHALT, some CLAY, some SILT, some SAND (fine – coarse), some WEATHERED ROCK; brown; moist; slight hydrocarbon odor
						Refusal @ 22 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: DB-5
	PAGE 1 **OF** 2 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 9/29/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Truck Mounted Diedrich D-120	**SETTING:**
SAMPLING METHOD: Stainless Steel Split Spoon	**SEAL TYPE:**
OBSERVER: MJS	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	Blow Count	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	2	SS	7-11-14-15	0.5	7.4	SILT and SAND (fine – medium), some GRAVEL (small – medium, angular); some WEATHERED ROCK; brown, green, and yellow; moist; no hydrocarbon odor
2	4	SS	17-23-14-19	0.5	6.0	SILT and SAND (fine – medium), some GRAVEL (small – medium, angular); some WEATHERED ROCK; brown, green, and yellow; moist; no hydrocarbon odor
4	6	SS	5-6-6-17	1.0	19.3	SILT and SAND (fine – coarse), some WEATHERED ROCK; tan and white; moist; no hydrocarbon odor
6	8	SS	5-6-7-9	0.75	9.2	SILT and SAND (fine – medium); brown; moist; no hydrocarbon odor
12	14	SS	7-6-4-5	1.0	1.4	SAND (fine – medium), some SILT; brown; moist; no hydrocarbon odor
14	16	SS	3-7-10-11	1.5	1.1	WEATHERED ROCK and SAND (fine – coarse); tan; moist; no hydrocarbon odor
18	20	SS	21-25-32-31	1.25	0.9	WEATHERED ROCK and SAND (fine – coarse); tan; moist; no hydrocarbon odor
20	21	SS	27-23-22-14	1.0	2.8	WEATHERED ROCK; brown; moist; no hydrocarbon odor

OWNER: BILWIN DEVELOPMENT

WELL NO.: DB-5 **PAGE** 2 **OF** 2 **PAGES**

DEPTH (FEET)		SAMPLE TYPE	Blow Count	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
21	22	SS	31-50/4	0.1	1.8	ROCK FRAGMENTS; brown; moist; no hydrocarbon odor
						Refusal @ 22 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SA-1-1
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/07/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.5	--	0.7	(0 – 3.5) SILT and GRAVEL (medium – large, subangular); some ASPHALT, trace ORGANICS, trace GLASS; black; dry; no hydrocarbon odor
				47	4.2	(3.5 – 4.0) Fill Consisting of: ASH, some GRAVEL (medium, subangular), trace GLASS, trace ORGANICS; black; dry; no hydrocarbon odor
4	8	MC	2.0	--	0.6	(4.0 – 7.0) Fill Consisting of: ASH, some GRAVEL (small, subangular), trace GLASS; trace ORGANICS; black; dry; no hydrocarbon odor
				79	4.0	(7.0 – 8.0) Fill Consisting of: ASH and CONCRETE, some GRAVEL (small, subangular), trace GLASS; trace ORGANICS; black; dry; no hydrocarbon odor
8	10.1	MC	2.0	585	7.1	Fill Consisting of: ASH and GRAVEL (small – medium, subangular); some GLASS; black; dry; no hydrocarbon odor
						Refusal @ 10.1 ftbg
						Borehole Readings (PPM) – PID: 3.7; FOUR-GAS LEL: 19%

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SA-1-2
	PAGE 1 **OF** 2 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/07/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.5	--	0.1	(0 – 0.5) SILT, some GRAVEL (small, subangular), trace ORGANICS; brown; dry; no odor
				--	4.3	(0.5 – 2.0) Fill Consisting of: ASH and GRAVEL (small – large, subangular), trace METAL, trace WOOD, trace GLASS; black; dry; no hydrocarbon odor
				230	6.0	(2.0 – 4.0) Fill Consisting of: ASH, some GRAVEL (small – medium, subangular), trace GLASS; black; dry; no hydrocarbon odor
4	8	MC	3.0	--	0.4	(4.0 – 6.0) Fill Consisting of: ASH, smome GRAVEL (small – large, subangular), trace PLASTIC, trace GLASS, trace METAL; black; dry; no hydrocarbon odor
					2.4	(6.0 – 7.0) GRAVEL (small – large, subangular), some SILT; gray; dry; no hydrocarbon odor
					3.2	(7.0 – 8.0) Fill Consisting of: ASH; some GRAVEL (small, subangular), trace METAL, trace WOOD, trace GLASS; black; dry; no hydrocarbon odor
8	12	MC	1.25	--	6.1	(8.0 – 9.0) Fill Consisting of: ASH, trace GRAVEL (small, subangular); gray; dry; no hydrocarbon odor
				505	6.0	(9.0 – 12.0) Fill Consisting of: ASH, some METAL, trace GRAVEL (small, subangular), trace GLASS; black; dry; no hydrocarbon odor

OWNER: Bilwin Development

WELL NO.: SA-1-2 **PAGE** 2 **OF** 2 **PAGES**

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
12	12.5	MC	0.25	578	5.1	Fill Consisting of: ASH, some GRAVEL (small, subangular), trace METAL; black; dry; no hydrocarbon odor
						Refusal @ 12.5 ftbg
						Downhole Readings (PPM): PID: 8.7; LEL: 25%

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SA-1-3
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/07/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	2.75	--	0.0	(0 – 2.0) SILT and ASPHALT, trace ORGANICS; brown – black; dry; no hydrocarbon odor
				315	0.5	(2.0 – 4.0) SILT and ROCK FRAGMENTS, some SAND (fine – medium), some GRAVEL (small – medium, subangular); black and white; dry; no hydrocarbon odor
4	8	MC	3.0	--	0.2	(4.0 – 4.5) SAND (fine), and ROCK FRAGMENTS; gray; dry; no hydrocarbon odor
				--	1.2	(4.5 – 6.0) Fill Consisting of: ASH and ROCK FRAGMENTS; black; dry; no hydrocarbon odor
				157	0.1	(6.0 – 8.0) SILT and ROCK FRAGMENTS; brown – black; dry; no hydrocarbon odor
8	10.25	MC	2.25	44.8	2.1	(8.0 – 9.0) SILT, some ROCK FRAGMENTS, brown – black; dry; no hydrocarbon odor
				43.4	0.3	(9.0 – 10.25) SAND (fine – coarse), some ROCK FRAGMENTS; white; dry; no hydrocarbon odor
						Refusal @ 10.25 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SA-1-4
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/07/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.0	--	0.0	(0 – 1.0) SILT and GRAVEL (small, subangular), trace ORGANICS; black; dry; no hydrocarbon odor
				--	0.1	(1.0 – 2.0) SILT and GRAVEL (small, subangular); black; dry; no hydrocarbon odor
				405	1.8	(2.0 – 4.0) SAND (fine), some WOOD, trace ROCK FRAGMENTS; brown; moist; no hydrocarbon odor
4	8	MC	1.25	102	0.1	SILT and ROCK FRAGMENTS; brown and white; moist; no hydrocarbon odor
8	12	MC	2.0	126	0.7	SILT and ROCK FRAGMENTS, trace GLASS; black and white; moist; no hydrocarbon odor
12	12.8	MC	0.8	74	1.0	SILT and GRAVEL (small – large, subangular); brown; moist; no hydrocarbon odor
						Refusal @ 12.8 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SA-3-1
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/08/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ MJS	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.0	--	0.1	(0 – 1.5) ORGANICS/ TOP SOIL; black; dry; no hydrocarbon odor
						(1.5 – 4.0) GRAVEL (small – medium, subangular), grading to SILT, trace SAND (coarse); brown; dry; no hydrocarbon odor
4	8	MC	3.0	--	0.0	SILT, some SAND (coarse), trace GRAVEL (small – medium, subangular); brown; dry; no hydrocarbon odor
8	11.3	MC	3.0	220	4.5	SILT, some SAND (coarse), some ASPHALT, trace GRAVEL (small – medium, subangular); brown; dry; slight hydrocarbon odor
						Refusal @ 11.3 ftbg
						Downhole Readings (PPM): PID: 7.0; FID: 1,800 FOUR-GAS LEL: 17%

