DT CONSULTING SERVICES, INC.

BROWNFIELD CLEANUP PROGRAM (BCP)

REMEDIAL INVESTIGATIVE WORK PLAN
Revised
10-14 Tucker Drive
Town of Poughkeepsie
Dutchess County, New York

Site Number C314132

October 11, 2021

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1.0 INTRODUCTION AND PURPOSE

This Remedial Investigation Work Plan (RIWP) has been prepared to satisfy the investigation requirements of the New York State Department of Environmental Conservation (NYSDEC or "Department") Brownfield Cleanup Program (BCP). Willow brook Rentals LLC (hereinafter, BCP Applicant), owner of property located at 10-14 Tucker Drive, Town of Poughkeepsie, Dutchess County, New York (hereinafter, the Site or Subject Property) is in the process of applying for acceptance of the Site into the BCP Program. Upon acceptance into the BCP, an approved RIWP will be required prior to initiating remaining remedial investigation field activities

Prior investigation and mitigation activities have been conducted on the Site and the results of those investigations were submitted to the Department along with the BCP Application. The goals of this remedial investigation work is to a) determine current soil gas conditions beneath the Site structure and along the periphery of the property boundaries, b) document the composition and characteristics of surface and subsurface soils, c) document local groundwater quality conditions and direction of groundwater flow, and d) provide guidance on the selection and implementation of a Remedial Program for the Site.

This RIWP is designed to focus on and address specific areas at the Site to gain current subsurface quality data as well as to document the environmental conditions at portions of the Site not previously investigated. The Site is a former municipal landfill and bus maintenance/fueling garage. Three minor spills (Spill #s 0808935, 0907487 and 0904392) have been reported to NYSDEC at the Site based on releases of petroleum to the subsurface associated with the former bus garage. As more fully described in Sections 2 - 4 of this document, chlorinated solvents and petroleum related products have been detected in the subsurface of the property as a result of historic Site use which resulted in the release of hazardous and non-hazardous substances, including volatile organic compounds (VOCs). The past release of hazardous substances at the Site has resulted in:

- A potential threat to human health associated with potential exposure to the subsurface contaminated soils, soil vapor and groundwater.

- A potential environmental threat associated with potential impacts of contaminants to the subsurface soils and groundwater.

All proposed work will be conducted according to a Site-specific Health and Safety Plan (HASP), provided as Appendix A.

2.0 SITE INFORMATION

The proposed BCP Site includes an irregularly shaped 5.826 lot which is referenced under Section 6262, Block 3, Lot 162080 by the Town of Poughkeepsie. The Subject parcel is improved with a +/- 55,423 ft^2 two-story commercial warehouse/office building, asphalt parking areas and landscaped spaces. Approximately 50% of the building is warehouse storage space and the remaining 50% is vacant, unoccupied space. According to Town of Poughkeepsie Assessor records, the building was constructed in 1984. The Site is suspected to have been associated with a landfill as disturbed land was noted in at least 1970 and 1980 aerial photographs. Additionally, the portions of the building have historically been utilized for bus repair and fueling operations. According to documents reviewed and based upon prior site inspections, petroleum bulk storage (PBS) tanks including one, 10,000-gallon baffled diesel/gasoline aboveground storage tank (AST), several 275 – 300 gallon ASTs for motor oil and washer fluid as well as two, 1,000-gallon ASTs (fuel type not noted) have been utilized at the Site. There is no evidence of any underground storage tanks (USTs) existing at the Site and as of the date of this report, all ASTs appear to have been removed.

Historically, a total of three spills have been reported to New York State Department of Environmental Conservation (NYSDEC) for the Site. Spill #08-08935 was reported on November 7, 2008 based on the release of 5-gallons of diesel fuel to soil. According to the database, the spill was associated with the bus maintenance garage, and the cause of the release was unknown. The spill was closed by NYSDEC on November 7, 2008. Spill #09-07487 was reported on October 3, 2009 based on the release of 10-gallons of No. 2 fuel oil. The source of the spill was reported be a commercial vehicle. The spill was closed by NYSDEC on October 5, 2009. Spill # 09-04392 was reported on July 15, 2009 based on the release of an unknown quantity of diesel to soil. The source of the spill is unknown. The spill was closed by NYSDEC on December 31, 2009. In March 2017, DT Consulting Services, Inc. (DTCS) performed a Phase II Environmental Site Assessment on the Subject Property for then owner, 10 Tucker Drive, LLC. As a result of the investigation, Spill #16-10111 was generated for the Site based upon subsurface impacts to soil, groundwater and soil vapor (along with advective transport of vapor phase contaminants towards and into the Site structure – vapor intrusion). The spill remains open at this time.

The Site is bounded by commercial properties to the north, south and west, and wetlands to the east. Roadways adjoining the site include Tucker Drive to the west. Topography is generally level across most of the Site, with a slight decline to the east. A property location map and a Site (base) plan are presented as Figures 1 and 2, respectively. Potable water and wastewater disposal are reportedly provided by the Town of Poughkeepsie. No groundwater supply wells were observed by representatives of this office during site inspections and no groundwater supply wells are known to be present or used on adjoining or nearby properties.

ASTM Phase I and Phase II Environmental Site Assessments were conducted at the Site in July 2015 and March 2017, respectively. As a result of such prior investigation activities, the following areas of potential environmental concern and/or "recognized environmental conditions" (REC) were identified and are associated with the Subject Property:

- Groundwater contamination issues associated with the historic landfill operated by the Town of Poughkeepsie under and near the Site (hereinafter Town landfill) and/or former bus repair/ fueling operations at the Site. [1]

- Soil vapor impacts, including petroleum and chlorinated VOCs associated with the historic Town landfill and/or former bus repair/ fueling operations, along with methane associated with the historic Town landfill;

- Indoor air impacts, including chlorinated VOCs (namely tetrachloroethylene and trichloroethylene) associated with the historic Town landfill and/or former bus repair/ fueling operations;

[1]Durham School Services operated a trucking/transportation company (mainly student transportation for the local school district) out of the facility until its departure in 2017. The bus repair/fueling operations noted as a REC for the Subject Property included the aboveground bulk storage of petroleum products (i.e., gasoline, diesel, motor oil and waste oil) which were utilized to operate and maintain the buses and transport vehicles. According to the NYSDEC database, bulk storage Site No. 3-602053 (which was historically assigned to the Site) is presently unregulated/closed.

3.0 OBJECTIVES

The purpose of the Remedial Investigation is to further define the nature and extent of on-Site contamination and develop sufficient data for the assessment, selection and design of a Remedial Action Work Plan. Based upon the results of previous investigations, subsurface impacts (attributed to the presence of a historic Town landfill, former bus repair and fueling operations) have been identified on Site. Furthermore, the concentrations of detected contaminants within the soil vapor and indoor air appear to warrant modification to the existing SSDS present at the Site. Anticipated Remedial Actions for the Site include, at minimum, diagnostic testing and modification of the existing Sub-slab Depressurization System (SSDS) as an Engineering Control to mitigate vapor intrusion into the Site building. Note that a SSDS had been installed as a precautionary measure during the construction of the Site structure in [INSERT YEAR] because the property was once known to be a part of the Town landfill.

Site investigation activities will consist of the following specific tasks:

- Document the presence or absence of targeted contaminants in the subsurface;
- Determine the direction of groundwater flow and document groundwater quality;
- Collection and analysis of specific media including soil gas, soil and groundwater;
- Identification of contaminants of concern; and
- Identification of specific environmental media, characterization of exposure settings, potential migration pathways and affected receptors.

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4.0 PREVIOUS INVESTIGATIONS AND EVALUATIONS

Two previous environmental investigations have been conducted on the Subject Property. Each of these investigations was performed to assess the environmental status of the Site by identifying existing or potential environmental conditions. The investigative and remedial activities conducted to date can be referenced in the Site Brownfield Cleanup Program (BCP) Application, June 9, 2021.

4.1 Phase 1 Environmental Assessment, July 9, 2015

LCS, Inc. (LCS) of Buffalo, New York performed a Phase I Environmental Assessment on the Subject Property dated July 9, 2015. Based on the findings of LCS's Phase I ESA, the following RECs associated with the Subject Property were identified:

- On-Site bus service and fueling since at least 1989. Surficial staining, typical of repair operations, was noted to the floor in the bus service area.

- Disturbed land was noted on-site in at least 1970 and 1980 (possibly associated with a landfill). According to an on-Site spill listing, the Subject Property was historically utilized as a landfill operated by the Town of Poughkeepsie.

The following controlled recognized environmental conditions (CRECs) associated with the Subject Property were identified:

- On-Site NY Spills (Spills #s 08-08935, 09-07487 and 09-04392) classified as "inactive." These spills have been addressed to the satisfaction of the NYSDEC.

- "Inactive" and "Closed" NY Spill sites on adjacent properties. These spills have been addressed to the satisfaction of the NYSDEC.

The following issues of potential environmental concern were identified:

- Four ASTs (one baffled) are registered to the Subject Property. One 300-gallon washer fluid AST, one 275-gallon waste motor oil AST, and one

baffled 10,000-gallon baffled diesel/gasoline AST were identified during the site inspection. No releases were noted in the area of those tanks.

- Two 1,000-gallon ASTs were removed from the Subject Property in 2009.
- Federal wetlands have been identified on eastern property boundary.
- Hazardous/regulated materials were noted stored in 55-gallon drums and smaller containers.
- A west adjacent property (7 Tucker Drive) was identified as a PBS facility.

4.2 Phase II Environmental Site Assessment, March 30, 2017

DTCS completed a Phase II Environmental Site Assessment at the Site in March 2017. The investigation included the performance of a Geophysical Investigation, collection of soil, groundwater and soil gas samples from the Site. The primary intent of the Geophysical Investigation was to determine if previously unknown USTs and if subsurface voids associated the historic landfill were present at the Site. The intent of the subsurface sampling was to identify and characterize any contamination that may exist in soil, groundwater and soil gas because of historical Site use as the Town landfill, bus repair and fueling operations.

4.2.1 Geophysical Investigation Findings

A paved area ranging from approximately 110-275' in width by 590' in length is found along the eastern side of the building and is accessed via Tucker Drive. As documented in LCS July 2015 Phase I ESA, the Subject Property is suspected to have been associated with a landfill as disturbed land was noted in at least 1970 and 1980 aerial photographs. In addition, LCS noted that an on-Site spill listing states the Subject Property was formerly utilized as a landfill. While performing the Geophysical Investigation, this area was scanned with GPR and other locating equipment for the presence of subsurface anomalies. As detected with GPR, certain portions of the eastern parking area were found to contain a subsurface void at a depth of approximately three feet below grade surface (bgs). DTCS theorized that the void could have been created by decaying organic material disposed of at the Town Landfill which had been previously been covered by three feet of fill material. In addition, several underground utilities were mapped

in this section of the Site, (mainly drainage conduits) on the day of the survey. DTCS cleared three soil boring locations within this paved area.

While performing the Geophysical Investigation, the area surrounding the existing 10,000-gallon baffled AST was scanned with GPR and other locating equipment for the presence of subsurface anomalies. Other than abandoned subsurface conduits, subsurface anomalies indicative of a UST were not identified.

4.2.2 Subsurface Investigation Activities

A total of six soil borings were advanced at the Site to depths ranging from 9 to 16 feet below grade. Two temporary PVC wells were installed in the boreholes and static water was measured at depths ranging from 12.00 to 12.80 feet below ground surface (bgs). Site soils are generally characterized as asphalt and gravel, underlain by sandy loam/mixed fill and silty clay. Void space, likely associated with the voids observed during the GPR survey, prevented collection of soil samples at several boring locations.

A total of four soil and two groundwater samples were collected from the Site for laboratory analysis for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) via EPA Methods 8260 and 8270, respectively.

Three soil gas samples were collected during the Phase II ESA field study as well. Based upon the suspect historical Site use as a landfill, two soil gas vapor probes were installed within the asphalt parking area and one probe was placed beneath the concrete slab of the Site structure for analysis. Soil vapor cores were extended to approximately two feet above the groundwater table during this investigation. The samples were collected for analysis employing 6-liter SUMMA canisters. The samples were submitted for laboratory analysis of VOCs by EPA Method TO-15 and methane.

4.2.3 Subsurface Investigation Findings

Soil Analytical Results

Based upon analytical testing, all targeted soil parameters were returned with minimal to non-detectable concentrations for VOCs and SVOCs. All reported parameters were below their respective regulatory standards as defined in NYSDEC Part 375-6.8(a) Unrestricted Use SCOs, December 14, 2006, with the exception of acetone in one sample. Acetone is a common laboratory derived

contaminant, and the detected concentration is unlikely associated with Site soils. The soil sampling results are summarized in Table 1 and boring locations are depicted on Figure 3.

Groundwater Analytical Results

Analysis of two temporary Site wells installed during this investigation revealed concentrations of laboratory detectable dissolved phase VOCs and SVOCs. When compared to guidance, eight VOCs and one SVOC were found to exceed their respective regulatory standard (Technical & Operations Guidance Series (TOGS) 1.1.1, June 1998). The groundwater sampling results are summarized in Table 2. Groundwater sample locations, along with exceedances of the Ambient Water Quality Standards (AWQS), are depicted on Figure 4.

Soil Vapor/ Gas Analytical Results

The results of soil vapor sampling indicate that twenty-seven VOCs are present within the three soil gas samples collected on-Site. The major on-Site vapor concentrations range from 0.38 microgram per cubic meter (µg/m³) to 260 µg/m³ in soil gas samples SG-1 - SG-3. The on-Site vapors in these samples are consistent with petroleum-based products and solvents typically found in dry cleaning chemicals and metal degreasing operations. Note that analysis for methane, ranged from 250,000 ppmv to 620,000 ppmv across the Site. The origin of the methane on-Site is theorized to originate from a natural byproduct of the decomposition of organic material. Studies have shown that landfill gas is composed of roughly 50 percent methane, 50 percent carbon dioxide (CO_2) and a small amount of non-methane organic compounds. As such, the identification of the Subject Property as a suspected landfill based upon 1970 and 1980 aerial photographs appears accurate. The soil gas sampling results are summarized in Table 3 of the Phase II report and soil vapor sample locations, along with elevated detections, are depicted on Figure 5.

4.2.4 Air Sampling Activities

Indoor Ambient Air Sampling

Upon receipt of soil, soil gas and groundwater analysis from the initial Phase II ESA field investigation, DTCS identified exceedances in soil gas and groundwater sample concentrations when compared to state guidelines. DTCS subsequently met with the NYSDEC to discuss the findings of the Phase II field work and additional sampling requirements which were deemed necessary by the

Department. Based upon the findings of the initial Phase II ESA field work, the NYSDEC requested an indoor air sampling program to be performed on-Site to quantify indoor air quality. To accommodate this request, DTCS placed eight 6-liter SUMMA canisters with flow controllers within accessible areas of the Site structure. The samples were submitted for laboratory analysis of VOCs by EPA Method TO-15 and methane.

