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New York State Department of Environmental Conservation

Division of Environmental Remediation

Former Fresh and Clean Laundry Site

Remedial Investigation Report

Site No. 130111

D&B Engineers and Architects

REMEDIAL INVESTIGATION REPORT

FORMER FRESH & CLEAN LAUNDRY
GLEN HEAD, NEW YORK

SITE REGISTRY NO. 130111

WORK ASSIGNMENT NO. D007620-37

Prepared For

NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION

By

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FEBRUARY 2022

REMEDIAL INVESTIGATION REPORT
FORMER FRESH AND CLEAN LAUNDRY
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1.0 INTRODUCTION

The Former Fresh and Clean Laundry Site (the Site) is a New York State Department of Environmental Conservation (NYSDEC) Class 2 Inactive Hazardous Waste Disposal Site (NYSDEC Site No. 130111), located in the Glen Head, Nassau County, New York. As part of New York State's program to investigate and remediate hazardous waste sites, the NYSDEC issued Work Assignment D007620-37 to D&B Engineers and Architects (D&B) of Woodbury, New York, under D&B's Standby Contract for Engineering Services, to conduct a Remedial Investigation (RI) and Feasibility Study (FS) for the Site.

1.1 Remedial Investigation Report Organization

This report presents a description and findings of the RI for the Former Fresh and Clean Laundry Site. Section 1.0 discusses the project objectives, the study area location and description, site background and a review of the site history, including a discussion of previous investigations and a summary of the results. Section 2.0 is a detailed description of the field program undertaken during the remedial investigation phase of the project. Section 3.0 describes the physical characteristics of the study area, including the geology and hydrogeology. Section 4.0 presents the analytical results and discusses the nature and extent of the contamination relative to the standards, criteria, and guidance (SCGs) for the various media sampled. This section also discusses data usability. Section 5.0 contains a qualitative human health exposure assessment based on the investigation findings. Section 6.0 presents conclusions and recommendations. Identification and evaluation of remedial technologies and alternatives, and a recommended remedial action plan for the Site will be provided in the Feasibility Study.

1.2 Project Objectives

The purpose of the RI is to evaluate the nature and extent of contamination at the Former Fresh and Clean Laundry Site to determine whether potential impacts to human health exist and if remediation of contamination is warranted. A primary focus of the investigation is to continue

delineating contamination at and near the Site, through soil sampling, sediment sampling, groundwater sampling and on-site soil vapor intrusion investigations.

1.3 Study Area Location and Description

1.3.1 Study Area Description and Land Use

The Site is located at 22 Railroad Avenue in Glen Head, Nassau County, New York. The site location and study area are shown on Figure 1-1. The property is approximately 0.129 acres in size and is developed with a two-story approximately 3,000 square foot building that is used for commercial purposes. See Figure 1-2. The property is bounded to the north by School Street followed by commercial properties, to the south by commercial properties, to the west by a large parking area and Long Island Railroad Glen Head Station and to the east by property owned by the North Shore School District.

1.3.2 Climate

The climate of Nassau County, New York is temperate. The Atlantic Ocean to the south, and Long Island Sound to the north act to moderate seasonal temperature extremes for the County. As a result, winter temperatures are milder and summer temperatures are cooler than those measured for mainland areas at similar latitudes. The average daily temperature ranges from a low of 25.08 degrees Fahrenheit (^{o}F) as measured in January to a high of 83.91 ^{o}F as measured in July. The average annual precipitation for the area is approximately 48 inches and the average annual snowfall is approximately 22.5 inches.

1.3.3 Topography

The topography in the vicinity of the study area is significantly sloped towards the east with an approximate 10-foot change in elevation from the west to the east across the Site. Nassau County is part of the Coastal Plain physiographic province. The northern portion of the county,

the area in which the Site is located, is characterized by undulating or rolling landscapes. Elevations range from approximately sea level to 340 feet above mean sea level.

1.3.4 Regional Geology and Hydrogeologic Setting

According to published information, the aquifer system in the regional area of the Site is underlain by three hydrogeologic units, the Upper Glacial Formation (UGA), the Magothy Formation, and the Raritan Clay and Lloyd Sand Members of the Raritan Formation which overlie the southeasterly dipping bedrock surface.

The stratigraphy of Long Island generally consists of unconsolidated overburden deposits of clay, silt, sand and gravel overlying a Pre-Mesozoic Age schist and gneiss bedrock. Although some surficial weathering fractures exist, the bedrock is of relatively low permeability and is generally considered to be the lower boundary of the regional groundwater flow regime.

The overburden deposits are classified into three major geologic units. Descending from ground surface, the three units are the Pleistocene deposits (Upper Glacial Unit), the Magothy Formation, and the Raritan Formation. The general hydrogeologic characteristics of each of these units are described below.

The Upper Glacial Formation is composed of upper Pleistocene deposits of the Quaternary period of the Cenozoic era. These deposits consist of glacial till and outwash sediments. The till deposits are poorly permeable and are composed of clay, sand, gravel and boulders. The outwash deposits consist of quartz sand, some lenses of silt and clay and pebble size gravel and boulders. Outwash deposits are moderately to highly permeable. Regionally, the outwash deposits have a maximum thickness of approximately 75 feet. Average horizontal hydraulic conductivity values for the outwash deposits ranging from 230 feet/ day to 270 feet/ day have been reported with a horizontal to vertical hydraulic conductivity ratio of approximately 10:l.

The Magothy Formation consists of upper Cretaceous deposits of the Cretaceous period of the Mesozoic era. These deposits are composed of fine to medium sand interbedded with discontinuous layers and or lenses of coarse sand, silty clay, and clay. The permeability is poor to moderate with some areas of the aquifer exhibiting high permeability. A coarse gravel unit approximately 100 feet in thickness reportedly exists at the base of the Magothy Formation forming a distinct interface between the Magothy Formation and the underlying Raritan Formation. The maximum thickness of the Magothy Formation in the region is approximately 650 feet. Groundwater flow within the unit occurs under both unconfined and semi-confined conditions. The degree of confinement increases with depth primarily due to the effect of stratification and the numerous silt and clay lenses. The majority of the sand layers are poorly to moderately permeable, although some local highly transmissive lenses of coarse gravel exist. Average horizontal hydraulic conductivity values of approximately 50 feet per day and 75 feet per day have been reported for the upper portion of the unit and for the lower basal gravel, respectively. The horizontal to vertical hydraulic conductivity ratio for the unit has been estimated to be approximately 100:l.

The Magothy Aquifer is the principal aquifer for the withdrawal of public drinking water supplies in Nassau County.

The Raritan Clay confining unit forms the upper member of the Raritan Formation. The clay unit consists of solid and silty clay with intermittent lenses of sand. The unit has an average thickness of approximately 175 feet. The vertical hydraulic conductivity of the clay unit has been estimated to be approximately 0.001 feet per day. The clay unit sustains a significant hydraulic head difference between the Magothy Formation and the Lower Raritan Formation and acts as a confining layer over the Lloyd Sand Member.

The Lloyd Sand forms the lower member of the Raritan Formation. The Lloyd Sand member forms a water bearing unit consisting of fine to coarse sand with some discontinuous layers of silty clay and clay. The water bearing unit has an approximate thickness of 150 feet. The permeability is described as low to moderate. An average horizontal hydraulic conductivity

for the unit has been estimated to be approximately 40 feet per day with a horizontal to vertical hydraulic conductivity ratio of approximately 10:l.

1.3.5 Water Supply, Waste and Storm Water Disposal

The study area is serviced by a municipal potable water supply system. The nearest public water supply well is located approximately 500 ft to the north-northwest of the Site on Drumond Place. Based on data collected during a previous Site Characterization completed by Environmental Resource Management (ERM) in the vicinity of the Site, the water supply well is located down gradient of the Site. The well is constructed to a depth of 300 ft bgs and is screened from 255 to 295 ft bgs in the Magothy aquifer. There is also a public supply well located approximately 1.5 miles to the north-northwest (down-gradient) of the Site.

The Site building has a private sanitary system located on-site. Storm water flows from catch basins in the streets into drainage piping which discharges into local recharge basins. Due to the significant difference in elevation from the western portion of the Site and the eastern portion of the Site, during significant rain events, storm water, not collected by catch basins in the streets, has caused flooding in the basement of the building.

1.4 Site History and Previous Investigations

1.4.1 Site History

A building construction date for the Site building is not known; however, based on previous investigations performed at the Site, the building was occupied by a dry cleaner from the early 1950s until 1988. More recently, within the last ten years the building has been occupied by an educational tutor service on the first floor and a consignment store on the basement level.

1.4.2 Previous Investigations

In 1980, the Nassau County Department of Health (NCDH) completed a site investigation of the dry cleaning establishment located at 22 Railroad Avenue, Glen Head. A summary letter dated December 2, 1980, identified contaminated wastewater was being disposed of onto the ground surface or through plumbing into the septic tank system and cesspool. The NCDH ordered the Site occupants to cease discharging of the liquid waste.

A Preliminary Site Assessment (PSA) was completed in September 2000 by Lawler, Matusky & Skelly (LMS), to identify the extent of the Glen Head Groundwater Plume and identify the potential source Sites. The PSA was completed as a multi-site investigation of approximately 40-acres including several former and active dry cleaning and industrial facilities. The PSA identified the Site as FC Cleaners (the Former Fresh and Clean Laundry Site) as a potential source, located at the eastern portion of the Glen Head Groundwater Plume.

A limited Phase II Site Investigation, completed by LMS in September 2000, focused on the on-site subsurface drainage system. A total of four cesspools were identified at the Former Fresh and Clean Laundry Site, three inactive (CP-1, CP-2 and CP-3) and one active cesspool (CP-4). It was concluded by LMS that all four cesspools were impacted by discharges of contaminated wastewater; however, cesspool CP-2 reported the highest VOC contamination with a concentration of PCE of 1,500,000 part per billion (ppb). The main VOC constituents reported above NYSDEC Soil Cleanup Objectives (SCOs) in the cesspools were tetrachloroethene (PCE), 1,2-dichloroethene (1,2-DCE) and trichloroethene (TCE). In addition, low levels of petroleum products were reported above allowable limits, specifically xylenes and 1,2-dichlorobenzene. Several VOCs were reported above their respective SCOs at CP-4; however, these VOCs were present at substantially lower concentrations than the other cesspools.

In December 2003, an Indoor Air Sampling event was completed on-site on behalf of the NCDH. PCE concentrations were evaluated through the use of organic vapor monitoring badges which were monitored for approximately 24 hours. Six locations throughout the on-site building were sampled. Additional sampling was completed on January 13 and 14, 2004.

In March 2004, a Voluntary Investigation and Interim Remedial Measure (IRM) Work Plan for the Former Fresh and Clean Laundry Site was developed on behalf of the NYSDEC pursuant of the requirements of an executed Voluntary Cleanup Agreement. The Work Plan was developed in six tasks. Task 1 was to further evaluate the on-site sanitary system through the influent and effluent discharge piping leaving the septic tanks and sampling of the subgrade pools. Task 2 was the performance of an IRM which included the removal of liquid and sludge from the septic tank and all four cesspools. End point samples collected from CP-1, CP-2, CP-3 and CP-4 were collected between 25-26 feet (ft) bgs. One sample was collected from the storm drain (SD-1).

Following the completion of the IRM, Task 3 was implemented to determine vertical leaching from the Site via soil borings. Soil borings were collected through the center of the cesspool drainage structures using direct push technology equipment. Task 4 included on-site and off-site soil gas investigations to evaluate the potential for migration of vapors, Task 5 was considered to be completed via the previous indoor air sampling events. Task 6 called for a groundwater investigation at and within the vicinity of the Site. The groundwater investigation included the installation of three groundwater monitoring wells, one upgradient and two downgradient of the drainage structures.

In December 2006, Environmental Services Inc. (ESI) completed Task 3 – Soil Boring Delineation Program. Soil samples within the four cesspools were collected from the following depths: CP-1 soil samples collected from 32, 36 and 40 ft. bgs.; CP-2 soil samples were collected from 36, 46 and 60 ft. bgs. and CP-3 and CP-4 soil samples were collected from 29, 33 and 37 ft. bgs. An evaluation of the data concluded that non-aqueous phase liquid (NAPL) did not exist in the subsurface soils beneath the previously impacted and remediated cesspools (CP-1, 2, 3, 4).

In November 2007, Task 4 and the first sampling event of Task 6 were completed by ESI. A technical report submitted to the NYSDEC indicated that a soil vapor study was completed on July 19 and 20, 2007. Samples were collected with summa canisters and analyzed by York Laboratory by Method United State Environmental Protection Agency (USEPA) Method TO-

14A. Several VOCs were detected in the soil vapor. Additionally, three on-site groundwater monitoring wells were installed and sampled in October 2007.

In March 2008, ESI completed an Interim Report letter briefly outlining groundwater investigation activities and sampling results. Based on the findings of the groundwater sampling the report indicated "a few compounds were slightly over regulatory compliance." As a result of the investigation, ESI made the recommendation that further vertical delineation of groundwater contamination was necessary.

In March 2013, CA Rich Consultants Inc. (CARC) completed interior soil sampling and sub-slab vapor sampling event. A total of four sub-slab soil vapor sample locations were installed inside the building along with one interior air sample as part of the sub-slab soil vapor investigation. All samples were analyzed using USEPA Method TO-15 for volatile organic compounds (VOCs). In addition, two soil samples were collected. One sample was collected from an interior floor drain located in the rear of the basement by the garage door of the building and the other soil sample was collected from the overflow cesspool connected to the septic holding tank associated with the Glen Head Elementary School maintenance building. The samples were analyzed using USEPA Method 8260 for VOCs. CARC concluded based of the results of the interior sub-slab soil vapor and interior air samples that VOCs were not detected at concentrations that are indicative of a soil vapor intrusion concern within the building. The results of the interior floor drain, and sanitary cesspool soil samples did not detect VOCs at concentrations that were above existing NYSDEC cleanup objectives for the protection of groundwater.

In September 2014, CARC collected four exterior soil vapor samples around the exterior of the Site building. The samples were analyzed using USEPA Method T0-15 for VOCs. The samples were collected from a depth of eight feet below the ground surface. The soil vapor results indicated elevated concentrations of PCE at 7,140 ug/m^3 and TCE at 196 ug/m^3 at sample location SV-3, which is located in front of Tom's Lawn Mower Service business at 30 Railroad Avenue. The sample locations SV-1, SV-2 and SV-4 also detected PCE, but at significantly lower concentrations ranging between 146 and 150 ug/m^3. TCE and 1,2-DCE, were detected, but

at low concentrations. CARC made the recommendation in the September 2014 report that further off-site groundwater delineation was necessary.

2.0 REMEDIAL INVESTIGATION ACTIVITIES

Provided below is a summary of the field activities conducted as part of the RI. The field activities were performed in accordance with the approved Work Plan, dated January 2018 and amended in October 2019 and were completed between 2018 and 2021.

2.1 Overview of Field Activities

The field activities performed within the study area were conducted in a phased approach with the goal of determining the nature and extent of contamination from past hazardous waste disposal activities, ascertain whether completed routes of exposure to Site contaminants exist, and to develop a remedial action, if needed, that will be protective of human health and the environment. To accomplish this goal, several investigation techniques were utilized. Field activities and supporting investigation activities included the following:

- Site Inspection
- Geophysical Survey
- Land Survey
- Indoor Air/Sub-Slab Soil Vapor Sampling and Exterior Soil Vapor Sampling
- Sediment Sampling, Shallow Soil Borings and Subsurface Soil Sampling
- Deep Soil Borings
- Discrete Depth Groundwater Sampling
- Existing Groundwater Monitoring Well Redevelopment
- Existing Groundwater Monitoring Well Sampling
- Irrigation Well Sampling
- Cleanout of On-Site Southern Structure
- Investigation Derived Waste

A detailed description of the field program is presented below.

2.2 Remedial Investigation Activities

The remedial investigation activities included a geophysical survey, land survey by professional land surveyor, site inspection, collection of indoor air/sub-slab soil vapor and exterior soil vapor sampling, sediment sampling, collection of shallow soil borings and subsurface soil sampling, existing groundwater monitoring well redevelopment, existing groundwater sampling, irrigation well sampling, deep soil borings, discrete depth groundwater sampling, underground structure cleanout activities and disposal of investigation derived waste.

Based on the results of the initial sampling, where elevated concentrations of chlorinated VOCs in soil vapor, and indoor air were detected, additional soil, groundwater and soil vapor data was collected in an attempt to identify the source of the on-site contamination.

2.2.1 Geophysical Survey

Prior to undertaking any intrusive activities, a geophysical survey was completed on May 7, 2018 by Advanced Geological Services (AGS). The purpose of the geophysical survey was to: 1) verify the locations of known underground utilities that were identified by New York 811 and non-member utility companies; 2) identify and mark the location of any unknown/unmarked utilities or subsurface structures; and, 3) clear each proposed subsurface sampling location prior to drilling. The geophysical survey was performed using non-intrusive locating techniques including ground penetrating radar and radio frequency utility locating system. All utilities and/or structures that were identified during the survey were marked on the ground using standard utility color codes. A location for each proposed subsurface sampling location, which was clear of utilities and subsurface structures and drilling was identified in white on the ground surface. A geophysical inspection report prepared by AGS is provided in Appendix A.

2.2.2 Land Survey

On May 8, 2018, MEGA Engineers & Land Surveying P.C. (MEGA), a licensed New York State Professional Land Surveyor (PLS) performed a site survey of the Site. The land survey included property features such as property/easement boundaries, building footprints of the Site building and adjoining properties, edges of pavement/vegetation, driveways, underground utilities, geophysical anomalies and existing monitoring well locations and select soil vapor and soil boring sample locations. A land survey drawing and survey information for the existing monitoring wells and soil boring and soil vapor locations is provided in Appendix B.

2.2.3 Site Inspections

D&B conducted an inspection of the visible portions of the concrete floor in the basement of the Site building to determine where dry cleaning equipment may have been previously located; identify any possible former chemical storage areas or additional floor drains; and note any significant cracks in the concrete surface of the floor. As part of this task, D&B also inspected the bilco doors and associated staircase leading down into the basement storage area from the southwestern end of the building, as the entrance was previously inaccessible. D&B identified a drain at the bottom of the stairwell, as well as noted a door that led into the basement building, which was boarded up with wood. Additionally, D&B identified a basement storage room on the northwestern end of the building which also had a drain located within it. During the inspection D&B took photographs and recorded PID readings within the two drains.

Additionally, as part of this task D&B performed an inspection of the adjoining Glen Head School maintenance shop building to determine if any maintenance work was recently being performed or has been performed that may have potentially impacted the Former Fresh and Clean Laundry Site. D&B interviewed school maintenance personnel and performed an inspection and it was determined that the adjoining school property building was utilized as a carpentry building for the school and no maintenance activities or use of chemicals was performed.

2.2.4 Indoor Air/ Sub-Slab Soil Vapor Sampling and Exterior Soil Vapor Sampling

Indoor Air/Sub-Slab Soil Vapor Sampling

Two sub-slab soil vapor samples (SSDB-1 and SSDB-2) were collected within the Site building basement on March 14, 2018. In addition, two indoor air samples were collected corresponding to the sub-slab soil vapor samples locations (IADB-1 and IADB-2) and one outdoor ambient air (OADB-1) samples were also collected on March 14, 2018. Subsequent sub-slab soil vapor, indoor air and ambient air samples were collected at the Site building on February 28, 2019. Indoor air samples IADB-1 and IADB-2 were collected from the basement occupied by the "Tag Sale Warehouse" and two indoor air samples (IADB-3 and IADB-4) were collected from the first floor occupied by Rally Book Distributors. In addition, two sub-lab samples (SSDB-1 and SSDB-2) were collected from the basement. An outdoor ambient air sample (OADB-1) was collected from the rear of the Site building. Indoor air and sub-slab soil vapor sampling was also completed on January 26, 2021 to re-evaluate and confirm soil vapor intrusion at the Site through the collection of prior indoor, ambient air and sub-slab soil vapor samples. Sub-slab soil vapor, indoor air and outdoor ambient air samples were collected to evaluate the potential for soil vapor intrusion at the Site building and evaluate the potential for exposures within the Site building. The sub-slab soil vapor samples were installed by D&B and indoor air and outdoor air samples were collected on the same day. Sample locations are presented on Figure 2-1.

Prior to performing the sub-slab soil vapor sampling, an indoor air quality questionnaire and building inventory was completed by D&B to evaluate the type of structure, floor layout and physical conditions of the Site building, as well as identify and minimize conditions that may have affected or interfered with testing. A ppb range PID was used to help evaluate potential interferences. The completed Indoor Air Quality (IAQ) questionnaire and building inventory is included as Appendix C. In addition, the building floor was inspected for any penetrations. It should be noted that the inspection of the floor was difficult due to the presence of large pieces of furniture, area rugs and household items associated with the current tenant of the space. The concrete slab was cored at each sub-slab soil vapor location. The sub-slab vapor samples were

collected using laboratory supplied tubing from beneath the concrete slab. The soil vapor tubing was purged using a photoionization detector (PID) to evacuate a minimum of three volumes of soil vapor. The PID recorded VOC concentrations from the soil vapor tubing in the parts per billion (ppb) range. The sub-slab soil vapor samples were collected in batch certified clean 6-liter SUMMA canisters fitted with laboratory calibrated low-flow regulators that were set to collect the sample over a 1-hour period. Helium was used as a tracer gas to ensure that an adequate surface seal was created during sampling. The outdoor ambient and indoor air samples were collected in batch certified clean 6-liter SUMMA canisters fitted with laboratory calibrated low-flow regulators that were set to collect the sample over an 8-hour period. The SUMMA canisters were placed at a height of approximately 3 feet above the floor/ground surface.

Exterior Soil Vapor Sampling

Four soil vapor samples (FCSV-01 through FCSV-04) were collected surrounding the exterior of the Site building on May 7, 2018, including two in the parking lot located east of the Site building, one to the west of the Site building, and one south of the Site building at previous soil vapor sampling location SV-3 which historically exhibited elevated VOC concentrations in the vicinity of the adjacent lawnmower repair business. Exterior soil vapor samples were collected to evaluate the potential for off-site soil vapor contamination. The soil vapor probes were installed by Aztech Environmental Services and soil vapor samples were collected on the same day by D&B. Sample locations are presented on Figure 2-1.

The exterior soil vapor probes were set at approximately 8 feet below grade and were constructed using stainless steel screens and Teflon lined polyethylene tubing. The probe screens were approximately 6-inches long, constructed of double-woven stainless-steel wire and installed at the bottom of the boreholes. Filter glass beads were placed around the screened portion of each vapor probe extending from the bottom of the borehole to approximately 1-foot above the screen. Approximately 6 inches of washed sand was then placed directly above the filter glass beads, followed by a bentonite seal above the washed sand to a depth of approximately 1-foot bgs.

After installation of the soil vapor probes, the soil vapor samples were collected for laboratory analysis of VOCs by USEPA Method TO-15. Each probe was connected via Teflon tubing to a laboratory-supplied SUMMA canister. The soil vapor probes were purged using a calibrated PID to evacuate a minimum of three volumes of soil vapor. The PID recorded VOC concentrations from the soil vapor probes in the ppb range. The soil vapor samples were collected in batch certified clean 6-liter SUMMA canisters fitted with laboratory calibrated low-flow regulators that were set to collect the sample over a 1-hour period. Helium was used as a tracer gas to ensure that an adequate surface seal was created during sampling.

2.2.5 Soil/Sediment Sampling

Soil/sediment samples were collected from ten exterior locations (SS-01, SS-02, SS-05 through SS-12) on May 7 through 9, 2018. Sediment samples were also collected from three locations (SS-14 through SS-16) on January 24 and February 28, 2020. These sediment samples were collected from the two floor drains/dry well structures within the Site building, one in the basement storage area in northwestern end of the building (SS-14) and one in the laundry area on the southern end of the building (SS-15). Sample (SS-16) was collected from a floor drain/drywell structure identified at the bottom of the stairwell accessed through the exterior bilco doors, located outside along the southwestern portion of the building. Samples were collected by hand utilizing a decontaminated hand auger. Due to access constraints, sample SS-14 was collected by manually advancing a galvanized hollow pipe within the floor drain leading into the dry well structure. Sediment samples were collected at the following depths of each structure: SS-14 (0-24”), SS-15 (0-3”) and SS-16 (0-12”). Sediment sample SS-13 (0-16”) was collected on August 3, 2020 from the on-site southern underground structure located to the west of the Site building. The sample was collected using a Geoprobe macrocore sampler liner that was advanced utilizing a hammer. Soil/sediment samples were collected from the uppermost 6 inches, except as noted, of sediment present at the bottom of each sanitary/drainage structure (See Figure 2-1).

Samples collected from each location were screened with a calibrated PID and inspected for indications of contamination (e.g., discoloration, staining, etc.). Geologic descriptions of the soil and field screening results were recorded and included in Appendix C.

All samples were analyzed for Target Compound List (TCL) VOCs+10 by USEPA Method 8260C. The samples were collected and preserved in accordance with USEPA Method 5035 (e.g., En Core® or Terra Core® Sampler). Quality control samples, consisting of matrix spike and matrix spike duplicates were collected at a minimum frequency of one per twenty samples and analyzed for the same parameters as the environmental samples. A field blank was collected on the decontaminated hand auger, as non-disposable sampling equipment was used.

2.2.6 Shallow Soil Borings

Shallow soil borings were completed from six locations (SB-6 through SB-08, SB-10 through SB-12) on May 7 through 9, 2018 through the existing drainage/sanitary structures (see Figure 2-1). Soil borings were collected utilizing direct push sampling to examine subsurface soil quality and determine if the structure was a source of chlorinated VOC contamination to the subsurface. At each shallow boring location, soil samples were collected continuously to a depth of approximately 20 feet below the bottom of the structure.

Subsurface soil samples were screened with a calibrated PID and inspected for indications of contamination (e.g., discoloration, staining, etc.). Geologic descriptions of the soil and field screening results were recorded and included on the boring logs presented in Appendix C. In addition, to the sediment sample collected from each structure, one subsurface soil sample was collected from each soil boring from the interval exhibiting the greatest evidence of contamination based on field screening and submitted for laboratory analysis.

All subsurface soil samples were analyzed for Target Compound List (TCL) VOCs+10 by USEPA Method 8260C to assess Site contaminants of concern. The VOC samples were collected and preserved in accordance with USEPA Method 5035 (e.g. En Core® or Terra Core® Sampler).

2.2.7 Deep Soil Borings

Prior to drilling, each proposed soil boring location was pre-cleared for buried utilities to a minimum depth of 5 feet bgs using hand tools. A total of three deep soil borings (SB-17, SB-18 and SB-19) were advanced at the Site in July and August 2020 (see Figure 2-1 for boring locations).

All soil borings were advanced using hallow stem augers and soil samples were collected using split spoon samplers. In accordance with the NYSDEC-approved scope of work, one sample was selected for laboratory analysis from the unsaturated interval exhibiting the greatest evidence of contamination based on field screening and the second sample was collected from the interval immediately above the groundwater surface. SB-17 was advanced to a total depth of approximately 117 feet bgs, soil boring SB-18 was advanced to a total depth of approximately 118 feet bgs and soil boring SB-19 was advanced to a total depth of approximately 122 feet bgs.

During boring advancement, soil samples were collected utilizing a decontaminated split spoon sampler continuously to a depth of approximately 25 feet below grade for characterization, after which, they were collected at 5-foot intervals until completion of the borehole. SB-17 was completed adjacent to one of the on-site underground structures located to the west of the Site building, SB-18 was completed adjacent to the bilco doors on the west side of the Site building and SB-19 was completed at the adjoining lawnmower/metal sculpting property. The sample locations are depicted on Figure 2-1.

In total, six soil samples were collected for laboratory analysis from SB-17 at (23’-25’) and (105’-107’), SB-18 at (11’-13’) and (106’-108’) and SB-19 at (7’-8’) and (110’-112’). Each recovered soil sample was inspected and characterized in accordance with the United Soil Classification System (USCS). In addition, any evidence of contamination, such as staining, sheens or odors, was described and the samples screened for organic vapors using a calibrated PID. Boring logs were generated and are provided in Appendix C.