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SA-3-2
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/08/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ MJS	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.85	--	0.2	(0 – 3.0) SILT, some GRAVEL (small – medium, subangular), trace RUBBER; brown; dry; no hydrocarbon odor
				125	25	(3.0 – 4.0) SILT and GRAVEL (small – medium, subangular), some PLASTIC; black and gray; slight hydrocarbon odor
4	8	MC	3.0	--	--	(4.0 – 6.0) SILT, some GRAVEL (small – medium, subangular), trace RUBBER; brown; dry; no hydrocarbon odor
				305	14.2	(6.0 – 8.0) SILT and GRAVEL (small – medium, subangular), some PLASTIC; black and gray; dry; slight hydrocarbon odor
8	12	MC	2.0	222	11.5	SILT and GRAVEL (small – medium, subangular); brown and white; dry; no hydrocarbon odor
12	15	MC	2.5	--	--	(12.0 – 14.0) ROCK FRAGMENTS; white and gray; dry; no hydrocarbon odor
				184	24	(14.0 – 15.0) SILT, some SAND (coarse), and trace GRAVEL (small – medium, subangular), some ASPHALT; brown; dry; slight waste/ rubber odor
						Refusal @ 11.3 ftbg
						Downhole Readings (PPM): PID: 12.4; FID: 2,112 FOUR-GAS LEL: 81%

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SA-4-1
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/09/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ MJS	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.5	6.4	0.3	Fill Consisting of: SILT and SAND (fine – medium), some GRAVEL (small – large, angular), trace CONCRETE; brown; moist; no hydrocarbon odor
4	8	MC	0.5	6.8	0.8	Fill Consisting of: SILT and SAND (fine – medium), some GRAVEL (small – large, angular), trace CONCRETE; brown; moist; no hydrocarbon odor
8	12	MC	3.0	655	44.9	Fill Consisting of: SILT and SAND (fine – medium), and GRAVEL (fine – medium, subangular), and WOOD, trace PLASTIC; black; wet; strong chemical odor
12	12.1	MC	0.1	577	65.6	Fill Consisting of: SILT and SAND (fine – coarse) and GRAVEL (small – large, subangular)
						Refusal @ 12.1 ftbg
						Borehole Readings (PPM) – PID: 9.2; FID:472; FOUR-GAS LEL: 0%

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SA-4-2
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/09/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ MJS	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	1.0	224	35.2	Fill Consisting of: SILT, some SAND (fine – coarse), some GRAVEL (small – large, subangular); moist; gray; slight hydrocarbon odor
4	8	MC	3.0	195	31.8	Fill Consisting of: SILT, some SAND (fine – coarse), some GRAVEL (small – large, subangular), some WOOD, trace PLASTIC; moist; gray; slight hydrocarbon odor
8	12	MC	3.0	23.8	3.8	Fill Consisting of: SILT, some SAND (fine – coarse), some GRAVEL (small – large, subangular), some ASPHALT; moist; gray; no hydrocarbon odor
12	15	MC	3.0	11.57	0.6	Fill Consisting of: SILT, some SAND (fine – coarse), some GRAVEL (small – large, subangular), some ASPHALT, some ROCK FRAGMENTS, some BRICK; moist; gray; no hydrocarbon odor
						Borehole Readings (PPM) – PID: 5.6; FID:1.02%; FOUR-GAS LEL: 0%

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SA-4-3
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/09/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ MJS	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.0	39.4	0.6	Fill Consisting of: SILT, some SAND (fine – coarse), some GRAVEL (small – large, subangular), some CONCRETE, trace ASPHALT; brown; moist; slight hydrocarbon odor
4	8	MC	4.0	226	3.6	(4.0 – 6.0) Fill Consisting of: SILT, some SAND (fine – coarse), some GRAVEL (small – large, subangular), some CONCRETE, trace ASPHALT; brown; moist; slight hydrocarbon odor
						(6.0 – 8.0) Fill Consisting of: SILT, some SAND (fine – coarse), some GRAVEL (small – large, subangular), some CONCRETE, some ORGANICS, trace ASPHALT; brown; moist; slight hydrocarbon odor
						Refusal @ 8.0 ftbg
						Borehole Readings (PPM) – PID: 3.0; FID:2,200; FOUR-GAS LEL: 15%

GEOLOGIC LOG

HydroEnvironmental SOLUTIONS, INC.

OWNER: BILWIN DEVELOPMENT

WELL NO.: SA-5-1

PAGE 1 **OF** 1 **PAGES**

SITE LOCATION: 109-125 Marbledale Road
Tuckahoe, New York

SCREEN SIZE & TYPE:

SLOT NO.: **SETTING**:

DATE COMPLETED: 11/10/16

SAND PACK SIZE & TYPE:

DRILLING COMPANY: HES

SETTING:

CASING SIZE & TYPE:

DRILLING METHOD: Geoprobe® 54DT

SETTING:

SAMPLING METHOD: 2.25-inch MC

SEAL TYPE:

DRILLER and/or OBSERVER: DKS/ PWM

SETTING:

REFERENCE POINT (RP): Grade

BACKFILL TYPE:

ELEVATION OF RP:

STATIC WATER LEVEL:

STICK-UP:

DEVELOPMENT METHOD:

SURFACE COMPLETION:

DURATION: – **YIELD**: –

NOTES:

ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube
REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.75	--	0.0	(0 – 0.5) ASPHALT; black; dry; no hydrocarbon odor
				--	0.0	(0.5 – 2.5) SILT and GRAVEL (small – medium, subangular), some SAND (fine – medium), trace BRICK; brown; dry; no hydrocarbon odor
				5.5	0.0	(2.5 – 4.0) Fill Consisting of: ASH and SILT, some GRAVEL (small – large, subangular); brown; dry; no hydrocarbon odor
4	6.75	MC	2.25	10	0.1	Fill Consisting of: SILT and GRAVEL (small – large, subangular), some ASH; brown; dry; no hydrocarbon odor
						Refusal @6.75 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SA-5-2
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/10/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.5	4	0.8	SILT and some GRAVEL (small – large, subangular), trace SAND (fine); brown; dry; no hydrocarbon odor
4	8	MC	2.5	4	1.5	Fill Consisting of: ASH and ROCK FRAGMENTS, some GRAVEL (small – medium, subangular); black; moist; no hydrocarbon odor
8	12	MC	2.5	4	--	Fill Consisting of: SILT, some ASH, some GRAVEL (small – large, subangular) some ROCK FRAGMENTS; brown; moist; no hydrocarbon odor
						Refusal @12 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SA-6-1
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/10/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.0	--	0.1	(0.0 – 3.0) SILT and GRAVEL (small – large, subangular), some ROCK FRAGMENTS ; brown; dry; no hydrocarbon odor
				13.5	3.1	(3.0 – 4.0) Fill Consisting of: SILT and GRAVEL (small – medium, subangular), some ASH; brown; dry; no hydrocarbon odor
4	8	MC	3.75	25	36.9	Fill Consisting of: SILT, some ASH, some GRAVEL (small – large, subangular), some ROCK FRAGMENTS; black; dry; no hydrocarbon odor
8	12	MC	3.25	27	10.7	Fill Consisting of: SILT, some ROCK FRAGMENTS, some GRAVEL (small – medium, subangular), trace ASH; brown; moist; no hydrocarbon odor
12	15	MC	2.75	45	20.8	Fill Consisting of: SILT, some ASH, some SAND (medium), some GRAVEL (small – large); black; moist; no hydrocarbon odor

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SA-7-1
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/14/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.25	--	0.3	(0.0 – 0.75) SILT some GRAVEL (small – medium, subangular), trace SAND (fine), trace ORGANICS; brown; dry; no hydrocarbon odor
				12.5	16.2	(0.75 – 4.0) Fill Consisting of: SILT and ASH, some GRAVEL (small – medium, subangular), trace SAND (fine); brown; dry; no hydrocarbon odor
						Refusal @ 4.0 ftbg
						Borehole Readings (PPM): PID: 1.5

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SA-8-1
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/14/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.5	27	1.2	Fill Consisting of: SILT, some ROCK FRAGMENTS, some METAL, some GLASS, some GRAVEL (small – medium, subangular), trace SAND (fine), trace ORGANICS; brown; dry; no hydrocarbon odor
4	8	MC	4.0	12.5	0.3	Fill Consisting of: SILT, some ROCK FRAGMENTS, some METAL, some GLASS, some GRAVEL (small – medium, subangular), trace SAND (fine); brown; dry; no hydrocarbon odor
8	8.25	MC	0.25	--	0.0	Fill Consisting of: SILT and SAND (fine), trace GRAVEL (small, subangular); brown; dry; no hydrocarbon odor
						Refusal @ 8.25
						Borehole Readings (PPM): PID: 0.5