4.2.5 Air Sampling Findings

Indoor Ambient Air Analytical Results

The results of indoor air sampling indicate that twenty-five VOCs are present within samples collected on-Site. The major on-Site indoor air concentrations range from 5.2 μg/m³ to 340 μg/m³ in indoor air samples denoted as IA-1 – IA-8. Similar to those compounds detected within soil gas laboratory reporting, targeted parameters which were found to exceed regulatory standards were consistent with chlorinated solvents typically found in dry cleaning and degreasing agents. Two compounds, namely Tetrachloroethylene and Trichloroethylene were found to exceed their respective standard as outlined in the NYS DOH Final Guidance on Soil Vapor Intrusion, October 2006 while analyzing indoor air. Note that analysis for methane, ranged from non-detect to 24 ppmv within the interior ambient air on-Site. The indoor air sampling results are summarized in Table 4. The indoor air sample locations, along with elevated detections, are depicted on Figure 6.

4.3 DATA ASSESSMENT AND NEEDS

Based upon the results of previous investigations, subsurface impacts (attributed to the historic landfill and bus repair/ fueling operations) have been identified on the Site. The nature and extent of soil and groundwater impacts have not been fully defined. Although existing soil and groundwater data can be utilized to assist in defining the principal contaminant source areas, additional investigative activities will need to be performed to define the extent of subsurface contamination while further delineating the source area(s). The existing active SSDS, installed during building construction as a protective measure against potential methane accumulation in the building, does not appear to be effective in mitigating migration of chlorinated VOCs from sub-slab soil gas to indoor air. Diagnostic testing and a building survey to identify potential preferential pathways should be performed to determine the existing system radius of influence and identify potential sources of indoor air impacts.

5.0 REMEDIAL INVESTIGATION APPROACH

The scope of the investigation program is directed at providing sufficient information that will complete data gaps in historical Site surveys. Ultimately, the goal of this RI is to verify current soil, soil gas and groundwater quality so that a remedial program can be selected and implemented. In addition, diagnostic testing is needed to evaluate the performance of the existing SSDS. The RI objectives and methods have been developed in accordance with the NYSDEC Brownfield Program Cleanup Guidance (NYSDEC May 2004), and relevant provisions of Department of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation May 2010. A Site and contaminant specific HASP has been prepared for the Site and is included as Attachment A.

Although the scope of work as described herein provides specific locations for soil boring and soil gas installations, additional testing locations may be added or locations otherwise adjusted during the course of work, as warranted, to define the limits of impact. Figure 7 shows the proposed soil, soil gas, indoor air and groundwater sampling locations for this Site investigation work plan.

Soil Sampling and Analysis

A direct-push drilling rig (Geoprobe) will be used to advance a minimum of six soil borings (See Figure 7). The soil boring locations were selected to fill data gaps from the January/ March 2017 subsurface investigation where subsurface voids attributable to the historic landfill prohibited collection of samples beyond the shallow fill layer (i.e., SB-2 and SB-3). Boring logs from the January/ March 2017 subsurface investigation are included in Attachment B. Additionally, boring locations were selected to further investigate former on-Site bus repair and fueling operations. Upon retrieval from the four or five-foot sampler equipped with an acetate liner, the collected sample shall be placed in laboratory supplied glassware, labeled, and readied for transport to the laboratory for analysis. The sampling tubes and tools used to collect the soil samples will be decontaminated between each sampling location using a detergent wash and potable water rinse. Soil sampling will be conducted continuously from the surface to a maximum depth of approximately 25 feet below grade or to a depth sufficient to vertically delineate the extent of landfill materials and/or field evidence of contamination.

Discrete sampling methods using macro core tooling will be employed to collect representative samples from beneath the landfill.

The reported depth to ground water ranges from approximately 12 - 13 feet below grade and presumably flows to the east towards Casper Creek. An on-Site Geologist will prepare geologic logs that will include the boring identification, depth interval, soil descriptions, moisture, and other notable features. Soil samples retrieved from each boring will be screened in approximate two-foot intervals for organic vapors using a field calibrated PID equipped with a 10.2 electron volt lamp. The PID probe will be inserted into the headspace of each sample bag and the maximum reading will be recorded. The sample from each boring with the highest PID reading will be submitted for laboratory analysis. Selected samples corresponding to the water table or capillary zone above the water table may be submitted for laboratory analysis if there is no indication of the presence of subsurface contamination based on visual and and/or PID measurements.

Selected samples will be submitted to a New York State Department of Health (NYSDOH)-approved laboratory for analysis of VOCs (USEPA Method 8260), SVOCs (USEPA Method 8270), Target analyte list (TAL) metals (USEPA Various Methods), pesticides (USEPA Method 8081), polychlorinated biphenyls or PCBs (USEPA Method 8082), Per- And Polyfluoroalkyl Substances or PFAs (USEPA Method 537.1), cyanide (USEPA Method 9014/9010C) and 1,4-dioxane (USEPA Method 8270 SIM). All analyses will be performed by NYSDEC Analytical Services Protocol (ASP) with Category B deliverables. Sample collection and analysis will be in accordance with the methods described in the Quality Assurance/Quality Control (QA/QC) Plan as described in Section 6 of this report. Field quality control measures including trip and field blanks will be collected and submitted to the chemical laboratory for analysis. These control measures are described in Section 6 of this report.

Ground Water Sampling and Analysis

Four of the six soil borings will be converted to permanent 1-inch PVC monitoring wells. Each well will be constructed of one inch inside diameter (ID), schedule 40 PVC casing and 0.01 inch slotted PVC screen. The screened section of the well will extend a minimum of five feet above and five feet below the groundwater table, for a total of ten feet. To complete the groundwater well, a locking cap and a flush mounted four-inch manhole clearly marked “monitoring well” will be installed within a framed concrete pad. Monitoring wells will be developed following installation to remove fine material that may have settled in

the well, remove any drilling fluids that were used during well installation, and to enhance the hydraulic communication with the surrounding formation. Monitoring wells will be allowed to set for at least two days following installation to allow the grout to cure before developing the well. Wells will be developed by surging and purging the entire screened interval at each location. The monitoring wells will be considered properly developed when a minimum of five well volumes of water have been removed or until a monitoring well has been pumped dry after surging.

All Site groundwater wells will be sampled using the USEPA Low Flow method. Sampling will be conducted using the following protocol:

- Basic climatological data (e.g., temperature, precipitation, etc.) and all field observations will be recorded in the field logbook. Groundwater sampling will begin at the potentially least contaminated well (as determined from well location and/or previous data) and proceed to the potentially most contaminated well. New nitrile gloves will be worn by the sampler at each well location.

- The protective casing on the well will be unlocked, the air in the well head will be screened with the PID, and the static water level (relative to the top of the casing) will be measured with a decontaminated water-level meter. Polyethylene tubing will be slowly lowered until reaching two to three feet off the bottom to prevent disturbance and re-suspension of any sediment present in the bottom of the well.

- Water level measurements will be recorded to the nearest 0.01 foot prior to ground water sampling. The well would then be pumped at a rate of 200 to 500 milliliters per minute, and the water level will be measured approximately every three to five minutes to ensure that stabilization (drawdown of 0.3’ or less) is achieved.

- All groundwater samples will be collected in a manner consistent with NYSDEC sample collection protocols. Each groundwater sample will be placed into, appropriately labeled, containers provided by the laboratory. All samples will be maintained at appropriate cold temperatures.

- The protective cap on the well will be replaced and locked following sampling, and the field sampling crew will move to the next most contaminated well and the process will be repeated.

One round of groundwater samples will be collected from the monitoring wells and will be analyzed for VOCs (USEPA Method 8260), SVOCs (USEPA Method 8270), Target analyte list (TAL) metals (USEPA Various Methods), pesticides (USEPA Method 8081), polychlorinated biphenyls or PCBs (USEPA Method 8082), Per- And Polyfluoroalkyl Substances or PFAs (USEPA Method 537.1), cyanide (USEPA Method SM 4500 CN C/E) and 1,4-dioxane (USEPA Method 8270 SIM). All analyses will be performed by NYSDEC Analytical Services Protocol (ASP) with Category B deliverables. Field quality control measures including trip and field blanks will be collected and submitted to the chemical laboratory for analysis. These control measures are described in Section 6 of this report. All well locations will be measured and plotted on a scaled base map.

Waste Handling

All investigation-derived waste (IDW) will be contained on-Site in a secure area for appropriate characterization and disposal by DTCS. Soil cuttings, personal protective equipment, and spent disposable sampling materials will be segregated by waste type and placed in DOT-approved 55-gallon steel drums. All decontamination water, purged groundwater, and drilling water will be stored in 55-gallon drums as necessary. Field staff will maintain an inventory of all waste storage vessels. All storage vessels will be appropriately labeled with the contents, generator, location, and date.

Relative Groundwater Elevation Survey

A relative groundwater elevation survey will be conducted using the measured groundwater depths and surveyed top of casing elevations, compared to a relative arbitrary benchmark of 100 feet above mean seal level (amsl). The data will be used to establish the groundwater flow direction at the Site. A groundwater elevation contour map will be prepared for inclusion in the Remedial Investigation Report (RIR).

Sub-Slab Soil Vapor Sampling and Analysis

A total of ten sub-slab soil vapor points will be placed throughout the Site structure (See Figure 7) for sampling and analysis. The soil vapor points will be installed by core drilling a small diameter hole (5/8”) completely through the slab and installing a brass vapor pin equipped with an airtight silicon sleeve. The pins will be recessed beneath the slab and fitted with stainless steel flush-mount threaded covers set in 1.5-inch cavities.

Following installation, a MiniRae photoionization detector (which registers airflow below 0.2 liters per minute) will be attached to the vapor pin using high density polyethylene tubing and a minimum of three sample volumes will purged from each point. Total VOC readings will be recorded for each soil vapor point and used as a basis for comparison with laboratory analytical data.

The existing SSDS was installed to mitigate accumulation of methane within the building from the historic landfill. Accordingly, the soil vapor samples will be collected with the SSDS in operation.

The sub-slab soil vapor samples will be collected for analysis in batch clean SUMMA canisters equipped with a laboratory calibrated flow control device to facilitate the collection of the samples for a 2-hour sample duration time. As a quality assurance/quality control measure, an inert tracer gas (helium) test will be completed before and after sampling to document that the soil vapor sampling points were properly sealed preventing subsurface infiltration of ambient air into the sample chain. Following sampling, the pressure of the SUMMA canisters will be recorded. A sample log sheet will be maintained summarizing sample identification, date and time of sample collection, sampling depth, identity of samplers, sampling methods and devices, soil vapor purge volumes, volume of the soil vapor extracted, vacuum of canisters before and after the samples are collected, and chain of custody protocols.

The soil vapor samples will be submitted to a NYSDOH-approved laboratory for analysis of VOCs by EPA Method TO-15 and methane. Sample collection and analysis will be in accordance with the methods described in the Quality Assurance/Quality Control (QA/QC) Plan as described in Section 6 of this report. All sub-slab soil gas sampling locations will be measured and plotted on a scaled base map.

The sub-slab soil vapor sampling data will be summarized in the RIR.

Indoor and Ambient Air Sampling and Analysis

A total of four indoor and one outdoor ambient air samples will be collected. The indoor air samples will be collected throughout the existing building. The outdoor ambient air sample will be collected from and upwind location on the property. Prior to sample collection, a building chemical inventory screening will be performed to determine potential sources of VOCs in indoor air. Each sample

will be collected at a height of 3-5 feet from the ground within the approximate breathing zone. Parameters including indoor and outdoor air temperature, wind direction and relative humidity will be noted during the sampling event.

The air samples will be collected for analysis in batch clean SUMMA canisters equipped with a laboratory calibrated flow control device to facilitate the collection of the samples for an 8-hour sample duration time. Following sampling, the pressure of the SUMMA canisters will be recorded. A sample log sheet will be maintained summarizing sample identification, date and time of sample collection, sampling depth, identity of samplers, sampling methods and devices, vacuum of canisters before and after the samples are collected, and chain of custody protocols.

The air samples will be submitted to a NYSDOH-approved laboratory for analysis of VOCs by EPA Method TO-15 and methane. Sample collection and analysis will be in accordance with the methods described in the Quality Assurance/Quality Control (QA/QC) Plan as described in Section 6 of this report. All air sampling locations will be measured and plotted on a scaled base map.

The air sampling data will be summarized in the RIR.

Existing Sub-slab Depressurization System Pilot/ Diagnostic Testing

Diagnostic testing of the existing SSDS will be conducted in two phases. The first phase (herein Phase I) will be conducted to determine current performance of the existing SSDS. The second phase (herein Phase II) will be conducted after Phase I and will include targeted testing in locations where sub-slab vacuum is not demonstrated during Phase I. The data collected during each testing phase will be used to design system modifications to mitigate the vapor intrusion concern identified within the building during previous investigations. Both phases of diagnostic testing will be conducted after the collection of the above reference soil, groundwater, soil gas and indoor samples, which will be evaluated to direct diagnostic efforts.

Phase I Diagnostic Testing

The existing active SSDS will be evaluated to determine current system performance. The permanent sub-slab soil gas sampling points described above will be utilized during Phase I testing as vacuum monitoring points. Additional temporary vacuum or permanent monitoring points will be installed strategically

during this phase as needed to determine vacuum field extension and to identify short circuiting of the vacuum radius of influence (ROI). Sub-slab vacuum readings will be collected in in-H_2O using an Infiltec® DM1 micromanometer.

According to information gathered to date, a total of seven vertical riser pipes connected to horizontal perforated pipes in gravel trenches are present beneath the slab. Each vertical riser pipe reportedly contains and inline powered blower/ fan. In order to collect data from each vertical riser pipe, a small hole (~5/16-inch) will be made in each riser near ground level (or above roofline if ground level not accessible). A pipe threading tool will be used to create threads in the PVC pipe for the purpose of installing airtight ball valves for data collection.

The installed ball valves/sampling ports will be utilized to measure a number of parameters to evaluate performance-related measurements. These parameters include, air velocity measured in feet per minute (FPM) and temperature (Degrees Fahrenheit), and will be measured using a Dwyer® Air Velocity Meter. The velocity will be converted to a flow rate in CFM. Extracted vapor vacuum readings will be collected in in-H_2O using a Dwyer Magnehelic® differential pressure gauge and converted to inches of mercury (in-Hg). Total VOC readings will be collected using a MiniRae PID. In addition, effluent samples (seven total) will be collected from the sample port. The samples will be collected in batch clean SUMMA canisters and analyzed for cVOCs by EPA Method TO-15 and methane. The purpose of the effluent samples is to determine the current VOC and methane mass removal rate.