2.2.8 Discrete Depth Groundwater Sampling

Three discrete-depth groundwater samples (GW-01, GW-02 and GW-03) were collected from the soil boring locations SB-17, SB-18 and SB-19, respectively at the Site on July 28, 30 and August 5, 2020. The discrete-depth groundwater probe locations are depicted on Figure 2-1.

The discrete-depth groundwater samples were collected by installing a temporary well with a slotted PVC screen within the augers of the deep soil borings. Groundwater samples were collected just below the groundwater table at depths ranging from 107 to 112 feet bgs. Prior to sample collection, each discrete-depth groundwater sample location was purged of approximately 1 to 2 gallons using disposable poly tubing and a stainless steel check valve. All groundwater samples were analyzed for TCL VOCs +10 by USEPA Method 8260C.

2.2.9 Existing Groundwater Monitoring Well Redevelopment

Prior to sampling the existing monitoring wells, D&B completed re-development activities. The existing on-site and select off-site monitoring wells were developed by pumping and surging each well for a minimum of two hours or until the turbidity of the groundwater was reduced to at least 50 nephelometric turbidity units (NTUs). Well development water was also monitored for field parameters, including pH, temperature, specific conductance, turbidity, oxidation reduction potential and dissolved oxygen, using a calibrated Horiba U52 multi-parameter water quality meter. Development continued until the field parameters stabilized for a minimum of three consecutive readings of 10 percent variability or less. Well development water was containerized in 55-gallon DOT approved drums and staged on-site for subsequent testing and off-site disposal.

2.2.10 Existing Groundwater Monitoring Well Sampling

Groundwater sampling of seven (7) existing on-site and off-site monitoring wells was performed on October 2, 3 and 5, 2018 by D&B. The monitoring wells that were sampled

included on-site wells FCMW-01, FCMW-02, FCMW-03 (see Figure 2-1 on-site) and off-site wells MW-1, MW-3, MW-5 and MW-6 (see Figure 4-4 off-site).

A PID headspace reading in each monitoring well was measured prior to groundwater sample collection. Water level data, well diameter, and well depth was used to calculate the volume of standing water contained within each well. The wells were then purged using low-flow purging techniques. During the well purging process, field measurement of pH, temperature, specific conductivity, dissolved oxygen, oxidation reduction potential and turbidity were recorded using a calibrated Horiba U52 multi-parameter water quality meter with flow through cell. Groundwater samples were analyzed for TCL VOCs +10 by USEPA Method 8260C including 1,4-dioxane by USEPA 8270 SIM. In addition, on October 22, 2018, FCMW-01 and FCMW-03 were analyzed for emerging contaminants, per- and polyfluoroalkyl substances (PFAS) by USEPA Method 537 modified.

Groundwater samples were collected from each well using a bladder pump equipped with disposable tubing and transferred from the tubing on the outlet of the pump directly into clean laboratory-supplied sample bottles after the field parameters stabilized for a minimum of three consecutive readings of 10 percent variability or less. The sample containers were labeled and placed in a cooler with bagged ice sufficient to cool the samples to 4 degrees Celsius and submitted to the laboratory under chain-of-custody procedures for laboratory analysis.

Purge water was containerized for off-site disposal. All non-dedicated sampling equipment (e.g., oil/water interface probe, bladder pump, etc.) was decontaminated prior to and between each sampling location.

2.2.11 Irrigation Well Sampling

D&B sampled the irrigation well on the North Shore Country Club property located approximately 1 mile to the west-northwest of the Site on November 11, 2019. Historical records indicate the irrigation well is designated as N-9800 by Nassau County and is screened from approximately 160 to 200 feet bgs. The irrigation well contained a pump and D&B collected

field data parameters including (pH, temperature, specific conductivity, oxidation reduction potential (ORP), dissolved oxygen and turbidity) from the pump outlet prior to collecting a sample for analysis. The sample was analyzed for TCL VOCs by USEPA Method 8260C.

2.2.12 Cleanout of On-Site Underground Structure

During the geophysical survey performed at the Site an anomaly towards the west side of the Site building was identified. It was determined the anomaly was a manhole that was covered over with asphalt. Following the removal of the asphalt and manhole cover, a sediment sample was collected from the bottom of the structure (SS-13), depicted as the southern structure (see Figure 2-1). Initially, a drill rig was utilized to attempt to drill and collect sediment samples inside the structure using HSA. However, due to encountering refusal, it was determined the structure contained a solid bottom. As an alternative sampling method, a sample was collected by advancing a macrocore liner manually into the sediment. Based on the results of the SS-13 sample analysis, the material within the structure was determined to be hazardous. The clean out was performed by Innovative Recycling, Inc. (IRT). The work was performed by completing a confined space entry where the material was hand dug and removed from the structure into approximately twenty (20) 55-gallon drums totaling approximately 5 cubic yards of material. Once the material was removed, the southern structure was pressure washed and cleaned. An attempt was then made to snake the pipes entering/exiting the structure however, the origin of the pipes could not be determined and additional investigation was required.

During the follow-up investigation, it was noted that the southern structure had partially filled with water. As a result, prior to performing the camera work inside the structure, the liquid was removed utilizing a drum vac and nine (9) 55-gallon drums were generated for subsequent off-site disposal. During the second camera scoping effort, it was determined that the three pipes exiting the southern structure lead to an adjacent structure immediately to the north within the parking area. A second manhole was then uncovered. The structure appeared to have a diameter of approximately 8-feet and was also observed to be filled with water. A sediment and a water sample were collected using a decontaminated poly scoop. Additional work associated with the

structure cleanout was completed under a separate contract and a report of the activities is provided in Appendix D.

2.2.13 Investigation Derived Waste

Excess soil generated during deep soil borings and the groundwater generated during groundwater sampling and redevelopment activities were contained on-site in 55-gallon DOT approved drums for proper off-site disposal. Copy of the waste manifests are provided in Appendix E.

2.3 Field Procedures, Analytical Methods and Quality Assurance

All investigation and sampling activities were performed in accordance with D&B's Generic Field Activities Plan (FAP) and Generic Quality Assurance Project Plan (QAPP), which have been approved for use on D&B's Standby Contract for Engineering Services with the NYSDEC. In addition, sampling for PFASs and 1,4-dioxane was completed in accordance with NYSDEC's guidance.

All laboratory analysis was performed in accordance with the latest edition of the NYSDEC Analytical Services Protocol by Test America Laboratories of Buffalo, New York, West Sacramento, California, Knoxville, Tennessee or South Burlington, Vermont. These laboratories are New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratories. Category B deliverables were submitted for the project samples in the required NYSDEC Electronic Data Deliverable format.

Quality control samples included matrix spike and matrix spike duplicates and trip blanks. Matrix spike and matrix spike duplicates were collected at a minimum frequency of one per twenty samples and analyzed for the same parameters as the environmental samples. Trip blanks were supplied with each shipment of sample containers for water samples. In accordance with NYSDEC's guidance, a blind duplicate and equipment blank were also collected during collection of samples for PFASs and 1-4,dioxane.

2.4 Health and Safety Program

A Generic Health and Safety Plan (HASP) was prepared in accordance with the requirements of the Occupational Safety and Health Administration (OSHA) for the work on D&B's Standby Contract for Engineering Services with NYSDEC. Per the HASP, an information form was also prepared to provide site-specific health and safety information and provide for worker and community protection. Activities conducted as part of the field investigation were conducted in accordance with the HASP and site-specific information form.

2.5 Air Monitoring

Air monitoring for dust and organic vapors was conducted during ground intrusive work. The exclusion zone action levels for dust and VOCs in the breathing zone were not exceeded during the performance of work.

2.6 Data Usability Summary Report

Groundwater samples were submitted to TestAmerica Laboratories of Buffalo, New York for the volatile organic compound analysis and by TestAmerica Laboratories, of West Sacramento, California for the PFASs, a NYSDOH ELAP certified laboratory, for analysis. Soil samples were submitted to TestAmerica Laboratories of Buffalo, New York and the air samples to either TestAmerica Laboratories in Knoxville, Tennessee or South Burlington, Vermont. The laboratories performed the analysis in accordance with the latest edition of the NYSDEC Analytical Services Protocol and provided NYSDEC Category B laboratory deliverables packages. A Data Usability Summary Report was prepared for the packages and is discussed in Section 4.0. Data validation checklists are provided in Appendix G.

3.0 PHYSICAL CHARACTERISTICS OF THE STUDY AREA

The geology and hydrogeology of the study area has been determined from information derived during the previous field investigations, limited information collected during this remedial investigation and from literature sources. The field activities performed during this remedial investigation that provided geological information included three soil borings constructed to just below the water table. The locations of all subsurface data points utilized during the Remedial Investigation are shown on Figure 2-1.

3.1 Site Geology

The Site is underlain immediately by the Upper Glacial Aquifer (UGA), a Pleistocene-aged unit consisting of glacial till and outwash deposits. The UGA is composed of mainly poorly to moderately sorted fine to coarse sand and gravel with variable amounts of discontinuous lenses of clay and silt zones. It is estimated that the UGA is approximately 275 feet thick in the vicinity of the site and overlies the Magothy aquifer.

Soil borings completed during the RI, indicate that glacial sediments underlying the site, consists primarily of the following: Brown to Tan, fine to coarse sand with some gravel to a depth of approximately 20 feet below grade (fbg). Alternating strata of Gray to Brown, medium to coarse sand with some gravel was encountered to a depth of approximately 35 fbg. Tan to Brown, medium to fine sand with trace subrounded gravel was noted to a depth of approximately 45 fbgs. A transition to Tan to light Tan well sorted fine sand was identified to a depth of approximately 75 fbg. Tan medium to fine well sorted sand with trace gravel was observed from 75 fbg to the completion of the sampling at 120 fbg. It should be noted that no clay or confining layers were identified within the three soil borings. The stratigraphy encountered in these borings, in general, is representative of the Upper Glacial Unit described in Section 3.1.4.

3.2 Site Hydrogeology

The water table during groundwater sampling conducted in October 2018 was encountered in the study area at depths ranging from 98.40 feet bgs at on-site monitoring well FCMW-2 to 124.72 feet bgs at off-site monitoring well MW-5. The groundwater elevations measured in September 2018 indicated a north-northwesterly direction of groundwater flow see Figure 3-1.

4.0 NATURE AND EXTENT OF CONTAMINATION

This section presents the analytical results for the sediment, soil, groundwater and indoor air, sub-slab soil vapor and ambient air samples collected during the RI activities for the Former Fresh and Clean Laundry Site. Summary tables of the analytical results are provided in Appendix F.

4.1 Identification of Standards, Criteria and Guidelines

The sediment, soil and groundwater sample results were compared to standards, criteria and guidelines (SCGs) selected for the Site to determine the significance of the analytical data. Air sample data, including sub-slab soil vapor, soil vapor, indoor air and outdoor ambient air data was compared to the New York State Department of Health (NYSDOH) Air Guidance Values (AGVs) presented in the NYSDOH Vapor Intrusion Guidance Document, NYSDOH's Tetrachloroethene (Perc) in Indoor and Outdoor Air September 2013 Fact Sheet ("NYSDOH Perc Fact Sheet"), and NYSDOH's Trichloroethene (TCE) in Indoor and Outdoor Air August 2015 Fact Sheet ("NYSDOH TCE Fact Sheet") and Matrices A, B, and C of the May 2017 Updates to Soil Vapor / Indoor Air Decision Matrices. The sediment and soil data was compared to the Soil Cleanup Objectives (SCOs) for unrestricted use as defined in NYSDEC 6 NYCRR Part 375. The groundwater data was compared to Class GA groundwater standards and guidance values as defined in the NYSDEC June 1998 Division of Water Technical and Operational Guidance Series (1.1.1) – Ambient Water Quality Standards and Guidance Values.

4.2 Remedial Investigation Results

4.2.1 Indoor Air/Sub-Slab Soil Vapor Sampling and Exterior Soil Vapor Sampling Results

As part of the RI, twenty-three air samples were collected including: two sub-slab soil vapor samples (SSDB-1 and SSDB-2), two indoor air samples (IADB-1 and IADB-2), and one outdoor ambient air samples (OADB-1) on March 14, 2018; four exterior soil vapor samples (FCSV-01 through FCSV-04) were collected on May 7, 2018; two sub-slab soil vapor samples

(SSDB-1 and SSDB-2), four indoor air samples (IADB-1, IADB-2, IADB-3 and IADB-4) and one outdoor ambient air samples (OADB-1) on February 28, 2019; and, two sub-slab soil vapor samples (SSDB-1 and SSDB-2), four indoor air samples (IADB-1, IADB-2, IADB-3 and IADB-4) and one outdoor ambient air samples (OADB-1) on January 26, 2021. Sub-slab soil vapor, indoor air, ambient air and exterior soil vapor samples were analyzed for VOCs by USEPA Method TO-15. A summary of detected VOCs concentrations in the sub-slab soil vapor, indoor air, ambient air and exterior soil vapor air samples are provided in Tables 4-1 through 4-3 below and depicted on Figure 4-1. VOC concentrations that exceeded the NYSDOH Air Decision Matrices have been denoted on the tables and figures. For exterior soil vapor samples, it should be noted that the NYSDOH Air Decision Matrices are not applicable. Analytical data tables are provided in Appendix F.

Several VOCs were detected in indoor air, sub-slab and exterior soil vapor and outdoor air samples. VOCs that were detected at concentrations significantly higher than other VOC detections included: 1,2-dichloroethene (total), cis-1,2-dichloroethene (cis-1,2-DCE), tetrachloroethene (PCE) and trichloroethene (TCE).

Cis-1,2-DCE, PCE and TCE were detected within the sub-slab soil vapor samples at multiple orders of magnitude higher than their concentrations in outdoor ambient and indoor air samples. The highest concentrations of cis-1,2-DCE, PCE and TCE were detected in sub-slab soil vapor sample location SSDB-2 at concentrations of 2,900 ug/m^3, 74,000 ug/m^3 and 5,400 ug/m^3, respectively. Indoor air and sub-slab soil vapor samples were compared to the decision matrices provided by the NYSDOH. Cis-1,2-DCE, PCE and TCE were detected at concentrations within the sub-slab soil vapor samples and co-located indoor air samples for which the NYSDOH Decision Matrices would recommend mitigation. No other VOC compounds from NYSDOH Soil Vapor/Indoor Air Matrices A through C were detected at concentrations that would require monitoring or mitigation. Cis-1,2-DCE, PCE and TCE were also detected within the exterior soil vapor samples at elevated concentrations.

Table 4-1

Former Fresh and Clean Laundry Site
VOC Detections in Exterior Soil Vapor, Sub-Slab Soil Vapor, Indoor Air and Outdoor Ambient Air Samples

Sample Location	IADB-1	IADB-2	OADB-1	SSDB-1	SSDB-2	FCSV-01	FCSV-02	FCSV-03	FCSV-04
Date	3/14/18	3/14/18	3/14/18	3/14/18	3/14/18	5/7/18	5/7/18	5/7/18	5/7/18
Sample Type	Indoor Air	Indoor Air	Outdoor Ambient Air	Sub-Slab Soil Vapor	Sub-Slab Soil Vapor	Exterior Soil Vapor	Exterior Soil Vapor	Exterior Soil Vapor	Exterior Soil Vapor
Units	ug/m^3	ug/m^3	ug/m^3	ug/m^3	ug/m^3	ug/m^3	ug/m^3	ug/m^3	ug/m^3
1,1-Dichloroethene	U	U	U	U	U	U	U	1.7	U
1,2,4-Trimethylbenzene	U	U	U	U	U	70	18 J	U	U
1,2-Dichloroethene (total)	62	62	U	580	3,100	530	450	690	100 J
1,3,5-Trimethylbenzene	U	U	U	U	U	20 J	U	U	U
1,3-Butadiene	U	U	U	U	U	U	4.3 J	15	30 J
2,2,4-Trimethylpentane	U	U	0.41 J	U	U	59	U	U	U
4-Ethyltoluene	U	U	U	U	U	26 J	U	U	U
Acetone	U	18 J	5.5 J	U	U	U	U	U	U
Benzene	0.75 J	0.76 J	0.87	U	U	22 J	U	4.0 J	U
Carbon Disulfide	U	4.8 J	U	U	U	U	U	U	U
Carbon Tetrachloride	U	0.43 J	0.45	U	U	U	U	U	U
Chloromethane	U	1.3 J	1.0 J	U	U	U	U	U	U
Cis-1,2-Dichloroethene	**59**	**59**	U	**540**	**2,900**	500	430	690	100
Cyclohexane	U	U	0.25 J	U	U	45	U	U	U
Dichlorodifluoromethane	2.3 J	3.0 J	2.1 J	U	U	U	U	U	U
Ethylbenzene	U	U	0.29 J	U	U	110	12 J	U	U
Freon 22	U	U	0.91 J	U	U	U	U	U	U
Freon TF	U	U	0.53 J	U	U	U	U	U	U
Isopropyl alcohol	1.4 J	3.5 J	U	U	U	U	U	U	U
M,P-Xylene	U	U	0.89 J	U	U	380	41 J	U	63 J
Methyl Ethyl Ketone	U	1.7 J	0.60 J	U	U	U	U	U	U
Methylene Chloride	1.2 J	1.3 J	0.63 J	U	U	U	U	U	U
N-Butane	7.8	10	7.9	U	U	180	21 J	71	160
N-Heptane	U	U	0.36 J	U	U	80	U	U	U
N-Hexane	U	U	0.74	U	U	110	U	9.2	U
N-Propylbenzene	U	U	U	U	U	17 J	U	U	U
Tetrachloroethene	**600**	**640**	1.2 J	**15,000**	**74,000**	5,500	2,400	790	12,000
Toluene	1.5	1.7	1.8	U	U	190	25	2.5 J	24 J
Trans-1,2-Dichloroethene	2.6	3.0	U	35	240 J	17 J	18	19	U
Trichloroethene	**50**	**61**	U	**740**	**5,400**	420	330	97	500
Trichlorofluoromethane	1.1	1.5 J	1.2	U	U	U	U	U	U
Vinyl Chloride	0.56	0.75	U	U	U	U	U	9.0	U
Xylene-O	U	U	0.28 J	U	U	120	14 J	U	U
Xylene (total)	U	U	1.2 J	U	U	500	55 J	U	65 J

Notes:
ug/m^3: micrograms per cubic meter
U: Analyzed but not detected
J: Estimated Value
BOLD: Exceeds NYSDOH Soil Vapor/Indoor Air Matrices A through C and/or AGVs

Table 4-1 (continued)

Former Fresh and Clean Laundry Site
VOC Detections in Exterior Soil Vapor, Sub-Slab Soil Vapor, Indoor Air and Outdoor Ambient Air Samples

Sample Location	IADB-1	IADB-2	IADB-3	IADB-4	OADB-1	SSDB-1	SSDB-2
Date	2/28/19	2/28/19	2/28/19	2/28/19	2/28/19	2/28/19	2/28/19
Sample Type	Indoor Air	Indoor Air	Indoor Air	Indoor Air	Outdoor Ambient Air	Sub-slab Soil Vapor	Sub-slab Soil Vapor
Units	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³
1,1,1-Trichloroethane	0.25 J	0.24 J	0.18 J	U	U	U	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.53 J	0.51 J	0.51 J	0.58 J	0.5 J	U	U
1,2-Dichloroethane	0.3 J	0.22 J	U	U	U	U	U
1,4-Dichlorobenzene	U	U	8.9	3.2	U	U	U
2,2,4-Trimethylpentane	0.32 J	0.28 J	0.27 J	0.28 J	0.21 J	U	U
2-Hexanone	U	U	0.47 J	U	U	U	U
Acetone	15 J	23 J	30 J	24	5.3 J	U	U
Benzene	0.77	0.67	0.68	0.68	0.54 J	U	U
Butane	4.5	5	3.2	3	1.9 J	U	U
Carbon Disulfide	0.13 J	0.15 J	0.36 J	0.61 J	0.11 J	U	U
Carbon Tetrachloride	0.28 J	0.43 J	0.44 J	0.44 J	0.38 J	U	U
Chlorodifluoromethane	1	1.1	U	45	1	U	U
Chloromethane	1.6 J	1.2 J	1.3 J	1.5 J	1.4 J	U	U
Cis-1,2-Dichloroethylene	**12**	**10**	**5.2**	**4.5**	U	**630**	**650**
Cyclohexane	0.2 J	0.15 J	0.19 J	0.2 J	U	U	U
Dichlorodifluoromethane	2.6	2.5	2.4	2.5	2.5	U	U
Ethylbenzene	0.31 J	0.33 J	U	U	U	U	U
Isopropyl alcohol	4.1	3.7	4	5.1	2.3 J	U	U
M,P-Xylenes	0.91	1.1	0.84 J	0.63 J	U	U	U
Methyl Ethyl Ketone (2-Butanone)	1.3 J	2.1 J	3.2	1.7 J	0.79 J	U	U
Methylene Chloride	1.7 J	1.5 J	1.4 J	1.9 J	1.3 J	U	U
N-Heptane	0.31 J	0.32 J	0.39 J	0.35 J	0.19 J	U	U
N-Hexane	0.56 J	0.56 J	0.48 J	0.64 J	0.38 J	U	U
O-Xylene(1,2 Dimethylbenzene)	0.31 J	0.35 J	0.34 J	U	U	U	U
Styrene	U	U	U	U	U	58 J	U
Tert-Butyl Alcohol	0.17 J	0.28 J	1.1 J	0.29 J	U	U	U
Tetrachloroethylene (PCE)	**140**	**130**	**63**	**50**	1.1 J	**20,000**	**18,000**
Tetrahydrofuran	U	0.2 J	U	U	U	U	U
Toluene	2 J	2.3 J	1.5 J	1.3 J	0.58 J	U	U
Trans-1,2-Dichloroethene	0.33 J	0.3 J	U	U	U	U	30
Trichloroethylene (TCE)	**7.5**	**7**	**3.7**	**2.9**	U	**930**	**970**
Trichlorofluoromethane	1.2	1.2	1.2	1.2	1.2	U	U
Xylenes, Total	1.2 J	1.5 J	1.2 J	0.63 J	U	U	U

Notes:
Ug/m³: micrograms per cubic meter
U: Analyzed but not detected
J: Estimated Value
BOLD: Exceeds NYSDOH Soil Vapor/Indoor Air Matrices A through C and/or AGVs

Table 4-1 (continued)

Former Fresh and Clean Laundry Site
VOC Detections in Indoor Air, Outdoor Ambient Air and Sub-Slab Soil Vapor Samples

Sample Location	IADB-1	IADB-2	IADB-3	IADB-4	OADB-1	SSDB-1	SSDB-2
Date	1/26/21	1/26/21	1/26/21	1/26/21	1/26/21	1/26/21	1/26/21
Sample Type	Indoor Air	Indoor Air	Indoor Air	Indoor Air	Outdoor Ambient Air	Sub Slab Soil Vapor	Sub Slab Soil Vapor
Units	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³
1,1,1-Trichloroethane	0.42 J	0.23 J	0.2 J	U	U	U	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	U	U	U	U	0.63 J	U	U
1,2,4-Trimethylbenzene	0.38 J	0.44 J	0.24 J	0.22 J	U	U	U
Acetone	18	28	17	17	4 J	390	U
Benzene	0.53 J	1.5 J	0.69	0.53 J	0.48 J	8.3 J	U
Butane	5.7	18 J	3.9	3.1	1.8	7.6 J	U
Carbon Disulfide	U	U	U	0.36 J	U	5.7 J	U
Carbon Tetrachloride	0.4	0.5	0.35	0.37	0.39	U	U
Chlorodifluoromethane	1.2 J	1.8	1.2 J	1.5 J	1	U	U
Chloroform	U	U	U	U	U	5.7 J	U
Chloromethane	1.6	1.6	1.5	1.5	1.2	U	U
Cis-1,2-Dichloroethylene	**8.6**	**4.6**	**2.6**	**2.2**	U	**640**	**1,500**
Cyclohexane	U	0.72	U	U	U	U	U
Cymene	U	U	U	U	0.38 J	U	U
Dichlorodifluoromethane	2.8	2.8	2.9	2.8	2.4 J	U	U
Ethylbenzene	U	U	U	U	0.34 J	6.6 J	U
Isopropyl alcohol	8.3 J	30 J	5.2 J	3 J	U	43 J	U
M,P-Xylenes	2 J	2.6	1.5 J	1 J	U	U	U
Methyl Ethyl Ketone	1.3 J	1.7	1.3 J	0.98 J	U	100	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.39 J	U	U	U	U	U	U
Methylene Chloride	U	1.2 J	U	U	U	U	U
Naphthalene	U	U	U	U	1.5 J	U	U
N-Heptane	0.51 J	U	0.35 J	0.26 J	U	U	U
O-Xylene (1,2-Dimethylbenzene)	U	U	U	U	0.61 J	U	U
Styrene	U	U	U	U	U	7.5 J	U
Tert-Butyl Alcohol	U	0.51 J	0.35 J	0.57 J	U	U	U
Tetrachloroethylene (PCE)	**280**	**110 J**	**62**	**44**	U	**26,000 D**	**49,000 D**
Toluene	1.6	4 J	1.7	1.1	1.1	U	U
Trans-1,2-Dichloroethene	0.78 J	U	U	U	U	36	160
Trichloroethylene (TCE)	**17**	**7.4**	**3.7**	**2.7**	U	**1,100**	**3,600**
Trichlorofluoromethane	1.5	1.8	1.4	1.5	1.1	U	U
Xylenes, Total	2 J	2.6	1.5 J	1 J	0.61 J	U	U

Notes:
Ug/m³: micrograms per cubic meter
U: Analyzed but not detected
J: Estimated Value
D: Reported from secondary dilution
BOLD: Exceeds NYSDOH Soil Vapor/Indoor Air Matrices A through C and/or AGVs

4.2.2 Soil/Sediment Sampling Results

Soil/sediment samples were collected from fourteen locations (SS-01, SS-02, SS-05 through SS-16). All samples were analyzed for TCL VOCs+10. The soil and sediment sample results were compared to NYCRR 6 Part 375 Unrestricted Use SCOs. Compounds that were detected exceeding SCOs in soil and sediment samples above the SCOs are summarized in Table 4-2 below. Figure 4-2 summarizes exceedances of SCGs in soil/sediment samples. Analytical data tables are provided in Appendix F.

Table 4-2

Former Fresh and Clean Laundry Site
VOC Detections in Soil/Sediment Samples

Sample Location	SS-02	SS-05	SS-09	SS-13	SS-15	SS-16	NYCRR 6 Part 375 Unrestricted Use Soil Cleanup (SCO)
Date	5/7/18	5/7/18	5/9/18	8/3/20	2/28/20	2/28/20	
Sample Type	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
2-Butanone (MEK)	**1.0 J**	UJ	0.049 J	U	UJ	UJ	0.12
Acetone	**3.7 J**	UBJ	**0.180 J**	U	UJ	**0.130 J**	0.05
Cis-1,2-Dichloroethene	U	0.0087	UJ	**69.0 J**	UJ	UJ	0.25
Tetrachloroethene	0.039	**3.7 D**	UJ	**7,500**	**3.7**	0.0066	1.3

Notes:
mg/kg: milligrams per kilogram
U: Analyzed but not detected
B: Non-detected based on blank results
D: Reported from secondary dilution
J: Estimated Value
Exceeds Unrestricted Use SCO

As shown above, 2-butanone (MEK) was detected exceeding Unrestricted Use SCOs in sediment sample SS-02 at a concentration of 1.0 mg/kg. Acetone was detected exceeding Unrestricted Use SCO in two soil/sediment samples SS-02 and SS-09 at concentrations of 3.7 mg/kg and 0.18 mg/kg, respectively. Note that acetone and MEK are both known laboratory contaminants. Additionally, PCE was detected exceeding its Unrestricted Use SCO in sediment sample SS-05 at a concentration of 3.7 mg/kg. PCE was also detected in the sample collected from the underground structure on the west side of the Site building indicated the presence of cis-1,2-DCE at 69 mg/kg and PCE at 7,500 mg/kg. These results indicated that there was

hazardous material present within the structure that prompted the removal of the hazardous material out of the structure.