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SA-9-1
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/14/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.75	11.5	0.3	(0 – 2.5) SILT, some GRAVEL (small – medium, subangular), trace ROCK FRAGMENTS, trace SAND (fine – coarse); brown; dry; no hydrocarbon odor
						(2.5 – 4.0) Fill Consisting of: SILT and ASH, some GRAVEL (small – large, subangular); dry; black; no hydrocarbon odor
4	8	MC	3.25	13	0.5	Fill Consisting of: ASH and SILT, some GRAVEL (small – large, subangular); black; dry; no hydrocarbon odor
8	12	MC	3.0	12	0.8	Fill Consisting of: ASH, some SILT, some GRAVEL (small – large, subangular); black; dry; no hydrocarbon odor
12	15	MC	3.0	12	1.2	Fill Consisting of: ASH, some GRAVEL (small – large, subangular), trace SILT; black; dry; no hydrocarbon odor
						Borehole Readings (PPM): PID: 0.6

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SA-10-1
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/14/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.5	14	0.9	(0 – 3.5) SILT, some GRAVEL (small – large, subangular), trace SAND (fine); brown; dry; no hydrocarbon odor
						(3.5 – 4.0) Fill Consisting of: ASH and GRAVEL (small – large, subangular), some SILT; black; dry; no hydrocarbon odor
4	8	MC	3.25	11	2.8	Fill Consisting of: SILT and ASH, some GRAVEL (small – large, subangular), trace SAND (fine – medium), trace BRICK; black; dry; no hydrocarbon odor
8	12	MC	3.5	13	1.8	Fill Consisting of: SILT, some ASH, some GRAVEL (small – large, subangular), trace ORGANICS, trace SAND (fine – medium); black; dry; no hydrocarbon odor
12	13.25	MC	1.25	13	1.1	Fill Consisting of: SILT, some ASH, some GRAVEL (small – large, subangular), trace ORGANICS, trace SAND (fine – medium); black; dry; no hydrocarbon odor
						Refusal @ 13.25 ftbg
						Borehole Readings (PPM): PID: 0.6

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-1-112216
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/22/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/MJS	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.5	20	4.1	SILT and SAND (fine to medium), some GRAVEL (small, subangular), trace GLASS; black; moist; no hydrocarbon odor
4	8	MC	2.0	50	1.7	SILT and SAND (fine to moist), trace ASPHALT; black; wet; no hydrocarbon odor
8	8.5	MC	0.5	--	--	SILT and SAND (fine to moist), trace ASPHALT; black; wet; no hydrocarbon odor
						Refusal at 8.5 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-2-112216
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/22/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/MJS	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC		205	2.3	SILT and SAND (fine – medium) and GRAVEL (small – large, angular), some CONCRETE; black; moist; no hydrocarbon odor
4	8	MC		165	9.0	SILT and SAND (fine – medium) some GRAVEL (small – large, angular), trace WOOD; black; moist; no hydrocarbon odor
8	12	MC		450	10.5	SILT and SAND (fine – medium) some GRAVEL (small – large, angular), trace WOOD; black; moist; no hydrocarbon odor
						Refusal at 12 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-3-112216
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/22/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/MJS	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.0	40	1.4	SILT, some SAND (coarse), some GRAVEL (small – medium, subangular); brown; dry; slight fuel oil odor
4	8	MC	2.5	120	107.7	(4.0 – 7.5) SILT, some SAND (coarse), some GRAVEL (small – medium, subangular); brown; dry; slight fuel oil odor
				--	--	(7.5 – 8.0) SILT, some SAND (coarse), some GRAVEL (small – medium, subangular), trace WOOD; black; moist; slight fuel oil odor
8	12	MC	1.0	10	10.2	SILT, some SAND (coarse), some GRAVEL (small – medium, subangular), trace WOOD, trace GLASS; brown; dry; slight fuel oil odor
12	15	MC	1.5	120	2.3	SILT, some SAND (coarse), some GRAVEL (small – medium, subangular), trace WOOD, trace GLASS; brown; dry; slight fuel oil odor

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-4-112216
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/22/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/MJS	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.0	--	--	(0 – 1.0) SILT; brown; moist; no hydrocarbon odor
				650	7.5	(1.0 – 4.0) Fill Consisting of: ASH, GRAVEL (small – medium, subangular), some GLASS; black; moist; slight fuel oil odor
4	8	MC	1.25	150	6.2	Fill Consisting of: WOOD, SILT, some GRAVEL (medium, subangular); black; moist; no hydrocarbon odor
8	12	MC	0.75	160	5.0	Fill Consisting of: WOOD, trace GLASS; black; dry; no hydrocarbon odor
12	12.5	MC	0.5	--	--	Fill Consisting of: WOOD, trace GLASS; black; dry; no hydrocarbon odor
						Refusal at 12.5 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-5-112316
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/23/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: MJS/ DKS	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.0	--	--	(0 – 1.0) SILT, trace GRAVEL (small – medium, subangular); brown; dry; no hydrocarbon odor
				45	8.7	(1.0 – 4.0) Fill Consisting of: SILT, ASH, trace GRAVEL (small – medium, subangular)m some GLASS, trace PLASTIC; black; dry; no hydrocarbon odor
4	8	MC	1.0	40	5.5	Fill Consisting of ASH, SILT, WOOD, trace GLASS; black; moist; no odor
8	12	MC	0.75	35	4.7	Fill Consisting of: ASH, SILT, trace PAPER, trace GLASS; black and gray; moist; no hydrocarbon odor
12	12.9	MC	0.25	34	2.6	Fill Consisting of: ASH, SILT, trace GLASS; black and gray; moist; no hydrocarbon odor
						Refusal at 12.9 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-6-112316
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/23/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: MJS/DKS	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	2.0	28	7.8	Fill consisting of: ASH, SILT, SAND (coarse), some WOOD, some GRAVEL (medium, subangular); black; dry; no hydrocarbon odor
4	8	MC	3.5	28	10.2	Fill consisting of: ASH, SILT, SAND (coarse), some GRAVEL (medium, subangular); black; dry; no hydrocarbon odor
8	12	MC	3.0	50	11.3	Fill consisting of: ASH, SILT, some GRAVEL (medium, subangular), and GLASS; black; dry; no hydrocarbon odor
12	15	MC	0.75	26	7.6	Fill consisting of ASH, SILT, some GRAVEL (small – medium, subangular), trace METAL; black; moist; no hydrocarbon odor

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-7-112316
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/23/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: MJS/DKS	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.25	39	10.5	Fill consisting of: SILT, some SAND (coarse) , some GRAVEL (small – medium, subangular); brown; dry; no hydrocarbon odor
4	8	MC	3.5	49	321.5	Fill consisting of: SILT, some SAND (coarse) , some GRAVEL (small – medium, subangular), trace GLASS; brown and black; dry; slight fuel oil odor
8	11.8	MC	2.0	45	15.4	Fill consisting of: SILT, some SAND (coarse) , some GRAVEL (small – medium, subangular); brown; dry; no hydrocarbon odor
						Refusal at 11.8 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-8-112316
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/23/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: MJS/DKS	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.0	19.95	4.3	Fill consisting of: ASPHALT, SILT, and SAND (coarse), trace WOOD; brown; dry; no hydrocarbon odor
4	8	MC	3.0	15.36	19.8	Fill consisting of: SILT asnd SAND (coarse), some GRAVEL (small - medium, subangular); black/brown; dry; no hydrocarbon odor
8	12	MC	2.0	13.19	7.9	Fill consisting of: GRAVEL (small – medium, subangular), SILT, ASH; black; moist; no hydrocarbon odor
12	15	MC	2.0	32.07	16.8	Fill consisting of: SILT, ASH, trace PLASTIC, trace WOOD; black; moist; no hydrocarbon odor