Phase II Diagnostic Testing

Based on the previous soil gas and indoor air sampling results obtained during the 2017 Phase II ESA, it is expected that the existing SSDS is not creating the proper ROI to mitigate vapor intrusion within the building. Accordingly, Phase II testing is anticipated to evaluate pressure field extension in areas where Phase 1 testing demonstrates the absence of sub-slab vacuum. The testing will include installation of extraction/pumping wells in locations where sub-slab vacuum was not identified during Phase I diagnostics. The new extraction/ pumping wells will be installed by core drilling a 3 and 5/8-inch diameter core through the existing concrete slab. Soils and/or subsurface aggregate will be removed from the extraction well and the cavity will be backfilled with 1 to 1.5-inch gravel. The soils will be placed in 55-gallon drums for off-Site disposal as IDW. The SSDS extraction/ pumping wells will be constructed with a 3-inch PVC coupling set and sealed in the cored hole and connected to 3-inch schedule 40 PVC riser pipe. The

space between the cored slab and 3-inch PVC coupler will be sealed with RadonAway® Pro PGS joint sealant.

The pilot/ diagnostic testing will include pumping/ removing vapor from each of the extraction/ pumping wells in a series of tests. During each test, the sub-slab soil gas sample points will be utilized as vacuum monitoring points. Additional temporary vacuum or permanent monitoring points will be installed strategically during the pumping tests to determine vacuum field extension and to identify short circuiting of the vacuum ROI. A GBR 76SOE radial blower fan capable of creating a maximum vacuum of 16-in-H_2O and air flow of 155 CFM will be connected to each extraction pumping well to create the sub-slab vacuum. Extracted vapors will be routed through a 30-gallon carbon vessel to remove CVOCs or will be directly ventilated outside of the building. The extracted vapor effluent will be continually monitored with a MiniRae PID during testing to ensure no accumulation of detectable VOCs within the building.

During Phase II testing, velocity FPM, vacuum, temperature, and total VOCs will be measured. Total VOC readings pre- and post-carbon treatment will be collected. In addition, effluent samples (up to two total) will be collected from a sample port, prior to carbon treatment. The samples will be collected in batch clean SUMMA canisters and analyzed for CVOCs by EPA Method TO-15 and methane. The purpose of the effluent samples is to determine the anticipated CVOC and methane mass removal rate and whether carbon treatment will be necessary for final system design.

The data gathered during both Phases of pilot/ diagnostic testing will be evaluated by a NYS Professional Engineer to determine final system modifications. A summary of pilot/diagnostic testing data will be included in the RIR, and the proposed system modifications will be included in the Remedial Action Work Plan.

Table 5 includes the proposed laboratory submissions (sample media and analyte class) and quantities.

6.0 QUALITY ASSURANCE PROJECT PLAN

As stated previously, the goals of this RI Work Plan are to further characterize the nature and extent of contaminants in Site soil and groundwater and to further quantify and analyze sub-slab soil gas which appears to be impacting indoor air through vapor intrusion. Additionally, the RIWP will evaluate performance of the

existing SSDS and provide diagnostic data to be used to design system modifications to address the suspected vapor intrusion concern in the building. Therefore, this Quality Assurance Project Plan (QAPP) has been developed to establish the procedures and protocols for collection and laboratory analysis of samples associated with the completion of the BCP RI element on-Site. Project management/organizational responsibilities will be performed under the direction of Deborah J. Thompson.

6.1 Quality Assurance/Quality Control (QA/QC) Objectives

The NYSDEC Analytical Services Protocol (ASP) provides levels of quality for laboratory testing as they apply to remedial investigation and construction activities. As such, the NYSDEC ASP will be followed during the course of Site investigation/remediation on the Subject Property. The overall data quality objectives of the project are:

- To ensure that samples collected are representative.
- To provide detection limits for the selected analytical methods, which are below the established cleanup objective or regulatory standards.
- To measure and document precision and accuracy using procedures established by the laboratories, NYSDOH Environmental Laboratory Approval Program (ELAP) and USEPA approved analytical methods.
- To ensure that a NYSDOH ELAP and NYSDOH ELAP CLP certified laboratory will conduct all soil vapor groundwater analyses.

6.2 Analytical Methods/Quality Assurance Summary

- *Matrix type*:

  Soil, soil vapor, indoor air and Groundwater

- *Number or frequency of samples to be collected per matrix:*

  Variable, pending field conditions.

- *Number of field and trip blanks per matrix:*

  Soil – 1, Groundwater – 1

- *Analytical parameters to be measured per matrix:*

  Volatile organic compounds (soil, soil vapor, indoor air and groundwater)
  Semi-volatiles, TAL Metals, PCBs and PFOAS (soil and groundwater)
  Methane (soil vapor and indoor air)

- *Analytical methods to be used per matrix*:

  EPA Method TO-15 (soil vapor and indoor air)
  EPA Test Methods 8260, 8270B/N, 6010/7470/7471, 8082, 537/ 537.1, 9014/9010C, SM 4500 CN C/E and 8270 SIM (soil and groundwater).

- *The number/type of matrix spiked, duplicate and blank samples to be collected:*

  Dependent upon the total number of samples of each matrix to be analyzed but, there will be at least one split per matrix.

Analytical Methods/Quality Assurance Summary Table

Matrix Type	No. of Samples	No of FBs/ TBs	Analytical Parameters	Analytical Method	Duplicate Frequency	Sample Container & Preservation (Per Sample)	Hold Time
Soil	8	1	VOCs, SVOCs, TAL Metals, pesticides, PCBs, PFAs, cyanide and 1, 4-dioxane.	8260, 8270 6010/7471, 8080, 8082, 537.1, 9014/9010C and 8270 SIM.	1	4 x 40ml/ DI, MeOH 4 x 4oz	7 days – 6 months. See chart below.
Soil Vapor Ambient Air	12	N/A	VOCs	TO-15	1	1 x Summa	7 days – 6 months. See chart below.
Groundwater	9	1	VOCs, SVOCs, TAL Metals, pesticides, PCBs, PFAs, cyanide and 1, 4-dioxane	8260, 8270 6010/7471, 8080, 8082, 537.1, SM 4500 CN C/E and 8270 SIM.	1	3 x 40ml/Hcl 4 x 1L/None 1 x 250ml/HNO3	7 days – 6 months. See chart below.

6.3 Field Quality Control Samples

Field quality controls for laboratory confirmation samples include the collection and analysis of field duplicate and equipment rinsate samples. The frequency of collection for the specified QC field samples is as follows:

- ✓ A trip blank will be prepared before the sample bottles are sent by the laboratory. A trip blank will be included with each shipment of samples where sampling and analysis for VOC is planned (water matrix only).
- ✓ One field blank per day for PFA sampling.
- ✓ One field duplicate sample per 20 field samples. Duplicate samples will be collected by initially collecting twice as much material as is normally

collected for a sample. After mixing, the material will be apportioned into two sets of containers.

✓ One equipment blank (rinsate) sample per 40 samples.

6.4 Field Sampling Procedures

Sampling/Analytical procedures are described in detail in the RI Work Plan as outlined above and will not be reiterated in this QAPP. The Work Plan also includes site maps and sampling diagrams as well as details for sampling implementation, decontamination, and waste management.

Sample Containerization

Analysis	Bottle Type	Preservative	Holding Time
Soil, Sediment, Solid Waste			
VOCs	40ml glass	DI MeOH	7 days (until extraction, 40 days extracted)
SVOCs	Wide mouth glass	None	7 days (until extraction, 40 days extracted)
Metals[1]	Wide mouth glass	None	6 months Cyanide: 12 days Mercury: 28 days
Pesticides	Wide mouth glass	None	7 days (until extraction, 40 days extracted)
PCBs	Wide mouth glass	None	7 days (until extraction, 40 days extracted)
PFAs	250ml PP[2]	None	14 days
Soil Gas			
VOCs GC/MS (TO-15)	1L Summa Canister	None	7 days (until extraction, 40 days extracted)
Groundwater Samples			
VOCs	40 ml with septum cap	HCl	14 days
SVOCs	1 L glass	None	7 days (until extraction, 40 days extracted)
Metals [1]	1 L plastic	Nitric acid to pH <2	6 months Mercury, 26 days
Pesticides	Wide mouth glass	None	7 days (until extraction, 40 days extracted)
PCBs	Wide mouth glass	None	7 days (until extraction, 40 days extracted)
PFAs	125ml PP	None	14 days

As all bottles will contain the necessary preservatives as shown above, they need only be filled. Each VOC 40ml vial must be filled to the brim with no air bubbles. The other sample jars should be filled to within an inch from the top for liquids, and to the brim for soils and sediment. All samples will be preserved with ice during collection and shipment.

(1) Metals referred to the 24 metals and cyanide in the Target Analyte List, Methods 6010/7470/7471/9010.
(2) PP is Polypropylene

Sample Preservation

The samples collected for analysis will require preservation prior to shipment (as described above). Preservation of the sample ensures sample integrity and prevents or minimizes degradation or transformation of the constituents to be analyzed. Specific preservation requirements include proper handling, packaging in laboratory-supplied sample containers, and chilled to 4° Celsius (°C) for shipping to the contract analytical laboratory.

Documenting Field Samples

The DTCS Field Team will use field logbooks or specific field forms to record pertinent information regarding subsurface characteristics, field screening results, and confirmatory sampling activities. Field staff will record the project name and number, date, sampling personnel on site, other personnel present, weather conditions, and other relevant events to sampling activity in a chronological order. The field log book and/or analysis forms will be maintained in the project file.

6.5 Sample Custody

Chain-of-Custody Forms

Each sample will be recorded onto a chain-of-custody (COC) form. The form will include the project name and number, names of the field sampling personnel, the sample number, date and time the sample was collected, whether the sample is a composite or grab sample, sample location, number of containers per sample number, constituents to be analyzed, and pertinent comments. The form will document the date, time, and signature of person(s) relinquishing and receiving custody of the samples.

Sample Transportation to the Laboratory

Samples will be shipped for analysis to the laboratory either the day the samples are collected or within 24 hours following collection, except in the case of samples that are collected on Saturday. Samples will be transported by a laboratory supplied carrier service. If samples are collected on a Saturday, they will be stored by field personnel during the weekend and then readied for transport on Monday. The contract analytical laboratory will be required to perform the analyses on the samples within the allowable holding time proscribed for the analyses.

Laboratory Sample Custody

Upon arrival at the analytical laboratory, samples will be checked in by the sample custodian. The sample custodian will:

- Sign the COC form documenting receipt of the samples from the carrier;
- Verify that the number of samples received in the shipment agrees with the number listed on the COC form;
- Verify that the information on each bottle agrees with the information documented on the COC form; and
- Document on the COC form the integrity/condition (bottle intact, temperature, etc.) of all received samples.

In the event of any discrepancy or problems associated with the shipment of samples for chemical analysis, the analytical laboratory project manager will immediately notify the field personnel. A unique laboratory sample number will be assigned to each sample. Pertinent information from the COC form and/or sample label (e.g., sample identification, sampling location, sampling date and time, sample description, and requested analyses) together with the date of sample receipt will be entered into the analytical laboratory's data management system which will be used to record the status of samples, their storage locations, and the analytical results. The analytical laboratory will have in-house COC procedures to ensure proper security of all samples.

Laboratory Selection

The laboratory chosen for the project must be certified, and maintain certification, under the NYSDOH ELAP and NYSDOH ELAP CLP for analyses of solid and hazardous waste. DTCS has contracted with York Analytical Laboratories, Inc. located in Stratford, CT to perform laboratory services for this Work Plan.

6.6 Data Reduction, Verification and Reporting

Verification of data obtained from sampling will be performed by the Project Manager who will determine the validity of the data by comparing the actual procedures used for field measurements, sampling, and custody, as documented on forms and in the field log book, with those prescribed in the work plan and/or approved by the Project Manager.

6.7 Data Usability Summary Report

As part of this Remedial Investigation Work Plan, a Data Usability Summary Report or DUSR will be prepared to summarize the soil and groundwater sampling and analytical results for the Site. The primary objective of the DUSR is to determine whether the analytical data meets Site specific objectives for data quality and data use.

The DUSR will be prepared following the guidelines provided in Department of Environmental Remediation (DER)-10 *Technical Guidance for Site Investigation and Remediation*, Draft, December 2002, Guidance for the Development of Data Usability Summary Reports. The complete validated analytical results and Form 1s will be provided in the DUSR during reporting of the remedial investigation.

6.8 Electronic Data Deliverables

The RIR will be provided to NYSDEC and DOH as an electronic PDF report upon completion of the RI field investigation. All analytical data will be summarized in data tables compared to applicable regulatory standards, along with complete laboratory analytical reports. Scaled site plans will also be included in the RIR.

7.0 HUMAN HEALTH EXPOSURE ASSESSMENT

Site data will be evaluated to determine whether human receptors, both on and off Site are potentially exposed. The purpose of the exposure assessment will be to

qualitatively determine the route, intensity, frequency and duration of actual or potential exposures of human to site-related chemicals. The assessment will also describe the nature and size of the population potentially exposed to the contaminants.

Laboratory analytical reporting on soil, groundwater, soil vapor and indoor air will be compared to applicable health-based screening criteria:

- **Soil**
  Soil analytical results will be compared to NYSDEC's Subpart 375-6: Remedial Program Unrestricted Soil Cleanup Objectives.

- **Groundwater**
  Groundwater analytical results will be compared to NYSDEC Guidance Values as referenced in Technical Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998 for class GA groundwater.

- **Soil Vapor & Indoor Air**
  The sub-slab soil vapor and indoor air sampling results will be compared to the compounds listed in the NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion, dated October 2006 and the revised NYSDOH Decision Matrices dated May 2017. The methane concentrations will be compared to concentrations typically encountered in landfills.

The comparison of analytical result to the applicable screening values will be utilized to tentatively identify contaminants of potential concern.

8.0 FISH AND WILDLIFE EXPOSURE ASSESSMENT

A Fish and Wildlife Resource Evaluation (FWRIA) will be completed to provide an initial screening of potentially affected fish and wildlife resources in connection with the site. The first step of the FWRIA process, resource characterization, will be completed as part of the Site investigation scope. Resource characterization includes the following basic steps:

- Identify fish and wildlife resources for the area within a one-half mile radius of the site, based on NYSDEC records and knowledge of the site area.

- Identify contaminant migration patterns that may potentially expose fish and wildlife resource to site-related contaminants.

- Identify specific contaminants of ecological concern.

- Draw conclusions regarding potential adverse effects.

The findings of the initial FWRIA phase will be employed to determine whether it is likely that the commercial Site has a negative effect on local wildlife and related habitats.