4.2.3 Shallow Soil Borings Sample Results

Soil borings samples were collected from seven locations (SB-05 through SB-08 and SB-10 through SB-12). The subsurface soil samples were analyzed for TCL VOCs+10. The subsurface sample results were compared to NYCRR 6 Part 375 Unrestricted Use SCOs. No compounds exceeded their respective SCOs. Analytical data tables are provided in Appendix F.

4.2.4 Deep Soil Borings Sample Results

Subsurface soil samples were collected from three exterior soil boring locations (SB-17, SB-18 and SB-19). Subsurface soil samples were analyzed for TCL VOCs +10. The subsurface soil results were compared to NYCRR 6 Part 375 Unrestricted Use SCOs. No compounds that were detected exceeded the SCOs. Analytical data tables are provided in Appendix F.

4.2.5 Groundwater Sample Results

Groundwater samples were collected from seven existing monitoring wells (FCMW-1, FCMW-2, FCMW-3, MW-1, MW-3, MW-5 and MW-6). In addition, three discrete-depth groundwater samples were collected from temporary groundwater probe locations (GW-1, GW-2 and GW-3). All groundwater samples collected were analyzed for TCL VOCs +10. Additionally, on-site wells, FCMW-1 and FCMW-3 were analyzed for per- and polyfluoroalkyl substances (PFAS). The groundwater data was compared to Class GA groundwater standards and guidance values and NYSDEC guidance of "Maximum Contaminated Level (MCLs) and Screening Level" for PFOA, PFOS and PFAS. Compounds detected in the existing groundwater monitoring wells above SCGs are summarized in Table 4-3 below. Figures 4-3 and 4-4 summarize the exceedances of NYSDEC Class GA groundwater standards/guidance values and the NYSDOH drinking water standards for PFOA in groundwater. Analytical data tables are provided in Appendix F.

Table 4-3

Former Fresh and Clean Laundry Site
VOC and PFOA Exceedances in Groundwater

Sample Location	FCMW-1	FCMW-2	FCMW-3	MW-1	MW-3	MW-5	GW-01	GW-02	GW-03	NYSDEC Class GA Standard or Guidance Value or MCL
Date	10/5/18	10/2/18	10/5/18	10/3/18	10/3/18	10/5/18	7/28/20	7/30/20	8/5/20	
Tetrachloroethylene (PCE)	**12**	**7.4**	**30**	**85**	**28**	**55**	**20 J**	**85**	**8.2**	5
Trichloroethene (TCE)	U	U	0.89J	3.7	0.56J	U	1.1	**5.2**	U	5
Perfluorooctanoic acid (PFOA)	**27**	NA	**20**	NA	NA	NA	NA	NA	NA	10

Notes:
ug/l: micrograms per liter for PCE
ng/l: nanograms for liter PFOA
NA: Not analyzed
Exceeds Class GA Standard/Guidance Value/NYSDEC Maximum Contaminant Levels (MCLs) and Screening Levels

As shown above, PCE was detected in six of the seven samples collected from the groundwater monitoring wells above the NYSDEC Class GA groundwater standard of 5 ug/l ranging from 7.4 ug/l detected in on-site well FCMW-2 to 85 ug/l detected in off-site well MW-1. Other VOCs were either detected below their respective Class GA groundwater standard or guidance value or were non-detect.

PFOA was detected in both on-site groundwater samples FCMW-1 (27 ng/l) and FCMW-3 (20 ng/l) slightly above the NYSDEC standard of 10 ng/l.

As shown above, PCE was detected in all three of the discrete-depth groundwater samples above the NYSDEC Class GA groundwater standard of 5 ug/l ranging from 8.2 ug/l detected in GW-3 to 85 ug/l detected in GW-2. Additionally, TCE was detected slightly above its NYSDEC Class GA Standard of 5 ug/l in GW-2 at 5.2 ug/l.

4.2.6 Irrigation Well Sampling Results

A groundwater sample was collected from the irrigation well (N-9800) located at the North Shore Country Club approximately 1 mile to the west-northwest. The irrigation well was sampled for TCL VOCs +10. All VOCs were non-detect. Analytical data tables are provided in Appendix F.

4.3 Data Usability Summary Report

A total of 13 groundwater samples, 30 soil/sediment samples, 23 soil vapor samples, two field duplicate, six trip blanks and six field blanks were collected for analysis as part of the remedial investigation completed at the Former Fresh and Clean Laundry Site between March 2018 and January 2021. Groundwater and soil/sediment samples were submitted to TestAmerica Laboratories, located in Buffalo, New York for analysis of VOCs by USEPA Method SW846 8620C and 1,4-Dioxane by USEPA Method 8270D SIM. In addition, two groundwater water samples were also submitted to TestAmerica Laboratories, Inc. located in West Sacramento, California for analysis of Per- and Polyfluoroalkyl Substances (PFAs) by USEPA method 537. Indoor air, sub-slab, ambient and soil vapor samples were submitted to TestAmerica Laboratories located in Knoxville, Tennessee and South Burlington, Vermont for analysis of VOCs by USEPA Method TO-15.

TestAmerica Laboratories of Buffalo, New York provided 13 NYSDEC Analytical Services Protocol (ASP) Category B Sample Deliverable Group (SDG) laboratory packages (480-135583, 480-135770, 480-142938, 480-143017, 480-163422, 480-165592, 480-166872, 480-173121, 480-173124, 480-173185, 480-173191, 480-173359, and 480-173515) for review. TestAmerica Laboratories of Knoxville, Tennessee provided one NYSDEC ASP Category B SDG laboratory package, 140-14470, for review. TestAmerica Laboratories of South Burlington, Vermont provided three NYSDEC ASP Category B SDG laboratory packages (200-42649, 200-43364, and 200-57029) for review. TestAmerica Laboratories of Sacramento, California provided one NYSDEC ASP Category B SDG laboratory package, 320-44490, for review. These data packages were reviewed by Ms. Donna Brown, D&B's Quality

Assurance/Quality Control (QA/QC) Officer. Ms. Brown meets the New York State Department of Environmental Conservation (NYSDEC) requirements of a data validator as listed in the DER-10 Technical Guidance for Site Investigation and Remediation, dated June 2010. The review of the data was conducted in accordance with NYSDEC 7/05 ASP QA/QC requirements, as well as DER-10.

All samples were analyzed using the proper methods and within the method-specified holding times, in accordance with the 2005 NYSDEC ASP. The internal standard area counts, and spike recoveries were within QC limits except where noted below. Initial and continuing calibrations were analyzed at the method specified frequency and were within QC limits. Raw data confirmed the reported sample results. The following sample results were qualified based on validation of the data:

- Perfluorooctanesulfonic acid (PFOS) was detected in the method blank and was reanalyzed outside of holding time for all water samples. The reanalysis for perfluorooctanesulfonic acid (PFOS) was reported for all water samples and was qualified as estimated (J) in data package 320-44490.

- Perfluorohexanesulfonic acid (PFHxS) was detected in the field blank and method blank. The concentration of perfluorohexanesulfonic acid (PFHxS) in the groundwater samples were over ten times higher than the concentration found in the blank therefore the B qualifier was removed, and the water samples were qualified as estimated (J) in data package 320-44490.

- 1,4-Dioxane in sample FCMW-2 was qualified by the laboratory with an "E" for a bias corrected concentration based on the recovery of the 1,4-Dioxane-d8 isotope. Based upon review of the data 1,4-dioxane was qualified as estimated (J) in sample FCMW-2.

- The following samples VOCs were outside of holding time and were qualified as estimated (J/UJ): samples SB-17 (23'-25'), SB-17 (105'-107'), SB-18 (11'-13'), SB-19 (7'-8'), SB-19 (110'-112'), and all results except SS-12 (0-6") in data package 480-135770.

- Trichloroethene was detected in the method blank, the laboratory "B" qualifier was removed from samples IADB-1, IADB-2, and SSDB-1 based on sample concentrations.

- Isopropyl alcohol was detected in the method blank and qualified as non-detect (UB) in sample OADB-1 in data package 200-42649.

- Acetone was detected in the field blank or trip blank and was qualified as non-detect (UB) in samples FCMW-3, GW-19 (113’-118’), SS-05 (0”-6”), SS-06 (0”-6”), SS-06 (12”-14”), SS-06 (22”-24”), SS-07 (9”-11”), SS-07 (6”-8”), SS-08 (0”-6"), SB-08 (1’-3'), SB-08 (10’-12'), SS-10 (0”-6"), SB-11 (10’-12'), SB-10 (5’-7'), SS-12 (0”-6") and SB-12 (10’-12').

- N-butylbenzene, ethylbenzene,o-xylene, ethylbenzene and o-xylene were detected in the method blanks and were qualified as non-detect (UB) in samples IADB-1, IADB-2, IADB-3, IADB-4, Blind Duplicate in data package 200-57029.

- The percent recovery (%R) for tetrachloroethane was above the QC limit in the matrix spike (MS) and MS duplicate (MSD) and was qualified as estimated (J) in sample GW-1.

- The %Rs were below the QC limit for 2-butanone and acetone in the MS and MSD associated with all samples and were qualified as estimated (J/UJ) in data package 480-135583.

- The %Rs were below the QC limits in the MS and/or MSD for all compounds except 1,1-dichloroethane, 1,1-dichloroethene, bromomethane, carbon disulfide, methyl acetate, methyl tert-butyl ether, methylene chloride and tetrachloroethene. The RPDs were above the QC limits for several compounds in the MS/MSD. The %R was below the QC limit for chloroethane in the LCS associated sample SS-16 (0’-1’). All compounds were qualified as estimated (J/UJ) except 1,1-dichloroethane, 1,1-dichloroethene, bromomethane and carbon disulfide, methyl acetate, methyl tert-butyl ether, methylene chloride and tetrachloroethene in all samples in data package 480-166872.

- The %Rs were below the QC limits for 1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, 1,2,4-trichlorobenzene, 1,2-dibromoethane, 1,2-dichlorobenzene, 2-butanone, cis-1,3-dichloropropene, ethylbenzene and styrene in the MS and/or MSD. They were qualified as an estimated detection limit (UJ) in samples SB-17 (23’-25’) and SB-17 (105’-107’).

- The area was above the QC limit for the internal standard 1,4-dichlorobenzene-d4 in samples SS-01 (0-6") and SS-02 (0-6"); and chlorobenzene-d5 in sample SS-02 (0-6"). The following compounds were qualified as estimated bias high (JH) or an estimated detection limit (UJ): 1,2-dibromo-3-chloropropane, 1,4-dichlorobenzene, 1,2-dichlorobenzene in samples SS-01 (0-6") and SS-02 (0-6"); and 1,1,2,2-tetrachloroethane, 1,3-dichlorobenzene, bromoform, chlorobenzene, ethylbenzene, isopropylbenzene, styrene and total xylene in sample SS-02 (0-6").

- Tetrachloroethene exceeded the calibration range in original analysis for samples SS-05 (0-6”), SSDB-1, and SSDB-2. It was reanalyzed and reported from the secondary dilution (D).

- Sample IADB-2 was field duplicated and labeled BLIND DUPLICATE_1/26/21. The following compounds were qualified as estimated (J) in samples IADB-2 and BLIND DUPLICATE_1/26/21: benzene, butane, isopropanol, tetrachloroethylene (PCE) and toluene.

Based on the findings of the data validation process, the results have been deemed valid and usable for environmental assessment purposes as qualified above. Copies of the data validation checklists are provided in Appendix G.

5.0 QUALITATIVE HUMAN HEALTH EXPOSURE ASSESSMENT

The purpose of this qualitative exposure assessment is to determine: 1) the degree to which on-site contamination poses a threat to human health; 2) the conditions under which the contamination poses the threat; and, 3) the extent of remediation required because of the threat. To determine the degree of exposure and the associated need for remediation, the likelihood of human exposure pathways being completed was evaluated. The findings of this assessment, together with the investigation activities contained in Section 2.0 and the conclusions provided in Section 6.0, will form the basis for determining the need for remediation of the Site.

Exposure to contaminants occurs when an exposure pathway is complete. An exposure pathway has five elements: 1) a contaminant source (e.g., waste disposal area or point of discharge); 2) contaminant release and transport mechanism; 3) a point of exposure (a location where human contact with the medium takes place); 4) a route of exposure (i.e., ingestion, inhalation, or dermal absorption); and 5) a receptor population. An exposure pathway is said to be complete when each of the five elements is present. If one or more of the elements is absent, the pathway is said to be potentially complete. An exposure pathway may be eliminated from consideration if any one of the five elements has not existed in the past, does not exist in the present, and will never exist in the future.

The following sections address each of the five elements of the potential exposure pathways. The first and last elements (contaminant source and receptor population) are discussed in Sections 5.1 and 5.2. The remaining elements of the exposure pathway are discussed in Sections 5.3 through 5.6 in relation to each contaminant medium investigated. Section 5.7 provides conclusions of the exposure assessment.

5.1 Contaminant Source

Prior investigations identified several contaminant source areas at the Site. These areas included several on-site dry wells located on the eastern side of the Site building that were remediated. Investigation activities performed during the RI, identified a northern and southern

underground structure west of the Site building that contained heavily impacted material and is likely a source of on-site contamination. Contaminants associated with dry cleaning activities were released from the drainage system and contaminated soil vapor, soil, sediment and groundwater at the Site. Elevated levels of VOCs, primarily PCE were found in shallow soil and sediment samples, PCE and TCE in groundwater and cis-1,2-DCE, PCE and TCE in indoor air, exterior soil vapor and sub-slab soil vapor samples.

The results of this remedial investigation indicate that VOCs are present at concentrations above SCGs in soil/sediment, groundwater, soil vapor and indoor air at the Site.

5.2 Receptor Population

The Site is currently occupied and is located in a medium-density commercial/residential area. The property is bounded to the north by School Street followed by commercial properties, to the south by commercial properties, to the west by a large parking area and Long Island Railroad Glen Head Station and to the east by property owned by the North Shore School District. Residential properties are located further west beyond the train tracks, northeast of the Site and south beyond the adjoining commercial properties. The Site and surrounding area are served by public water, the nearest public water supply well is approximately 500 feet north of the Site and is operated by New York American Water. The Site is privately owned, with the basement being currently occupied by a consignment shop and the first floor occupied by an educational tutor service. Potential human receptors at the Site include employees that work within the building, customers of those businesses and construction and/or utility workers. Individuals working in or entering the building could encounter indoor air. Individuals conducting potential future construction activities at the Site could encounter impacted soil/sediment and soil vapor.

5.3 Soil/Sediment

Soil/sediment is a potential release and transport mechanism at the Site. VOCs, specifically tetrachloroethene exceeded UU-SCOs in a drywell located on the east and an

underground structured on the west side of the Site building and within shallow soil/sediment collected from a floor drain located inside the Site building. Possible routes of exposure to contaminants in soil/sediment include ingestion, inhalation, and dermal absorption.

Ingestion is a potential exposure route, although it is unlikely that intentional ingestion of soil would occur. Inhalation is a potential exposure route if soil/sediment becomes airborne. Inhalation is possible if soil/sediment is disturbed or left without vegetative cover. The likelihood of exposure to soil/sediment is low under current site conditions and moderate for potential future development that would likely involve excavating, stockpiling, and re-grading soil. This exposure pathway is potentially complete.

Dermal absorption is a potential exposure route, although it is unlikely that contact with the soil/sediment will occur. Since the two potential exposure pathways are located beneath covers, contact is unlikely. Dermal contact with soil/sediment would likely be for a short duration. The likelihood of exposure to soil/sediment is low under current site conditions and moderate for potential future development that would likely involve excavating, stockpiling, and re-grading soils. This exposure pathway is potentially complete.

5.4 Subsurface Soil

Subsurface soil is a not potential release and transport mechanism since there were no exceedances in subsurface soil.

The exposure pathway is incomplete.

5.5 Groundwater

Groundwater is another contaminant release and transport mechanism at the Site. The VOCs PCE and TCE were detected at concentrations above SCGs in groundwater samples collected from on-site and off-site wells at the Site.

Groundwater flow on-site and in the immediate vicinity is to the north-northwest. Based on the depth to groundwater, approximately 100 feet below ground surface, it is unlikely that the levels of VOCs in groundwater have any impact on any surface water in the immediate area. Potential groundwater exposure points include the monitoring wells.

Public water is available at and near the Site. Businesses and residences located near the Site obtain potable water from public water supply sources. The nearest public water supply well is located approximately 500 feet to the north-northwest. Public water suppliers would treat water prior to distribution if concentrations of VOCs above standards were found in the public water supply well. Ingestion, inhalation, and dermal contact could occur if groundwater is used for drinking, cooking, bathing, cleaning, or gardening; however, it is unlikely that new supply wells would be developed at the Site.

Due to the restricted access to groundwater at a depth of over 100 feet below ground surface and unlikely development of a new groundwater supply source, exposure to contaminated groundwater emanating from the Site is unlikely. As a result, exposure to groundwater poses a low risk and is a potentially complete pathway.

5.6 Indoor Air/Soil Vapor

Soil vapor is another contaminant release and transport mechanism at the Site. Several VOCs were detected at concentrations above SCGs in the indoor air and sub-slab soil vapor samples collected within the Site building and exterior soil vapor samples around the vicinity of the Site indicated high concentrations of VOCs. Specifically, concentrations in indoor air exceeded the NYSDOH Decision Matrices for indoor air samples collected from the first floor and basement of the Site building.

Possible routes of exposure to soil vapor contaminants include inhalation. Under current site conditions, the likelihood of exposure to vapor contaminants is high. An April 4, 2019, letter from the NYSDOH was sent to the property owner identifying that based on review of available

data, soil vapor intrusion from site-related contaminates appears to be occurring within the Site building. As a result, this exposure pathway is complete.

5.7 Conclusions

Exposure to contaminants originating from the Former Fresh and Clean Laundry Site can come from any one of three media, which include surface soil/sediment, groundwater and soil vapor. Table 5-1 provides a summary status of exposure pathways identified at the Site. Based on the RI results and qualitative exposure assessment, current and future exposure to VOCs in shallow soil/sediment is unlikely under current site conditions, however, exposure to contaminated shallow soil/sediment poses a potential risk to human health if the shallow soil/sediment is exposed within the drywell or floor drain located inside the building. Exposure to VOCs in contaminated groundwater under current conditions is unlikely. Exposure to soil vapors under current site conditions is likely and poses a risk to human health and requires mitigation based on the results of this RI investigation.

TABLE 5-1

FORMER FRESH AND CLEAN LAUNDRY SITE
REMEDIAL INVESTIGATION
EXPOSURE PATHWAY STATUS FOR HUMAN RECEPTORS

Media	Exposure Point	Route of Exposure	Current Pathway Status	Future Pathway Status
Soil/Sediment	Basement floor drain/drywell	Ingestion	Potentially complete	Potentially complete
	Basement floor drain/drywell	Inhalation	Potentially complete	Potentially complete
	Basement floor drain/drywell	Dermal Contact	Potentially complete	Potentially complete
Subsurface Soil	Subsurface	Ingestion	Potentially complete, but unlikely	Potentially complete
	Subsurface	Inhalation	Potentially complete, but unlikely	Potentially complete
	Subsurface	Dermal Contact	Potentially complete, but unlikely	Potentially complete
Groundwater	Monitoring wells	Ingestion	Potentially complete, but unlikely	Potentially complete
	Monitoring wells	Inhalation	Potentially complete, but unlikely	Potentially complete
	Monitoring wells	Dermal Contact	Potentially complete, but unlikely	Potentially complete
Soil Vapor	Basement/first floor or open excavations (such as utility trenches).	Inhalation	Complete	Complete

6.0 CONCLUSIONS AND RECOMMENDATIONS

The objectives of the RI for the Former Fresh and Clean Laundry Site were to:

- Determine the nature and extent of contamination at the Site;
- Determine whether existing or potential impacts to human health and the environment exist; and
- Determine if remediation is warranted.

A primary focus of the RI was to continue delineating contamination at and near the Site, through soil/sediment sampling, groundwater sampling and on-site soil vapor intrusion investigations.

6.1 Conclusions

- Cis-1,2-DCE, PCE and TCE were detected at concentrations in the soil vapor/indoor air at levels requiring mitigation during each of the three completed indoor air sampling events. Elevated concentrations of cis-1,2-DCE, PCE and TCE were also detected within four off-site exterior soil vapor samples collected.
- PCE was detected above UU-SCOs from on-site exterior dry well (SS-05) and one interior floor drain/dry well structure (SS-15). The highest concentrations of PCE was detected within SS-13 associated with the southern underground structure, which was cleaned out. There were no soil exceedances detected in any of the deep soil borings that were completed.
- PCE was detected in six of the seven monitoring wells at concentrations ranging from 7.4 ug/l to 85 ug/l. PCE was also detected in all three discrete groundwater probes at concentrations ranging from 8.2 ug/l to 85 ug/l.

6.2 Recommendations

- Given the extremely elevated indoor air results of the Site building and as documented in the April 4, 2019, letter from the NYSDOH to the property owner, it is recommended to notify the building owner again of the indoor air exceedances and follow up regarding the recommendation for the installation of a sub-slab depressurization system (SSDS) at the Site building as well as other mitigative measures that can be immediately implemented.

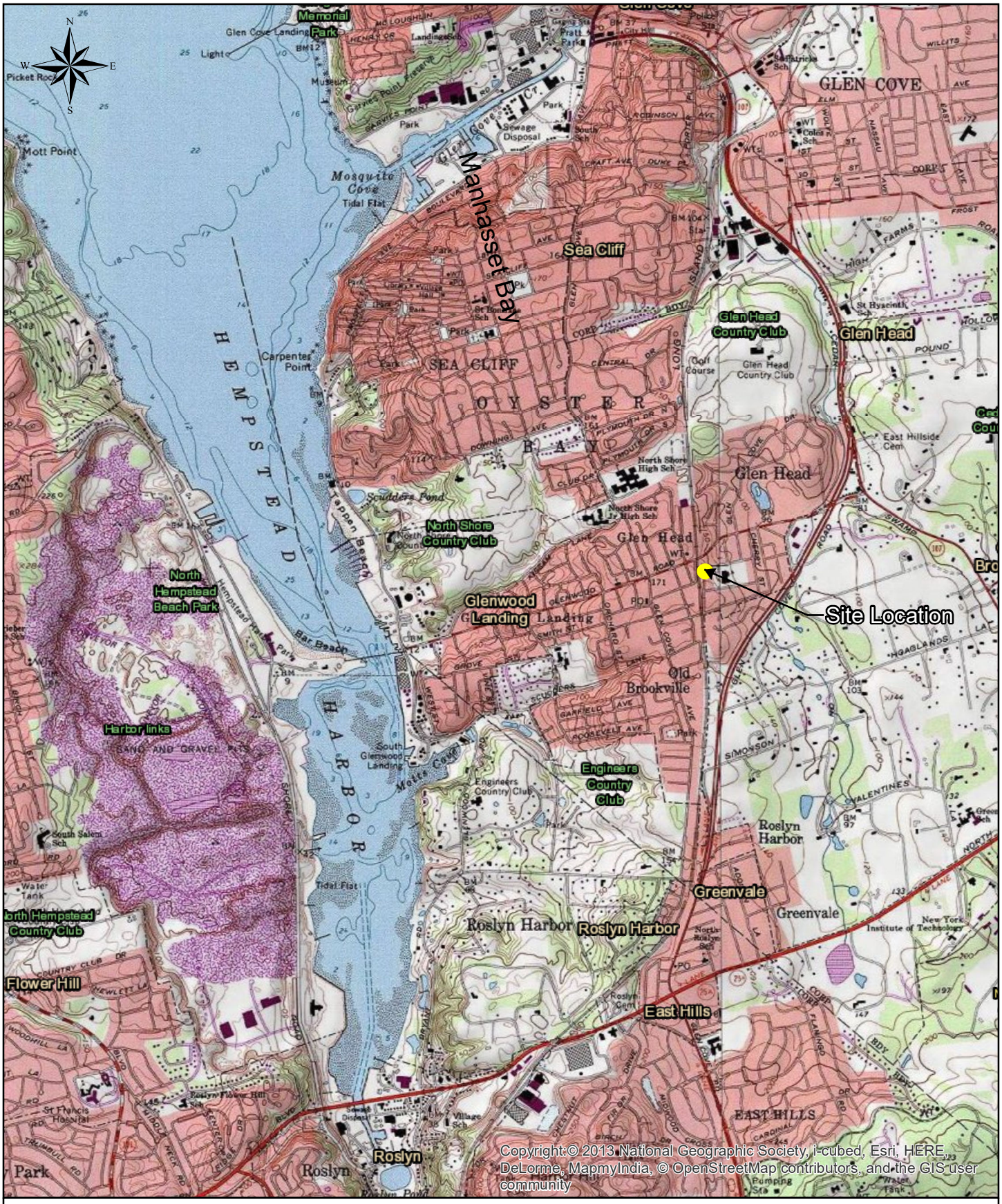
- Based on the presence of elevated levels of VOCs in the exterior soil vapor samples, a soil vapor intrusion investigation on nearby properties should be conducted to evaluate potential impacts. The Department has previously offered to conduct a soil vapor intrusion evaluation at adjoining properties, which was declined. This offer should be renewed.

- Additional investigation to determine the connection between the western underground structures and the Site building to determine if there are any other potential sources of contamination impacting the Site.

- Monitor groundwater quality from the existing network of site monitoring wells following the completion of northern underground structure cleanout and any subsequent remedial activities at the Site.

- Perform additional investigation, as needed, to determine if there are any other remaining sources of contamination on-site that may be impacting soil vapor/indoor air, soil and groundwater quality. Modify the exposure assessment, conclusions and recommendations for the Site as necessary.