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-9-112316
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/23/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/MJS	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.0	4.56	1.4	SILT and SAND (medium), some GRAVEL (medium – large, subangular); tan; moist; no hydrocarbon odor
4	8	MC	3.5	10.12	40.2	Fill Consisting of: SILT and SAND (medium), some GRAVEL (medium – large, angular), some ASPHALT; black; moist; no hydrocarbon odor
8	8.5	MC	0.25	13.64	53.4	SILT and SAND (medium), some GRAVEL (small to medium, subangular); black; moist; no hydrocarbon odor
						Refusal at 8.5 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-10-112316
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/23/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/MJS	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	2.5	3.29	3.1	SILT and SAND (medium), some GRAVEL (medium, angular); tan; moist; no hydrocarbon odor
4	8	MC	2.0	5.45	3.4	SILT and SAND (medium), some GRAVEL (medium, angular); tan; moist; no hydrocarbon odor
8	11.95	MC	2.0	12.87	47.3	ASPHALT and GRAVEL (medium, angular), some SAND (medium); black; moist; no hydrocarbon odor
						Refusal at 11.95 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-11-112816
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/28/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: MJS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	4.0	7	1	(0 – 1.25) SILT, trace ASPHALT, trace ORGANICS, trace GRAVEL (small, subangular); brown; dry; no hydrocarbon odor
				30	28.1	(1.25 – 4.0) Fill Consisting of: ASH, some GRAVEL (small – medium, subangular), some ROCK FRAGMENTS; black; dry; no hydrocarbon odor
4	5.33	MC	1.0	20	13.7	Fill Consisting of: ASH, some GRAVEL (small – medium, subangular), some ROCK FRAGMENTS; black; moist; no hydrocarbon odor
						Refusal at 5.33 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-12-112816
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/28/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: MJS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	2.5	5	1.0	(0 – 1.25) SILT and ROCK FRAGMENTS, trace ORGANICS; brown; dry; no hydrocarbon odor
				6	0.7	(1.25 – 3.0) Fill Consisting of: GRAVEL (small – large, subangular), some ASH; black; dry; no hydrocarbon odor
				6	1.9	(3.0 – 4.0) Fill Consisting of: SAND (fine – medium); light brown; moist; no hydrocarbon odor
4	8	MC	2.75	300	23.6	Fill Consisting of: SILT, some ROCK FRAGMENTS, some GRAVEL (small – medium, subangular), some WOOD; black; moist; no hydrocarbon odor
8	8.8	MC	0.8	75	22.0	Fill Consisting of: SILT, some SAND (fine – medium), some GRAVEL (small – large, subangular); trace WOOD, trace PLASTIC; black, wet, no hydrocarbon odor
						Refusal at 8.8 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-13-112816
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/28/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: MJS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.0	15	0.5	(0 – 1.0) SILT, trace ORGANICS, trace GRAVEL (small, subangular); brown; dry; no hydrocarbon odor
				16	0.4	(1.0 – 4.0) Fill Consisting of: SILTM some ROCK FRAGMENTS, some GRAVEL (small, subangular), trace BRICKm trace CONCRETE; brown; dry; no hydrocarbon odor
4	8	MC	2.5	99	2.2	Fill Consisting of: ASH, some SILT, some GRAVEL (small – medium, subangular); black; dry; no hydrocarbon odor
8	8.5	MC	0.25	--	--	Fill Consisting of: SAND (medium – coarse) and GRAVEL (small, subangular); black; wet; no hydrocarbon odor
						Refusal at 8.5 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-14-112816
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 11/28/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: MJS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.67	5	0.3	(0 – 3) SILT and ROCK FRAGMENTS, some SAND (fine), some GRAVEL (small – large, subangular); brown; dry; no hydrocarbon odor
				8	0.5	(3 – 4) Fill Consisting of: SILT and ASH, some ROCK FRAGMENTS, some GRAVEL (small – large, subangular); black; dry; no hydrocarbon odor
4	8	MC	3.0	32	6.4	Fill Consisting of: SILT and ASH, some ROCK FRAGMENTS, some GRAVEL (small – large, subangular), some ORGANICS, trace PLASTIC, trace GLASS; black; moist; no hydrocarbon odor
8	11.5	MC	3.0	60	21.2	Fill Consisting of: ASH, some SAND (fine – coarse), trace WOOD, trace BRICK; black; wet; no hydrocarbon odor
						Refusal at 11.5 ftbg

GEOLOGIC LOG

HydroEnvironmental SOLUTIONS, INC.

OWNER: BILWIN DEVELOPMENT

WELL NO.: SB-15-112816

PAGE 1 **OF** 1 **PAGES**

SITE LOCATION: 109-125 Marbledale Road
Tuckahoe, New York

SCREEN SIZE & TYPE:

SLOT NO.: **SETTING**:

DATE COMPLETED: 11/28/16

SAND PACK SIZE & TYPE:

DRILLING COMPANY: HES

SETTING:

CASING SIZE & TYPE:

DRILLING METHOD: Geoprobe® 54DT

SETTING:

SAMPLING METHOD: 2.25-inch MC

SEAL TYPE:

DRILLER and/or OBSERVER: MJS/ PWM

SETTING:

REFERENCE POINT (RP): Grade

BACKFILL TYPE:

ELEVATION OF RP:

STATIC WATER LEVEL:

STICK-UP:

DEVELOPMENT METHOD:

SURFACE COMPLETION:

DURATION: – **YIELD**: –

NOTES:

ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube
REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3	6	1.5	(0 – 2.0) SILT, some GRAVEL (small – large, subangular), trace ORGANICS; brown; dry; no hydrocarbon odor
				5.5	1.3	(2.0 – 4.0) Fill Consisting of: SILT and ASH, some GRAVEL (small – large, subangular), trace BRICK; black; dry; no hydrocarbon odor
4	7.1	MC	0.75	--	0.5	Fill Consisting of: SILT and GRAVEL (small – large, subangular), some CONCRETE; brown; dry; no hydrocarbon odor.
						Refusal at 7.1 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-16-120116
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 12/01/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.5	8	2.3	Fill Consisting of: ASH, some SILT. some SAND (fine), some GRAVEL (small, subangular), trace ROCK FRAGMENTS, trace GLASS, trace ORGANICS; black; dry; no hydrocarbon odor
4	8	MC	2.0	6	1.4	Fill Consisting of: GRAVEL (medium, subangular), and SILT, some ROCK FRAGMENTS, some SAND (fine – medium); black and brown; dry; no hydrocarbon odor
8	12	MC	2.5	50	3.2	(8.0 – 11.75) Fill Consisting of: SILT and SAND (fine – medium), some GRAVEL (small – medium, subangular), trace WOOD; black; moist; no hydrocarbon odor
						(11.75 – 12.0) Fill Consisting of: ORGANICS, PAPER, PLASTIC, GLASS; black; wet; no hydrocarbon odor
12	14.25	MC	2.0	149	17.1	Fill Consisting of: SILT, some GRAVEL (small, subangular), some ORGANICS, PAPER, PLASTIC, GLASS; black; wet; no hydrocarbon odor
						Refusal @ 14.25 ftbg
						Borehole Readings – PID: 1.9; FID: 7; FOUR-GAS LEL: 0%

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-17-120116
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 12/01/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	2.25	MC	2.25	13	1.0	Fill Consisting of: SILT, some CONCRETE, some GRAVEL (small, subangular), trace ASH, trace ORGANICS; brown; dry; no hydrocarbon odor
						Refusal @ 2.25 ftbg
						Borehole Readings – PID: 0.0; FID: 34; FOUR-GAS LEL: 0%

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-18-120116
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 12/01/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	1.0	--	--	SAND (fine – medium), and GRAVEL (medium, subangular), some SILT, trace ORGANICS; brown; dry; no hydrocarbon odor
4	8	MC	1.75	12	0.7	SAND (fine – medium) and SILT, some GRAVEL (small, subangular), trace ROCK FRAGMENTS; brown; moist; no hydrocarbon odor
8	12	MC	3.25	11	0.9	SILT, trace ROCK FRAGMENTS, trace SAND (fine), GRAVEL (small, subangular); brown; moist; no hydrocarbon odor
12	15	MC	3.0	12	1.0	SILT, trace ROCK FRAGMENTS, trace SAND (fine), GRAVEL (small, subangular); brown; moist; no hydrocarbon odor
						Borehole Readings – PID: 0.0; FID: 30; FOUR-GAS LEL: 0%