9.0 REMEDIAL INVESTIGATION REPORT

Following the completion of the proposed sampling, analysis and data evaluation, a Remedial Investigation Report will be prepared that presents the findings of the investigation. The following information will be included in the RI Report.

1. A narrative discussion of methods and results. Work completed under the approved RI Work Plan will be described, including the methods employed for sample collection and laboratory analysis.

2. This final remedial investigation will further define the nature and extent of soil and groundwater contaminants. Sub-slab soil gas sampling will provide building-wide soil gas concentrations. Indoor air sampling will identify current exposures within the existing structure. Indoor air and soil vapor data will be compared to NYSDOH Vapor Intrusion Guidance Matrices. A comparison with the NYSDOH Vapor Intrusion Guidance Matrices, along with diagnostic data collected during both phases of SSDS testing, will be used to determine the appropriate modifications to the existing active SSDS. Soil and Groundwater sampling and analysis will provide current concentrations present in both media and will provide data on other potential contaminants of concern not previously investigated.

3. Hydrogeologic Data. Hydrogeologic factors and their influence on the migration and distribution of contaminants will be discussed. Supporting data including groundwater elevation data and maps displaying groundwater analytical results, with text boxes depicting contaminant

concentrations at each monitoring point will be prepared for the inclusion in the final RI Report.

4. Standards and guidance that pertain to the sampled Site media will be identified and listed in summary tables along with the analytical results for each medium. Any exceedances encountered above regulatory standards will be indicated on the tables and discussed in the technical overview.

5. Human Health Exposure Assessment. An assessment of potential exposure scenarios will be presented in the context of the Site's existing and future contemplated use. Exposure scenarios will be addressed both on and off-Site in the assessment.

6. Fish and Wildlife Resources. Area fish and wildlife resources will be identified and the overall habitat value for the site will be discussed. The Site's effect on the overall habitat value for the area based on current conditions and the future anticipated use will be included the resource assessment.

7. Conclusions/Recommendations. The results of the final RI will be summarized in a written document which will identify source areas and potential exposure pathways in relation to human and environmental receptors. The RI Report will also evaluate appropriate remedial options based upon the RI results and provide specific details on diagnostic testing and system modifications for the existing SSDS present at the Site.

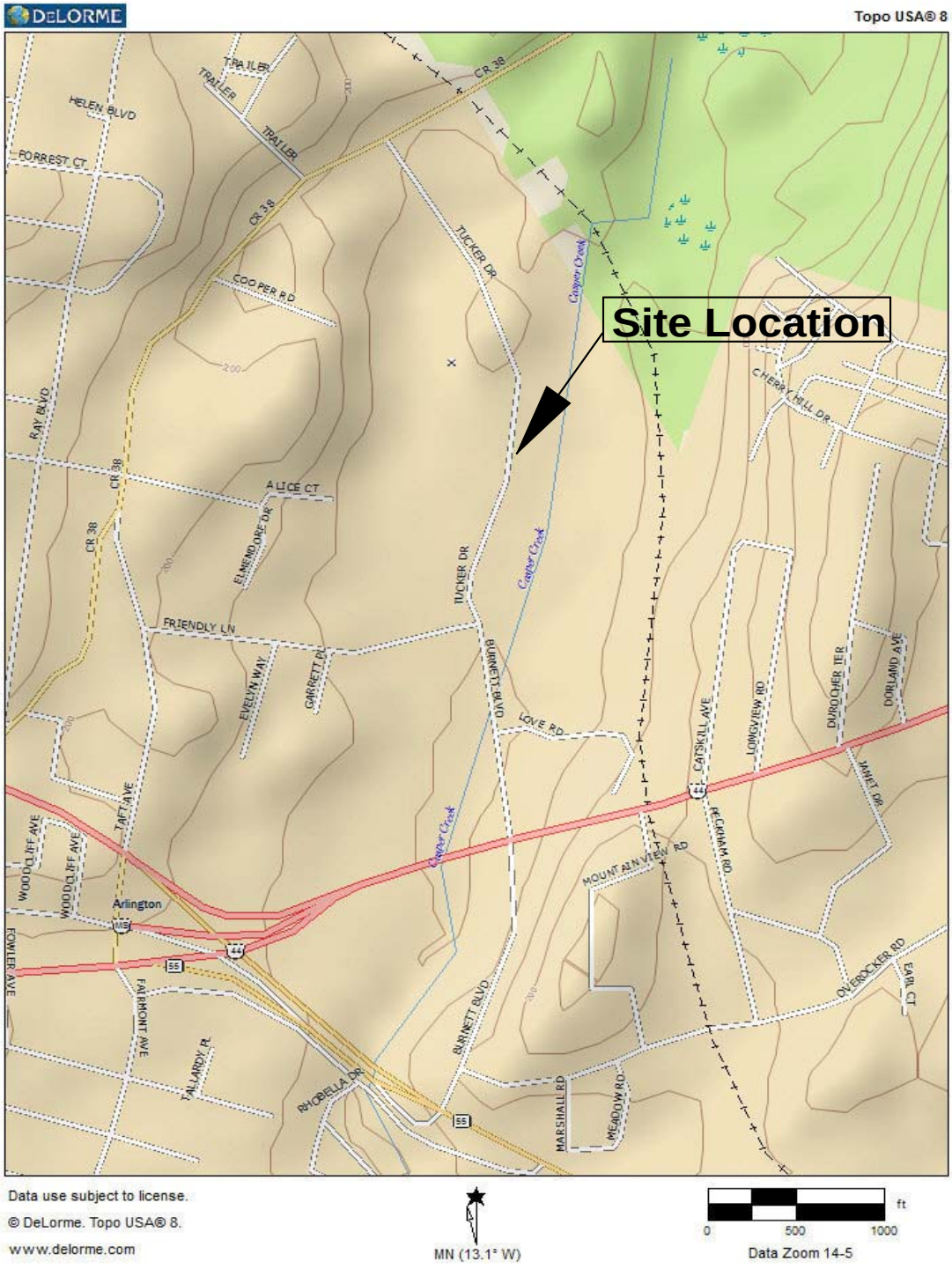
8. Supporting Information. To support the site data collected during the implementation of the RI Work Plan, the following items will be appended to the RI Report:

    - Site photographs;
    - Site maps, including text box figures depicting analytical results;
    - Laboratory analysis;
    - SSDS Diagnostic/ Pilot Testing Summary; and
    - SSDS Proposed System Modifications.

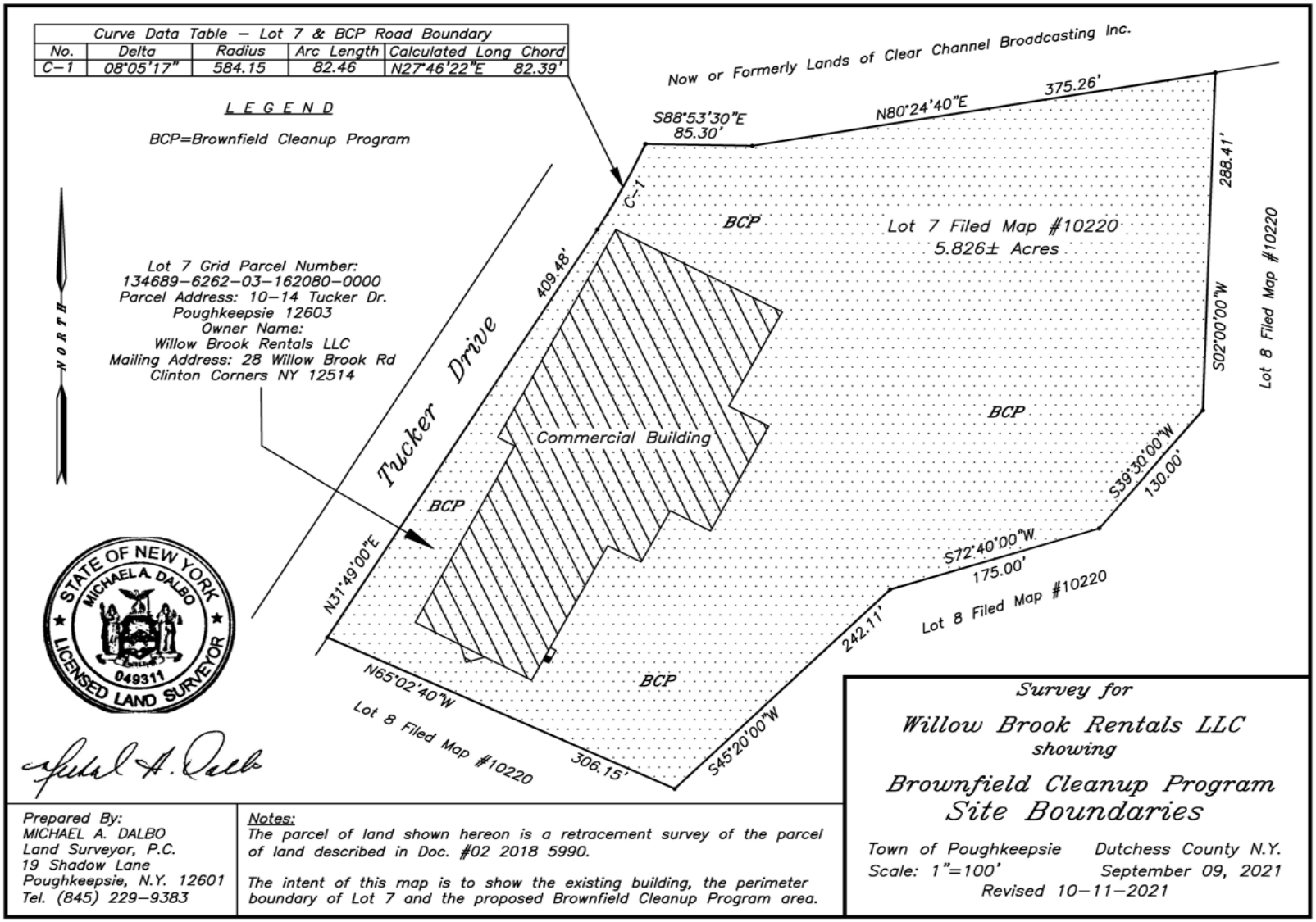
10.0 PROJECT SCHEDULE

The RI sampling and analysis program proposed herein will be implemented following NYSDEC and NYSDOH approval. RI field sampling work will be scheduled to begin within two – four weeks from approval date. Specific public participation milestones are denoted in a separate Citizens Participation Plan. DTCS estimates that the field work will require one week to complete, and laboratory analysis within two weeks of the conclusion of field work on-Site. The RI Report and Remedial Action Work Plan will be submitted for NYSDEC and NYSDOH review and approval within two months of work plan approval.

FIGURES & TABLES



Client: Willow Brook Rentals LLC			**Site Location Plan**
Site: 10-14 Tucker Drive, Poughkeepsie, New York			
Site #: C314132	**Drawn by:** DJT	**Scale:** Graphic	**Figure No:** 1



Prepared By:
MICHAEL A. DALBO
Land Surveyor, P.C.
19 Shadow Lane
Poughkeepsie, N.Y. 12601
Tel. (845) 229–9383

Notes:
The parcel of land shown hereon is a retracement survey of the parcel of land described in Doc. #02 2018 5990.

The intent of this map is to show the existing building, the perimeter boundary of Lot 7 and the proposed Brownfield Cleanup Program area.

Copy of BCP Survey Map as Generated by Michael J Dalbo, Land Surveyor, P.C. , October 11, 2021

DT Consulting Services, Inc.
1291 Old Post Road
Ulster Park, New York 12487
(845) 658-3484

Client:	Willow Brook Rentals LLC			
Location:	10-14 Tucker Drive, Poughkeepsie, Dutchess County, New York			
Title:	Site (base) Map			
Scale: Graphic		Drawn By: O.T.	BCP Site No.: C314132	Fig.#: 2

Michael A. Dalbo

Land Surveyor, P.C.

19 Shadow Lane

Poughkeepsie, N.Y. 12601

Date: Oct. 08, 2021

Survey Description
for
Willow Brook Rentals LLC

Brownfield Cleanup Program

All that parcel of land situate in the Town of Poughkeepsie, County of Dutchess and State of New York known and designated as Lot 7 on a map entitled Subdivision of the Lands of Thomas R. Espie Jr. and Betty Espie and Lot Line Revision WKIP Broadcasting Corporation, filed in the Office of the Dutchess County Clerk as map #10220 being more particularly bounded and described as follows:

Beginning at a point on the easterly line of Tucker Drive, marking the common road front corner of Lot 7 and Lot 8 shown filed map #10220; thence running along the easterly line of Tucker Drive, as set forth on filed map #10220, N31°49'00"E 409.48' to the beginning of a curve; thence along a curve to the left, having a long chord of N27°46'22"E 82.39' and a radius of 584.15', for a distance along the arc of 82.46' to the northwesterly corner of Lot 7 and the southwest corner of a triangular parcel of land designated as "to be deeded from Espie to WKIP Broadcasting Corporation", per filed map #10220; thence running along the southerly line thereof and continuing to and along the lands now or formerly of Clear Channel Broadcasting Inc., S88°53'30"E 85.30' and N80°24'40"E 375.26' to the common rear corner of Lot 7 and Lot 8; thence running along the division line between Lot 7 and Lot 8, S02°00'00"W 288.41', S39°30'00"W 130.00', S72°40'00"W 175.00', S45°20'00"W 242.11' and N65°02'40"W 306.15' to the point of beginning.

Containing 5.826 Acres of land more or less.

The parcel of land described above is the same parcel of land described in Doc. #02 2018 5990.