FIGURES



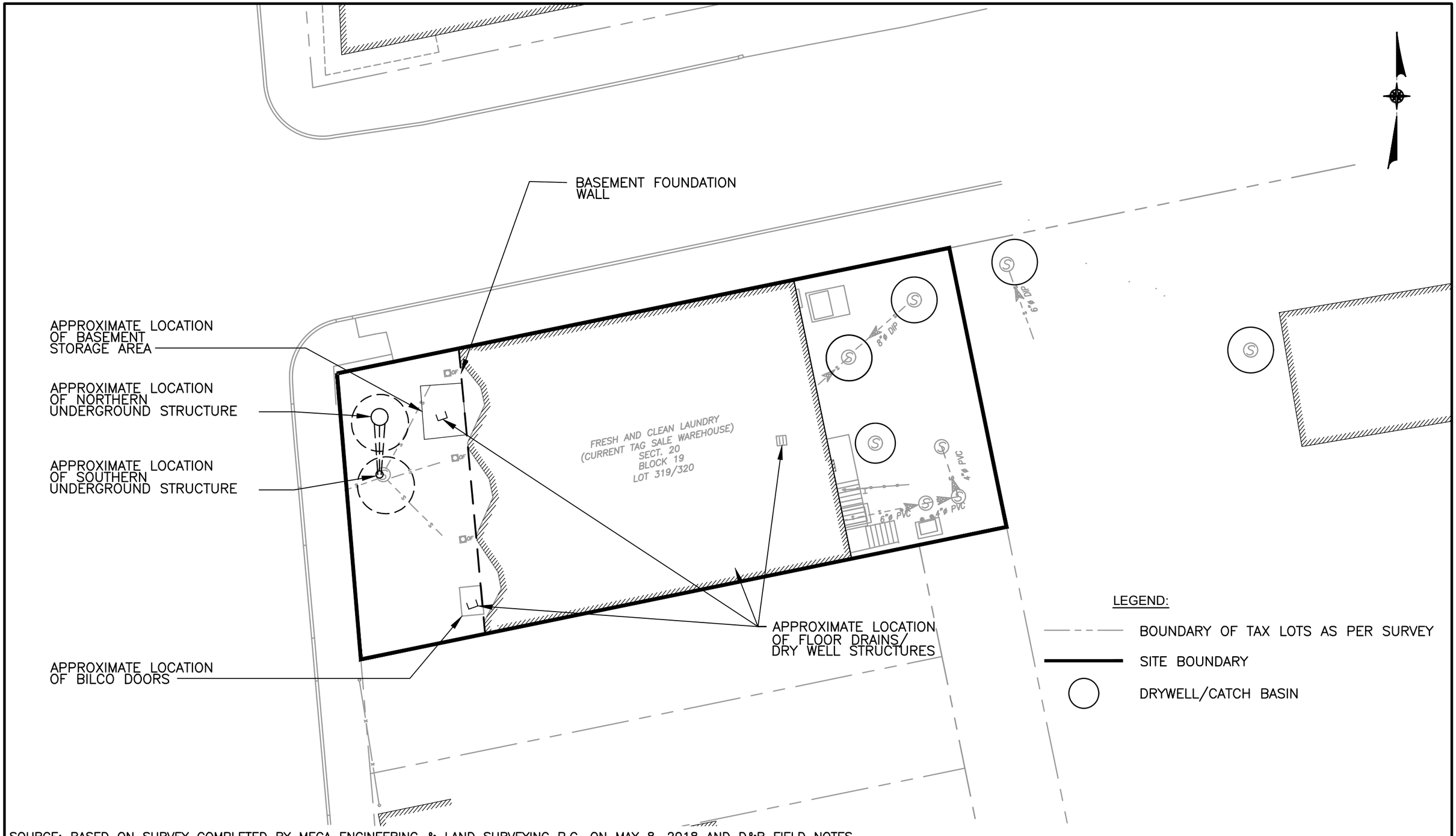
FORMER FRESH AND CLEAN LAUNDRY SITE
GLEN HEAD, NEW YORK

D&B ENGINEERS AND ARCHITECTS

SITE LOCATION MAP

Figure 1-1

L:\3150 37 (FormerFresh)\Figure 1-1 Site Location Map.mxd (9/23/2021)



SOURCE: BASED ON SURVEY COMPLETED BY MEGA ENGINEERING & LAND SURVEYING P.C. ON MAY 8, 2018 AND D&B FIELD NOTES

D&B ENGINEERS AND ARCHITECTS

FORMER FRESH AND CLEAN LAUNDRY SITE
GLEN HEAD, NEW YORK

SITE PLAN

SCALE:1"=16'

FIGURE 1-2

F:\3150-37B\DWG\3150-37B-FIG 1-2.dwg, Layout1, 2/7/2022 7:37:20 AM, rferrell

MW-6

BASEMENT FOUNDATION WALL

APPROXIMATE LOCATION OF FLOOR DRAIN/ DRYWELL STRUCTURE

APPROXIMATE LOCATION OF BASEMENT STORAGE AREA

APPROXIMATE LOCATION OF NORTHERN UNDERGROUND STRUCTURE

APPROXIMATE LOCATION OF SOUTHERN UNDERGROUND STRUCTURE

APPROXIMATE LOCATION OF BILCO DOORS

APPROXIMATE LOCATION OF FLOOR DRAIN/ DRY WELL STRUCTURE

APPROXIMATE LOCATION OF FLOOR DRAIN/ DRY WELL STRUCTURE

SS-14
SS-13
SS-16
SS-15
SS-09
SS-10 SB-10
SS-11 SB-11
SS-12 SB-12
SS-08 SB-08
SS-05 SB-05
SS-07 SB-07
SS-06 SB-06
SS-02
SS-01

FCMW-1
FCMW-2
FCMW-3

SB-18 GW-02
SB-17 GW-01
SB-19 GW-03

IADB-1
IADB-2
IADB-3
IADB-4
SSDB-1
SSDB-2
FCSV-03
FCSV-04

FRESH AND CLEAN LAUNDRY (CURRENT TAG SALE WAREHOUSE)
SECT. 20
BLOCK 19
LOT 319/320

8" Ø DIP
6" Ø DIP
4" Ø PVC

LEGEND:

FCMW-2	EXISTING MONITORING WELL LOCATION
GW-01	DISCRETE DEPTH GROUNDWATER SAMPLE LOCATION
SS-06	SOIL BORING/SEDIMENT SAMPLE LOCATION
FCSV-01	AMBIENT/INDOOR AIR/SUB-SLAB SOIL VAPOR AIR SAMPLE LOCATION
	BOUNDARY OF TAX LOTS AS PER SURVEY
	SITE BOUNDARY

NOTE:
Two indoor air samples IADB-3 and IADB-4 were collected on the first floor of the building.

SOURCE: BASED ON SURVEY COMPLETED BY MEGA ENGINEERING & LAND SURVEYING P.C. ON MAY 8, 2018 AND D&B FIELD NOTES

D&B ENGINEERS AND ARCHITECTS

FORMER FRESH AND CLEAN LAUNDRY SITE
GLEN HEAD, NEW YORK

SAMPLE LOCATION MAP

SCALE:1"=16'

FIGURE 2-1

F:\3150-37B\DWG\3150-37B-FIG 2-1.dwg, Layout1, 2/7/2022 7:34:44 AM, rferrell

SOURCE: BASED ON SURVEY COMPLETED BY MEGA ENGINEERING & LAND SURVEYING P.C. ON MAY 8, 2018 AND YEC, INC. ON OCTOBER 6, 1999 AND JUNE 27, 2000 AND D&B FIELD NOTES

D&B ENGINEERS AND ARCHITECTS

FORMER FRESH AND CLEAN LAUNDRY SITE
GLEN HEAD, NEW YORK

GROUNDWATER TABLE CONTOUR MAP

SCALE:1"=100'

FIGURE 3-1

F:\3150-37B\DWG\3150-37B-FIG 3-1.dwg, Layout1, 2/3/2022 2:48:30 PM, rferrell

Sample ID	IADB-4	IADB-4
Sampling Date	02/28/19	01/26/21
Sample Type:	Indoor	Indoor
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.58 J	U
1,2,4-Trimethylbenzene	U	0.22 J
1,4-Dichlorobenzene	3.2	U
2,2,4-Trimethylpentane	0.28 J	U
Acetone	24	17
Benzene	0.68	0.53 J
Butane	3	3.1
Carbon Disulfide	0.61 J	0.36 J
Carbon Tetrachloride	0.44 J	0.37
Chlorodifluoromethane	45	1.5 J
Chloromethane	1.5 J	1.5
Cis-1,2-Dichloroethylene	4.5	2.2
Cyclohexane	0.2 J	U
Dichlorodifluoromethane	2.5	2.8
Isopropyl alcohol	5.1	3 J
M,P-Xylenes	0.63 J	1 J
Methyl Ethyl Ketone (2-Butanone)	1.7 J	0.98 J
Methylene Chloride	1.9 J	U
N-Heptane	0.35 J	0.26 J
N-Hexane	0.64 J	U
Tert-Butyl Alcohol	0.29 J	0.57 J
Tetrachloroethylene (PCE)	50	44
Toluene	1.3 J	1.1
Trichloroethylene (TCE)	2.9	2.7
Trichlorofluoromethane	1.2	1.5
Xylenes, Total	0.63 J	1 J

Sample ID	IADB-1	IADB-1	IADB-1
Sampling Date	03/14/18	02/28/19	01/26/21
Sample Type:	Indoor	Indoor	Indoor
1,1,1-Trichloroethane	U	0.25 J	0.42 J
1,1,2-Trichloro-1,2,2-Trifluoroethane	U	0.53 J	U
1,2,4-Trimethylbenzene	U	U	0.38 J
1,2-Dichloroethane	U	0.3 J	U
2,2,4-Trimethylpentane	U	0.32 J	U
Acetone	U	15 J	18
Benzene	0.75 J	0.77	0.53 J
Butane	7.8	4.5	5.7
Carbon Disulfide	U	0.13 J	U
Carbon Tetrachloride	U	0.28 J	0.4
Chlorodifluoromethane	U	1	1.2 J
Chloromethane	U	1.6 J	1.6
Cis-1,2-Dichloroethylene	59	12	8.6
Cyclohexane	U	0.2 J	U
Dichlorodifluoromethane	2.3 J	2.6	2.8
Ethylbenzene	U	0.31 J	UB
Isopropyl alcohol	1.4 J	4.1	8.3 J
M,P-Xylenes	U	0.91	2 J
Methyl Ethyl Ketone (2-Butanone)	U	1.3 J	1.3 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	U	U	0.39 J
Methylene Chloride	1.2	1.7 J	U
N-Heptane	U	0.31 J	0.51 J
N-Hexane	U	0.56 J	U
O-Xylene (1,2-Dimethylbenzene)	U	0.31 J	UB
Tert-Butyl Alcohol	U	0.17 J	U
Tetrachloroethylene (PCE)	600	140	280
Toluene	1.5 J	2 J	1.6
Trans-1,2-Dichloroethene	2.6 J	0.33 J	0.78 J
Trichloroethylene (TCE)	50 B	7.5	17
Trichlorofluoromethane	1.1 J	1.2	1.5
Vinyl Chloride	0.56	U	U
Xylenes, Total	U	1.2 J	2 J

Sample ID	SSDB-1	SSDB-1	SSDB-1
Sampling Date	03/14/18	02/28/19	01/26/21
Sample Type:	Sub slab	Sub slab	Sub slab
Acetone	U	U	390
Benzene	U	U	8.3 J
Butane	U	U	7.6 J
Carbon Disulfide	U	U	5.7 J
Chloroform	U	U	5.7 J
Cis-1,2-Dichloroethylene	540	630	640
Ethylbenzene	U	U	6.6 J
Isopropyl alcohol	U	U	43 J
Methyl Ethyl Ketone (2-Butanone)	U	U	100
Styrene	U	58 J	7.5 J
Tetrachloroethylene (PCE)	15000	20000	26000 D
Trans-1,2-Dichloroethene	2 J	U	36
Trichloroethylene (TCE)	740 B	930	1100

Sample ID	OADB-1	OADB-1	OADB-1
Sampling Date	03/14/18	02/28/19	01/26/21
Sample Type:	Outdoor	Outdoor	Outdoor
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.53 J	0.5 J	0.63 J
2,2,4-Trimethylpentane	0.41 J	0.21 J	U
Acetone	5.5 J	5.3 J	4 J
Allyl Chloride (3-Chloropropene)	U	U	U
Benzene	0.87	0.54 J	0.48 J
Butane	7.9	1.9 J	1.8
Carbon Disulfide	U	0.11 J	U
Carbon Tetrachloride	0.45	0.38 J	0.39
Chlorodifluoromethane	0.91 J	1	1 J
Chloromethane	1.0 J	1.4 J	1.2
Cyclohexane	0.25 J	U	U
Cymene	U	U	0.38 J
Dichlorodifluoromethane	2.1 J	2.5	2.4 J
Ethylbenzene	0.29 J	U	0.34 J
Isopropyl alcohol	1.6 BJ	2.3 J	U
M,P-Xylenes	0.89 J	U	U
Methyl Ethyl Ketone (2-Butanone)	0.60 J	0.79 J	U
Methylene Chloride	0.63 J	1.3 J	U
Naphthalene	U	U	1.5 J
N-Heptane	0.36 J	0.19 J	U
N-Hexane	0.74	0.38 J	U
O-Xylene (1,2-Dimethylbenzene)	0.28 J	U	0.61 J
Tetrachloroethylene (PCE)	1.2 J	1.1 J	U
Toluene	1.8	0.58 J	1.1
Trichlorofluoromethane	1.2	1.2	1.1
Xylenes, Total	1.2 J	U	0.61 J

Sample ID	FCSV-01
Sampling Date	05/07/18
Sample Type:	Soil Vapor
1,2,4-Trimethylbenzene	70
1,2-Dichloroethene (total)	530
1,3,5-Trimethylbenzene	20 J
2,2,4-Trimethylpentane	59
4-Ethyltoluene	26 J
Benzene	22 J
Cis-1,2-Dichloroethene	500
Cyclohexane	45
Ethylbenzene	110
M,P-Xylene	380
N-Butane	180
N-Heptane	80
N-Hexane	110
N-Propylbenzene	17 J
Tetrachloroethene	5,500
Toluene	190
Trans-1,2-Dichloroethene	17 J
Trichloroethene	420
Xylene-O	120
Xylene (total)	500

Sample ID	FCSV-02
Sampling Date	05/07/18
Sample Type:	Soil Vapor
1,2,4-Trimethylbenzene	18 J
1,2-Dichloroethene (total)	450
1,3-Butadiene	4.3 J
Cis-1,2-Dichloroethene	430
Ethylbenzene	12 J
M,P-Xylene	41 J
N-Butane	21 J
Tetrachloroethene	2,400
Toluene	25
Trans-1,2-Dichloroethene	18
Trichloroethene	330
Xylene-O	14 J
Xylene (total)	55 J

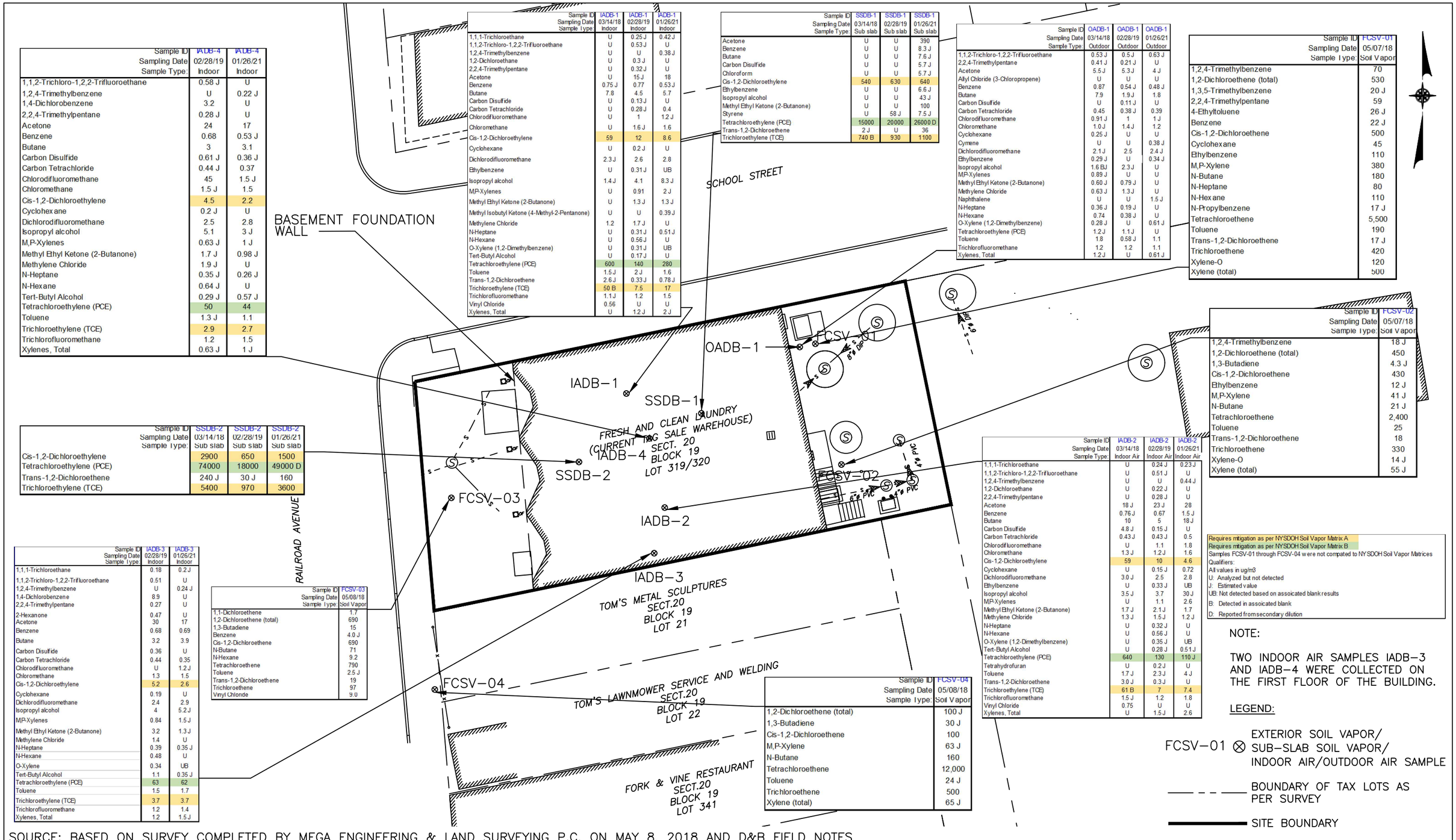
Sample ID	SSDB-2	SSDB-2	SSDB-2
Sampling Date	03/14/18	02/28/19	01/26/21
Sample Type:	Sub slab	Sub slab	Sub slab
Cis-1,2-Dichloroethylene	2900	650	1500
Tetrachloroethylene (PCE)	74000	18000	49000 D
Trans-1,2-Dichloroethene	240 J	30 J	160
Trichloroethylene (TCE)	5400	970	3600

Sample ID	IADB-2	IADB-2	IADB-2
Sampling Date	03/14/18	02/28/19	01/26/21
Sample Type:	Indoor Air	Indoor Air	Indoor Air
1,1,1-Trichloroethane	U	0.24 J	0.23 J
1,1,2-Trichloro-1,2,2-Trifluoroethane	U	0.51 J	U
1,2,4-Trimethylbenzene	U	U	0.44 J
1,2-Dichloroethane	U	0.22 J	U
2,2,4-Trimethylpentane	U	0.28 J	U
Acetone	18 J	23 J	28
Benzene	0.76 J	0.67	1.5 J
Butane	10	5	18 J
Carbon Disulfide	4.8 J	0.15 J	U
Carbon Tetrachloride	0.43 J	0.43 J	0.5
Chlorodifluoromethane	U	1.1	1.8
Chloromethane	1.3 J	1.2 J	1.6
Cis-1,2-Dichloroethylene	59	10	4.6
Cyclohexane	U	0.15 J	0.72
Dichlorodifluoromethane	3.0 J	2.5	2.8
Ethylbenzene	U	0.33 J	UB
Isopropyl alcohol	3.5 J	3.7	30 J
M,P-Xylenes	U	1.1	2.6
Methyl Ethyl Ketone (2-Butanone)	1.7 J	2.1 J	1.7
Methylene Chloride	1.3 J	1.5 J	1.2 J
N-Heptane	U	0.32 J	U
N-Hexane	U	0.56 J	U
O-Xylene (1,2-Dimethylbenzene)	U	0.35 J	UB
Tert-Butyl Alcohol	U	0.28 J	0.51 J
Tetrachloroethylene (PCE)	640	130	110 J
Tetrahydrofuran	U	0.2 J	U
Toluene	1.7 J	2.3 J	4 J
Trans-1,2-Dichloroethene	3.0 J	0.3 J	U
Trichloroethylene (TCE)	61 B	7	7.4
Trichlorofluoromethane	1.5 J	1.2	1.8
Vinyl Chloride	0.75	U	U
Xylenes, Total	U	1.5 J	2.6

Sample ID	IADB-3	IADB-3
Sampling Date	02/28/19	01/26/21
Sample Type:	Indoor	Indoor
1,1,1-Trichloroethane	0.18	0.2 J
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.51	U
1,2,4-Trimethylbenzene	U	0.24 J
1,4-Dichlorobenzene	8.9	U
2,2,4-Trimethylpentane	0.27	U
2-Hexanone	0.47	U
Acetone	30	17
Benzene	0.68	0.69
Butane	3.2	3.9
Carbon Disulfide	0.36	U
Carbon Tetrachloride	0.44	0.35
Chlorodifluoromethane	U	1.2 J
Chloromethane	1.3	1.5
Cis-1,2-Dichloroethylene	5.2	2.6
Cyclohexane	0.19	U
Dichlorodifluoromethane	2.4	2.9
Isopropyl alcohol	4	5.2 J
M,P-Xylenes	0.84	1.5 J
Methyl Ethyl Ketone (2-Butanone)	3.2	1.3 J
Methylene Chloride	1.4	U
N-Heptane	0.39	0.35 J
N-Hexane	0.48	U
O-Xylene	0.34	UB
Tert-Butyl Alcohol	1.1	0.35 J
Tetrachloroethylene (PCE)	63	62
Toluene	1.5	1.7
Trichloroethylene (TCE)	3.7	3.7
Trichlorofluoromethane	1.2	1.4
Xylenes, Total	1.2	1.5 J

Sample ID	FCSV-03
Sampling Date	05/08/18
Sample Type:	Soil Vapor
1,1-Dichloroethene	1.7
1,2-Dichloroethene (total)	690
1,3-Butadiene	15
Benzene	4.0 J
Cis-1,2-Dichloroethene	690
N-Butane	71
N-Hexane	9.2
Tetrachloroethene	790
Toluene	2.5 J
Trans-1,2-Dichloroethene	19
Trichloroethene	97
Vinyl Chloride	9.0

Sample ID	FCSV-04
Sampling Date	05/08/18
Sample Type:	Soil Vapor
1,2-Dichloroethene (total)	100 J
1,3-Butadiene	30 J
Cis-1,2-Dichloroethene	100
M,P-Xylene	63 J
N-Butane	160
Tetrachloroethene	12,000
Toluene	24 J
Trichloroethene	500
Xylene (total)	65 J



Requires mitigation as per NYSDOH Soil Vapor Matrix A
Requires mitigation as per NYSDOH Soil Vapor Matrix B
Samples FCSV-01 through FCSV-04 were not compated to NYSDOH Soil Vapor Matrices
Qualifiers:
All values in ug/m3
U: Analyzed but not detected
J: Estimated value
UB: Not detected based on assoicated blank results
B: Detected in assoicated blank
D: Reported from secondary dilution

NOTE:

TWO INDOOR AIR SAMPLES IADB-3 AND IADB-4 WERE COLLECTED ON THE FIRST FLOOR OF THE BUILDING.

LEGEND:

FCSV-01 ⊗ EXTERIOR SOIL VAPOR/ SUB-SLAB SOIL VAPOR/ INDOOR AIR/OUTDOOR AIR SAMPLE

BOUNDARY OF TAX LOTS AS PER SURVEY

SITE BOUNDARY

SOURCE: BASED ON SURVEY COMPLETED BY MEGA ENGINEERING & LAND SURVEYING P.C. ON MAY 8, 2018 AND D&B FIELD NOTES

D&B ENGINEERS AND ARCHITECTS

FORMER FRESH AND CLEAN LAUNDRY SITE
GLEN HEAD, NEW YORK

SCALE:1"=20'

VOC DETECTIONS IN EXTERIOR SOIL VAPOR, SUB-SLAB SOIL VAPOR, INDOOR AIR AND OUTDOOR AIR

FIGURE 4-1

F:\3150-37B\DWG\3150-37B-FIG 4-1.dwg, Layout1, 10/12/2021 8:11:18 AM, rferrell

Compounds in Exceedance	UU-SCO
Acetone	0.05 mg/kg
2-Butanone (MEK)	0.12 mg/kg
cis-1,2-Dichloroethene	0.25 mg/kg
Tetrachloroethene	1.3 mg/kg

Units mg/kg
Exceeds NYCRR 6 Part 375 Unrestricted Use SCO
UU-SCO: Unrestricted Use Soil Cleanup Objective

EMMA ROSE, LLC
SECT. 20
BLOCK 13
LOT 322

SCHOOL STREET

Sample ID	SS-09
Sampling Date	5/9/2018
Start Depth (in Feet)	0
End Depth (in Feet)	0.5
Sample Type:	Sediment
Acetone	**0.18 J**

BASEMENT FOUNDATION WALL

NO EXCEEDANCES

NO EXCEEDANCES

NO EXCEEDANCES

APPROXIMATE LOCATION OF FLOOR DRAIN/ DRYWELL STRUCTURE

Sample ID	SS-05
Sampling Date	5/7/2018
Start Depth (in Feet)	0
End Depth (in Feet)	0.5
Sample Type:	Sediment
Tetrachloroethene (PCE	**3.7 D**

SS-11
SB-11

SS-09

SS-10
SB-10

SS-08
SB-08

SS-12
SB-12

GLEN HEAD MAINTENANCE SHOP
SECT.20
BLOCK 19
LOT 200

NO EXCEEDANCES

APPROXIMATE LOCATION OF BASEMENT STORAGE AREA

SS-14

SS-05
SB-05

NO EXCEEDANCES

SS-06
SB-06

FRESH AND CLEAN LAUNDRY
(CURRENT TAG SALE WAREHOUSE)
SECT. 20
BLOCK 19
LOT 319/320

SS-07
SB-07

Sample ID	SS-13
Sampling Date	8/3/2020
Start Depth (in Feet)	0
End Depth (in Feet)	1.33
Sample Type:	Sediment
cis-1,2-Dichloroethene	***69 J***
Tetrachloroethene (PCE	***7,500***

SS-13

SB-18

RAILROAD AVENUE

NO EXCEEDANCES

SB-17

SS-16

SS-15

SS-02

SS-01

Sample ID	SS-02
Sampling Date	5/7/2018
Start Depth (in Feet)	0
End Depth (in Feet)	0.5
Sample Type:	Sediment
2-Butanone (MEK)	**1.0 J**
Acetone	**3.7 J**

Sample ID	SB-16
Sampling Date	2/28/2020
Start Depth (in Feet)	0
End Depth (in Feet)	1
Sample Type:	Sediment
Acetone	**0.13 J**

APPROXIMATE LOCATION OF FLOOR DRAIN/ DRY WELL STRUCTURE

TOM'S METAL SCULPTURES
SECT.20
BLOCK 19
LOT 21

SB-19

Sample ID	SS-15
Sampling Date	2/28/2020
Start Depth (in Feet)	0
End Depth (in Feet)	0.25
Sample Type:	Sediment
Tetrachloroethene (PCE	**3.7**

TOM'S LAWNMOWER SERVICE AND WELDING
SECT.20
BLOCK 19
LOT 22

APPROXIMATE LOCATION OF BILCO DOORS

NO EXCEEDANCES

APPROXIMATE LOCATION OF FLOOR DRAIN/ DRY WELL STRUCTURE

FORK & VINE RESTAURANT
SECT.20
BLOCK 19
LOT 341

LEGEND:

- SS-06 ● SEDIMENT SAMPLE LOCATION
- SB-05 ● SOIL BORING LOCATION
- BOUNDARY OF TAX LOTS AS PER SURVEY
- SITE BOUNDARY

SOURCE: BASED ON SURVEY COMPLETED BY MEGA ENGINEERING & LAND SURVEYING P.C. ON MAY 8, 2018 AND D&B FIELD NOTES

D&B ENGINEERS AND ARCHITECTS

FORMER FRESH AND CLEAN LAUNDRY SITE
GLEN HEAD, NEW YORK

SCO EXCEEDANCES IN SOIL/SEDIMENT

SCALE:1"=20'

FIGURE 4-2

F:\3150-37B\DWG\3150-37B-FIG 4-2.dwg, Layout1, 2/3/2022 10:36:42 AM, rferrell

EMMA ROSE, LLC
SECT. 20
BLOCK 13
LOT 322

SCHOOL STREET

Sample ID	FCMW-2
Sample date	10/02/18
Tetrachloroethylene(PCE)	**7.4**

Sample ID	FCMW-1
Sample date	10/05/18
Tetrachloroethylene(PCE)	**12**
Perfluorooctanoic Acid(PFOA)	**27**

FCMW–2

FCMW–1

GLEN HEAD MAINTENANCE SHOP
SECT.20
BLOCK 19
LOT 200

FRESH AND CLEAN LAUNDRY
(CURRENT TAG SALE WAREHOUSE)
SECT. 20
BLOCK 19
LOT 319/320

Sample ID	GW-02
Sample date	07/30/20
Tetrachloroethylene(PCE)	**85**
Trichloroethylene (TCE)	**5.2**

GW–02

FCMW–3

GW–01

RAILROAD AVENUE

Sample ID	FCMW-3
Sample date	10/05/18
Tetrachloroethylene(PCE)	**30**
Perfluorooctanoic Acid(PFOA)	**20**

Sample ID	GW-01
Sample date	07/28/20
Tetrachloroethylene(PCE)	**20 J**

TOM'S METAL SCULPTURES
SECT.20
BLOCK 19
LOT 21

GW–03

Sample ID	GW-03
Sample date	08/05/20
Tetrachloroethylene(PCE)	**8.2**

TOM'S LAWNMOWER SERVICE AND WELDING
SECT.20
BLOCK 19
LOT 22

FORK & VINE RESTAURANT
SECT.20
BLOCK 19
LOT 341

Footnotes/Qualifiers:
ug/l Micrograms per liter
J Estimated detection limit or value
PFOA results presented in nanogram per liter (ng/l)

LEGEND:

FCMW–2 EXISTING MONITORING WELL LOCATION

GW–01 DISCRETE DEPTH GROUNDWATER SAMPLE LOCATION

BOUNDARY OF TAX LOTS AS PER SURVEY

SITE BOUNDARY

SOURCE: BASED ON SURVEY COMPLETED BY MEGA ENGINEERING & LAND SURVEYING P.C. ON MAY 8, 2018 AND D&B FIELD NOTES

D&B ENGINEERS AND ARCHITECTS

FORMER FRESH AND CLEAN LAUNDRY SITE
GLEN HEAD, NEW YORK

SCALE:1"=20'

EXCEEDANCES IN GROUNDWATER ON SITE

FIGURE 4-3

F:\3150-37B\DWG\3150-37B-FIG 4-3.dwg, Layout1, 10/12/2021 2:59:46 PM, rferrell

SOURCE: BASED ON SURVEY COMPLETED BY MEGA ENGINEERING & LAND SURVEYING P.C. ON MAY 8, 2018 AND D&B FIELD NOTES

D&B ENGINEERS AND ARCHITECTS

FORMER FRESH AND CLEAN LAUNDRY SITE
GLEN HEAD, NEW YORK

EXCEEDANCES IN GROUNDWATER OFF-SITE

SCALE:1"=100'

FIGURE 4-4

APPENDIX A

GEOPHYSICAL SURVEY

ADVANCED GEOLOGICAL SERVICES
3 Mystic Lane
Malvern, PA 19355
(610) 722-5500 (ph.)
(610) 722-0250 (fax)

May 15, 2018
AGS Ref#: 18-150-1

Anthony Caniano
D&B Engineers & Architects, P.C.
330 Crossways Park Drive
Woodbury, NY 11797

Subject: Geophysical Investigation Report
Railroad Ave Site
Glen Head, New York

Dear Mr. Caniano,

Advanced Geological Services (AGS) is submitting this letter report detailing the methods and results of the geophysical investigation conducted at the above referenced site 22 Railroad Avenue, Glen Head, Long Island, New York. The objective of the geophysical investigation was to identify and mark out underground utilities, dry wells, and other identifiable targets of interest within the designated survey areas. The geophysical investigation was conducted May 7, 2018.