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-19-120116
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 12/01/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.5	15	1.2	Fill Consisting of: SILT, some ASH, some SAND (fine – medium)m some GRAVEL (small – medium, subangular), trace ROCK FRAGMENTS; black and brown; dry; no hydrocarbon odor
4	8	MC	3.5	14	0.3	Fill Consisting of: SILT, some GRAVEL (small – medium, subangular), trace ASH, trace SAND (fine – medium), trace ROCK FRAGMENTS; brown; dry; no hydrocarbon odor
8	9.5	MC	1.5	14	0.8	Fill Consisting of: SILT, some GRAVEL (small – medium, subangular), trace ASH, trace SAND (fine – medium), trace ROCK FRAGMENTS; brown; dry; no hydrocarbon odor
						Refusal @ 9.5 ftbg
						Borehole Readings – PID: 0.0; FID: 27; FOUR-GAS LEL: 0%

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-20-120116
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 12/01/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.0	18	0.5	Fill Consisting of: SILT, some ASH, some SAND (fine), some GRAVEL (small –large, subangular), trace ORGANICS; black and brown; dry; no odor
4	7.9	MC	2.0	17	0.3	Fill Consisting of: SAND (fine), some SILT, some ASH, some GRAVEL (small – medium, subangular); black and brown; dry; no hydrocarbon odor
						Refusal @ 7.9 ftbg
						Borehole Readings – PID: 0.0; FID: 25; FOUR-GAS LEL: 0%

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-21-120116
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 12/01/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.67	21	4.1	Fill Consisting of: SILT, some GRAVEL (small – large, subangular), some ASH, trace SAND (fine); black and brown; dry; no odor
4	4.9	MC	0.75	--	--	SILT and ROCK FRAGMENTS, some SAND (fine); gray; dry; no hydrocarbon odor
						Refusal @ 4.9 ftbg
						Borehole Readings – PID: 6.8; FID: 23; FOUR-GAS LEL: 0%

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-22-120116
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 12/01/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.25	15	1.4	Fill Consisting of: ASH and SILT, some GRAVEL (small – medium, subangular); black; dry; no hydrocarbon odor
4	8	MC	2.75	14	11.4	Fill Consisting of: ASH and SILT, some GRAVEL (small – medium, subangular), trace ROCK FRAGMENTS; black; moist; no hydrocarbon odor
8	12	MC	3.0	36	14.3	Fill Consisting of: SILT, some ASH, some GRAVEL (small – large, angular); gray; moist; no odor
12	15	MC	3.0	130	12.2	Fill Consisting of: SILT, some GRAVEL (small – large, angular), trace ASH; gray; wet; no odor
						Borehole Readings – PID: 0.0; FID: 14; FOUR-GAS LEL: 0%

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-23-120116
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 12/01/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: DKS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	2.5	11.5	0.2	Fill Consisting of: SILT, some SAND (fine), some GRAVEL (small – large, subangular), trace ASH, trace ORGANICS; brown; dry; no hydrocarbon odor
4	8	MC	3.0	100	0.7	Fill Consisting of: SILT, some GRAVEL (small – large, subangular), some ASH, some ROCK FRAGMENTS, trace SAND (fine); brown; dry; no hydrocarbon odor
8	12	MC	3.25	10	0.4	Fill Consisting of: SILT, some GRAVEL (small – large, subangular), trace ASH, trace SAND (fine); brown; moist; no hydrocarbon odor
12	12.1	MC	0.1	--	--	Fill Consisting of: SILT and GRACVEL (small – medium, subangular); brown; moist; no hydrocarbon odor
						Refusal @ 12.1 ftbg
						Borehole Readings – PID: 0.0; FID: 11; FOUR-GAS LEL: 0%

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-24-120216
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 12/02/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: MJS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	3.0	0.5	0.7	Fill Consisting of: SILT and GRAVEL (medium – large, subangular), some ASH, trace SAND (fine); brown and black; dry; no hydrocarbon odor
4	8	MC	2.0	0.5	1.2	Fill Consisting of: SILT and GRAVEL (medium – large, subangular), some ASH, trace SAND (fine); brown and black; dry; no hydrocarbon odor
8	12	MC	0.25	0.7	0.7	SILT, some GRAVEL (medium – large, subangular), trace SAND (fine); brown; dry; no hydrocarbon odor
12	14.1	MC	1.0	0.5	0.7	SILT, some GRAVEL (medium – large, subangular), trace SAND (fine); brown; dry; no hydrocarbon odor
						Refusal @ 14.1 ftbg
						Borehole Readings (PPM) – PID: 0.0; FID: 0; FOUR-GAS LEL: 0%

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SB-25-120216
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 12/02/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: MJS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	2.0	0.1	1.0	Fill Consisting of: SILT, some GRAVEL (small – large, subangular); some ASH, trace SAND (fine); brown and black; moist; no hydrocarbon odor
4	8	MC	2.0	0.2	0.7	Fill Consisting of: SILT, some GRAVEL (small – large, subangular); some ROCK FRAGMENTS, some FOAM, trace ASH, trace SAND (fine); brown; moist; no hydrocarbon odor
8	12	MC	2.25	0.1	0.4	Fill Consisting of: SILT and GRAVEL (medium – large, subangular), some SAND (fine – medium), some ASH; brown and black; moist; no hydrocarbon odor
12	15	MC	2.0	0.1	0.3	Fill Consisting of: SILT and GRAVEL (medium – large, subangular), trace SAND (fine – medium), trace ASH; brown and black; moist; no hydrocarbon odor
						Borehole Readings (PPM) – PID: 0.0; FID: 0; FOUR-GAS LEL: 0%

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: BILWIN DEVELOPMENT
	WELL NO.: SA-26-120216
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York	**SCREEN SIZE & TYPE:** **SLOT NO.:** **SETTING**:
DATE COMPLETED: 12/02/16	**SAND PACK SIZE & TYPE:**
DRILLING COMPANY: HES	**SETTING:**
	CASING SIZE & TYPE:
DRILLING METHOD: Geoprobe® 54DT	**SETTING:**
SAMPLING METHOD: 2.25-inch MC	**SEAL TYPE:**
DRILLER and/or OBSERVER: MJS/ PWM	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**:
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	REC. (FEET)	FID READING (PPM)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	4	MC	2.75	2	0.7	Fill Consisting of: SILT, some GRAVEL (small – large, subangular), some ASH; brown; dry; no hydrocarbon odor
4	8	MC	2.5	0.5	0.5	Fill Consisting of: SILT, some GRAVEL (small – large, subangular), some ASH; brown; dry; no hydrocarbon odor
8	12	MC	1.0	0.5	0.3	Fill Consisting of: SILT, some GRAVEL (small – large, subangular), some ASH; brown; dry; no hydrocarbon odor
						Refusal @ 9.2 ftbg
						Borehole Readings (PPM) – PID: 0.0; FID:0.0; FOUR-GAS LEL: 0%