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1291 Old Post Road
Ulster Park, NY 12487

0 50 100
APPROXIMATE SCALE IN FEET

LEGEND

Parcel and proposed BCP Boundary

Soil boring

Exceeds 375-6.8(a) Unrestricted Use SCO

Anticipated Use - Restricted Use 375-6.8(b) - Commercial SCOs

Acetone 500,000 ug/kg

Soil Contaminant Concentration Map (January 2017)

10-14 Tucker Drive
Poughkeepsie, NY 12603

Project Manager	Drafter	Date	Figure
DT	DB	10/08/2021	3

Table 1:

Summary of Soil Laboratory Analysis Volatile Organic Compounds (VOCs)

Site: 10-14 Tucker Drive
Poughkeepsie, Dutchess County, New York

BCP NO. C314132

Sample Location		**SB-1**	**SB-2**	**SB-3**	**SB-4**	**SB-5**	**SB-6**
Sample Collection Depth (ft.)		**11 - 13-ft.**			**7 - 9-ft.**	**9 - 11-ft.**	**10 - 12-ft.**
Sample Number		**1**			**4**	**5**	**6**
Date Collected		1/26/2017			1/26/2017	1/26/2017	1/26/2017
Matrix		Soil			Soil	Soil	Soil
Analytical Method		8260			8260	8260	8260
	Soils						
Compound	**Guidance**	**Sample Con**	**Sample Con**	**Sample Con**	**Sample Con**	**Sample Con**	**Sample Con**
2-Butanone	NS				15	5J	17
Acetone	50				**60**	24	**63**
1,2,4-Trimethylbenzene	3,600	ND	*See Table 2		ND	ND	83
1,3,5-Trimethylbenzene	8,400	ND	SB-2/SB-3 Groundwater Sampling		ND	ND	6
1,4-Dichlorobenzene	1,800	ND			ND	ND	16
Benzene	60	ND			ND	ND	ND
Chlorobenzene	1,100	ND			9.6	ND	22
cis-1,2-Dichloroethylene	250	ND			ND	ND	4.8J
Ethylbenzene	1,000	ND			ND	ND	4.1J
Isopropylbenzene	2,300	ND			ND	ND	9.6
MTBE	930	ND			ND	ND	ND
Methylene chloride	50	ND			5.9J	ND	ND
Naphthalene	12,000	8.6J			ND	ND	32
n-Butylbenzene	12,000	ND			ND	ND	6.2
n-Propylbenzene	3,900	ND			ND	ND	19
o-Xylene	260	ND			ND	ND	ND
p-&m-Xylenes	260	ND			ND	ND	41
p-Isopropyltoluene	10,000	ND			ND	ND	3.5J
sec-Butylbenzene	11,000	ND			ND	ND	5.9
tert-Butylbenzene	5,900	ND			ND	ND	ND
Toluene	700	ND			ND	ND	4.2J

Notes:

1. Soil results are recorded in micrograms-per-kilogram (µg/Kg) or ppb.
2. ND = Undetected. J = Detected below reporting limit but greater than or equal to MDL; therefore, the result is an estimated concentration. NS = No standard.
3. The presented soil quality guidance values were adopted from the NYSDEC Part 375-6.8(a) Unrestricted Use SCOs, December 14, 2006.
4. Analytical measurements exceeding guidance values are in bold type and underlined as such **100**.

Table 1:

Summary of Soil/Groundwater Laboratory Analysis Semi-Volatile Organic Compounds (SVOCs)

Site: 10-14 Tucker Drive
Poughkeepsie, Dutchess County, New York

BCP NO. C314132

Sample Location		**SB-1**	**SB-2**	**SB-3**	**SB-4**	**SB-5**	**SB-6**
Sample Collection Depth (ft.)		**11 - 13-ft.**			**7 - 9-ft.**	**9 - 11-ft.**	**10 - 12-ft.**
Sample Number		**1**			**4**	**5**	**6**
Date Collected		1/26/2017			1/26/2017	1/26/2017	1/26/2017
Matrix		Soil			Soil	Soil	Soil
Analytical Method		8270 B/N			8270 B/N	8270 B/N	8270 B/N
	Soils						
Compound	**Guidance**	**Sample Con**	**Sample Con**	**Sample Con**	**Sample Con**	**Sample Con**	**Sample Con**
Acenaphthene	20,000	ND			ND	ND	ND
Acenaphthylene	100,000	ND			ND	ND	ND
Anthracene	100,000	ND	*See Table 2		ND	ND	ND
Benzo(a)anthracene	1,000	ND	SB-2/SB-3 Groundwater Sampling		ND	120	ND
Benzo(a)pyrene	1,000	ND			ND	76J	ND
Benzo(b)fluoranthene	1,000	ND			ND	62J	ND
Benzo(g,h,i)perylene	100,000	ND			ND	ND	ND
Benzo(k)fluoranthene	800	ND			ND	73J	ND
Chrysene	1,000	ND			ND	120	ND
Dibenz(a,h)anthracene	330	ND			ND	ND	ND
Fluoranthene	100,000	59J			58J	230	ND
Fluorene	30,000	ND			ND	ND	ND
Indeno(1,2,3-cd)pyrene	500	ND			ND	ND	ND
Naphthalene	12,000	ND			ND	ND	ND
Phenanthrene	100,000	ND			ND	140	ND
Pyrene	100,000	ND			65J	200	ND

Notes:

1. Soil results are recorded in micrograms-per-kilogram (µg/Kg) or ppb.
2. ND = Undetected. J = Detected below reporting limit but greater than or equal to MDL; therefore, the result is an estimated concentration. NS = No standard.
3. The presented soil quality guidance values were adopted from the NYSDEC Part 375-6.8(a) Unrestricted Use SCOs, December 14, 2006.
4. Analytical measurements exceeding guidance values are in bold type and underlined as such **100**.

DT Consulting Services, Inc.
1291 Old Post Road
Ulster Park, NY 12487

0 50 100
APPROXIMATE SCALE IN FEET

LEGEND

Parcel and proposed BCP Boundary

Soil boring & temporary well

Exceeds TOGS 1.1.1 Water Quality Standards

Projected Groundwater Quality Standards - 6 NYCRR Parts 700-706, Class GA

Groundwater Contaminant Concentration Map (January 2017)

10-14 Tucker Drive
Poughkeepsie, NY 12603

Project Manager	Drafter	Date	Figure
DT	DB	10/08/2021	4

TABLE 2

Groundwater Volatile Organic Compound Analysis vs. NYSDEC Guidance Values

Sampling Performed: January 26, 2017

Site:

10-14 Tucker Drive

Poughkeepsie, Dutchess County, New York

BCP Site No. C314132

Compound Units	Guidance Value ug/L		SB-2/GW ug/L	SB-3/GW ug/L		
1,1,1-Trichloroethane	5		ND	ND		
1,1,2,2-Tetrachloroethane	0.2		ND	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	5		ND	ND		
1,1,2-Trichloroethane	1		ND	ND		
1,1-Dichloroethane	5		ND	ND		
1,2,4-Trichlorobenzene	5		ND	ND		
1,2,4-Trimethylbenzene	5		3.4	5		
1,2-Dibromoethane	5		ND	ND		
1,2-Dichlorobenzene	5		1.6	3.4		
1,2-Dichloroethane	0.6		ND	ND		
1,2-Dichloropropane	5		ND	ND		
1,2-Dichlorotetrafluoroethane	NS		ND	ND		
1,3,5-Trimethylbenzene	5		ND	0.93		
1,3-Butadiene	NS		ND	ND		
1,3-Dichlorobenzene	5		0.46J	1.6		
1,4-Dichlorobenzene	5		17	8.2		
1,4-Dioxane	NS		ND	ND		
2-Butanone	NS		ND	1		
2-Hexanone	50		ND	ND		
4-Methyl-2-pentanone	NS		ND	ND		
Acetone	50		2.2	4.7		
Benzene	1		160	28		
Benzyl chloride	NS		ND	ND		
Bromodichloromethane	5		ND	ND		
Bromoform	50		ND	ND		
Bromomethane	5		ND	3		
Carbon Disulfide	NS		0.22J	0.89		
Carbon Tetrachloride	5		ND	ND		
Chlorobenzene	5		140	410		
Chloroethane	5		ND	ND		
Chloroform	7		ND	ND		
Chloromethane	NS		ND	ND		
cis-1,2-Dichloroethene	5		ND	ND		
cis-1,3-Dichloropropylene	5		ND	ND		
Cyclohexane	NS		ND	ND		
Dibromochloromethane	5		ND	ND		
Dichlorodifluoromethane	5		ND	ND		
Ethyl acetate	NS		ND	ND		
Ethyl Benzene	5		17	0.92		
Hexachlorobutadiene	0.5		ND	ND		
Isopropylbenzene	5		11	2.3		
MTBE	10		2.7	4		
Methylene chloride	5		ND	ND		
Naphthalene	10		57	25		
n-Butylbenzene	5		0.61	0.56		
n-Propylbenzene	5		8.3	2.1		
o-Xylene	5		4.3	0.59		
p-&m- Xylenes	5		1.7	3.1		
p-Diethylbenzene	NS		0.79	0.73		
p-Ethyltoluene	NS		ND	0.93		
sec-Butylbenzene	5		0.83	0.56		
Styrene	5		ND	ND		
tert-Butylbenzene	5		0.28J	0.23J		
Tetrachloroethene	5		ND	ND		
Toluene	5		0.68J	0.37J		
trans-1,2-Dichloroethene	5		ND	ND		
trans-1,3-Dichloropropylene	5		ND	ND		
Trichloroethene	5		ND	ND		
Trichlorofluoromethane	5		ND	ND		
Vinyl Chloride	2		ND	ND		

Notes:

1. All measurements recorded in parts per billion or ppb.
2. Samples analyzed in accordance with EPA Test Method 8260.
3. ND = Undetected (Detection limits may vary). NS = Not specified.
4. J = Detected below reporting limit but greater than or equal to MDL; therefore, the result is an estimated concentration.
5. The presented guidance values were adopted from NYSDEC Division of Water TOGS 1.1.1, June 1998.

TABLE 2

Groundwater Semi-Volatile Organic Compound Analysis vs. NYSDEC Guidance Values

Sampling Performed: January 26, 2017

Site:

10-14 Tucker Drive

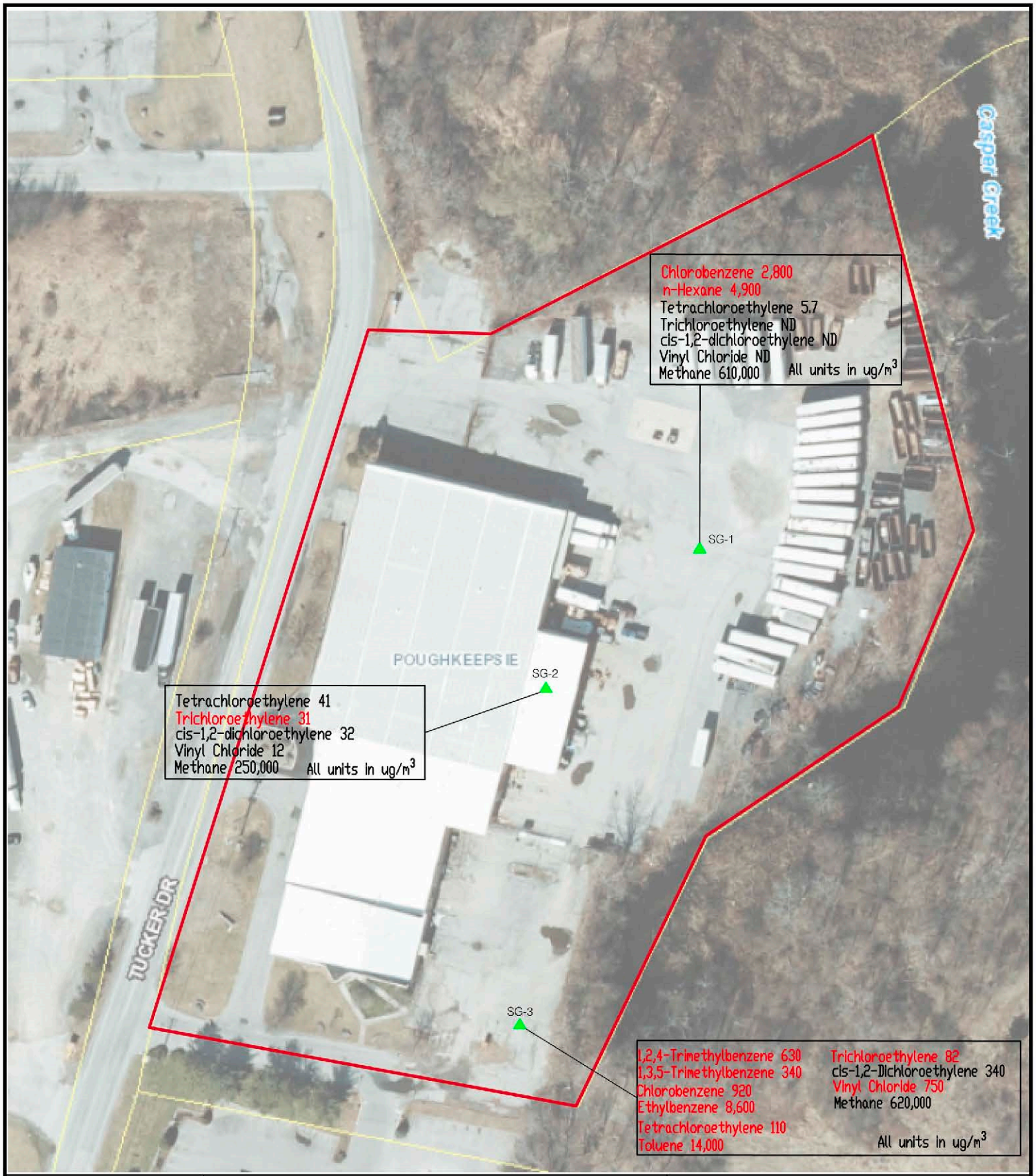
Poughkeepsie, Dutchess County, New York

BCP No. C314132

Compound Units	**Guidance Value** (ug/L)			**SB-2/GW** (ug/L)	**SB-3/GW** (ug/L)		
Acenaphthlene	20			0.98	0.33		
Acenaphthylene	NS			ND	ND		
Anthracene	50			0.11	0.073		
Benzo(a)anthracene	0.002			ND	ND		
Benzo(a)pyrene	0.002			ND	ND		
Benzo(b)fluoranthene	0.002			ND	ND		
Benzo (g,h,i)perylene	NS			ND	ND		
Benzo(k)fluoranthene	0.002			ND	ND		
Chrysene	0.002			ND	ND		
Dibenzo(a,h)anthracene	NS			ND	ND		
Fluoranthene	50			0.1	ND		
Fluorene	50			0.72	0.34		
Indeno(1,2,3-cd)pyrene	0.002			ND	ND		
Naphthalene	10			**17**	4.6		
Phenanthrene	50			0.65	0.36		
Pyrene	50			0.14	ND		

Notes:

1. All measurements recorded in parts per billion or ppb.
2. Samples analyzed in accordance with EPA Test Method 8270 B/N; NYSDEC CP-51 compound list.
3. ND = Undetected (Detection limits may vary). NS = Not specified.
4. J = Detected below reporting limit but greater than or equal to MDL; therefore, the result is an estimated concentration.
5. The presented guidance values were adopted from NYSDEC Division of Water TOGS 1.1.1, June 1998.