Methods

To achieve the investigation objectives AGS utilized a combination of the ground penetrating radar (GPR) method and the radio frequency (RF) utility locating method.

Ground Penetrating Radar (GPR) Method

The ground penetrating radar (GPR) method was used to confirm locations of utilities detected using the RF method; and to search for non-metallic utilities, and other potential targets of interest. The GPR method is based upon the transmission of repetitive, radio frequency electromagnetic (EM) pulses into the subsurface. When the transmitted energy of the down-going wave contacts an interface of dissimilar electrical character, part of the energy is returned to the surface in the form of a reflected signal. This reflected signal is detected by a receiving transducer and is displayed on the screen of the GPR unit as well as being recorded on the internal hard-drive. The received GPR response remains constant as long as the electrical contrast between media is present and constant. Lateral or vertical changes in the electrical properties of the subsurface result in equivalent changes in the GPR responses. The system records a continuous image of the subsurface by plotting two-way travel time of the reflected EM pulse versus distance traveled along the ground surface. Two-way travel time values are then converted to depth using known soil velocity functions.

A Geophysical Survey System SIR System 3000 and a 400 megahertz (MHz) antenna were used with a recording window of 60 nanoseconds (ns) to provide the required depth penetration and subsurface detail. The GPR field procedures involved (1) instrument calibration, (2) test run completion, (3) production profile collection and recording.

For this investigation GPR data was collected with a data density sufficient to identify potential underground utilities, and other targets of interest within the designated survey areas. GPR data was analyzed closely for targets in real time.

Radio Frequency (RF) Utility Locating Method

A Radiodetection RD4000 utility locating instrument was used to search for utilities. This instrument consists of a receiver/tracer and a remote transmitter which operates at multiple radio-frequencies (RF) ranging from 8 kHz to 65 kHz. The receiver unit detects a transmitted RF signal, as well as standard 60 Hz electrical power lines and broad-band RF signals when operated in passive detection modes. This utility tracing instrument is an analog device which provides visual and audible feedback to the operator when a utility coupled with the transmitted signal is crossed. The transmitter produces a radio-frequency signal in the utility to be traced by either induction coupling or direct hook-up. The receiver output varies an audible pitch depending upon how far the utility is from the receiver. By carefully adjusting the gain of the receiver it is possible to determine the location of the utility and to separate it from adjacent utilities. The RF instrument is also capable of providing a depth estimate to the utility being traced based on the vertical gradient of the received RF signal strength.

Passive detection scanning techniques, and direct hook-up techniques were used during this investigation.

Results and Discussion

The geophysical investigation objectives were achieved utilizing the GPR and RF methods, as well as direct observation of certain features. AGS identified several storm drain lines, a water utility, a natural gas utilities, unknown utilities, and a sanitary drain/septic tank system. A large dry well was observed through it's manhole, and the approximate limits were identified using the GPR methods. A probable paved over manhole was identified with the GPR method and its true nature could not be determined during the geophysical investigation. Features identified during the geophysical investigation are represented on Figure 1.

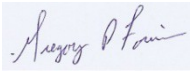
The identified utilities, limits of the large dry well, and the paved over manhole were marked on the ground using spray paint in accordance with the American Public Workers Association uniform color code. Locations of identified features were recorded as a detailed field map. The results of the geophysical investigation were discussed with the D&B representative at the completion of field work.

Closing

The data collection and interpretation methods used in this investigation are consistent with standard practices applied to similar geophysical investigations. The correlation of geophysical responses with probable subsurface features is based on past results of similar surveys, although it is possible that some variation could exist at this site. Due to the nature of geophysical data, no guarantees can be made or implied regarding the presence or absence of additional utilities, buried structures, etc. or targets beyond those identified.

If you have any questions, please contact me by phone 610-722-5500 or via email. It was a pleasure working with you on this project, and we look forward to conducting geophysical investigations for you in the future.

Sincerely,



Greg Fournier
Project Geophysicist

Enclosed: Figure 1

NOTES:

1) Base orthophotograph from NY GIS Clearinghouse (https://gis.ny.gov/gateway/mg/). High resolution orthophotograph from file l_10860242_06_07400_4bd_2016.zip acquired during Spring 2015.
2) The radio frequency method was used in both the passive mode, and via direct connection to exposed utilities. GPR data were collected across the site with a data density sufficient to confirm locations of utilities identified with the RF method, and to identify other potential targets of interest. A GSSI SIR3000 GPR instrument and a 400 MHz antenna.
3) Utilities and other were identified and marked on the ground using spray paint and pin flags in accordance with the American Public Workers Association uniform color code. Location of identified utilities were recorded with a Trimble Geo7X GPS with sub meter accuracy..
4) The items shown on this figure may not be all inclusive. AGS does not warrant the fact that additional buried features/utilities may be present which could not be identified by AGS personnel during this investigation.

LEGEND

- Water Line
- Strom Drain Line
- Sanitary Drain Line
- Unknown Line
- Storm Manhole (MH)
- Sanitary MH
- Unknown Covered MH
- Water Pit

N

ADVANCED GEOLOGICAL SERVICES

Geophysical Investigation Results,Identified Utilities, Glen Head Site

LOCATION: 22 Railroad Avenue, Glen Head, Long Island, NY

CLIENT: D&B Engineering

FIGURE 1

PROJECT #:	18-150-1
DATE:	May 15, 2018

ADVANCED GEOLOGICAL SERVICES, INC.

DRAWN BY: G. FOURNIER

APPENDIX B

LAND SURVEY DATA

Sect. 20
Block 13
Lot 322
N/F
Emma Rose, LLC

SCHOOL STREET
(Formerly Orchard Street)

RAILROAD AVENUE

P.O.B.

N 78°25'10" E 109.72'
(S 89°48'00" E Deed)

S 78°25'10" W 115.66'
(N 89°48'00" W Deed)

N 04°47'50" W 50.34'
(N 08°59'00" E Deed)

S 11°34'50" E 50.00'
(S 00°12'00" W Deed)

Sect. 20
Block 19
Lot 319-320
N/F
A&G Homes, Inc.
Area= 5,634 Sq. Ft.
/ 0.1293 Ac. ±
1 STY.
RETAIL
BUILDING
#22-26

Sect. 20
Block 19
Lot 21

Sect. 20
Block 19
Lot 22

Sect. 20
Block 19
Lot 341
N/F
32 Railroad Avenue GH, LLC

Sect. 20
Block 19
Lot 200
N/F
Central School
District #1

MW-4
LID=153.82'
TP PE=153.48'
(2"ø PVC PE)

MW-2
LID=150.28'
TP PE=149.55'
(2"ø PVC PE)

MH1
RIM=149.99'
INV.(W)=148.07'
INV.(BOT)=131.59'

MH2
RIM=114.39'
INV.(S)=111.23'
INV.(BOT)=93.14'

MH3
RIM=149.51'
INV.(x)=133.04'

MH4
RIM=150.53'
INV.(BOT)=129.29'

MH5
RIM=150.69'
INV.(S)=143.99'

MH6
RIM=150.88'
INV.(W)=146.88'

MH7
RIM=150.85'
INV.(W)=146.60'

MH8
RIM=150.73'
INV.(BOT)=129.43'

MH9
RIM=161.03'
(Covered w/ Asphalt)

MW-3
LID=161.71'
TP PE=161.28'
(2"ø PVC PE)

MW-5 (MW-1)
LID=150.56'
TP PE=149.76'
(2"ø PVC PE)

SV-1 EL=150.78'
SV-2 EL=150.78'
SV-3 EL=161.17'
SV-4 EL=162.23'
SV-6 EL=150.64'

CB-1
GRT=150.77'
INV.=147.37'

0.25'S
0.21'S
0.10' N
27.41'±
15.6'
65.7'
60.0'
21.90'
32.1'

"ON-LINE"

Graphic Scale
20' 0 10' 20'

Legend

- Bollard
- SB-6 Boring/Test Pit
- Catch Basin/Drain
- Fire Hydrant
- GM Gas Meter
- GV Gas Valve
- MW Monitoring Well
- OF Oil Fill
- Sanitary Manhole
- Sign Post
- Steps
- WV Water Valve
- 150.47 Spot Elevation
- Utility Pole
- CATV CATV CATV Cable/TV Line
- EOH EOH Electric Overhead Line
- G G Gas Line
- S S Sewer Line
- W W Water Line
- Right of Way Line

General Notes

This survey is based upon field investigations and survey conducted by MEGA ending on May 8, 2018 by or under the direct supervision of the undersigned licensed surveyor.

1. North arrow, bearings and coordinates based upon the North American Datum of 1983 (1996 adjustment). The projection is New York - East (3101)/New Jersey (2900).
2. The vertical datum is North American Datum of 1988 (NAVD of 1988).
3. Boundary information for the PIQ derived from a deed to A & G Homes, Inc. recorded on Liber Book D 12077 Pages 353-356 dated February 7th 2006.
4. Reference is made to the following maps:
   a. "Map of Glen Head, Town of Oyster Bay, County of Nassau and State of New York, surveyed by John L. Bogart, C.E., Glen Head, Long Island, NY", Map No. 563; recorded on June 2, 1925.
   b. "Land & Tax Map; Nassau County Dept. of Assessment, Sec. 20, Blk. 19, Lots Nos. 319-320; Sec. 20, Blk. 13; Sect. 20 Blk. 21"; Tax Maps last revision: January 31,2003.
5. This survey is subject to any facts an accurate title search may disclose.
6. The offsets shown are not to be used for the construction of any structure, fence, permanent addition, etc.
7. Surface evidence of the underground utilities shown have been located from field survey information, located mark outs, existing utility maps, and visual inspections. The survey does not serve to show or deny the presence of underground structures (*i.e.* oil storage tanks) or any environmentally sensitive conditions such as the presence of wetlands or hazardous materials at these premises. The contractor shall confirm the location of all utilities prior to the commencement of excavation.
8. Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of Section 7209, Subdivision 2 of the New York State Education Law.
9. Only copies from the original of this survey marked with an original land surveyor's inked seal shall be considered to be valid true copies.

Former Fresh and Clean Laundry

Site No. 130111; Sect. 20 Block 19 Lots 319-320
22-26 Railroad Avenue, Glen Head, NY

Topographic and Location Survey
Sheet 1 of 1

STATE OF NEW YORK · FREDERICK R. POKORNY · 27477 · LICENSED LAND SURVEYOR

Frederick R. Pokorny, P.E., L.S.
NY Lic. Surveyor # 027477

Survey:	NS/DM	Drawn:	DM/VS	Chkd:	VS/FRP	Appvd:	FRP
Scale:	1" = 20'	Date:	05/08/2018	Proj.No.:	17-535	Fld Bk:	FB 91 25

MEGA
engineering and land surveying, pc
217-44 98th Avenue
Queens Village, NY 11429
(718) 799-4985 Phone
(866) 343-5888 Fax
e-mail: megaeng@earthlink.net
NYS LSCOA: 11220 • NYS Eng COA: 11221

Grade Sheet

Fresh & Clean Laundry - Boring Location

MEGA Engineering & Land Surveying P.C.

217-44 98th Avenue
Queens Village, NY 11429
Ph (718) 799-4985
Fax (866) 343-5888

Date of Stake-Out: May 8, 2018
Job Number: 17-535
Client Contact: Mr. Anthony Caniano & Mr. Paul Barusich D&D Engineers & Arch, P.C.
Client email: pbarusich@db-eng.com
Field Crew: NS/DM
Compiled/Checked: VS/FRP

Notes:

Coordinates based upon NY State Plane Coordinate System - NYLI NAD83(96) in US Survey Feet. Elevations refer to North American Vertical Datum of 1988 (NADV88).

Boring No.	Northing	Easting	Elevation in US Survey Ft.	Remarks
MONITORING WELLS				
MW-2	243,090.49	1,087,926.84	150.28	Top of Casing
			149.55	Top of 2" ϕ Pipe
MW-3	243,037.01	1,087,841.40	161.71	Top of Casing
			161.28	Top of 2" ϕ Pipe
MW-4	243,116.36	1,087,877.08	153.82	Top of Casing
			153.48	Top of 2" ϕ Pipe
MW-5 (MW-1)	243,059.23	1,087,941.21	150.56	Top of Casing
			149.76	Top of 2" ϕ Pipe
SOIL BORING				
SV-1	243,079.66	1,087,916.29	150.78	Ground Elevation
SV-2	243,053.18	1,087,921.98	150.78	Ground Elevation
SV-3	243,048.41	1,087,836.55	161.17	Ground Elevation
SV-4	243,003.90	1,087,832.87	162.23	Ground Elevation
SB-6	243,054.08	1,087,933.18	150.64	Ground Elevation

PICTURES:

MW-2

MW-3 & SV-3

MW-4

MW-5 (MW-1)

SV-1

SV-2

Not Available

SV-4

SB-6

17-535 FORMER FRESH & CLEAN LAUNDRY SITE

STRUCTURE DATA SHEETS

EXISTING SITE CONDITION

22-26 Railroad Avenue
Glen Head, New York

May 2018

SUBMITTED BY

MEGA
Engineering & Land Surveying P.C.

29 Pangborn Place, Hackensack, NJ 07601
Tel: 201.343.5059 / Fax: 201.343.4992 / Email: megaeng@earthlink.net

Engineering & Land Surveying, P.C.

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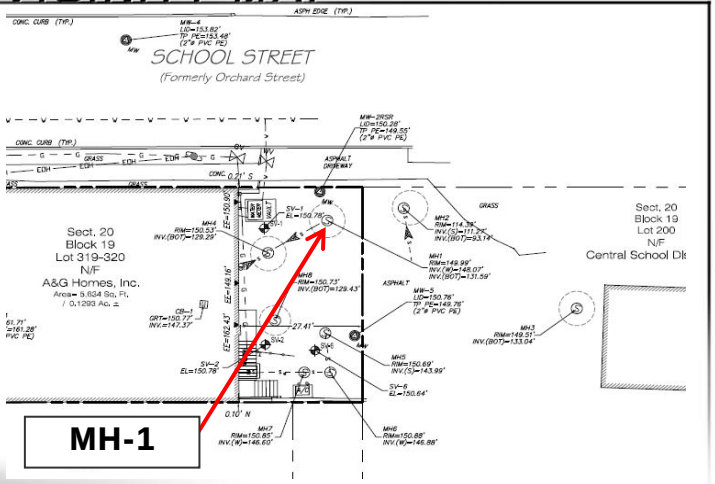
STRUCTURE DATA SHEET

STRUCTURE ID	MH-1
PROJECT NUMBER	17-535
SURVEY DATE	05/08/2018
CREW	NS, DM
STRUCTURE TYPE	SEEPAGE PIT
LID DESCRIPTION	SLOTTED
MATERIAL	CONCRETE
FIELD LAT.	
FIELD LONG.	

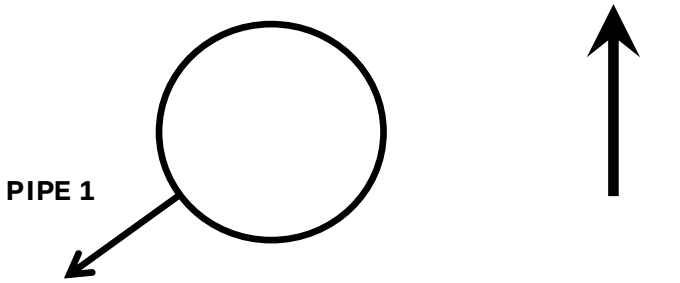
VICINITY MAP



NOTES / COMMENTS

STRUCTURE SKETCH

(in feet)	Invert	NAVD88 Elev	Type
Rim		149.99	
Pipe 1	2.90	147.09	8" Dia. DIP
Pipe 2			
Pipe 3			
Pipe 4			
Pipe 5			
Pipe 6			
Structure	18.4	131.59	CONC.
Ceiling			



POINT NUMBER	PHOTO NUMBER	SDS PREPARED BY	SDS DATE
915		VS	05/08/18

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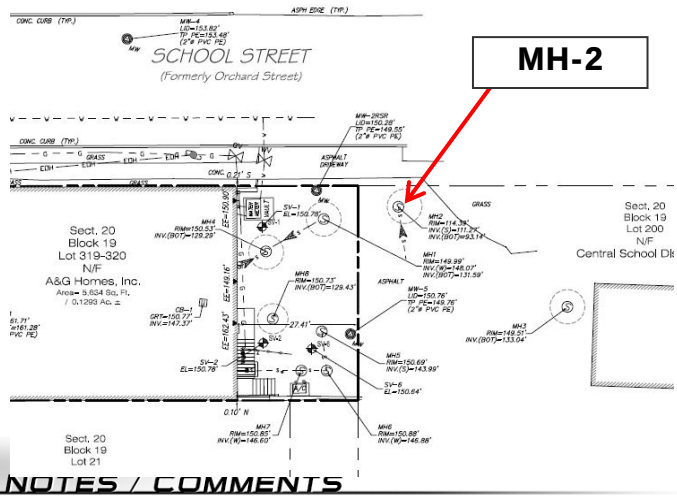
STRUCTURE DATA SHEET

STRUCTURE ID	MH-2
PROJECT NUMBER	17-535
SURVEY DATE	05/08/2018
CREW	NS, DM
STRUCTURE TYPE	SEEPAGE PIT
LID DESCRIPTION	SLOTTED
MATERIAL	CONCRETE
FIELD LAT.	
FIELD LONG.	

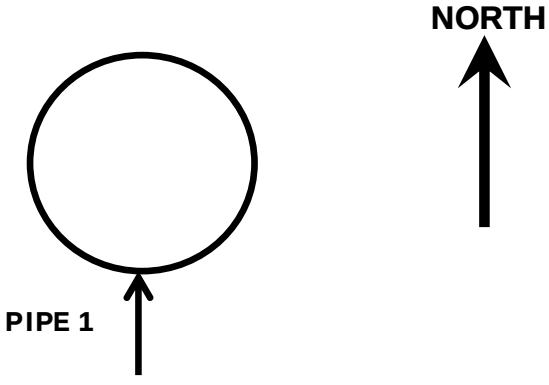
VICINITY MAP



NOTES / COMMENTS

STRUCTURE SKETCH

(in feet)	Invert	NAVD88 Elev	Type
Rim		114.39	
Pipe 1	3.12	111.27	6" Dia. DIP
Pipe 2			
Pipe 3			
Pipe 4			
Pipe 5			
Pipe 6			
Structure	21.25	93.14	CONC.
Ceiling			



POINT NUMBER	PHOTO NUMBER	SDS PREPARED BY	SDS DATE
916		VS	05/08/18

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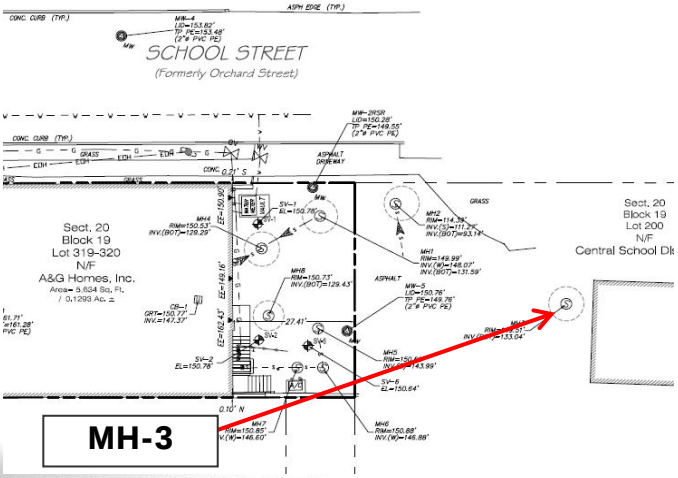
STRUCTURE DATA SHEET

STRUCTURE ID	MH-3
PROJECT NUMBER	17-535
SURVEY DATE	05/08/2018
CREW	NS, DM
STRUCTURE TYPE	SEEPAGE PIT
LID DESCRIPTION	SLOTTED
MATERIAL	CONCRETE
FIELD LAT.	
FIELD LONG.	

VICINITY MAP



NOTES / COMMENTS

STRUCTURE SKETCH

(in feet)	Invert	NAVD88 Elev	Type
Rim		149.51	
Pipe 1			
Pipe 2			
Pipe 3			
Pipe 4			
Pipe 5			
Pipe 6			
Structure	16.47	133.04	CONC.
Ceiling			

NORTH

POINT NUMBER	PHOTO NUMBER	SDS PREPARED BY	SDS DATE
819		VS	05/08/18

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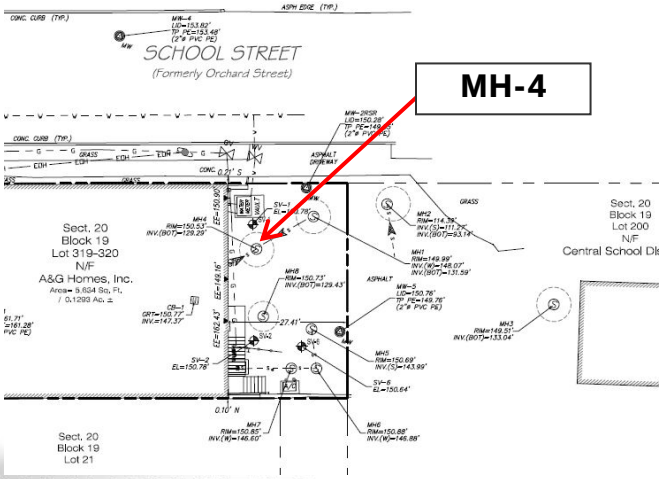
STRUCTURE DATA SHEET

STRUCTURE ID	MH-4
PROJECT NUMBER	17-535
SURVEY DATE	05/08/2018
CREW	NS, DM
STRUCTURE TYPE	SEEPAGE PIT
LID DESCRIPTION	
MATERIAL	CONCRETE
FIELD LAT.	
FIELD LONG.	

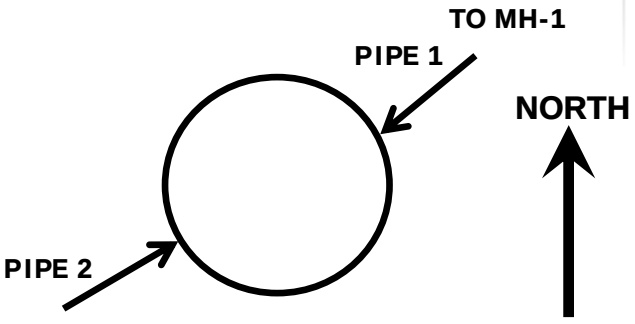
VICINITY MAP



NOTES / COMMENTS

STRUCTURE SKETCH

(in feet)	Invert	NAVD88 Elev	Type
Rim		150.53	
Pipe 1			
Pipe 2			
Pipe 3			
Pipe 4			
Pipe 5			
Pipe 6			
Structure	21.24	129.29	CONC.
Ceiling			



POINT NUMBER	PHOTO NUMBER	SDS PREPARED BY	SDS DATE
791		VS	05/08/18

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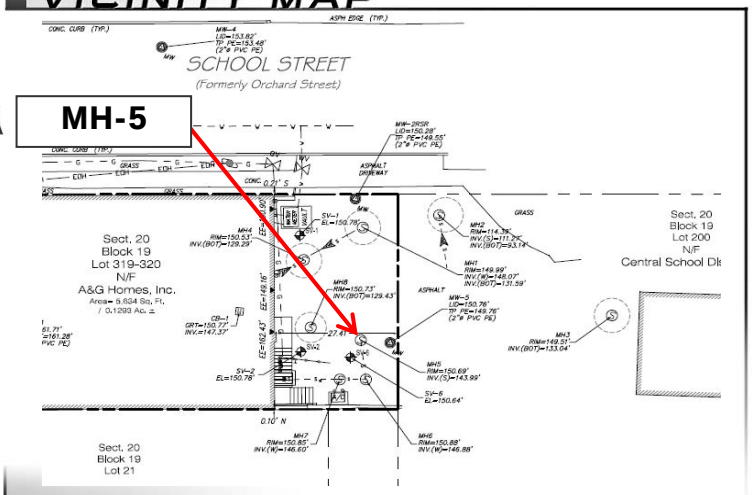
STRUCTURE DATA SHEET

STRUCTURE ID	MH-5
PROJECT NUMBER	17-535
SURVEY DATE	05/08/2018
CREW	NS, DM
STRUCTURE TYPE	SEWER
LID DESCRIPTION	
MATERIAL	CONCRETE
FIELD LAT.	
FIELD LONG.	

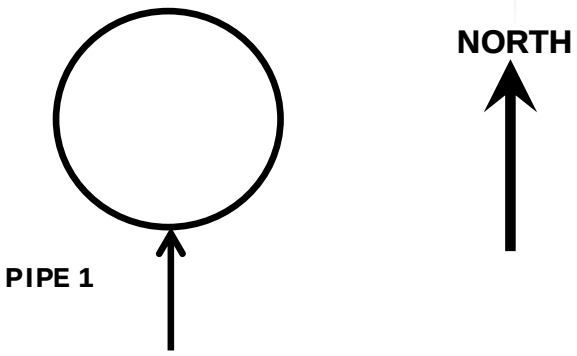
VICINITY MAP



NOTES / COMMENTS

STRUCTURE SKETCH

(in feet)	Invert	NAVD88 Elev	Type
Rim		150.69	
Pipe 1	6.70	143.99	4" Dia. PVC
Pipe 2			
Pipe 3			
Pipe 4			
Pipe 5			
Pipe 6			
Structure			
Ceiling			



POINT NUMBER	PHOTO NUMBER	SDS PREPARED BY	SDS DATE
726		VS	05/08/18

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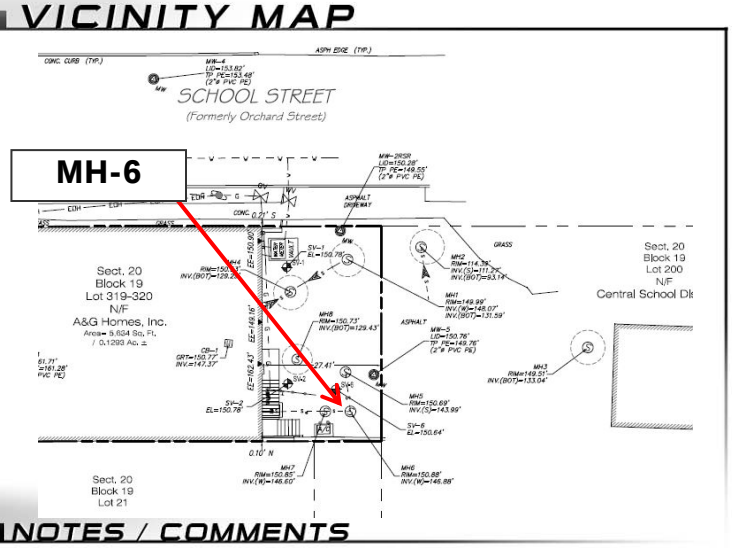
STRUCTURE DATA SHEET

STRUCTURE ID	MH-6
PROJECT NUMBER	17-535
SURVEY DATE	05/08/2018
CREW	NS, DM
STRUCTURE TYPE	SEWER
LID DESCRIPTION	
MATERIAL	CONCRETE
FIELD LAT.	
FIELD LONG.	