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: Bilwin Development Affiliates, LLC **WELL NO.:** TB-2 **PAGE** 1 **OF** 2 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York BCP Site #C360143	**SCREEN SIZE & TYPE:** None **SLOT NO.:** **SETTING**:
DATE COMPLETED: April 15, 2015	**SAND PACK SIZE & TYPE:** None
DRILLING COMPANY: SoilTesting, Inc. Oxford, Connecticut	**SETTING:**
	CASING SIZE & TYPE: None
DRILLING METHOD: Diedrich D120 4.25" HSA	**SETTING:**
SAMPLING METHOD: 2.25" Split Spoon	**SEAL TYPE:** None
OBSERVER: REG	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**: Portland and bentonite slurry
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	BLOW COUNT	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	2	SS	4-26-39-40	2	5.1	Very dense topsoil, SAND (fine to medium), SILT, weathered rock; brown; dry; no hydrocarbon odor
2	4	SS	35-26-25-17	1.0	35.0	Very dense SAND (fine to medium), SILT, weathered rock, ash, glass; brown to black; dry; moderate fuel oil odor
4	6	SS	8-7-11-42	0.25	3.5	Medium dense SAND (fine to medium), SILT, weathered rock, ash, glass; brown to black; dry; no hydrocarbon odor
6	8	SS	64-29-7-8	0.25	1.8	Dense SAND (fine to medium), SILT; brown; dry; no hydrocarbon odor
8	10	SS	11-8-16-44	0.5	3.1	Medium dense SAND (medium to coarse), trace SILT, glass, brick, wood; black; moist; no hydrocarbon odor
10	12	SS	6-8-5-19	0	---	No recovery
12	14	SS	48-37-14-10	0.25	2.3	Very dense SAND (fine to medium), trace SILT; black; moist; no hydrocarbon odor
14	16	SS	13-11-5-3	1.0	3.2	Medium dense SAND (medium to coarse), some SILT, wood, weathered rock; black; moist; no hydrocarbon odor
16	18	SS	2-4-17-11	0.5	2.9	Medium dense SAND (medium to coarse), some SILT, wood, glass, weathered rock; black; moist; no hydrocarbon odor
18	20	SS	35-50/1	1.0	6.7	Very dense SAND (medium to coarse), some SILT, wood, glass grading to weathered rock; black to white; moist; no hydrocarbon odor
						Refusal at 19.0 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: Bilwin Development Affiliates, LLC **WELL NO.:** TB-3 **PAGE** 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York BCP Site #C360143	**SCREEN SIZE & TYPE:** None **SLOT NO.:** **SETTING**:
DATE COMPLETED: March 3, 2015	**SAND PACK SIZE & TYPE:** None
DRILLING COMPANY: SoilTesting, Inc. Oxford, Connecticut	**SETTING:** **CASING SIZE & TYPE:** None
DRILLING METHOD: Diedrich D50M 4.25" HSA	**SETTING:**
SAMPLING METHOD: 2.25" Split Spoon	**SEAL TYPE:** None
OBSERVER: REG	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**: Portland and bentonite slurry
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	BLOW COUNT	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	2	SS	22-18-13-12	1.0	1.7	Dense topsoil, SAND (medium to coarse), GRAVEL (fine, subangular); brown; dry; no hydrocarbon odor
2	4	SS	8-6-3-4	0.5	16.6	Loose SAND (medium to coarse), SILT; brown; dry; slight hydrocarbon and organic odor
4	6	SS	4-4-3-5	0.75	2.9	Loose SAND (fine), SILT, weathered rock; brown to tank; moist; no hydrocarbon odor
6	8	SS	12-24-50/4	0.5	1.7	Very dense SAND (fine to medium), SILT, weathered rock; brown; moist; no hydrocarbon odor
						Refusal at 8 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: Bilwin Development Affiliates, LLC **WELL NO.:** TB-7 **PAGE** 1 **OF** 2 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York BCP Site #C360143	**SCREEN SIZE & TYPE:** None **SLOT NO.:** **SETTING**:
DATE COMPLETED: March 11, 2015	**SAND PACK SIZE & TYPE:** None
DRILLING COMPANY: SoilTesting, Inc. Oxford, Connecticut	**SETTING:** **CASING SIZE & TYPE:** None
DRILLING METHOD: Diedrich D50M 4.25" HSA	**SETTING:**
SAMPLING METHOD: 2.25" Split Spoon	**SEAL TYPE:** None
OBSERVER: REG	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**: Portland and bentonite slurry
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	BLOW COUNT	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	2	SS	4-7-50/0	0.5	1.3	Very dense SAND (fine to medium), SILT; brown to black; moist; no hydrocarbon odor
2	4	-	-	-	-	Spoon refusal, augered through hinterval
4	6	SS	21-18-7-8	1.0	1.4	Medium dense SAND (medium to coarse), some SILT, weathered rock; brown and white; moist; no hydrocarbon odor
6	8	SS	1-2-1-2	0.75	10.0	Very loose glass, leaves; brown; moist; strong hydrocarbon odor
8	10	SS	10-7-50/0	0.5	2.9	Very dense SAND (fine to medium), SILT; brown; moist; no hydrocarbon odor-
10	12	SS	10-10-50/0	1.0	3.7	Very dense SAND (fine to medium), SILT, glass; brown; wet; no hydrocarbon odor
12	14	-	-	-	-	Spoon refusal, augered through interval
14	15	SS	100/0	0.1	1.5	Very dense tire; black wet; strong hydrocarbon odor
15	17	SS	12-15-18-20	1.0	1.9	Dense SAND (medium to coarse), SILT, plastic sheeting; brown; wet; strong organic odor
17	19	SS	25-50/0	0.25	2.6	Very dense SAND (fine to medium), weathered rock, leaves, plastic, wood; brown; wet; no hydrocarbon odor
19	20	-	-	-	-	Spoon refusal, augered through
20	22	SS	1-3-3-4	0.25	3.4	Loose SAND (fine to medium), SILT, wood, weathered rock; brown; wet; no hydrocarbon odor
22	24	SS	4-4-9-50	0.5	4.6	Medium dense SAND (fine to medium). SILT, weathered rock, plastic, paper; brown; wet; strong organic odor