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Ulster Park, NY 12487

0 50 100
APPROXIMATE SCALE IN FEET

LEGEND

Parcel and proposed BCP Boundary

Temporary soil gas point

Value exceeds NYSDOH VI Matrix and/or USEPA Target Shallow Soil Gas Concentrations (Commercial Properties)

Soil Vapor Contaminant Concentration Map (January 2017)

10-14 Tucker Drive
Poughkeepsie, NY 12603

Project Manager	Drafter	Date	Figure
DT	DB	10/08/2021	5

TABLE 3:

SUMMARY OF TO-15 VOLATILES IN SOIL GAS SAMPLES

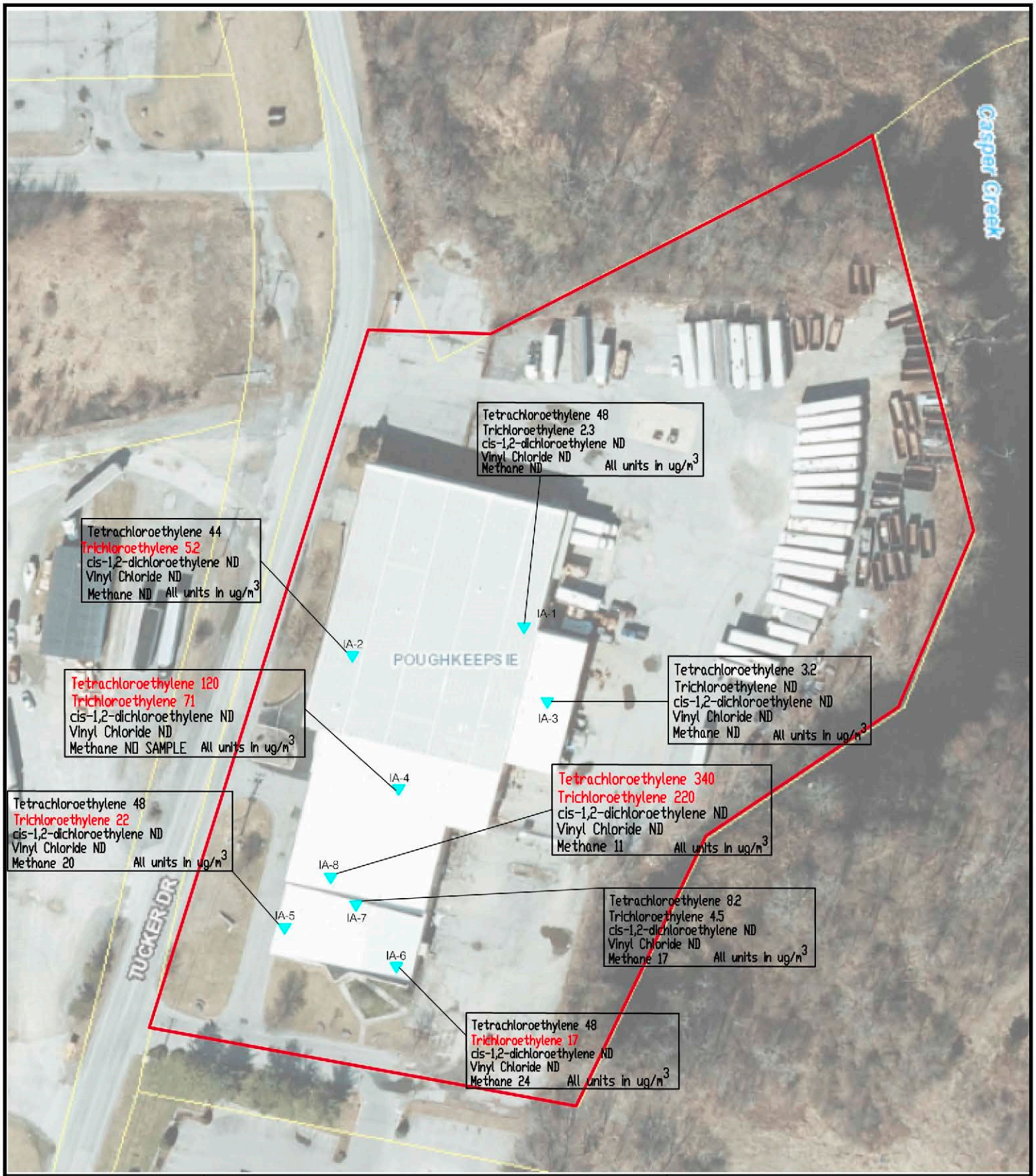
Address: 10-14 Tucker Drive, Poughkeepsie, Dutchess County, New York

BCP Site No. C314132

Sample ID: **Location:** **Depth (ft.):** **Date:** **Lab Sample ID:** **Units:**	**NYSDOH** **Air Guideline Values** µg/m³	**USEPA TARGET SHALLOW GAS CONCENTRATIONS(1)** µg/m³	**Soil Gas SG-1** Soil Gas 10' bgs 1/26/2017 17A0930-01 µg/m³	**Soil Gas SG-2** Subslab 8" bgs 1/26/2017 17A0930-02 µg/m³	**Soil Gas SG-3** Soil Gas 7' bgs 1/26/2017 17A0930-03 µg/m³
Analysis: EPA Method TO-15 Volatiles in Air					
1,1,1-Trichloroethane	NS	22000	ND	ND	ND
1,1,2,2-Tetrachloroethane	NS	42	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	NS	ND	ND	ND
1,1,2-Trichloroethane	NS	150	ND	ND	ND
1,1-Dichloroethane	NS	5000	ND	ND	ND
1,1-Dichloroethylene	NS	NS	ND	ND	ND
1,2,4-Trichlorobenzene	NS	2000	ND	ND	ND
1,2,4-Trimethylbenzene	NS	60	56	12	**630**
1,2-Dibromoethane	NS	2	ND	ND	ND
1,2-Dichlorobenzene	NS	2000	ND	ND	ND
1,2-Dichloroethane	NS	94	ND	ND	ND
1,2-Dichloropropane	NS	40	ND	ND	ND
1,2-Dichlorotetrafluoroethane	NS	NS	1200	910	5800
1,3,5-Trimethylbenzene	NS	60	44	ND	**340**
1,3-Butadiene	NS	8.7	ND	ND	ND
1,3-Dichlorobenzene	NS	1100	ND	ND	ND
1,4-Dichlorobenzene	NS	8000	ND	ND	110
1,4-Dioxane	NS	NS	ND	ND	ND
2-Butanone	NS	10000	42	6.9	110
2-Hexanone	NS	NS	ND	ND	ND
4-Methyl-2-pentanone	NS	800	ND	ND	ND
Acetone	NS	3500	110	73	80
Benzene	NS	310	**5800**	14	290
Benzyl chloride	NS	50	ND	ND	ND
Bromodichloromethane	NS	140	ND	ND	ND
Bromoform	NS	2200	ND	ND	ND
Bromomethane	NS	NS	ND	ND	ND
Carbon Disulfide	NS	7000	1300	5.2	190
Carbon Tetrachloride	NS	160	ND	ND	ND
Chlorobenzene	NS	600	**2800**	18	**920**
Chloroethane	NS	10000	ND	ND	ND
Chloroform	NS	110	ND	ND	ND
Chloromethane	NS	NS	ND	ND	ND
cis-1,2-Dichloroethylene	NS	350	ND	32	340
cis-1,3-Dichloropropylene	NS	200	ND	ND	ND
Cyclohexane	NS	NS	8100	150	95
Dibromochloromethane	NS	100	ND	ND	ND
Dichlorodifluoromethane	NS	2000	510	110	1900
Ethyl acetate	NS	32000	ND	ND	ND
Ethyl Benzene	NS	2200	260	ND	**8600**
Hexachlorobutadiene	NS	110	ND	ND	ND
Isopropanol	NS	NS	ND	ND	ND
MTBE	NS	30000	ND	21	ND
Methylene chloride	60	5200	ND	ND	ND
n-Heptane	NS	NS	6600	11	510
n-Hexane	NS	2000	**4900**	16	56
o-Xylene	NS	70000	38	8	4300
p-&m- Xylenes	NS	70000	230	15	22,000
p-Ethyltoluene	NS	NS	35	9.9	800
Propylene	NS	NS	ND	ND	4300
Styrene	NS	NS	ND	ND	ND
Tetrachloroethylene	100	810	5.7	41	**110**
Tetrahydrofuran	NS	NS	ND	ND	ND
Toluene	NS	4000	110	12	**14000**
trans-1,2-Dichloroethylene	NS	700	ND	ND	25
trans-1,3-Dichloropropylene	NS	200	ND	ND	ND
Trichloroethylene	5	220	ND	**31**	**82**
Trichlorofluoromethane	NS	7000	ND	ND	ND
Vinyl acetate	NS	200	ND	ND	ND
Vinyl Chloride	NS	280	ND	12	**750**
Methane	NS		610,000 ppmv	250,000 ppmv	620,000 ppmv

Notes:

1. Those analytes which exeeded NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006 are presented in bold type as such: **100**.
2. USEPA OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance) November 2002: Table 2A Target Shallow Soil Gas Concentration - Corresponding to Target Indoor Air Concentration Where the Soil Gas to Indoor Air Attenuation Factor = 0.1.
3. ND = Non-detect.
4. NS = No Standard.



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0 50 100
APPROXIMATE SCALE IN FEET

LEGEND

Parcel and proposed BCP Boundary

Indoor air sample location

Value exceeds NYSDOH Air Guideline Value

Indoor Air Contaminant Concentration Map (January 2017)

10-14 Tucker Drive
Poughkeepsie, NY 12603

Project Manager	Drafter	Date	Figure
DT	DB	10/08/2021	6

TABLE 4:

SUMMARY OF TO-15 VOLATILES IN AIR SAMPLES

Address: 10-14 Tucker Drive, Poughkeepsie, Dutchess County, New York
NYSDEC Spill Number: 16-10111

BCP Site No. C314132

Sample ID:	**NYSDOH**	**Indoor Air - IA-1**	**Indoor Air - IA-2**	**Indoor Air - IA-3**	**Indoor Air - IA-4**	**Indoor Air - IA-5**	**Indoor Air - IA-6**	**Indoor Air - IA-7**	**Indoor Air - IA-8**
Location:	**Air Guideline**								
Depth (ft.):	**Values**	Ambient Air	Ambient Air	Ambient Air	Ambient Air	Ambient Air	Ambient Air	Ambient Air	Ambient Air
Date:		3/2 & 17/2017	3/2 & 17/2017	3/2/2017	3/2 & 17/2017	3/2 & 17/2017	3/2 & 17/2017	3/2 & 17/2017	3/2 & 17/2017
Lab Sample ID:		17C0468-01	17C0468-02	17C0468-03	17C0468-04	17C0468-05	17C0468-06	17C0468-07	17C0468-08
Units:	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
Analysis: EPA Method TO-15 Volatiles in Air									
1,1,1-Trichloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	ND	ND	ND	ND	ND	ND	1.1	ND
1,1,2-Trichloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	NS	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NS	ND	ND	ND	ND	ND	ND	ND	26
1,2,4-Trimethylbenzene	NS	7	5.4	ND	17	3.8	6.5	5	ND
1,2-Dibromoethane	NS	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	NS	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NS	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorotetrafluoroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	NS	3	1.9	ND	6.2	1.6	2.4	1.6	9.6
1,3-Butadiene	NS	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	NS	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	NS	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	NS	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	NS	5.1	4.8	0.76	3.8	1.9	1.7	7.1	5.2
2-Hexanone	NS	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	NS	ND	1.2	ND	2.7	0.63	ND	ND	3.2
Acetone	NS	37	30	6.7	40	14	12	42	46
Benzene	NS	3.3	2	0.34	3.2	1	0.87	2.2	4.6
Benzyl chloride	NS	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	NS	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	NS	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	NS	2	ND	ND	ND	ND	ND	ND	0.87
Carbon Tetrachloride	NS	1.7	0.38	0.41	0.44	0.39	0.41	0.87	0.38
Chlorobenzene	NS	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	NS	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NS	1.7	ND	1.1	1.3	1.2	1.2	2.5	1.2
cis-1,2-Dichloroethylene	NS	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropylene	NS	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	NS	2.3	1.1	ND	2.5	0.53	0.41	1.2	3.4
Dibromochloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	NS	3.3	2.5	2.4	2.4	2.4	2.3	4.4	2
Ethyl acetate	NS	ND	ND	ND	ND	ND	ND	18	ND
Ethyl Benzene	NS	4.3	4.7	0.52	4.2	1.5	1.1	3	7.6
Hexachlorobutadiene	NS	ND	ND	ND	ND	ND	ND	ND	ND
Isopropanol	NS	4.7	4.5	ND	1.9	ND	ND	2.4	2.4
MTBE	NS	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	60	4.7	6	0.86	2.1	2.6	1.1	ND	2.3
n-Heptane	NS	4.2	2.3	ND	6.2	1.8	1.4	2.1	13
n-Hexane	NS	6.7	4.5	ND	8.4	1.6	1.2	6.7	11
o-Xylene	NS	4	3.9	ND	6.2	2.1	1.8	3.8	12
p-&m- Xylenes	NS	12	12	1.5	17	6.5	5.8	12	35
p-Ethyltoluene	NS	6.9	6	ND	20	5.5	7.5	4.8	30
Propylene	NS	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	NS	1.8	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	100	48	44	3.2	**120**	48	48	8.2	**340**
Tetrahydrofuran	NS	2.9	ND	ND	ND	ND	ND	3.1	ND
Toluene	NS	43	39	1.5	57	22	20	25	140
trans-1,2-Dichloroethylene	NS	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropylene	NS	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	5	2.3	**5.2**	ND	**71**	**22**	**17**	4.5	**220**
Trichlorofluoromethane	NS	3	1.3	1.3	1.3	1.3	1.3	3	1.1
Vinyl acetate	NS	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	NS	ND	ND	ND	ND	ND	ND	ND	ND
Methane	NS	ND	ND	MOS	17	20	24	17	11

Notes:
1. Those analytes which exeeded NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006 are presented in bold type as such: **100**.
2. USEPA OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)
3. ND = Non-detect.
4. NS = No Standard.
5. MOS = Malfunction of Summa Canister. Sampling IA-3 could not be conducted for methane.

DT Consulting Services, Inc.
1291 Old Post Road
Ulster Park, NY 12487

0 50 100
APPROXIMATE SCALE IN FEET

LEGEND

- Parcel and proposed BCP Boundary
- Soil boring
- Soil boring & temporary well
- Proposed permanent well
- Temporary soil gas point
- Indoor air sample location
- Proposed soil boring
- Proposed permanent soil gas point
- Proposed air sample

Proposed Sample Location Map

10-14 Tucker Drive
Poughkeepsie, NY 12603

Project Manager	Drafter	Date	Figure
DT	DB	10/11/2021	7

DT CONSULTING SERVICES, INC.