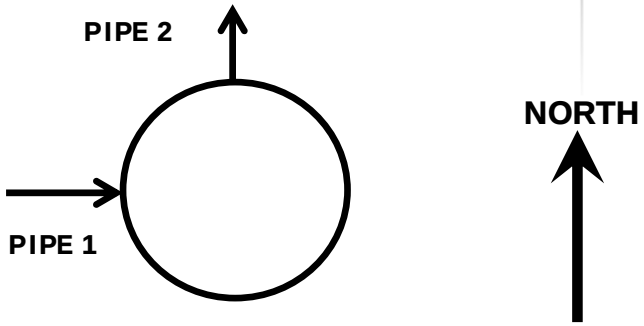
VICINITY MAP



NOTES / COMMENTS

STRUCTURE SKETCH

(in feet)	Invert	NAVD88 Elev	Type
Rim		150.88	
Pipe 1	4.00	146.88	4" Dia. PVC
Pipe 2			
Pipe 3			
Pipe 4			
Pipe 5			
Pipe 6			
Structure			
Ceiling			



POINT NUMBER	PHOTO NUMBER	SDS PREPARED BY	SDS DATE
723		VS	05/08/18

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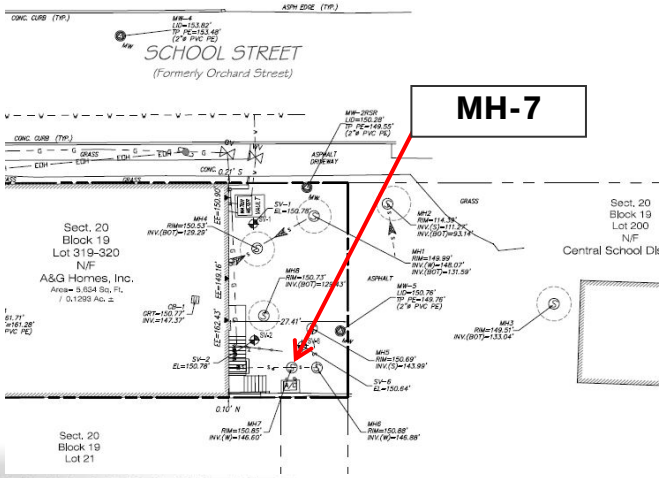
STRUCTURE DATA SHEET

STRUCTURE ID	MH-7
PROJECT NUMBER	17-535
SURVEY DATE	05/08/2018
CREW	NS, DM
STRUCTURE TYPE	SEWER
LID DESCRIPTION	
MATERIAL	CONCRETE
FIELD LAT.	
FIELD LONG.	

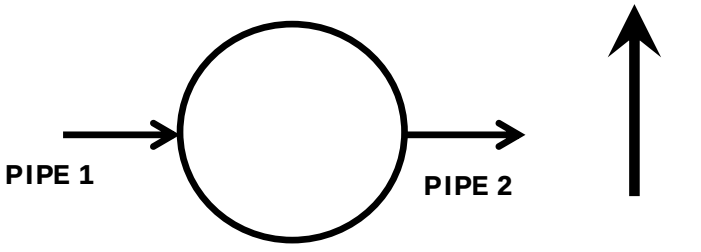
VICINITY MAP



NOTES / COMMENTS

STRUCTURE SKETCH

(in feet)	Invert	NAVD88 Elev	Type
Rim		150.85	
Pipe 1	4.25	146.60	6" Dia. PVC
Pipe 2			
Pipe 3			
Pipe 4			
Pipe 5			
Pipe 6			
Structure			
Ceiling			



POINT NUMBER	PHOTO NUMBER	SDS PREPARED BY	SDS DATE
725		VS	05/08/18

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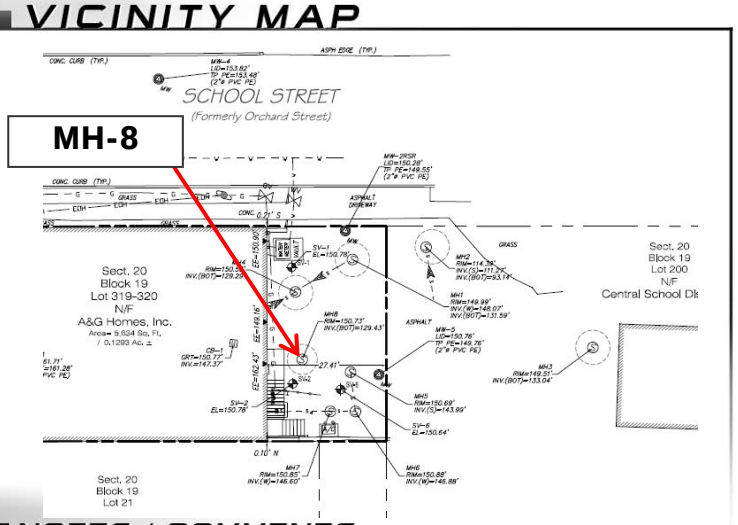
STRUCTURE DATA SHEET

STRUCTURE ID	MH-8
PROJECT NUMBER	17-535
SURVEY DATE	05/08/2018
CREW	NS, DM
STRUCTURE TYPE	SEEPAGE PIT
LID DESCRIPTION	
MATERIAL	CONCRETE
FIELD LAT.	
FIELD LONG.	

VICINITY MAP

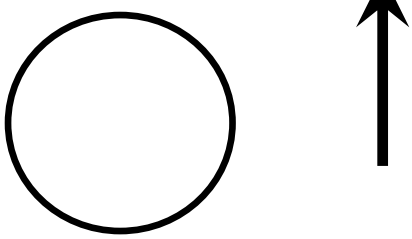


NOTES / COMMENTS

STRUCTURE SKETCH

(in feet)	Invert	NAVD88 Elev	Type
Rim		150.73	
Pipe 1			
Pipe 2			
Pipe 3			
Pipe 4			
Pipe 5			
Pipe 6			
Structure	21.3	129.43	CONC.
Ceiling			

NORTH



POINT NUMBER	PHOTO NUMBER	SDS PREPARED BY	SDS DATE
951		VS	05/08/18

Engineering & Land Surveying, P.C.

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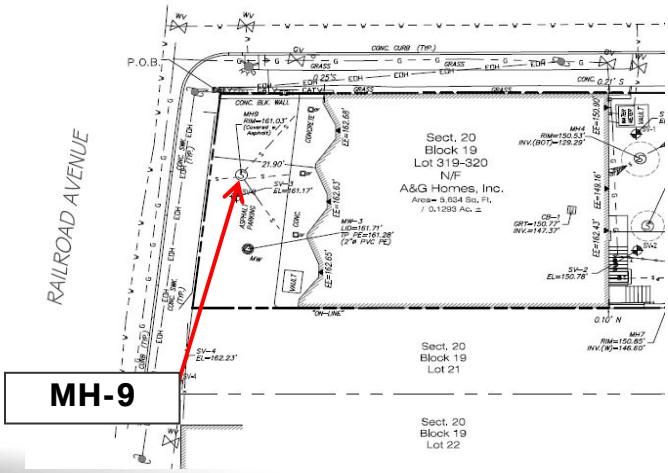
STRUCTURE DATA SHEET

STRUCTURE ID	MH-9
PROJECT NUMBER	17-535
SURVEY DATE	05/08/2018
CREW	NS, DM
STRUCTURE TYPE	SEWER
LID DESCRIPTION	
MATERIAL	CONCRETE
FIELD LAT.	
FIELD LONG.	

VICINITY MAP

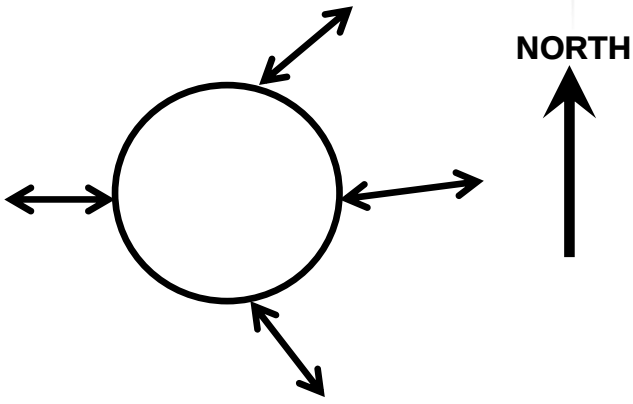


NOTES / COMMENTS

MANHOLE NO ACCESS - COVERED WITH ASPHALT - WITH MARK OUT

STRUCTURE SKETCH

(in feet)	Invert	NAVD88 Elev	Type
Rim		161.30	
Pipe 1			
Pipe 2			
Pipe 3			
Pipe 4			
Pipe 5			
Pipe 6			
Structure			
Ceiling			



POINT NUMBER	PHOTO NUMBER	SDS PREPARED BY	SDS DATE
510		VS	05/08/18

APPENDIX C

FIELD FORMS

D&B ENGINEERS AND ARCHITECTS

	Project No.: 3150-37 **Project Name:** Fresh and Clean	**Boring No.:** SS-01 (house trap) **Sheet** 1 **of** 1 **By:** Paul Barusich
Drilling Contractor: Aztech **Drill Rig:** -- **Date Started:** 5/7/18	**Geologist:** Paul Barusich **Drilling Method:** -- **Drive Hammer Weight:** -- **Date Completed:** 5/7/18	**Boring Completion Depth:** 1' **Ground Surface Elevation:** 150.71' **Boring Diameter:** 2"

Depth	No.	Type	Rec.	PID Per 6" (ppm)	Sample Description
0'-1'	1	HA	12"	0.0	Dark brown, fine to medium subangular SAND and organic matter, trace silt, moderately sorted, loose, moist, no staining, no odor.

Sample Types:
HA = Hand Auger

NOTES:
All depths from bottom of structure.
Bottom of structure is 3 feet below grade.
Sediment sample SS-01 collected at 0'-0.5' for analysis of TCL VOCs +10 TICs (8260C, 5035).

D&B ENGINEERS AND ARCHITECTS

	Project No.: 3150-37 **Project Name:** Fresh and Clean	**Boring No.:** SS-02 (Septic Tank) **Sheet** 1 **of** 1 **By:** Paul Barusich
Drilling Contractor: Aztech **Drill Rig:** -- **Date Started:** 5/7/18	**Geologist:** Paul Barusich **Drilling Method:** -- **Drive Hammer Weight:** -- **Date Completed:** 5/7/18	**Boring Completion Depth:** 1' **Ground Surface Elevation:** 150.74' **Boring Diameter:** 2"

Depth	No.	Type	Rec.	PID Per 6" (ppm)	Sample Description
0'-1'	1	HA	12"	0.0	Dark brown, organic matter, trace silt, poorly sorted, loose, wet, no staining, no odor.

Sample Types:
HA = Hand Auger

NOTES:
All depths from bottom of structure.
Bottom of structure is 3.5 feet below grade.
Sediment sample SS-02 collected at 0'-0.5' for analysis of TCL VOCs +10 TICs (8260C, 5035).

D&B ENGINEERS AND ARCHITECTS

Project No.: 3150-37
Project Name: Fresh and Clean

Boring No.: SB-05 (Drywell)
Sheet 1 **of** 1
By: Paul Barusich

Drilling Contractor: Aztech
Drill Rig: Geoprobe 6610DT
Date Started: 5/7/18

Geologist: Paul Barusich
Drilling Method: Direct Push
Drive Hammer Weight: --
Date Completed: 5/8/18

Boring Completion Depth: 20'
Ground Surface Elevation: 150.72'
Boring Diameter: 2"

Depth	No.	Type	Rec.	PID Per 6" (ppm)	Sample Description
0'-5'	1	GP	36"	0.0, 0.0 0.0, 0.0 0.0, 0.0	Brown, fine to medium subangular SAND, trace silt and brick, moderately sorted, loose, moist, no staining, no odor.
5'-10'	2	GP	36"	0.0, 0.0 0.0, 0.0 0.0, 0.0	Brown-light tan, fine to medium subangular SAND, trace fine subangular gravel, moderately sorted, loose, moist, no staining, no odor.
10'-15'	3	GP	36"	0.0, 0.0 0.0, 0.0 0.0, 0.0	Brown-light tan, fine to medium subangular SAND, trace fine to coarse subround gravel, moderately sorted, loose, moist, no staining, no odor.
15'-20'	4	GP	36"	0.0, 0.0 0.0, 0.0 0.0, 0.0	Same as above.

Sample Types:
GP = Geoprobe

NOTES:
All depths from bottom of structure.
Bottom of structure is 21 feet below grade.
Sediment sample SS-05 collected from 0'-0.5' and subsurface soil sample SB-05(6'-8') for analysis of TCL VOCs +10 TICs (8260C, 5035).

D&B ENGINEERS AND ARCHITECTS

Project No.: 3150-37
Project Name: Fresh and Clean

Boring No.: SB-06
(soil boring near septic tanks)
Sheet 1 **of** 1
By: Paul Barusich

Drilling Contractor: Aztech
Drill Rig: Geoprobe 6610DT
Date Started: 5/7/18

Geologist: Paul Barusich
Drilling Method: Direct Push
Drive Hammer Weight: --
Date Completed: 5/7/18

Boring Completion Depth: 25'
Ground Surface Elevation: 150.74'
Boring Diameter: 2"

Depth	No.	Type	Rec.	PID Per 6" (ppm)	Sample Description
0'-5'	1	HA	60"	0.0 0.0 0.0, 0.0 0.0, 0.0 0.0, 0.0 0.0, 0.0	4" Asphalt. 4"-5': Brown, fine to medium subangular SAND and fine to coarse GRAVEL, some silt, loose, moist, no staining, no odor.
5'-10'	2	GP	36"	0.0, 0.0 0.0, 0.0 0.0, 0.0	Same as above.
10'-15'	3	GP	48"	0.0, 0.0 0.0, 0.0 0.0, 0.0 0.0, 0.0	Same as above.
15'-20'	4	GP	36"	0.0, 0.0 0.0, 0.0 0.0, 0.0	Brown, fine to medium subangular SAND, trace fine to medium subrounded gravel, moderately sorted, loose, moist, no staining, no odor.
20'-25'	5	GP	48"	0.0, 0.0 0.0, 0.0 0.0, 0.0 0.0, 0.0	Brown-gray brown, fine to medium subangular SAND, trace silt and fine to medium subrounded gravel, moderately sorted, loose, moist, no staining, septic odor.

Sample Types:
HA = Hand Auger
GP = Geoprobe

NOTES:
Surface sample SS-06 collected at 0'-0.5' and subsurface soil samples SB-06(12'-14') and SB-06(22'-24') for analysis of TCL VOCs +10 TICs (8260C, 5035).

D&B ENGINEERS AND ARCHITECTS

	Project No.: 3150-37 **Project Name:** Fresh and Clean	**Boring No.:** SB-07 (floor drain) **Sheet** 1 **of** 1 **By:** Paul Barusich
Drilling Contractor: Aztech **Drill Rig:** Geoprobe 420m **Date Started:** 5/8/18	**Geologist:** Paul Barusich **Drilling Method:** Direct Push **Drive Hammer Weight:** -- **Date Completed:** 5/8/18	**Boring Completion Depth:** 21' **Ground Surface Elevation:** 150.77' **Boring Diameter:** 2"

Depth	No.	Type	Rec.	PID Per 6" (ppm)	Sample Description
0'-3'	1	GP	24"	0.0	Brown, fine to medium subangular SAND, trace fine subrounded gravel, well sorted, loose, moist, no staining, no odor.
3'-6'	2	GP	24"	0.0	Same as above.
6'-9'	3	GP	36"	0.0	Brown-tan, fine to medium subangular SAND, trace silt and fine subrounded gravel, moderately sorted, loose, moist, no staining, no odor.
9'-12'	4	GP	30"	0.0	Brown, fine to coarse subangular SAND, trace fine subrounded gravel, moderately sorted, loose, moist, no staining, no odor.
12'-15'	5	GP	30"	0.0	Brown, fine to coarse subangular SAND and fine subrounded GRAVEL, moderately sorted, loose, moist, no staining, no odor.
15'-18'	6	GP	36"	0.0	Tan-brown, fine to medium subangular SAND and fine to medium subrounded gravel, moderately sorted, loose, moist, no staining, no odor.
18'-21'	7	GP	36"	0.0	Same as above.

Sample Types:
GP = Geoprobe

NOTES:
All depths from bottom of structure.
Bottom of structure is 3 feet below grade.
Sediment sample SS-07 collected at 0'-0.5' and subsurface soil sample SB-07(9'-11') for analysis of TCL VOCs +10 TICs (8260C, 5035).

D&B ENGINEERS AND ARCHITECTS

Project No.: 3150-37
Project Name: Fresh and Clean

Boring No.: SB-08 (Drywell under asphalt)
Sheet 1 **of** 1
By: Paul Barusich

Drilling Contractor: Aztech
Drill Rig: Geoprobe 6610DT
Date Started: 5/9/18

Geologist: Paul Barusich
Drilling Method: Direct Push
Drive Hammer Weight: --
Date Completed: 5/9/18

Boring Completion Depth: 20'
Ground Surface Elevation: 150.73'
Boring Diameter: 2"

Depth	No.	Type	Rec.	PID Per 6" (ppm)	Sample Description
0'-5'	1	GP	36"	0.1, 0.1 0.0, 0.0 0.0, 0.0	Tan, fine to medium subangular SAND, trace fine to medium subrounded gravel, moderately sorted, loose, moist, no staining, no odor.
5'-10'	2	GP	36"	0.0, 0.0 0.0, 0.0 0.0, 0.0	Same as above.
10'-15'	3	GP	42"	0.2, 0.1 0.0, 0.0 0.0, 0.0 0.0	Gray tan-orange tan, fine to medium subangular SAND, trace fine to medium subrounded gravel, poorly sorted, loose, moist, no staining, no odor.
15'-20'	4	GP	48"	0.0, 0.0 0.0, 0.0 0.0, 0.0 0.0, 0.0	Light gray-orange, fine to medium subangular SAND, trace fine subrounded gravel, poorly sorted, loose, moist, no staining, no odor.

Sample Types:
GP = Geoprobe

NOTES:
All depths from bottom of structure.
Bottom of structure is 21.5 feet below grade.
Sediment sample SS-08 collected at 0'-0.5' and subsurface soil samples SB-08(1'-3') and SB-08(10'-12') for analysis of TCL VOCs +10 TICs (8260C, 5035).

D&B ENGINEERS AND ARCHITECTS

Project No.: 3150-37
Project Name: Fresh and Clean

Boring No.: SS-09 (water meter pit)
Sheet 1 **of** 1
By: Paul Barusich

Drilling Contractor: Aztech
Drill Rig: --
Date Started: 5/9/18

Geologist: Paul Barusich
Drilling Method: --
Drive Hammer Weight: --
Date Completed: 5/9/18

Boring Completion Depth: 1'
Ground Surface Elevation: 150.92'
Boring Diameter: 2"

Depth	No.	Type	Rec.	PID Per 6" (ppm)	Sample Description
0'-1'	1	HA	12"	0.0, 0.0	Brown, fine to medium subangular SAND and SILT, trace fine subrounded gravel, moderately sorted, loose, wet, no staining, trace grease-like odor.

Sample Types:
HA = Hand Auger

NOTES:
All depths from bottom of structure.
Bottom of structure is 4 feet below grade.
Sediment sample SS-09 collected at 0'-0.5' for analysis of TCL VOCs +10 TICs (8260C, 5035).

D&B ENGINEERS AND ARCHITECTS

Project No.: 3150-37
Project Name: Fresh and Clean

Boring No.: SB-10
(Drywell near to MW-2)
Sheet 1 **of** 1
By: Paul Barusich

Drilling Contractor: Aztech
Drill Rig: Geoprobe 6610DT
Date Started: 5/9/18

Geologist: Paul Barusich
Drilling Method: Direct Push
Drive Hammer Weight: --
Date Completed: 5/9/18

Boring Completion Depth: 20'
Ground Surface Elevation: 149.99'
Boring Diameter: 2"

Depth	No.	Type	Rec.	PID Per 6" (ppm)	Sample Description
0'-5'	1	GP	24"	2.1, 1.9 0.0, 0.0	0-1': Dark brown, fine to coarse subangular SAND and fine subrounded GRAVEL, moderately sorted, loose, moist, trace dark gray staining, trace chemical-like odor. 1'-2': Dark brown, fine to coarse subangular SAND and fine subrounded GRAVEL, moderately sorted, loose, moist, no staining, no odor.
5'-10'	2	GP	30"	0.0, 0.0 0.0, 0.0 0.0	Orange-tan, fine to medium subangular SAND, some fine to medium subrounded gravel, moderately sorted, loose, moist, no staining, no odor.
10-15'	3	GP	48"	0.0, 0.0 0.0, 0.0 0.0, 0.0 0.0, 0.0	Same as above.
15'-20'	4	GP	42"	0.0, 0.0 0.0, 0.0 0.0, 0.0 0.0	Orange-tan, fine to coarse subangular SAND and fine subrounded GRAVEL, moderately sorted, loose, moist, no staining, no odor.

Sample Types:
GP = Geoprobe

NOTES:
All depths from bottom of structure.
Bottom of structure is 18.5 feet below grade.
Sediment sample SS-10 collected at 0'-0.5' and subsurface soil samples SB-10(5'-7') and SB-10(10'-12') for analysis of TCL VOCs +10 TICs (8260C, 5035).

D&B ENGINEERS AND ARCHITECTS

Project No.: 3150-37
Project Name: Fresh and Clean

Boring No.: SB-11 (Drywell)
Sheet 1 **of** 1
By: Paul Barusich

Drilling Contractor: Aztech
Drill Rig: Geoprobe 6610DT
Date Started: 5/9/18

Geologist: Paul Barusich
Drilling Method: Direct Push
Drive Hammer Weight: --
Date Completed: 5/9/18

Boring Completion Depth: 20'
Ground Surface Elevation: 114.39'
Boring Diameter: 2"

Depth	No.	Type	Rec.	PID Per 6" (ppm)	Sample Description
0'-5'	1	GP	30"	0.2, 0.9 0.0, 0.0 0.0	0-1': Dark brown-gray, fine to medium subangular SAND, trace organic matter and fine subrounded gravel, moderately sorted, loose, moist, no staining, no odor. 1'-2.5': Tan-light gray, fine to medium subangular SAND, trace organic matter and fine subrounded gravel, moderately sorted, loose, moist, no staining, no odor.
5'-10'	2	GP	36"	0.0, 0.0 0.0, 0.0 0.0, 0.0	Tan-light gray, fine to medium subangular SAND, trace fine subrounded gravel, moderately sorted, loose, moist, no staining, no odor.
10'-15'	3	GP	36"	0.0, 0.0 0.0, 0.0 0.0, 0.0	Light gray-orange, fine to medium subangular SAND, trace fine subrounded gravel, moderately sorted, loose, moist, no staining, no odor.
15'-20'	4	GP	42"	0.0, 0.0 0.0, 0.0 0.0, 0.0 0.0	Tan, fine to medium subangular SAND, trace fine to medium subrounded gravel, poorly sorted, loose, moist, no staining, no odor.

Sample Types:
GP = Geoprobe

NOTES:
All depths from bottom of structure.
Bottom of structure is 21 feet below grade.
Sediment sample SS-11 collected at 0'-0.5' and subsurface soil sample SB-11(10'-12') for analysis of TCL VOCs +10 TICs (8260C, 5035).

D&B ENGINEERS AND ARCHITECTS

Project No.: 3150-37
Project Name: Fresh and Clean

Boring No.: SB-12
(Drywell adj. to Glen Head maint.bldg.)
Sheet 1 **of** 1
By: Paul Barusich

Drilling Contractor: Aztech
Drill Rig: Geoprobe 6610DT
Date Started: 5/9/18

Geologist: Paul Barusich
Drilling Method: Direct Push
Drive Hammer Weight: --
Date Completed: 5/9/18

Boring Completion Depth: 20'
Ground Surface Elevation: 149.51
Boring Diameter: 2"

Depth	No.	Type	Rec.	PID Per 6" (ppm)	Sample Description
0'-5'	1	GP	24"	0.0, 0.0 0.0, 0.0	0-1': Dark brown, fine to medium subangular SAND, trace silt and fine subrounded gravel and organic matter, moderately sorted, loose, moist, no staining, no odor. 1'-2': Brown, fine to medium subangular SAND, trace silt and fine subrounded gravel, moderately sorted, loose, moist, no staining, no odor.
5'-10'	2	GP	42"	0.0, 0.0 0.0, 0.0 0.0, 0.0 0.0	Brown, fine subangular SAND and fine to medium subrounded GRAVEL, moderately sorted, loose, moist, no staining, no odor.
10'-15'	3	GP	36"	0.0, 0.0 0.0, 0.0 0.0, 0.0	Tan, fine to coarse subangular SAND, some fine to medium subrounded gravel, moderately sorted, loose, moist, no staining, no odor.
15'-20'	4	GP	36"	0.0, 0.0 0.0, 0.0 0.0, 0.0	Same as above.

Sample Types:
GP = Geoprobe

NOTES:
All depths from bottom of structure.
Bottom of structure is 16.5 feet below grade.
Sediment sample SS-12 collected at 0'-0.5' and subsurface sample SB-12(10'-12') for analysis of TCL VOCs +10 TICs (8260C, 5035).

D&B ENGINEERS AND ARCHITECTS

Project No.: 3150-37
Project Name: Fresh and Clean

Boring No.: SS-14
Sheet 1 **of** 1
By: Tara Judge

Drilling Contractor: NA
Drill Rig: NA
Date Started: 1/24/2020

Geologist: Keith Robbins
Drilling Method: Hand Auger
Drive Hammer Weight: --
Date Completed: 1/24/2020

Boring Completion Depth: 2”
Ground Surface Elevation: NA
Boring Diameter: NA

Depth	No.	Type	Rec.	PID Per 6" (ppm)	Sample Description
0’-2”	1	HA	2”	100	0-2”: Brown – Light Orange, medium to coarse SAND, some subrounded gravel – trace silt, poorly sorted, loose to medium compaction, dry to damp, no staining, no odor.

Sample Types:
HA = Hand Auger

NOTES:
All depths from bottom of structure.
Bottom of structure is 6-8 feet below grade.
Sediment sample SS-14 collected at 0”-2”
for analysis of TCL VOCs +10 TICs (8260C, 5035).

D&B ENGINEERS AND ARCHITECTS

Project No.: 3150-37
Project Name: Fresh and Clean

Boring No.: SS-15
(Inside antique shop- next to sink/heating and venting system)
Sheet 1 **of** 1
By: Tara Judge

Drilling Contractor: NA
Drill Rig: NA
Date Started: 2/28/2020

Geologist: Keith Robbins
Drilling Method: Hand Auger
Drive Hammer Weight: --
Date Completed: 2/28/2020

Boring Completion Depth: 3”
Ground Surface Elevation: NA
Boring Diameter: NA

Depth	No.	Type	Rec.	PID Per 6" (ppm)	Sample Description
0’-3”	1	HA	3”	22	0-3”: Dark Brown – Light Black, fine to medium sand, trace gravel, some plastic, tape, rubber, piece of tile, binding plastic strips, small piece of insulation, small piece of aluminum, poorly sorted, loose, moist to wet (due to dripping condensate pipe), no staining, no odor.