OWNER: Bilwin Development Affiliates, LLC	
WELL NO.: TB-7	

DEPTH (FEET)		SAMPLE TYPE	BLOW COUNT	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
24	25	-	-	-	-	Spoon refusal, augered through
25	27	SS	25-30-22-21	0.25	2.1	Very dense SILT, weathered rock; black; wet; strong unidentifiable odor
27	29	SS	18-17-25-31	0.5	4.2	Very dense SAND (medium), SILT, trace GRAVEL (fine, subrounded), weathered rock, glass, wood; dark brown; wet; strong solvent odor
						Refusal at 29 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: Bilwin Development Affiliates, LLC
	WELL NO.: TB-8
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York BCP Site #C360143	**SCREEN SIZE & TYPE:** None **SLOT NO.:** **SETTING**:
DATE COMPLETED: February 27, 2015	**SAND PACK SIZE & TYPE:** None
DRILLING COMPANY: SoilTesting, Inc. Oxford, Connecticut	**SETTING:** **CASING SIZE & TYPE:** None
DRILLING METHOD: Diedrich D50M 4.25" HSA	**SETTING:**
SAMPLING METHOD: 2.25" Split Spoon	**SEAL TYPE:** None
OBSERVER: REG	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**: Portland and bentonite slurry
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	BLOW COUNT	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	2	SS	12-14-19-20	1.0	3.2	Dense SAND (fine to coarse), weathered rock, brick; brown; dry; no hydrocarbon odor
2	4	SS	15-17-14-21	1.0	3.8	Dense SAND (medium to coarse), weathered rock; brown; dry; no hydrocarbon odor
4	6	SS	15-19-21-25	1.0	2.9	Dense SAND (medium to coarse), weathered rock; brown; dry; no hydrocarbon odor
6	8	SS	15-14-13-14	1.0	2.5	Medium dense SAND (fine to coarse), SILT; brown; dry; no hydrocarbon odor
8	10	SS	14-12-15-13	1.0	1.8	Medium dense SAND (fine to medium), SILT, weathered rock; brown; moist; no hydrocarbon odor
10	12	SS	8-10-12-9	1.0	1.8	Medium dense SAND (fine), SILT, weathered rock; brown; moist; no hydrocarbon odor
12	14	SS	12-9-10-10	1.25	0.9	Medium dense SAND (fine), SILT, weathered rock; brown; moist; no hydrocarbon odor
14	16	SS	9-12-13-10	1.5	1.6	Dense SAND (fine) and SILT, grading to weathered marble; brown to white, moist; no hydrocarbon odor
16	18	SS	7-8-9-12	1.0	1.3	Medium dense SAND (fine) and SILT, weathered rock; brown to white; dry; no hydrocarbon odor
18	20	SS	15-21-35-25	1.0	0.8	Very dense weathered marble; white; dry; no hydrocarbon odor
20	22	SS	25-35-50/4	1.0	2.0	Very dense weathered marble; white; dry; no hydrocarbon odor
						Refusal at 23 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: Bilwin Development Affiliates, LLC **WELL NO.:** TB-9 **PAGE** 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York BCP Site #C360143	**SCREEN SIZE & TYPE:** None **SLOT NO.:** **SETTING**:
DATE COMPLETED: March 2, 2015	**SAND PACK SIZE & TYPE:** None
DRILLING COMPANY: SoilTesting, Inc. Oxford, Connecticut	**SETTING:** **CASING SIZE & TYPE:** None
DRILLING METHOD: Diedrich D50M 4.25" HSA	**SETTING:**
SAMPLING METHOD: 2.25" Split Spoon	**SEAL TYPE:** None
OBSERVER: REG	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**: Portland and bentonite slurry
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	BLOW COUNT	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	2	SS	15-18-24-22	0.5	0	Dense SAND (fine to medium), trace GRAVEL (fine, angular); brown; moist; no hydrocarbon odor
2	4	SS	34-25-27-28	0.5	0.1	Very dense SAND (fine to medium), SILT, trace GRAVEL (fine, angular); brown; moist; no hydrocarbon odor
5	7	SS	24-50/2	0.5	2.0	Very dense SAND *fine to medium), SILT, trace GRAVEL (fine, angular), weathered rock; brown to gray; moist; no hydrocarbon odor
7	9	SS	8-6-4-4	0.5	2.4	Loose SAND (fine to medium), trace GRAVEL (fine, angular), weathered rock; brown; wet grading to dry; no hydrocarbon odor
9	11	SS	24-8-50/4	0.5	1.8	Very dense SAND (fine to medium), GRAVEL (fine, angular), charred wood, ash, brown to black, moist; no hydrocarbon odor
11	13	SS	10-12-18-12	0.75	0.2	Dense SAND (fine to medium), SILT, GRAVEL (fine, angular); brown; moist; no hydrocarbon odor
13	15	SS	24-21-50/0	0.25	1.3	Very dense SAND (fine to medium), SILT, GRAVEL (fine, angular); brown; moist; no hydrocarbon odor
15	17	-	-	-	-	-
						Refusal at 16 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: Bilwin Development Affiliates, LLC **WELL NO.:** TB-10 **PAGE** 1 **OF** 2 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York BCP Site #C360143	**SCREEN SIZE & TYPE:** None **SLOT NO.:** **SETTING**:
DATE COMPLETED: March 2 and 3, 2015	**SAND PACK SIZE & TYPE:** None
DRILLING COMPANY: SoilTesting, Inc. Oxford, Connecticut	**SETTING:** **CASING SIZE & TYPE:** None
DRILLING METHOD: Diedrich D50M 4.25" HSA	**SETTING:**
SAMPLING METHOD: 2.25" Split Spoon	**SEAL TYPE:** None
OBSERVER: DKS and REG	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**: Portland and bentonite slurry
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	BLOW COUNT	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	2	SS	4-10-50/2	0.5	1.1	Very dense topsoil, SAND (fine to medium), weathered rock; brown; dry; no hydrocarbon odor
2	4	SS	50/0	0	-	-
4	6	SS	12-15-6-8	1.0	8.9	Medium dense SAND (fine to medium), SILT, weathered marble; brown and gray; moist; no hydrocarbon odor
6	8	SS	24-50/3	0.25	4.9	Very dense SAND (fine), SILT, weathered marble; brown; moist; no hydrocarbon odor
8	10	SS	7-6-14-12	0.5	1.8	Medium dense SAND (fine to coarse), SILT, weathered rock; brown; dry; no hydrocarbon odor
10	12	SS	5-5-10-12	0.5	4.6	Medium dense SAND (fine to coarse), SILT, weathered rock; brown; dry; no hydrocarbon odor
12	14	SS	9-10-12-29	0.75	6.5	Medium dense SAND (fine to coarse), SILT, weathered rock; brown; dry; no hydrocarbon odor
14	16	SS	40-22-12-14	0.5	1.9	Dense concrete; white; dry; no hydrocarbon odor
16	18	SS	70-26-40-22	0.25	2.4	Very dense concrete; white; dry; no hydrocarbon odor
18	20	SS	50/6	0/25	1.0	Very dense concrete; white; dry; no hydrocarbon odor
20	22	SS	24-49-30-20	2.0	-	Very dense Wood; tan; dry; strong organic odor (not hydrocarbon)
22	24	SS	63/6	0.5	250.1	Very dense fill, garbage, foam; black; moist; strong hydrocarbon odor
24	26	SS	14-15-17-22	0.25	0	Very dense wood; tan; dry; no hydrocarbon odor

OWNER: Bilwin Development Affiliates, LLC

WELL NO.: TB-10 **PAGE:** 2 OF 2 PAGES

DEPTH (FEET)		SAMPLE TYPE	BLOW COUNT	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
26	28	SS	4-4-5-3	0	-	-
28	30	SS	4-5-6-5	0.25	11.7	Medium dense ash, charred wood; black; moist; burnt odor
30	32	SS	5-4-2-1	0.25	0.9	Loose charred wood; black; moist; burnt odor
32	34	SS	1-12-15-45	1.0	235.7	Medium dense SAND (fine), weathered rock, historic fill, glass; black; wet; strong hydrocarbon odor
						Refusal at 34.5 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: Bilwin Development Affiliates, LLC
	WELL NO.: TB-11
	PAGE 1 **OF** 1 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York BCP Site #C360143	**SCREEN SIZE & TYPE:** None **SLOT NO.:** **SETTING**:
DATE COMPLETED: February 26 and 27, 2015	**SAND PACK SIZE & TYPE:** None
DRILLING COMPANY: SoilTesting, Inc. Oxford, Connecticut	**SETTING:**
	CASING SIZE & TYPE: None
DRILLING METHOD: Diedrich D50M 4.25" HSA	**SETTING:**
SAMPLING METHOD: 2.25" Split Spoon	**SEAL TYPE:** None
OBSERVER: REG	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**: Portland and bentonite slurry
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	BLOW COUNT	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	2	SS	5-9-12-15	1.5	2.4	Medium dense topsoil, SAND (fine to medium), trace GRAVEL (fine, angular); brown; dry; no odor
2	4	SS	24-50/4	1.0	0.7	Very dense SAND (fine to medium), weathered rock, ash; black to gray; dry; no hydrocarbon odor
4	6	SS	15-24-34-25	1.0	2.5	Very dense SAND (medium to coarse), weathered rock, ash; gray; dry; no hydrocarbon odor
6	8	SS	20-18-15-14	1.25	1.3	Dense SAND (medium to coarse), weathered rock, ash; gray; dry; no hydrocarbon odor
8	10	SS	9-8-8-7	0.5	0.9	Medium dense SAND (fine to medium), SILT, weathered rock; brown to gray; moist; no hydrocarbon odor
10	12	SS	10-7-7-50/3	0.75	1.5	Medium dense SAND (fine to medium), SILT, weathered rock; brown to gray; moist; no hydrocarbon odor
12	14	SS	57-54-24-17	1.0	0.7	Very dense SAND (fine to medium), SILT, weathered rock; brown to gray; moist; no hydrocarbon odor
14	16	SS	19-14-11-25	1.0	0.6	Medium dense SAND (fine to coarse), weathered rock, ash; brown; dry; no hydrocarbon odor
16	18	SS	24-50/3	0.75	1.8	Very dense SAND (fine to coarse), trace SILT, weathered rock, brick; brown; wet; no hydrocarbon odor
19	21	SS	31-9-11-21	0	-	-
21	23	SS	57/4	0.75	3.0	Very dense SAND (fine to coarse), SILT, weathered rock; brown; wet; no hydrocarbon odor
						Refusal at 23 ftbg