10-14 Tucker Drive
Poughkeepsie, New York
BCP Site No. C314132

TABLE 5

Proposed Laboratory Submissions

SOIL		QUANTITY
	Number of Borings	6
	Analyte	
Totals	VOCs	12
	SVOCs	12
	TAL Metals + Cyanide	6
	PFAS	6
	Pesticides/ Herbicides/ PCBs	6
GROUNDWATER		**QUANTITY**
Totals	VOCs	4
	SVOCs	4
	TAL Metals + Cyanide	4
	PFAS	4
	Pesticides/ Herbicides/ PCBs	4
SOIL VAPOR		**QUANTITY**
Totals	VOCs	10
	Methane	10
INDOOR AIR		**QUANTITY**
Totals	VOCs	5
	Methane	5
EXTRACTED SOIL GAS		**QUANTITY**
Totals	VOCs	9
	Methane	9

ATTACHMENTS

DT CONSULTING SERVICES, INC.

ATTACHMENT A

Environmental Services Health & Safety Plan

BCP SITE NO. C314132

Job Name: Willow Brook Rentals LLC

1.0 INTRODUCTION

DT Consulting Services, Inc. (DTCS) has designed a safety and health program to provide its employees and subcontractors with the guidelines necessary to ensure their own safety and health as well as that of the surrounding community. The goal of this plan is to minimize the risk of injury during remedial investigation procedures including the advancement and sampling of soil cores, coring for soil gas sampling, along with the monitoring of groundwater wells.

2.0 ORGANIZATIONAL STRUCTURE

2.1 SAFETY AND HEALTH MANAGER

It is the responsibility of the safety and health manager to develop the comprehensive safety and health plan. The safety and health manager will be appraised of any changes in the comprehensive safety and health plan as well as all Site-specific procedural determinations. The safety and health manager for this project will be Ms. Deborah Thompson.

2.1.1 RESPONSIBILITIES

a) Initial Site evaluation
b) Hazard identification
c) Determination of appropriate protection levels
d) Conduct daily safety and health meetings
e) Supervision of Site sampling and monitoring
f) Supervision of decontamination procedures
g) Designate work zones to maintain Site integrity

3.0 PERSONAL PROTECTIVE EQUIPMENT

The proper personal protective equipment is chosen by the Site safety and health officer in consultation with the safety and health manager. The level of protection is dependent on the hazards that are likely to be encountered on-Site.

3.1 PROTECTION LEVELS

DTCS utilizes four levels of protection as set forth in the OSHA guidelines, Appendix B of 1910.120.

3.1.1 Level A

Level A provides the greatest level of skin, respiratory, and eye protection with the following minimum equipment:

- Full face, self-contained breathing apparatus (SCBA) or supplied air with escape SCBA
- Fully encapsulated chemical resistant suit
- Chemical resistant boots
- Chemical resistant inner and outer gloves

3.1.2 Level B

Level B provides the greatest level of respiratory protection, but a lower level of skin protection than Level A with the following minimum equipment:

- Full face SCBA or supplied air with escape SCBA
- Chemical resistant clothing
- Chemical resistant inner and out gloves
- Chemical resistant boots

3.1.3 Level C

Level C provides the same level of skin protection as Level B, but a lower level of respiratory protection with the following minimum equipment:

- Full face piece air purifying respirator with appropriate cartridge. Cartridges are chosen based on knowledge of hazardous material
- Chemical resistant clothing
- Chemical resistant inner and outer gloves
- Chemical resistant boots

3.1.4 Level D

Level D provides the lowest level of skin protection and no respiratory protection with the following minimum equipment:

- Coveralls
- Safety boots
- Gloves
- Safety glasses or splash goggles

4.0 WORK ZONES

DTCS utilizes the standard three-zone approach to Site control. These zones are the exclusion zone, the contamination reduction zone and the support zone. Movement of personnel and equipment through these zones shall be strictly regulated in order to prevent contamination of clean environments and to protect workers in the support zone from possible exposure.

4.1 EXCLUSION ZONE

The exclusion zone is the area of highest contamination. All personnel entering this zone must wear the appropriate level of protection as prescribed in the Site specific safety plan. The outer boundary of the exclusion zone, referred to as the Hotline, shall be determined based upon such considerations as; extent of surface contamination, safe distance in the case of fire or explosion, physical area necessary for workers to conduct operations in a safe manner and safe distance in the event of vapor or gas emissions. Upon determination, the Hotline shall be visibly marked and secured to prevent accidental entry by unauthorized personnel.

4.2 CONTAMINATION REDUCTION ZONE

The Contamination Reduction Zone is the area between the exclusion zone and the support zone. Its purpose it to protect the clean environment from contamination as workers enter and exit the exclusion zone. The outer boundary of this zone is referred to as the Coldline and shall be clearly marked. Decontamination stations shall be set up in this zone in a line known as the contamination reduction corridor. All personnel exiting the exclusion zone must follow the steps as prescribed in the decontamination procedures prior to re-entering the support zone.

4.3 SUPPORT ZONE

The support zone is the area furthest away from the exclusion zone. It is considered a clean, non-contaminated area where workers need not wear any protective equipment. The command post, equipment trailer, first aid station and lavatory facilities are all located in this area. This area is not, however, open to traffic. Only authorized personnel may enter.

5.0 AIR MONITORING

As the initial Site evaluation work plan entails minimal Site intrusive activities, specific air monitoring procedures would include only the periodic recording of total volatile organic compound or VOC concentrations with a Photoionization Detector (PID) or equivalent during Site activities.

6.0 SITE COMMUNICATIONS

Various methods of communication will be employed based upon Site conditions and work zones. Regardless of method of communication, personnel working in the exclusion zone will remain within constant view of support crews.

DTCS has a network of devices to aid in communications. All or some of the following devices may be used depending upon job Site requirements; hand held radios, headset transistor walkie-talkies and cellular telephones.

The following hand signals shall be standardized for use in emergencies and in event of radio communication breakdown.

Hand gripping throat - out of air, can't breathe
Grip partner's wrist - leave area immediately
Hands on top of head - need assistance
Thumbs up - I am all right, okay
Thumbs down - no, negative

Horn blasts may be used to gain the immediate attention of crews to indicate that dangerous conditions exist.

7.0 EMERGENCY PROCEDURES

The following procedures shall be followed by all Site personnel in the event of an emergency. Any changes to this procedure shall be noted in the Site-specific plan. In all situations where there has been an evacuation of exclusion zone, reentry shall not be permitted until the following conditions have been met; the cause of the emergency has been determined and corrected, the Site hazards have been reassessed, the safety plan has been reviewed and all personnel have been apprised of any changes.

7.1 INJURY IN THE EXCLUSION ZONE

In the event of an injury in the exclusion zone, the emergency signal shall be sounded. All personnel in the exclusion zone will assemble at the contamination reduction corridor. First aid procedures will begin on-Site and if necessary, an ambulance will be called. No personnel will be allowed to re-enter the exclusion zone until the exact nature and cause of the injury has been determined.

7.2 INJURY IN THE SUPPORT ZONE

In the event of an injury in the support zone, on-Site first aid procedures will begin immediately and an ambulance called if necessary. The Site safety and health officer shall determine if the nature and cause of the injury or loss of the injured person will jeopardize the smooth running of the operations. If so, the emergency signal will be sounded and all personnel will follow the same procedure as outline above.

7.3 FIRE OR EXPLOSION

In the event of fire or explosion, the emergency signal shall be sounded and all personnel will assemble at the contamination reduction corridor. The fire department will be called and all personnel will be evacuated to a safe distance.

7.4 PROTECTIVE EQUIPMENT FAILURE

In the vent of protective equipment failure, the affected worker and his/her buddy will leave the exclusion zone immediately. In the event of any other equipment failure, the Site safety and health officer will determine if this failure affects the operation. If so, the emergency signal will be sounded and all personnel will leave the exclusion zone until such time as it is deemed safe.

8.0 STANDARD SAFETY PRACTICES

The following guidelines will be followed by all personnel at all times; any changes must be approved by the safety and health manager.

- All employees will attend the daily safety meetings prior to Site entry.

- The buddy system will be utilized at all times.

- There will be no eating, drinking, smoking, or use of smoking material (i.e. matches) within the work area(s).

- Only authorized personnel will be allowed in designated work zones and will wear the proper personal protective clothing and equipment as prescribed in the Site safety plan.

- The Site safety and health officer will be appraised of any unusual circumstances immediately.

Such circumstances include but are not limited to the following; unusual odors, emissions, signs of chemical reaction, and discovery of conditions or substances not mentioned in the Site safety plan. The Site safety officer will then determine if these conditions warrant a shut down of operations.

9.0 DAILY SAFETY MEETINGS

Daily safety meetings will be conducted by the Site safety and health officer prior to commencement of work. All personnel, regardless of job classification are required to attend.

9.1 DISCUSSIONS

1. Overview of safety and health plan.

2. Detailed discussion of substances of concern with emphasis on exposure limits, exposure symptoms and exposure hazards.

3. Review of standard safety precautions and work practices.

4. Review of work plan.

5. Review of hand signals and emergency signals.

Personnel will sign a daily attendance sheet, which shall include an overview of the topics discussed.

10.0 SITE SPECIFIC PLAN

10.1 DETAILED SITE INFORMATION

- **Plan Date** TBA
- **Job Name** Willow Brook Rentals, LLC
- **Client** Willow Brook Rentals, LLC
- **Client Contact/Phone No.** Ted Finkelstein – (914) 980-6096
- **Site Address** Willow Brook Rentals, LLC
  10-12 Tucker Drive
  Poughkeepsie, New York 12603
- **Cross Street** Friendly Lane
- **Site Access** Direct

10.2 CONTAMINANTS ON SITE/ACTION LEVELS

The following substances are known or suspected to be on Site, primarily in Site wastes. The primary hazards of each are identified, associated primarily with direct skin contact and inhalation.

SUBSTANCE	**PRIMARY HAZARDS**
Volatile Organics	
Benzene Chlorobenzene Ethylbenzene Methane Toluene Trichloroethene (TCE) Trimethylbenzene Tetrachloroethene (PCE) Vinyl Chloride	Eye, skin and respiratory irritation. Nausea, vomiting, headache Asphyxia
Cis-1,2-Dichloroethylene	Skin irritation, gastrointestinal or respiratory tract irritation.

Action Levels

Action levels shall be determined by monitoring of work zone breathing space with a portable PID or comparable instrument. Measurement of a sustained concentration above ambient (background) conditions shall initiate action. The following criteria shall be used to determine appropriate action:

VOCs in Breathing Zone (sustained and above background)	Level of Respiratory Protection
0 – 5 ppm	Level D
5 – 200 ppm	Level C
200 – 1000 ppm	Level B - air line
1000+ ppm	Level B - SCBA

If the above criteria indicate the need to increase from Level D to a higher level of personal protection, all work in that particular Site area will be immediately suspended until the required protective equipment is make available, or until Level D conditions return.

10.3 EMERGENCY INFORMATION

10.3.1 EMERGENCY RESPONDERS

10.3.1.1 HOSPITAL

Name: Vassar Brothers Medical Center

Address & Telephone Number:
45 Reade Place, Poughkeepsie, NY 12601
(845) 454-8500

Distance from Site: 3.80 Miles

10.3.1.2 EMERGENCY TELEPHONE NUMBERS

Police 911 on Cellular Phone
Fire 911 on Cellular Phone
Ambulance 911 on Cellular Phone

10.3.1.3 REGULATORY AGENCIES

EPA Telephone Number 1-800-424-8802

NYSDEC Spills Hotline 1-800-457-7362

10.4 FIRST AID

First Aid available at the following stations:

First Aid Kit TRUCK
Emergency Eye Wash TRUCK & ON SITE

10.5 WORK ZONES

10.5.1 COMMAND POST

Command post will be mobile.

10.6 SITE COMMUNICATIONS

10.6.1 TELEPHONE

Command Post Telephone - Cellular Phone
Number (845)943-0159

10.6.2 HAND SIGNALS

See Section 6.0

10.7 ENVIRONMENTAL MONITORING

10.7.1 MONITORING EQUIPMENT

Refer to RI Work Plan

10.8 PERSONAL PROTECTIVE EQUIPMENT

10.8.1 EXCLUSION ZONE, PROTECTION LEVEL

PROTECTIVE EQUIPMENT:	Level D
RESPIRATORY	None
HANDS	Nitrile or Leather
FEET	Steel Toed Boots
SUIT	None

10.8.2 CONTAMINATION REDUCTION CORRIDOR (DECON LINE)

PROTECTIVE EQUIPMENT:	Level D
RESPIRATORY	None
HANDS	Nitrile or Leather
FEET	Steel Toed
SUIT	None

10.9 DECONTAMINATION

10.9.1 DECONTAMINATION PROCEDURE

STATION 1 SOAPY WATER

STATION 2 WATER

11.0 KEY PERSONNEL

SAFETY AND HEALTH MANAGER / ON-SITE SUPERVISOR
Deborah J. Thompson

FOREMEN
TBA

FIELD PERSONNEL
Will Vary

12.0 WORK PLAN

12.1 JOB OBJECTIVE

The objective is to execute a Remedial Investigation Work Plan (RIWP) which includes soil, soil gas and groundwater sampling to further characterize the extent of historical contamination identified on-Site under the BCP. Upon completion of field work, a Remedial Action Plan or RAP will be generated to address documented contamination.

Summary of Sector Specific Workplace Safety Standards to Address COVID-19

Standards that Apply to All Workers while performing Fieldwork or Remediation Activities

1. There will be zero tolerance for sick workers reporting to work. If you are sick, stay home! If you feel sick, go home! If you see someone sick, send them home!

2. Staff must self-screen for COVID symptoms prior to reporting to a construction/remediation site.
    a. Symptoms (per CDC on June 3, 2020) include:
        i. Fever or chills
        ii. Cough
        iii. Shortness of breath or difficulty breathing
        iv. Fatigue
        v. Muscle or body aches
        vi. Headache
        vii. New loss of taste or smell
        viii. Sore throat
        ix. Congestion or runny nose
        x. Nausea or vomiting
        xi. Diarrhea

3. Prior to starting a shift/arriving at the site, each employee will self-screen to ensure that they:

    a. Have no signs of a fever or a measured temperature above 100.3 degrees or greater, a cough or trouble breathing within the past 24 hours

    b. Have not had "close contact" with an individual diagnosed with COVID-19. “Close contact” means living in the same household as a person who has tested positive for COVID-19, caring for a person who has tested positive for COVID-19, being within 6 feet of a person who has tested positive for COVID-19 for about 15 minutes, or coming in direct contact with secretions (e.g., sharing utensils, being coughed on) from a person who has tested positive for COVID-19, while that person was symptomatic.

    c. Have not been asked to self-isolate or quarantine by their doctor or a local public health official.

    d. Employees exhibiting symptoms or unable to self-certify should leave the work site and seek medical attention and applicable testing by their health

care provider. They are not to return to the work site until cleared by a medical professional.