Sample Types:
HA = Hand Auger

NOTES:
All depths from bottom of structure.
Bottom of structure is 42 inches below grade.
Sediment sample SS-15 collected at 0”-3”
for analysis of TCL VOCs +10 TICs (8260C, 5035).

D&B ENGINEERS AND ARCHITECTS

Project No.: 3150-37
Project Name: Fresh and Clean

Boring No.: SB-16
(Drywell down stairwell in front of store)
Sheet 1 **of** 1
By: Tara Judge

Drilling Contractor: NA
Drill Rig: NA
Date Started: 2/28/2020

Geologist: Keith Robbins
Drilling Method: Hand Auger
Drive Hammer Weight: --
Date Completed: 2/28/2020

Boring Completion Depth: 25”
Ground Surface Elevation: NA
Boring Diameter: 2”

Depth	No.	Type	Rec.	PID Per 6" (ppm)	Sample Description
0’-1’	1	HA	”	2.0, 7.2	0-1”: Brown- Dark brown, medium to coarse sand, some sub rounded gravel, trace roots and organic matter, poorly sorted, loose, small piece of metal, damp to moist, no staining, no odor.
				5.3	1”-3”: Dark Brown – Brown medium to coarse sand, sub-rounded gravel trace roots, poorly sorted, loose, damp, no staining, no odor.

Sample Types:
HA = Hand Auger

NOTES:
All depths from bottom of structure.
Bottom of structure is 4 feet below grade.
Sediment sample SS-16 collected at 0’-1’
for analysis of TCL VOCs +10 TICs (8260C, 5035).
MS/MSD collected

D&B ENGINEERS AND ARCHITECTS	**Project No.:** 3150-37 **Project Name:** Former Fresh and Clean	**Boring No.:** SB-17 **Sheet** 1 **of** 1 **By:** Carl Schmidlapp
Drilling Contractor: Aquifer Drilling & Testing, Inc. (ADT) **Drill Rig:** LMU6969 Track Mounter HSA **Date Started:** 7/27/2020	**Geologist:** Karen Kraft **Drilling Method:** Hallow Stem Auger **Drive Hammer Weight:** 140lbs **Date Completed:** 7/27/2020	**Boring Completion Depth:** 120' **Ground Surface Elevation:** -- **Boring Diameter:** 4.25"

Depth	No.	Type	Rec.	Blow Count	PID Per 6" (ppm)	Sample Description

Sample Types:
HA = Hand Auger
SS = Split spoon

NOTES:
Subsurface soil sample SB-17 collected at (23'-25') and subsurface soil sample SB-17 (105'-107') were submitted for analysis of TCL VOCs +10 by USEPA Method 8260C. Discrete-depth groundwater sample GW-17 was also collected.

D&B ENGINEERS AND ARCHITECTS	**Project No.:** 3150-37 **Project Name:** Former Fresh and Clean	**Boring No.:** SB-18 **Sheet** 1 **of** 1 **By:** Carl Schmidlapp
Drilling Contractor: Aquifer Drilling & Testing, Inc. (ADT) **Drill Rig:** LMU6969 Track Mounter HSA **Date Started:** 7/29/2020	**Geologist:** Karen Kraft **Drilling Method:** Hallow Stem Auger **Drive Hammer Weight:** 140lbs **Date Completed:** 7/30/2020	**Boring Completion Depth:** 120' **Ground Surface Elevation:** -- **Boring Diameter:** 4.25"

Depth	No.	Type	Rec.	Blow Count	PID Per 6" (ppm)	Sample Description

Sample Types:
HA = Hand Auger
SS = Split spoon

NOTES:
Subsurface soil sample SB-18 collected at (11'-13') and subsurface soil sample SB-18(106'-108') were submitted for analysis of TCL VOCs +10 by USEPA Method 8260C. Discrete-depth groundwater sample GW-18 was also collected.

D&B ENGINEERS AND ARCHITECTS

Project No.: 3150-37
Project Name: Former Fresh and Clean

Boring No.: SB-19
Sheet 1 **of** 3
By: Carl Schmidlapp

Drilling Contractor: Aquifer Drilling & Testing, Inc. (ADT)
Drill Rig: LMU6969 Track Mounter HSA
Date Started: 8/4/2020

Geologist: Carl Schmidlapp
Drilling Method: Hallow Stem Auger
Drive Hammer Weight: 140lbs
Date Completed: 8/5/2020

Boring Completion Depth: 120'
Ground Surface Elevation: --
Boring Diameter: 4.25"

Depth	No.	Type	Rec.	Blow Count	PID Per 6" (ppm)	Sample Description
0'-2'	1	HA	24"	NA	0.0, 0.0, 0.0, 0.0	Dark-brown light gray fine medium SAND, some gravel, crushed stone, poorly sorted, dry, no staining or odor.
2-4'	2	HA	24"	NA	0.0, 0.0, 0.0, 0.0	Dark-brown light orange fine medium SAND, some fine to coarse gravel, trace silt, poorly sorted, damp to dry, no staining or odor.
4-5	3	HA	12"	NA	0.0, 0.0	Brown to light orange silty SAND, trace fine gravel, moist to damp, no staining or odor.
5'-7'	4	SS	24"	18, 21, 17, 19	0.0, 0.0 0.0, 0.0	Tan-brown, medium to coarse SAND, some medium to coarse subrounded gravel, loose, dry, no staining or odor.
7'-9'	5	SS	18"	17, 20, 28, 31	85,90 2.1	Orange, medium to fine SAND, loose, dry, high PID, dry, no staining or odor.
9'-11'	6	SS	9"	27, 30, 25, 27	1.2, 0.0 0.0, 0.0 0.0, 0.0	Tan, medium to coarse SAND and fine to medium subrounded gravel, loose, dry, no odor or staining.
11'-13'	7	SS	16"	28, 27, 27, 29	0.0, 0.0 0.0, 0.0 0.0, 0.0 0.0, 0.0	Tan medium to coarse SAND and fine to medium subrounded gravel, moist, poorly sorted, loose, no odor or staining.
13'-15'	8	SS	18"	22, 25, 22, 22	0.0, 0.0 0.0	Light brown medium to coarse SAND, some subrounded gravel, loose, poorly sorted, moist, no odor or staining.
15'-17'	9	SS	15"	21, 20, 21, 23	0.0, 0.0	Same as above.
17'-19'	10	SS	13"	25, 29, 30, 35	0.0, 0.0	Same as above.
19'-21'	11	SS	17"	25, 24, 21, 27	0.0, 0.0	Gray, medium to coarse SAND, some medium to coarse subrounded gravel, moist, loose, poorly sorted, no odor or staining.
21'-23'	12	SS	13"	28, 30, 30, 31	0.0, 0.0	Gray medium to coarse SAND, trace medium well rounded gavel, loose, moist, no odor or staining.
23'-25'	13	SS	20"	21, 27, 25, 30	1.1, 2.4, 0,0	Brown medium to coarse SAND, some well rounded gravel, poorly sorted, loose, moist, no odor or staining.
25'-27'	14	SS	16"	27, 25, 31, 30	0.0, 0.0, 0.0	Same as above.

D&B ENGINEERS AND ARCHITECTS

Project No.: 3150-37
Project Name: Former Fresh and Clean

Boring No.: SB-19
Sheet 1 **of** 3
By: Carl Schmidlapp

Drilling Contractor: Aquifer Drilling & Testing, Inc. (ADT)
Drill Rig: LMU6969 Track Mounter HSA
Date Started: 8/4/2020

Geologist: Carl Schmidlapp
Drilling Method: Hallow Stem Auger
Drive Hammer Weight: 140lbs
Date Completed: 8/5/2020

Boring Completion Depth: 120'
Ground Surface Elevation: --
Boring Diameter: 4.25"

					PID Per 6"	Sample Description
30'-32'	15	SS	20"	19, 20, 21, 22	0.0, 0.0, 0.0	Gray/tan medium to coarse SAND, come medium to coarse well rounded gravel, loose, moist, no odor or staining.
35'-37'	16	SS	22"	23, 21, 21, 19	0.0, 0.0, 0.0, 0.0	Tan/brown medium to fine SAND, race well rounded gravel, loose, damp, no odor or staining.
40'-42'	17	SS	20"	18, 21, 21, 23	0.0, 0.0, 0.0, 0.0	Tan/redish medium to fine SAND, trace medium to coarse well rounded gravel, loose, damp, no odor or staining.
45'-47'	18	SS	18"	20, 19, 25, 21	0.0, 0.0, 0.0	Light tan, fine SAND, trace subrounded gravel, loose, damp, no odor or staining.
50'-52'	19	SS	20"	20, 21, 25, 26	0.0, 0.0, 0.0	Light tan fine SAND, well sorted loose, damp, no odor or staining.
55'-57'	20	SS	16"	22, 24, 26, 25	0.0, 0.0, 0.0	Tan fine SAND, well sorted, moist, loose, no odor or staning.
60'-62'	21	SS	16"	21, 21, 23, 21	0.0, 0.0, 0.0	Same as above.
65'-67'	22	SS	19"	21, 23, 21, 19	0.0, 0.0, 0.0	Same as above.
70'-72'	23	SS	18"	21, 20, 25, 25	0.0, 0.0, 0.0	Same as above.
75'-77'	24	SS	6"	20, 20, 23, 25	0.0, 0.0, 0.0	Tan medium to coarse SAND, trace well rounded gravel, loose, damp, no odor or staining.
80'-82'	25	SS	14"	22, 20, 25, 27	0.0, 0.0, 0.0	Tan medium to fine SAND, trace well rounded gravel, loose, damp, no odor or staining.
85'-87'	26	SS	12"	25, 24, 26, 26	0.0, 0.0	Tan/light tan medium to fine SAND, well sorted, loose, damp, no odor or staining.
90'-92'	27	SS	18"	28, 31, 29, 27	0.0, 0.0, 0.0	Same as above.
95'-97'	28	SS	14"	24, 23, 20, 20	0.0, 0.0	Tan medium to fine SAND, trace well rounded gravel, loose, poorly sorted, damp, no odor or staining.

D&B ENGINEERS AND ARCHITECTS

Project No.: 3150-37
Project Name: Former Fresh and Clean

Boring No.: SB-19
Sheet 1 **of** 3
By: Carl Schmidlapp

Drilling Contractor: Aquifer Drilling & Testing, Inc. (ADT)
Drill Rig: LMU6969 Track Mounter HSA
Date Started: 8/4/2020

Geologist: Carl Schmidlapp
Drilling Method: Hallow Stem Auger
Drive Hammer Weight: 140lbs
Date Completed: 8/5/2020

Boring Completion Depth: 120'
Ground Surface Elevation: --
Boring Diameter: 4.25"

					PID Per 6"	Sample Description
100'-102'	29	SS	12"	23, 25, 25, 26	0.0, 0.0	Same as above.
105'-107'	30	SS	18"	20, 23, 25, 24	0.0, 0.0, 0.0	Same as above.
107'-109'	31	SS	2"	21, 23, 25, 26`	0.0	Same as above.
110'-112'	32	SS	16"	20, 21, 24, 25	0.0, 0.0, 0.0	Light tan medium to fine SAND, well sorted, loose, damp, no odor or staining.
112'-114'	33	SS	16"	20, 22, 23, 24	0.0, 0.0, 0.0	Light tan medium to fine SAND, well sorted, loose, wet, no odor or staining.
114'-116'	34	SS	12"	25, 28, 28, 30	0.0, 0.0	Tan medium to fine SAND, trace medium to fine well rounded gravel, wet, no odor or staining.
116'-118'	35	SS	14"	27, 27, 24, 25	0.0, 0.0	Same as above.
118'-120'	36	SS	12"	27, 26, 25, 24	0.0, 0.0	Same as above.

Sample Types:
HA = Hand Auger
SS = Split Spoon

NOTES:
Subsurface soil sample SB-19 collected at (7'-8') and subsurface soil sample SB-19(110'-112') were submitted for analysis of TCL VOCs +10 by USEPA Method 8260C. Discrete-depth groundwater sample GW-19 collected from (113'-118').

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Paul Barusich Date/Time Prepared 3/2/18- 1130

Preparer's Affiliation DTB Engineers and Architects Phone No. 516-364-9890

Purpose of Investigation Indoor air assessment

1. OCCUPANT:

Interviewed: (Y) / N

Last Name: Fricke First Name: Doreen

Address: _____

County: _____

Home Phone: _____ Office Phone: 516-676 3725

Number of Occupants/persons at this location _____ Age of Occupants _____

2. OWNER OR LANDLORD: (Check if same as occupant ___)

Interviewed: (Y) / N

Last Name: ~~Caraisio~~ Caruso First Name: Giuseppe

Address: 6 Morris Ave. Glen Cove 11542

County: _____

Home Phone: _____ Office Phone: 516-972-1145

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential School (Commercial/Multi-use)
Industrial Church Other: _____

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:_____

If multiple units, how many? 2

If the property is commercial, type?

Business Type(s) Retail / textbooks

Does it include residences (i.e., multi-use)? Y / N If yes, how many? _____

Other characteristics:

Number of floors 2 Building age 40+ years

Is the building insulated? (Y) / N How air tight? Tight / (Average) / Not Tight

4. AIRFLOW (N/A)

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

Airflow near source

Outdoor air infiltration

Infiltration into air ducts

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction:	wood frame	(concrete)	stone	brick
b. Basement type:	full	crawlspace	(slab)	other _____
c. Basement floor:	(concrete)	dirt	stone	other _____
d. Basement floor:	(uncovered + covered)		covered with carpet	
e. Concrete floor:	unsealed	(sealed)	sealed with paint	
f. Foundation walls:	poured	(block)	stone	other _____
g. Foundation walls:	unsealed	(sealed)	sealed with _____	
h. The basement is:	wet	damp	(dry)	moldy
i. The basement is:	(finished)	unfinished	partially finished	
j. Sump present?	Y / (N) → Floordrain w/ potential drywell			
k. Water in sump?	Y / (N) not applicable			

Basement/Lowest level depth below grade: 0 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

Floor drain, minor cracking.

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

(Hot air circulation)	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other _____

The primary type of fuel used is:

(Natural Gas)	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Small electric heater, hot water heater on 2nd floor

Boiler/furnace located in:	(Basement)	Outdoors	Main Floor	Other _____
Air conditioning:	Central Air	(Window units)	Open Windows	None

Are there air distribution ducts present? (Y) / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

Hot air supply duct zigzag South/east from heater on southern wall in basement.

7. OCCUPANCY

Is basement/lowest level occupied? Full-time (Occasionally) Seldom Almost Never

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	Retail/Store
1st Floor	Retail
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / (N)

b. Does the garage have a separate heating unit? Y / N / (NA)

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / (NA) Please specify_____

d. Has the building ever had a fire? Y / (N) When?_____

e. Is a kerosene or unvented gas space heater present? Y / (N) Where?_____

f. Is there a workshop or hobby/craft area? Y / (N) Where & Type?_____

g. Is there smoking in the building? Y / (N) How frequently?_____

h. Have cleaning products been used recently? (Y) / N When & Type? Windex + wood oils

i. Have cosmetic products been used recently? Y / (N) When & Type?_____

j. Has painting/staining been done in the last 6 months? Y / (N) Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / (N) Where & When? _____

l. Have air fresheners been used recently? Y / (N) When & Type? _____

m. Is there a kitchen exhaust fan? Y / (N) If yes, where vented? _____

n. Is there a bathroom exhaust fan? (Y) / N If yes, where vented? outside.

o. Is there a clothes dryer? (Y) / N If yes, is it vented outside? (Y) / N

p. Has there been a pesticide application? Y / (N) When & Type? _____

Are there odors in the building? Y (N)
If yes, please describe: _____

Do any of the building occupants use solvents at work? Y / (N)
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) (No)
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / (N) Date of Installation: _____
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: (Public Water) Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: Public Sewer (Septic Tank) Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

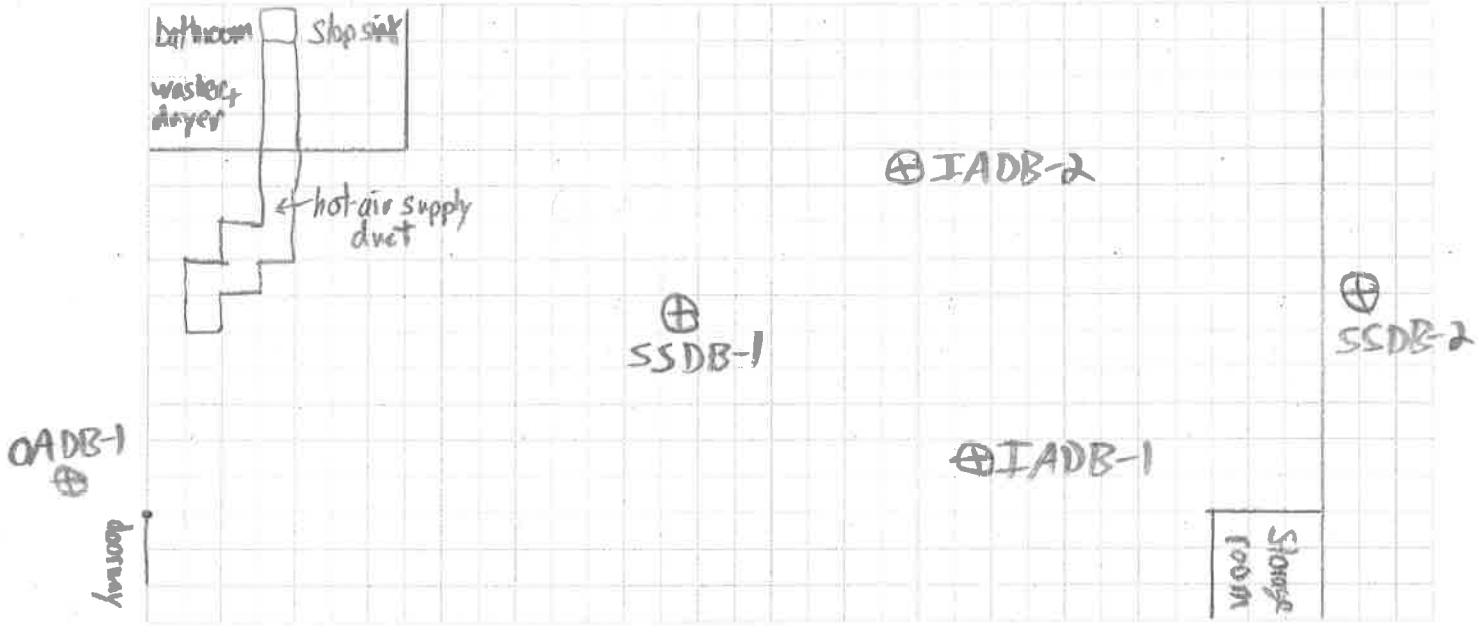
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:

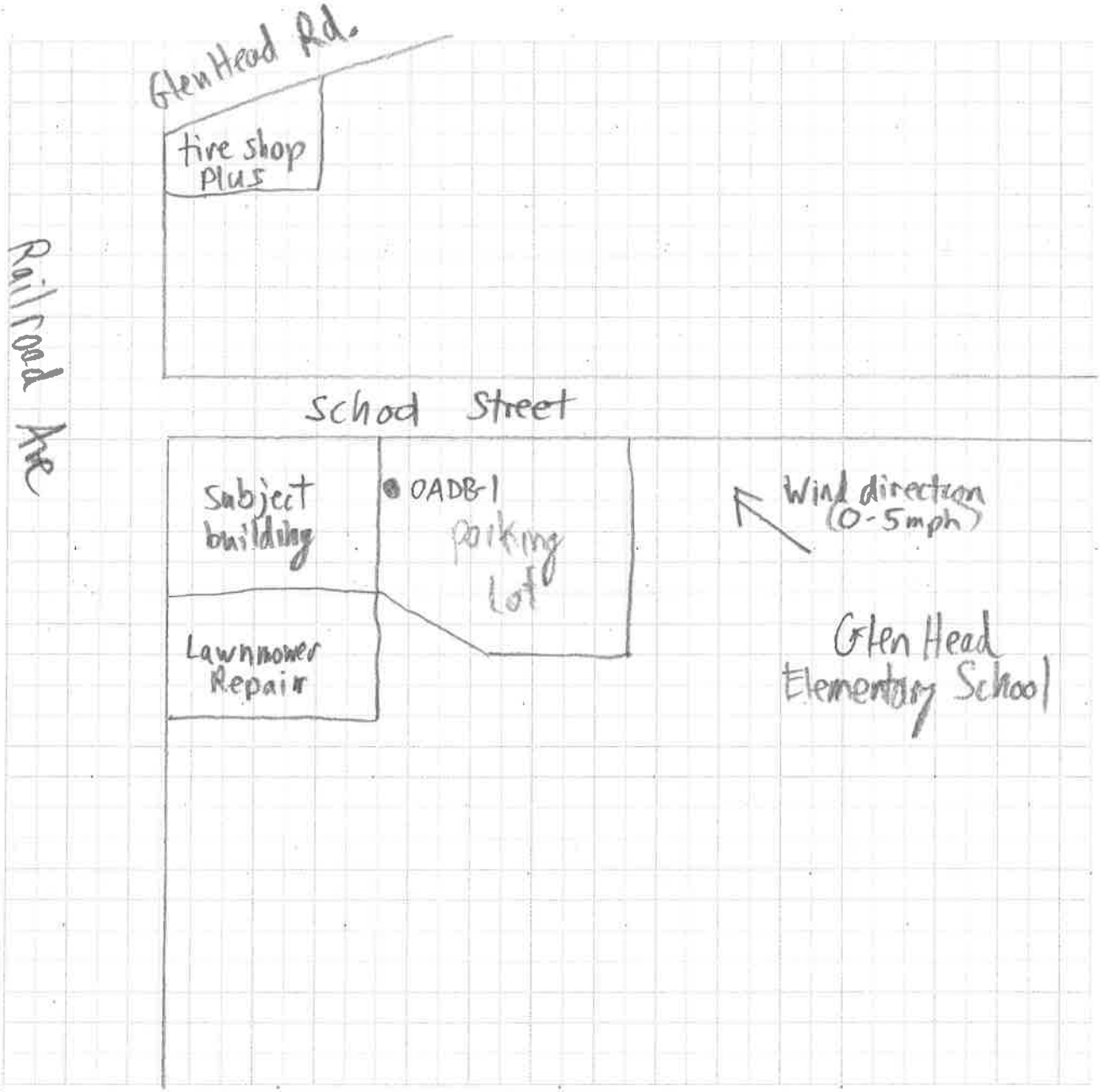


First Floor:

12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppb RAE 3000

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units) (ppb)	Photo** Y / N
Basement	Silicon lubricants	14oz	U (4 units)	petro. distillates, propane, N-butane	225	Y
	Acetone	1qt	U	acetone	192	Y
	Spectracide wasp hornet	1 lb	U	chlorpyrifos, trans-allethrin	217	Y
	WD-40	3oz	U	petro. distillates	219	Y
	3-in-1-oil	8oz	U (3-units)	petro. distillates	220	Y
	DAP caulk/silicon	10.1oz	U (2-units)	petro. distillates, Dipropylene glycol dibenzoate, diethylene	210	Y
	Sav-a-ceiling	16oz	U (2-units)	acetone, methanol, propane, xylene ethylbenzene	220	Y
	Gel-Gloss	12oz	U (2-units)	d-limonene, 4-nonylphenol, propoxypropan nonylphenol, ethoxylated	212	Y
	Krylon enamel	11oz	U (2-units)	propane, hexane, isohexane isomers cyclohexane	211	Y
	Rustoleum primer	12oz	U	propane, n-butyl acetate, acetone, methylethylketoxime, ethylbenzene	267	Y
	Kleanstrip acetone	1L	UO	acetone	277	Y
	Ronson starting fluid	10.7oz	U	carbon dioxide, n-heptane, ethyl ether	270	Y
	Great Stuff Gap+Cracks	16oz	U	polymeric diisocyanate, polyethane, prepolymers, isobutane	272	Y
	Beto Exterior Stripper	5gal	U	monoethanolamine	270	Y

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**

** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppb RAE 3000

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
Basement	WD-40	12oz	U (3units)	petro. distillates	378	Y
	Fuller windshield deicer	11.5oz	U	methyl alcohol, bitrex	390	Y
	Jet-fo windshield deicer	12oz	U	methyl alk., methanol, ethylglycol	370	Y
	Thrust starting fluid	11oz	U	heptane, ethane, 1,1' oxybis, petroleum	369	Y
	Painters Touch lacquer	12oz	U	acetone, butane, isobutane, xylene, 1,2,4 trimethylbenzene, mesitylene	369	Y
	Prestone belt dressing	7.5oz	U	petro-distillates, trimethylbenzene propane, butane	391	Y
	Rustoleum Gloss Enamel	12oz	U (11units)	propane, n-butyl acetate, acetone n-butane, xylenes, PtME, ethylbenzene	392	Y
	Thompsons Water Seal	32oz	U	heavy paraffinic oil, med. aliphatic H-C solvent, 3-iodo-2-propynyl butylcarbamate	329	Y
	Rustoleum Primer	14oz	U (2-units)	propane, n-butyl acetate, acetone, MEK, ethylbenzene	379	Y
	Great Stuff Foam Sealant	20oz	U	paraffin waxes, chlorinated hydrocarbon waxes, isobutane, propane methylether, 4,4methylenediphenyl diisocyanate	392	Y
	Bit-Dry Asphalt Cleaner	1qt	U		399	Y
	tile-seal undercoat	16oz	U	petro-distillates	378	Y
	Color Place spray paint	10oz	U (3-units)	aliphatic hydrocarbons, ketones toluene	390	Y
	Radioshack Lubricant	4.5oz	U	tetra-flouroethane, cyclomethicone	399	Y
	Windex	20oz	U	2-Butoxyethanol, ethylene glycol hexyl ether Isopropyl alcohol	397	Y
	Auto. transmission Fluid	1qt	U	xylenes	508	Y
	Schwinn Lubricant	11.5oz	D	LVP petro solvent, polydimethylsiloxane propane, n-butane	497	Y
	Gumout Carb. cleaner	16oz	U	acetone, xylene, MEK, petro. distillate propane	500	Y

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppb RAE 3000

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
Basement	Krylon Enamel	13oz	U	propane, hexane, isohexane, isomers cyclohexane	500	Y
	WD-40	11oz	D	petro distillates	502	Y
	Polyurethane foam seal.	12oz	UO	pentane mixes, chlorinated hydrocarbons isobutane, propane	502	Y
	Super 77 spray adhesive	16.5oz	U	acetone, propane, cyclohex, petro distillates, hexane	500	Y
	wheel + tire spray	32oz	U	2-propoxyethanol, Decylamine oxide, sodium oletin sulfonate, tetrasodium EDTA	508	Y
	Antifreeze	1gal	U	ethylene glycol, sodium tetraborate pentahydrate	510	Y
	Aresol	12oz	U	alchols, C10-14, ethoxylated glycolic acid	499	Y
	Paints					
	Greased Lightning	1-gal	U	2-methoxymethylethoxy propanol, 2,2' iminodiethanol	500	Y

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Keith Rubin Date/Time Prepared 1/26/2021 0930

Preparer's Affiliation D+S Engineers + Architects Phone No. 516 364-9810

Purpose of Investigation Indoor Air Sampling as part of RI Phase II

1. OCCUPANT:

Interviewed: Y / N

Last Name: Bruno First Name: Frank

Address: 22 Rail Road Avenue

County: Nassau

Home Phone: — Office Phone: 888-997259

Number of Occupants/persons at this location 10 Age of Occupants 30-75

2. OWNER OR LANDLORD: (Check if same as occupant ___)

Interviewed: Y (N) Not present

Last Name: — First Name: —

Address: —

County: —

Home Phone: — Office Phone: —

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	(Commercial)/Multi-use
Industrial	Church	Other: Book store office

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:_____

If multiple units, how many? 2

If the property is commercial, type?