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: Bilwin Development Affiliates, LLC **WELL NO.:** TB-12 **PAGE** 1 **OF** 2 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York BCP Site #C360143	**SCREEN SIZE & TYPE:** None **SLOT NO.:** **SETTING**:
DATE COMPLETED: February 26, 2015	**SAND PACK SIZE & TYPE:** None
DRILLING COMPANY: SoilTesting, Inc. Oxford, Connecticut	**SETTING:** **CASING SIZE & TYPE:** None
DRILLING METHOD: Diedrich D50M 4.25" HSA	**SETTING:**
SAMPLING METHOD: 2.25" Split Spoon	**SEAL TYPE:** None
OBSERVER: REG	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**: Portland and bentonite slurry
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	BLOW COUNT	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	2	SS	17-15-12-12	1.0	5.9	Medium dense topsoil, SAND (fine to coarse), GRAVEL (fine, subangular); brown; dry; no hydrocarbon odor
2	4	SS	10-10-10-10	1.9	62.4	Medium dense SAND (fine to coarse), GRAVEL (fine, subangular); brown; dry; strong hydrocarbon odor
4	6	SS	12-14-14-13	1.0	73.1	Medium dense SAND (fine to coarse), trace GRAVEL (fine, subangular), weathered rock, ash; gray; dry; strong hydrocarbon odor
6	8	SS	20-14-10-5	0	-	No Recovery-
8	10	SS	27-5-5-25	0.75	1.3	Loose SAND (fine to coarse), weathered rock, ash; gray; dry; no hydrocarbon odor
10	12	SS	15-12-12-14	1.0	0.7	Medium dense SAND (fine to coarse), weathered rock, ash; gray; dry; no hydrocarbon odor
12	14	SS	15-15-34-25	1.25	21.0	Dense SAND (fine to coarse), weathered rock, ash; gray; dry; slight hydrocarbon odor
14	16	SS	17-16-18-20	1.0	5.3	Dense SAND (fine to coarse), weathered rock, ash; black; dry; slight charred odor
16	18	SS	50/3	0.25	1.3	Very dense SAND (medium to coarse), weathered rock; brown; dry; no hydrocarbon odor
18	20	SS	21-24-18-27	1.0	1.7	Dense SAND (fine to medium), weathered rock, ash; brown; dry; no hydrocarbon odor
20	22	SS	25-27-30-40	1.5	4.1	Very dense SAND (fine), SILT, weathered rock; ash; brown; dry; no hydrocarbon odor
22	24	SS	50/4	0.5	2.3	Very dense SAND (fine), SILT, weathered rock; brown; dry; no hydrocarbon odor
24	26	SS	25-35-49-25	1.5	2.4	Very dense SAND (fine to medium), SILT, weathered rock, wood; brown; dry; no hydrocarbon odor

OWNER: Bilwin Development Affiliates, LLC

WELL NO.: TB-12 **PAGE:** 2 OF 2 PAGES

DEPTH (FEET)		SAMPLE TYPE	BLOW COUNT	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
26	28	SS	25-48-50/2	1.0	2.5	Very dense SAND (fine to medium), SILT, weathered rock, ash; gray to black; dry; no hydrocarbon odor
28	30	SS	25-50/2	0.5	4.5	Very dense SAND (fine), SILT and CLAY, wood; gray; wet; no hydrocarbon odor
30	32	SS	50/1	0	-	Spoon Refusal. Advanced augers to 33 fbg-
33	35	SS	25-54-34-20	1.5	2.1	Very dense SAND (fine to medium), SILT, GRAVEL (fine, rounded); gray; wet; no hydrocarbon odor
35	37	SS	5-9-15-19	1.0	1.9	Medium dense SAND (fine to medium), SILT, trace GRAVEL (fine, rounded); gray; wet; no hydrocarbon odor
37	39	SS	10-10-5-6	1.5	2.1	Medium dense SAND (fine to coarse), SILT, trace GRAVEL (fine, subrounded); dark gray; wet; no hydrocarbon odor
39	41	SS	70/4	0.25	2.7	Very dense SILT, CLAY, some SAND (fine); black; wet; organic odor
						Refusal at 40.5 ftbg

Comments:

GEOLOGIC LOG HydroEnvironmental SOLUTIONS, INC.	**OWNER**: Bilwin Development Affiliates, LLC **WELL NO.:** TB-13 **PAGE** 1 **OF** 2 **PAGES**
SITE LOCATION: 109-125 Marbledale Road Tuckahoe, New York BCP Site #C360143	**SCREEN SIZE & TYPE:** None **SLOT NO.:** **SETTING**:
DATE COMPLETED: February 25, 2015	**SAND PACK SIZE & TYPE:** None
DRILLING COMPANY: SoilTesting, Inc. Oxford, Connecticut	**SETTING:** **CASING SIZE & TYPE:** None
DRILLING METHOD: Diedrich D50M 4.25" HSA	**SETTING:**
SAMPLING METHOD: 2.25" Split Spoon	**SEAL TYPE:** None
OBSERVER: REG	**SETTING:**
REFERENCE POINT (RP): Grade	**BACKFILL TYPE**: Portland and bentonite slurry
ELEVATION OF RP:	**STATIC WATER LEVEL**:
STICK-UP:	**DEVELOPMENT METHOD**:
SURFACE COMPLETION:	**DURATION**: – **YIELD**: –
NOTES:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube **REC = Recovery PPM = parts per million ftbg = feet below grade MC = macro core sampler**	

DEPTH (FEET)		SAMPLE TYPE	BLOW COUNT	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	2	SS	4-12-17-19	1.0	0.7	Medium dense Topsoil, SAND (medium to coarse), GRAVEL (medium, angular); brown; dry; no hydrocarbon odor
2	4	SS	45-50/4	1.0	0.7	Very dense SAND (medium to coarse), GRAVEL (medium, angular); brown; dry; no hydrocarbon odor
4	6	SS	8-7-4-5	1.0	17.2	Medium dense SAND (medium to coarse), brick, ash; brown and red; dry; no hydrocarbon odor
6	8	SS	7-1-1-1	0.5	2.1	Very loose SAND (medium to coarse), brick, ash; brown and red; dry; no hydrocarbon odor
8	10	SS	12-14-14-10	0.5	2.1	Medium dense SAND (medium to coarse), brick, ash; brown and red; dry; no hydrocarbon odor
10	12	SS	10-20-50/0	0.25	1.7	Very dense SAND (medium to coarse), brick, ash; brown and red; dry; no hydrocarbon odor
12	14	SS	20-30-14-14	1.0	0.4	Dense SAND (medium to coarse), weathered marble, brick, ash; brown and red; dry; no hydrocarbon odor
14	16	SS	19-23-57/0	0.75	0.8	Very dense ash; black; moist; slight charred odor
16	18	SS	-	-	-	-
18	20	SS	25-35-51-52	1.5	1.9	Very dense SAND (medium to coarse), weathered rock, ash; dark gray; moist; slight hydrocarbon odor
20	22	SS	25-51-44-27	1.5	1.6	Very dense SAND (medium to coarse), weathered rock, ash, wood; black; dry; slight hydrocarbon odor
22	24	SS	25-45-50/2	0.5	2.0	Very dense SAND (medium to coarse), SILT, ash, glass; gray; moist; slight hydrocarbon odor
24	26	SS	25-50/3	1.0	4.2	Very dense SAND (medium to coarse), SILT, weathered rock, ash; gray; dry; slight hydrocarbon odor

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WELL NO.: TB-13 **PAGE:** 2 OF 2 PAGES

DEPTH (FEET)		SAMPLE TYPE	BLOW COUNT	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
26	28	SS	45-26-17-15	1.0	1.9	Dense SAND (medium to coarse), SILT, weathered rock, wood; gray; wet; no hydrocarbon odor
28	30	SS	17-17-10-10	2.0	0.7	Medium dense SAND (medium to coarse), SILT, trace GRAVEL (fine, angular); gray; wet; no hydrocarbon odor
30	32	SS	10-8-5-7	0.25	1.9	Medium dense SAND (fine to coarse), SILT, trace GRAVEL (fine, subrounded); gray; wet; no hydrocarbon odor
32	34	SS	10-12-7-8	2.0	1.3	Medium dense SAND (fine to coarse), SILT, trace GRAVEL (fine, subrounded); gray; wet; no hydrocarbon odor
34	36	SS	50/0	0	-	-
36	38	SS	8-7-7-8	1.0	1.5	Medium dense SAND (medium to coarse), SILT, GRAVEL (fine, angular); gray; wet; no hydrocarbon odor
38	40	SS	8-10-7-9	1.0	1.0	Medium dense SAND (medium to coarse), SILT, GRAVEL (fine, angular); gray; wet; no hydrocarbon odor
40	42	SS	4-5-5-6	1.0	2.0	Loose SAND (medium to coarse), SILT, GRAVEL (fine, angular); gray; wet; no hydrocarbon odor
42	44	SS	4-5-25-35	1.5	2.9	Dense SAND (medium to coarse), SILT, GRAVEL (fine, angular) grading to CLAY and weathered marble; gray; wet; no hydrocarbon odor
						Refusal at 43.9 ftbg