4. Document self-screening of DTCS staff in the daily field notes a brief documentation of COVID screening.

    a. For example: "*Employee Name* performed COVID self-screening in compliance with DTCS current employee guidance before arriving at the site.

5. Sub-contractors working directly with DTCS must provide their own COVID screening protocols ahead of arriving onsite or if screening protocols are not in place, any sub-contractors must self-screen and inform DTCS management of that screening prior to arriving on site.

    a. Document self-screening of sub-contractor in the daily field notes a brief documentation of COVID screening.
        i. For example: "*Sub-contractor Name* performed COVID self-screening before arriving at the site.

6. General Onsite Protocols:

    a. No handshaking

    b. It is recommended to wear a facemask when representing the company at all times on a "site". It is required to wear a facemask when:
        i. social distancing (6 feet) can-not be maintained
        ii. indoors
        iii. in a "public space"
        iv. working or interacting with the "public"
        v. indicated it is required by the client or a contractor

    c. Must implement social distancing by maintaining a minimum distance of 6-feet from other individuals

    d. Avoid face to face meetings – critical situations requiring in-person discussion must follow social distancing

    e. Conduct all meetings via conference calls, if possible. Do not convene meetings of more than 10 people. Recommend use of cell phones, texting, web meeting sites and conference calls for project discussion

    f. Cover coughing or sneezing with a tissue, then throw the tissue in the trash and wash hands, if no tissue is available then cough into your elbow

g. Avoid touching eyes, nose, and mouth with your hands

h. If you or a family member is feeli5ng ill, stay home!

DTCS Led Investigative/Remedial Activities

1. Assign a site-specific COVID-19 Officer (this person may also be the Health and Safety Officer)

2. PPE
    a. Hand sanitizer will be available onsite if soap/water/paper towels are not available.
        i. Frequent use of handwashing or alcohol-based hand sanitizers should be encouraged
    b. Gloves should be available and used at all times.
    c. Eye protection is recommended as applicable
    d. Facemasks
        i. Facemasks must be worn at all times during indoor activities by DTCS staff and subcontractors
        ii. Facemasks must be worn at all times by DTCS staff and subcontractors when social distancing cannot be ensured (less than 6' of distance)
        iii. Facemasks must be worn in "public places" per guidance from the New York State Department of Health; the project manager will determine ahead of time if a site is considered a "public place".
        iv. Facemasks must be available on the employee or subcontractor's person during all other site related activities but are not required to be worn if social distancing (6') is maintained, activities are outdoors, not located in a "public place" or as otherwise required by a contractor or client.
    e. Any trash generated during the day's site activities should be removed from the site by DTCS staff or disposed of in a trash receptacle designated as acceptable by the client.

3. "Social" Distancing
    a. All individual work crew meetings / tailgate talks should be held outside and follow social distancing

b. Recommend use of cell phones, texting, web meeting sites and conference calls for project discussion
c. In instances where it is possible, workers should maintain separation of 6 feet from each other per CDC guidelines
d. Multi person activities will be limited where feasible
e. In work conditions where required social distancing is impossible to achieve, employees shall be supplied PPE including, as appropriate, a standard face mask, gloves, and eye protection. Be sure to use your own water bottle, and do not share
f. Please maintain Social Distancing separation during breaks and lunch

Protocol if COVID Positive or COVID Symptoms are Discovered

1. DTCS shall direct workers with COVID-19 related symptoms to leave the site immediately and contact their healthcare provider. The local board of health will make appropriate notifications to those who had direct prolonged contact with the COVID-19 positive workers. DTCS shall work with the local board of health to identify any potential job site exposures, including:

    a. Other workers, vendors, inspectors, or visitors to the work site with close contact to the individual
    b. Work areas
    c. Work tools and equipment
    d. Common areas such as tables and sanitary facilities

2. Upon learning of an infection, DTCS staff and/or subcontractors must immediately notify the designated COVID-19 safety officer and the owner

    a. Keep all employee names confidential as required by law

3. After a worker with COVID-19 related symptoms has been asked to leave the job site, DTCS staff shall take immediate steps to sanitize any common areas and direct work places that may have been in close contact with the infected worker.

    a. Sanitation will be conducted with personnel, equipment, and material approved for COVID-19 sanitization.

    b. Identified areas should remain isolated from any other workers until sanitation process has been completed and area is deemed safe for use.

    c. Workers who leave during the work day due to COVID-19 symptoms and

develop COVID-19 as confirmed by laboratory testing or diagnosis by a healthcare provider shall not return to the site until either released from isolation by healthcare provider or public health official.

d. All impacted workers should follow CDC and DOH recommended steps concerning return to work. Workers who are considered close contacts to a COVID-19 case by public health authorities should not return for 14 days and are subject quarantine by public health.

e. Other employees may be sent home while a workspace is being cleaned but will return to work after cleaning unless advised otherwise by a health care provider

f. Other employees should be asked to contact their health provider if they have any questions

g. Remind other employees to continue to practice proper sanitation and monitor for flu like symptoms

DT CONSULTING SERVICES, INC.

ATTACHMENT B

DT Consulting Services, Inc.
1291 Old Post Road
Ulster Park, New York 12487
(845) 658-3484

Soil Boring Log
SB-1

Hole No: SB-1

Sheet 1 of 1

Date Started: 1-26-17

Date Finished: 1-26-17

BCP SITE No. C314132

Method of investigation: 2" Hollow Stem Samplers

Location: 10-14 Tucker Drive, Poughkeepsie, New York

Spill Number: 16-10111

P. Manager:

Deborah Thompson

Drilling Co: Core Down Drilling

Geologist: Deborah Thompson

Driller: A. Bellucci

D. Helper: O. Tanner

Drill Rig: Geoprobe

Weather:

Sunny

40° F @ 0800

Depth (ft.)	Sample No.	Sample Depth (ft.)	Blows per 6"	"N"	Recovery (in.)	Sample Description	Field Analytical Readings	Boring Details	Groundwater and Other Observations
		1				Brown/grey, sandy loam/mixed fill, damp, no	PID (ppm)		
		2				odors.			Sampled subsurface soils
		3				Minimal recovery.			(11-13' bgs, SB-1)
4					12"		0.0		
		5				Brown, mixed fill/crushed stone, damp no odors.			
		6				Minimal recovery.			Groundwater
		7							not encountered.
8					2"		0.0		
		9				Brown mixed fill, plastic, glass and wood, slight			
		10				odor.			
		11				Minimal recovery.			
12					2"		4.0		
		13				Brown, silt w/trace of clay/silty clay, damp, no			
		14				odors.			
		15							
16					32"		0.0		
		17							
		18							
		19							
20									

Sample Types:

S=Hollow Spoon: X

R= Rock Core: _____

N = ASTM D1586 BGS = Below Grade Surface

Backfill Well Key

Cement

Native Fill

Borehole

Bentonite

DT Consulting Services, Inc.
1291 Old Post Road
Ulster Park, New York 12487
(845) 658-8484

Soil Boring Log
SB-2

Hole No: SB-2/GW-2

Sheet 1 of 1

Date Started: 1-26-17

Date Finished: 1-26-17

BCP SITE No. C314132

Method of investigation: 2" Hollow Stem Samplers

Location: 10-14 Tucker Drive, Poughkeepsie, New York

Spill Number: 16-10111

P. Manager:

Deborah Thompson

Drilling Co: Core Down Drilling

Geologist: Deborah Thompson

Driller: A. Bellucci

D. Helper: O. Tanner

Drill Rig: Geoprobe

Weather:

Sunny

40° F @ 0800

Depth (ft.)	Sample No.	Sample Depth (ft.)	Blows per 6"	"N"	Recovery (in.)	Sample Description	Field Analytical Readings	Boring Details	Groundwater and Other Observations
		1				Asphalt and gravel.	PID (ppm)		
		2				Brown/grey, sandy loam/mixed fill, damp, no			Subsurface Void. No
		3				odors.			soil recovery.
4					12"		0.0		
		5				No recovery			Set temporary
		6							groundwater well at 15.5'
		7							
8					0		0.0		DTW: 12.00
		9				No recovery			Grey, clear, slight
		10							odor and sheen.
		11							SB-2/GW-2
12					0		0.0		
		13							
		14							
		15							
16					0	No recovery			
		17							
		18							
		19							
20									

Sample Types:

S=Hollow Spoon: X

R= Rock Core: _____

N = ASTM D1586 BGS = Below Grade Surface

Backfill Well Key

Cement

Native Fill

Borehole

Bentonite

DT Consulting Services, Inc.
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(845) 658-8484

Soil Boring Log
SB-3

Hole No: SB-3/GW-3

Sheet 1 of 1

Date Started: 1-26-17

Date Finished: 1-26-17

BCP SITE No. C314132

Method of investigation: 2" Hollow Stem Samplers

Location: 10-14 Tucker Drive, Poughkeepsie, New York

Spill Number: 16-10111

P. Manager:

Deborah Thompson

Drilling Co: Core Down Drilling

Geologist: Deborah Thompson

Driller: A. Bellucci

D. Helper: O. Tanner

Drill Rig: Geoprobe

Weather:

Sunny

40° F @ 0800

Depth (ft.)	Sample No.	Sample Depth (ft.)	Blows per 6"	"N"	Recovery (in.)	Sample Description	Field Analytical Readings	Boring Details	Groundwater and Other Observations
		1				Asphalt and gravel.	PID (ppm)		
		2				Brown/grey, sandy loam/mixed fill, damp, no			Subsurface Void. No
		3				odors.			soil recovery.
4					12"		0.0		
		5				No recovery			Set temporary
		6							groundwater well at 15.5'
		7							
8					0		0.0		DTW: 12.80
		9				No recovery			Grey, clear, no
		10							odor and sheen.
		11							SB-3/GW-3
12					0		0.0		
		13							
		14							
		15							
16					0	No recovery			
		17							
		18							
		19							
20									

Sample Types:

S=Hollow Spoon: X

R= Rock Core:

N = ASTM D1586 BGS = Below Grade Surface

Backfill Well Key

Cement

Native Fill

Borehole

Bentonite

DT Consulting Services, Inc.
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Ulster Park, New York 12487
(845) 658-8484

Soil Boring Log
SB-4

Hole No: SB-4

Sheet 1 of 1

Date Started: 1-26-17

Date Finished: 1-26-17

BCP SITE No. C314132

Method of investigation: 2" Hollow Stem Samplers

Location: 10-14 Tucker Drive, Poughkeepsie, New York

Spill Number: 16-10111

P. Manager:

Deborah Thompson

Drilling Co: Core Down Drilling

Geologist: Deborah Thompson

Driller: A. Bellucci

D. Helper: O. Tanner

Drill Rig: Geoprobe

Weather:

Sunny

40° F @ 0800

Depth (ft.)	Sample No.	Sample Depth (ft.)	Blows per 6"	"N"	Recovery (in.)	Sample Description	Field Analytical Readings	Boring Details	Groundwater and Other Observations
		1				Asphalt and gravel.	PID (ppm)		
		2				Brown/grey, sandy loam/mixed fill, damp, no			Sampled subsurface soils
		3				odors.			(7-9' bgs, SB-4)
4					28"		0.0		
		5				Grey, silty clay, damp, no odors.			
		6							
		7							Groundwater encountered at 9' bgs.
8					36"		0.0		No obvious impacts.
		9			2"	Refusal at 9' bgs.	0.0		
		10							
		11							
12									
		13							
		14							
		15							
16									
		17							
		18							
		19							
20									

Sample Types:

S=Hollow Spoon: X

R= Rock Core:

N = ASTM D1586 BGS = Below Grade Surface

Backfill Well Key

Cement

Native Fill

Borehole

Bentonite

DT Consulting Services, Inc.
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Ulster Park, New York 12487
(845) 658-8484

Soil Boring Log
SB-5

Hole No: SB-5

Sheet 1 of 1

Date Started: 1-26-17

Date Finished: 1-26-17

BCP SITE No. C314132

Method of investigation: 2" Hollow Stem Samplers

Location: 10-14 Tucker Drive, Poughkeepsie, New York

Spill Number: 16-10111

P. Manager:

Deborah Thompson

Drilling Co: Core Down Drilling

Geologist: Deborah Thompson

Driller: A. Bellucci

D. Helper: O. Tanner

Drill Rig: Geoprobe

Weather:

Sunny

40° F @ 0800

Depth (ft.)	Sample No.	Sample Depth (ft.)	Blows per 6"	"N"	Recovery (in.)	Sample Description	Field Analytical Readings	Boring Details	Groundwater and Other Observations
		1				Grey, sandy loam/mixed fill and gravel, damp	PID (ppm)		
		2				no odors.			Sampled subsurface soils
		3							(9-11' bgs, SB-5)
4					30"		0.0		
		5				Grey, sandy loam/mixed fill and gravel, damp			
		6				no odors.			Groundwater
		7							encountered at 9' bgs.
8					14"		0.0		No obvious impacts.
		9				Grey, sandy loam/mixed fill and gravel, damp			
		10				no odors.			
		11							
12					22"		0.0		
		13							
		14							
		15							
16									
		17							
		18							
		19							
20									

Sample Types:

S=Hollow Spoon: X

R= Rock Core: _____

N = ASTM D1586 BGS = Below Grade Surface

Backfill Well Key

Cement

Native Fill

Borehole

Bentonite

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(845) 658-8484

Soil Boring Log
SB-6

Hole No: SB-6

Sheet 1 of 1

Date Started: 1-26-17

Date Finished: 1-26-17

BCP SITE No. C314132

Method of investigation: 2" Hollow Stem Samplers

Location: 10-14 Tucker Drive, Poughkeepsie, New York

Spill Number: 16-10111

P. Manager:

Deborah Thompson

Drilling Co: Core Down Drilling

Geologist: Deborah Thompson

Driller: A. Bellucci

D. Helper: O. Tanner

Drill Rig: Geoprobe

Weather:

Sunny

40° F @ 0800

Depth (ft.)	Sample No.	Sample Depth (ft.)	Blows per 6"	"N"	Recovery (in.)	Sample Description	Field Analytical Readings	Boring Details	Groundwater and Other Observations
		1				Asphalt and gravel.	PID (ppm)		
		2				Brown/grey, sandy loam/mixed fill, damp, no			Sampled subsurface soils
		3				odors.			(10-12' bgs, SB-6)
4					37"		0.0		
		5				Brown/grey, sandy loam/mixed fill, damp, no			
		6				odors.			
		7							
8					36"		0.0		
		9				Brown/grey, sandy loam/mixed fill, damp, no			Groundwater
		10				odors.			not encountered.
		11							
12					48"		0.0		
		13							
		14							
		15							
16									
		17							
		18							
		19							
20									

Sample Types:

S=Hollow Spoon: X

R= Rock Core:

N = ASTM D1586 BGS = Below Grade Surface

Backfill Well Key

Cement

Native Fill

Borehole

Bentonite