Business Type(s) Bookstore - retail/textbooks

Does it include residences (i.e., multi-use)? Y / N If yes, how many? _____

Other characteristics:

Number of floors 2 Building age 40+ years

Is the building insulated? (Y) / N How air tight? Tight / (Average) / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

Forced hot air

Airflow near source

NA

Outdoor air infiltration

(3) bathrooms with all windows

(1) bathroom has exhaust fan

Infiltration into air ducts

Central air conditioning

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other _____
c. Basement floor:	concrete	dirt	stone	other _____
d. Basement floor:	uncovered +	covered	covered with carpets in some areas, tiles	
e. Concrete floor:	unsealed	sealed	sealed with paint in areas	
f. Foundation walls:	poured	block	stone	other _____
g. Foundation walls:	unsealed	sealed	sealed with _____	
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	unfinished	partially finished	
j. Sump present?	Y (N)			
k. Water in sump?	Y (N) not applicable			

Basement/Lowest level depth below grade: NA (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

None noted, drains have been sealed with concrete patch on top of drain locations

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other _____

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

(2) **Domestic hot water tank fueled by:** Natural gas ? - hot water heater on fourth floor

Boiler/furnace located in: Basement Outdoors (2) Main Floor 1st Floor Other _____

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? (Y) / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

NA

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	Retail /store (TAG SALE)
1st Floor	Store for Books, computer, hardware
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / (N)

b. Does the garage have a separate heating unit? Y / (N) / NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / (N) / NA
Please specify_____

d. Has the building ever had a fire? Y / (N) When?_____

e. Is a kerosene or unvented gas space heater present? Y / (N) Where?_____

f. Is there a workshop or hobby/craft area? Y / (N) Where & Type? _____

g. Is there smoking in the building? Y / (N) How frequently? _____

h. Have cleaning products been used recently? (Y) / N When & Type? Bathroom / bi weekly disinfectant cleaning supplies

i. Have cosmetic products been used recently? Y / (N) When & Type? _____

j. Has painting/staining been done in the last 6 months? Y / N Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / N Where & When? old carpet

l. Have air fresheners been used recently? Y / N When & Type? bathrooms

m. Is there a kitchen exhaust fan? Y / N If yes, where vented? _____

n. Is there a bathroom exhaust fan? Y / N If yes, where vented? 1 - aside

o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / N When & Type? ~~exterminator~~ once Do time in 14 years exterminator

Are there odors in the building? Y / N
If yes, please describe: N/A

Do any of the building occupants use solvents at work? Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) — No
Yes, use dry-cleaning infrequently (monthly or less) — Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: N/A
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: Public Water / Drilled Well / Driven Well / Dug Well / Other: _____

Sewage Disposal: Public Sewer / Septic Tank / Leach Field / Dry Well / Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: N/A

b. Residents choose to: remain in home / relocate to friends/family / relocate to hotel/motel N/A

c. Responsibility for costs associated with reimbursement explained? Y / N N/A

d. Relocation package provided and explained to residents? Y / N N/A

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: PID meter PPb

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units) ppb	Photo** Y / N
Bathroom/ storage upset	Febreeze	8oz	open/used	cyclodextrin, Alcohol, Sul Fosuccinate Dialkyl Sodium	0.0	Y
Storage closet	Lysol toilet cleaner	32oz	open/used	Alkyl chlorides, Dimethyl Benzyl Ammonium	0.0	Y
	windex Glass cleaner	23oz	open/used	2-Hexoxyethanol, Isopropanolamine Ammonium Hydroxide	0.0	Y
	Clorox disinfect	32oz	open/used	sodium hydroxide sodium carbonate, sodium hypochloride	0.0	Y
	Earth Enzyme	2lb	powder open used	Sodium Sesquicarbonate	0.0	Y
	Raid Ant Killer	17.5oz	used	pyrethoids, imiprothrin	0.0	Y
	Lysol spray	10oz	used	Benzyl Ammonium Chlorides	0.0	Y
	Loctite adhesive spray	16oz	used	heptane pentane,	49	Y
	soft scrub cleaner	24oz	used	Sodium dodecyl benzesulfonate calcium carbonate,	0.0	Y
	Krylon spray paint	12oz	used	methyl Acetate	0.0	Y
	sustainable Earth glass cleaner	1gal	used	sodium lauryl sulfate	0.0	Y
	Glance - Glass Cleaner	1gal	used	Alcohol, sodium lauryl sulfate	0.0	Y
	Screen cleaning spray - staples	8oz	used	unknown	0.0	Y
	smart value Disinfectant wipes	1lb 5.5oz	used	alkyldimethyl benzylammonium chloride	0.0	Y
	409 disinfectant spray	24oz	used	ethanol, Lauramide Oxide	0.0	Y

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

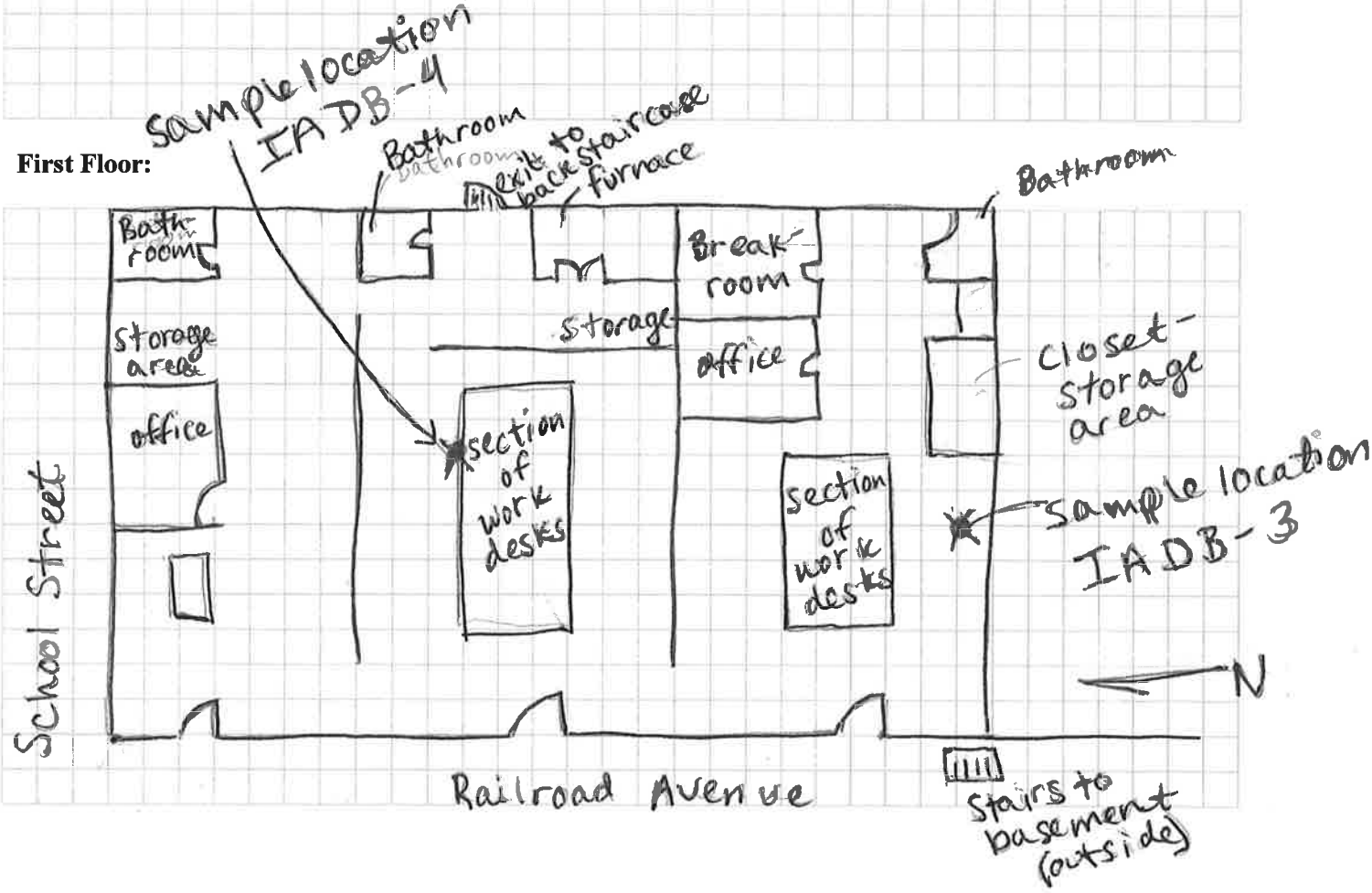
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement: NA

NA.

First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

NA.

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Tara Judge Date/Time Prepared 1/26/21

Preparer's Affiliation D & B Engineers & Architects Phone No. 516 367-9890

Purpose of Investigation Indoor air / subslab assessment

1. OCCUPANT:

Interviewed: (Y) / N

Last Name: Fricke First Name: Doreen / Garry

Address: - -

County: - -

Home Phone: - - Office Phone: 516-676-3725

Number of Occupants/persons at this location ~2 Age of Occupants 40-60 yo

2. OWNER OR LANDLORD: (Check if same as occupant ___)

Interviewed: Y / (N)

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	(Commercial/Multi-use)
Industrial	Church	Other: _____

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:_____

If multiple units, how many? 2

If the property is commercial, type?

Business Type(s) Retail / Antiques

Does it include residences (i.e., multi-use)? Y / (N) If yes, how many? _____

Other characteristics:

Number of floors 1 Building age 40+ years

Is the building insulated? (Y) / N How air tight? Tight / (Average) / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

None -

Airflow near source

~~Doors and (1) Garage door~~ (3)

Outdoor air infiltration

Doors and (1) Garage door

Infiltration into air ducts

NA

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction:	wood frame	(concrete)	stone	brick
b. Basement type:	full	crawlspace	(slab)	other _____
c. Basement floor:	(concrete)	dirt	stone	other _____
d. Basement floor:	(uncovered)	(covered)	covered with paint / (area rugs carpets)	
e. Concrete floor:	unsealed	(sealed)	sealed with paint	
f. Foundation walls:	poured	(block)	stone	other _____
g. Foundation walls:	unsealed	(sealed)	sealed with _____	
h. The basement is:	wet	(damp)	(dry)	moldy
i. The basement is:	finished	unfinished	(partially finished)	
j. Sump present?	Y (N)			
k. Water in sump?	Y (N)	(not applicable)		

Basement/Lowest level depth below grade: _____(feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

Minor floor cracking in concrete - no floor drains identified

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

(Hot air circulation)	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other _____

The primary type of fuel used is:

(Natural Gas)	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Small eletric heater

Boiler/furnace located in: (Basement) Outdoors Main Floor Other_____

Air conditioning: Central Air (Window units) Open Windows None

Are there air distribution ducts present? (Y) / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

Hot air supply duct move south/east from heater on southern wall.

7. OCCUPANCY

Is basement/lowest level occupied? Full-time (Occasionally) Seldom Almost Never

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	Retail Store
1st Floor	Office Space
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / (N)

b. Does the garage have a separate heating unit? Y / N (NA)

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / (NA) Please specify_____

d. Has the building ever had a fire? Y (N) When?_____

e. Is a kerosene or unvented gas space heater present? Y (N) Where?_____

f. Is there a workshop or hobby/craft area? Y (N) Where & Type? _____

g. Is there smoking in the building? Y / (N) How frequently? _____

h. Have cleaning products been used recently? (Y) / N When & Type? Windex, Woodoils

i. Have cosmetic products been used recently? Y / (N) When & Type? _____

j. Has painting/staining been done in the last 6 months? Y / (N) Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / (N) Where & When? _____

l. Have air fresheners been used recently? Y / (N) When & Type? _____

m. Is there a kitchen exhaust fan? Y / (N) If yes, where vented? _____

n. Is there a bathroom exhaust fan? (Y) / N If yes, where vented? outside

o. Is there a clothes dryer? (Y) / N If yes, is it vented outside? (Y) / N

p. Has there been a pesticide application? Y / (N) When & Type? _____

Are there odors in the building? Y / (N)
If yes, please describe: _____

Do any of the building occupants use solvents at work? Y / (N)
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) (No)
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / (N) Date of Installation: _____
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: (Public Water) Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: Public Sewer (Septic Tank) Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

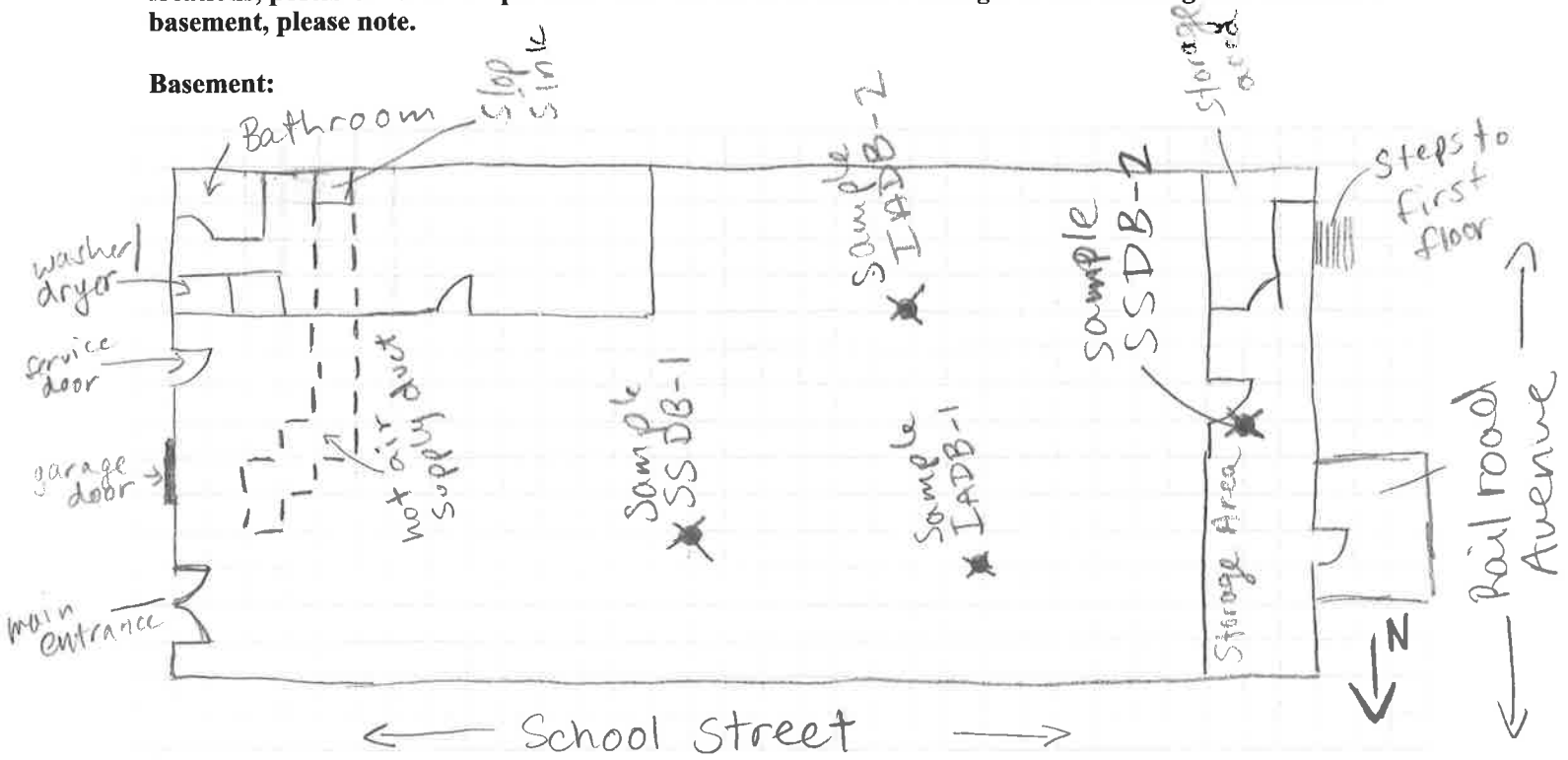
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:

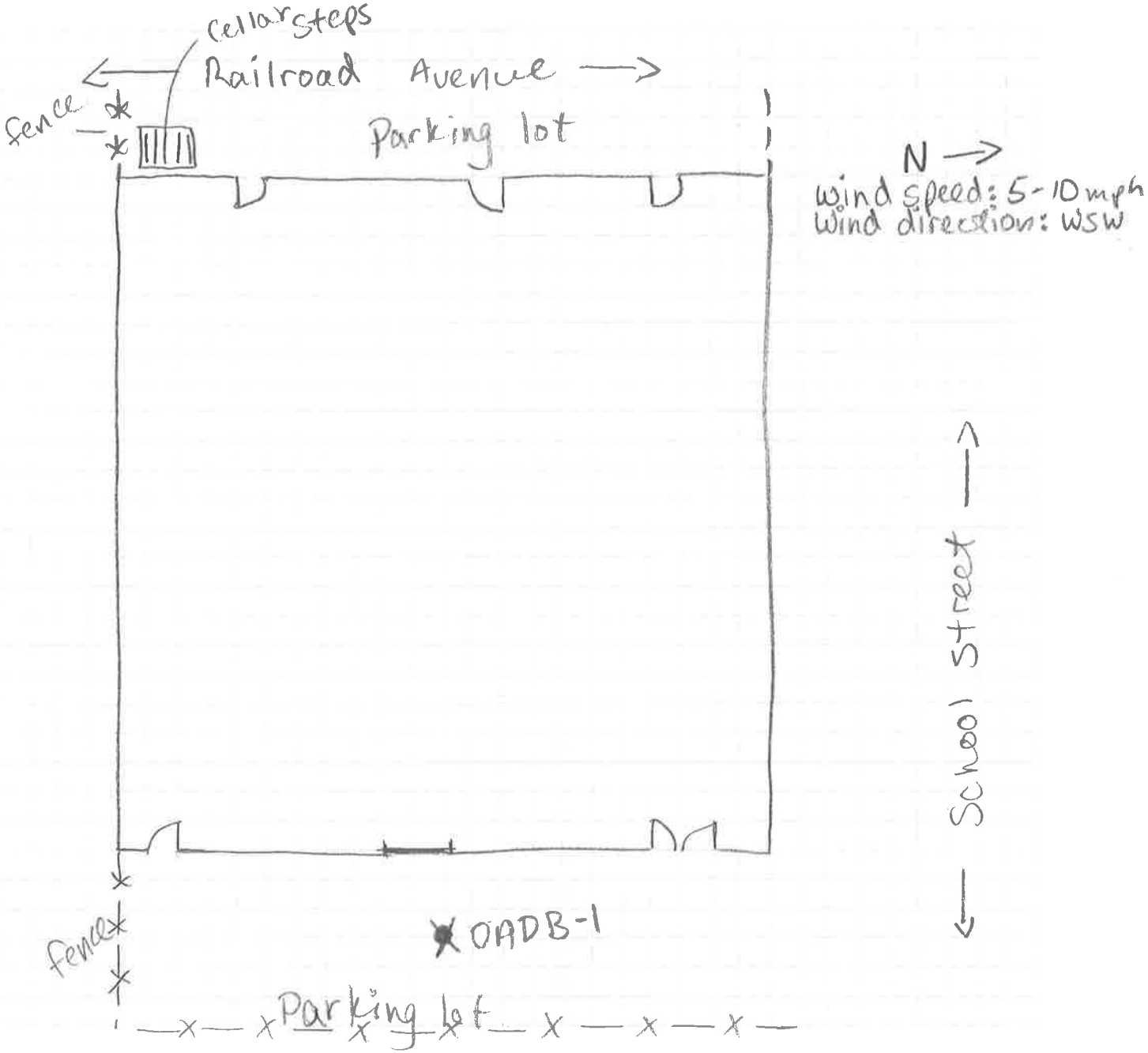


First Floor: NA

12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: PID 2000 ppb RAE

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units) ppb	Photo ** Y / N
Storage Closet	Krylon spray paint cans	10oz	used		400/136	Y
	Rustoleum lacquer can	10oz			43	Y
	Plexux can	13oz			6.3	Y
	3M Adhesive spray mount	16oz			193	Y
	Super Adhesive 3M	16oz			60ppb	Y
	Spot & Stain Remover Quality Care	10oz			56	Y
	minwax fast drying Polyurethane	11.5			56	Y
	Camz motor oil SAE	1 Qt.			77	Y
	minwax fast dry satin Polyurethane	8oz			70	Y
	Krylon Latex enamel paint	32oz			72	
	ortho season long max weed killer	1gal			721	
	Satin Enamel BEHR	1gal			114	
	Klean Strip ODOR less mineral spirits	1gal			207	
	BEHR Concrete Cleaner	1gal			110	
	Prestone RV antifreeze	1gal			87	
	Advanced Auto parts brake fluid	32fl oz			82	
	Rustoleum primer filler	13.75 fl oz			117	
	STP Protectant vinyl rubber leather	16Ft.			77	
	Havoline two cycle engine oil	1gal			221	

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: _____

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
Storage	Stainless Steel polish - Hagerty	12 oz	used		110	Y
	WD-40 Can 202 Spray	202			175	Y
	Mobil handy oil	12 oz			88	Y
	OOPS - All purpose Cleaner	4.5 oz			672	Y
	Caulk heavy duty	16 oz			00	Y
	Guards Scotch furniture polish	16 oz			331	Y
	motor oil - Hess	1 L.			109	Y
	NAPA Brake fluid	30 oz			110	Y
	Formula Shell motor oil 10w-30	1 Qt.			0.0	Y
	mopar Axel LUbe 75w-140	1 Qt.			100	Y
	DeKote enamel finish	12 oz			100	Y
	Rustoleum Lqquer Painters touch	11 oz			90	
	woolite - Heavy traffic carpet	22 oz			105	
(12)	WD-40 Lubricant	~~11 oz~~ 13 oz	8 oz		117	
	Prestone - Belt dressing lube	12 oz			85	
	Gunk starter fluid	11 oz			90ppb	
	Jet-Go deicer windsheild	20 oz			88	
	Brake fluid Autogard	8 oz			79	
	Graphite Lock-ease	3 oz			79	

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: _____

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
Storage	Turpentine Steam distite E-Z	16oz	used		93	
	Johnsons brake-fluid	12oz			90	
	Turtle wax Bug & Tar Remover	16oz			88	
	Rust treat	16oz			60	
	PB blaster - lube	11oz			86ppb	
	Fuller windshield de-icer	11.5			95ppb	
	3 in 1 garage door lube	12oz			89	
	Powdered Bleach comet / AJAX	14oz			100	
	Rustoleum Hammered Paint	32			100	
	BEHR semigloss enamel	32			105	
	FiteSeal - under-coating	16			106	
	Armstrong floor polish	32			105	
	Gunk - Engine degreaser	15			110	
	Rustoleum Enamel can	1gal			76	
	Kleanstrip denatured Alcohol	1Qt			80	
	Liquid wrench Rust Solvent	--			90	
	Loctite271 Thread Locker	1.7oz			120	
	STA Lube - Air tool oil	15 fl. oz			107	
	BEHR - paint primer	1gal			56/117	

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

APPENDIX D

STRUCTURE CLEANOUT REPORT

AB ENVIRONMENTAL

October 6, 2021

Mr. Joseph Jones
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233

Re: **Former Fresh and Clean Laundry – Investigation and Clean out of Two (2) Subsurface Structures and Disposal of (Hazardous) Waste Contaminated Material – Glen Head, NY**

Site: 22-26 Railroad Ave, Glen Head, NY 11545

Dear Mr. Jones,

On April 16, 2021 AB Environmental (ABE) was notified of the above referenced site and given a work authorization to provide the above stated services also including disposal of nine (9) drums of hazardous contaminated material generated previously from a cleaning performed by another vendor. AB Environmental profiled the existing drums, prepared the necessary disposal documentation, obtained approval for disposal along with generator signature for the documents. The nine (9) drums were loaded and removed from the site for proper disposal at Triumvirate Environmental (NYC) LLC, Astoria, NY.

AB then began coordinating the two (2) structure cleanout. On July 8th, 2021 ABE dispatched a crew to the site including a Vactor (High Velocity Vacuum Truck), Liquid Vacuum Truck and Box truck with Drums, Materials and a Video Camera to clean out the structures and view the structures from the inside. A total of 28 sludge, (liquid/solid) drums were generated during the clean out. The drums were removed from the site at four (4) instances in accordance with the disposal facilities acceptance volume per trip. Presently all the drums are removed from the site and were delivered for disposal.

If you have any questions please feel free to contact me at 631-567-6545 or kwalsh@abenviro.com.

Sincerely,

Kenneth Walsh
Kenneth Walsh
Business Manager
AB Environmental

1599 Ocean Avenue
Bohemia, New York 11716
Ph. (631) 567-6545 ~ fax (631) 567-9390
www.abenvironmental.com
NYSDEC: 1A002 * USEPA: NYD987023371

AB ENVIRONMENTAL

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eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-238488-1
Client Project/Site: Former Fresh & Clean Laundry Site:130111

For:
New York State D.E.C.
625 Broadway
12th Floor
Albany, New York 12233-7017

Attn: Joseph Jones

Authorized for release by:
7/22/2021 10:26:52 AM

Julie Gilmore, Project Manager I
(484)685-0865
Julie.Gilmore@Eurofinset.com

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Julie Gilmore
Project Manager I
7/22/2021 10:26:52 AM

Table of Contents

Definitions/Glossary

Client: New York State D.E.C. Job ID: 460-238488-1
Project/Site: Former Fresh & Clean Laundry Site:130111

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
D	The reported value is from a dilution.
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Sample result is greater than the MDL but below the CRDL
U	Indicates analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 460-238488-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

CASE NARRATIVE

Client: New York State D.E.C.

Project: Former Fresh & Clean Laundry Site:130111

Report Number: 460-238488-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 07/09/2021; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.4 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample SL1 (460-238488-2) was analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were prepared on 07/13/2021 and analyzed on 07/14/2021.

The continuing calibration verification (CCV) associated with batch 460-790164 recovered above the upper control limit for 1,1,2-Trichloro-1,2,2-trifluoroethane and Dichlorodifluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The following sample was diluted to bring the concentration of target analytes within the calibration range: SL1 (460-238488-2). Elevated reporting limits (RLs) are provided.

The following sample required a dilution due to the nature of the sample matrix: SL1 (460-238488-2). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

1,2-Dichloroethane-d4 (Surr), 4-Bromofluorobenzene, Dibromofluoromethane (Surr) and Toluene-d8 (Surr) failed the surrogate recovery criteria low for SL1 (460-238488-2). Refer to the QC report for details.

No other difficulties were encountered during the Volatiles analysis.

All other quality control parameters were within the acceptance limits.

TCLP METALS

Job ID: 460-238488-1 (Continued)

Laboratory: Eurofins TestAmerica, Edison (Continued)

Sample L1 (460-238488-1) was analyzed for TCLP metals in accordance with 6010D. The samples were leached on 07/14/2021, and prepared and analyzed on 07/15/2021.

No other difficulties were encountered during the TCLP metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICP)
Sample SL1 (460-238488-2) was analyzed for Total Metals (ICP) in accordance with EPA SW-846 Methods 6010D. The samples were prepared on 07/17/2021 and analyzed on 07/18/2021.

Silver failed the recovery criteria low for the MS of sample 460-238912-1 in batch 460-791109.

Refer to the QC report for details.

No other difficulties were encountered during the Total Metals (ICP) analysis.

All other quality control parameters were within the acceptance limits.

TCLP MERCURY
Sample L1 (460-238488-1) was analyzed for TCLP mercury in accordance with EPA SW-846 Methods 1311/7470A. The samples were leached on 07/14/2021, and prepared and analyzed on 07/21/2021.

No difficulties were encountered during the TCLP Hg analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY
Sample SL1 (460-238488-2) was analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 07/15/2021.

Sample SL1 (460-238488-2)[3X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the Hg analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE
Sample SL1 (460-238488-2) was analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 07/14/2021.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: New York State D.E.C.
Job ID: 460-238488-1
Project/Site: Former Fresh & Clean Laundry Site:130111

Client Sample ID: L1
Lab Sample ID: 460-238488-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	128	J	1000	66.0	ug/L	5		6010D	TCLP
Mercury	0.13	J	0.20	0.091	ug/L	1		7470A	TCLP

Client Sample ID: SL1
Lab Sample ID: 460-238488-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1200000		320000	84000	ug/Kg	20000	☼	8260D	Total/NA
Trichloroethene	2200000		320000	71000	ug/Kg	20000	☼	8260D	Total/NA
Tetrachloroethene	54000000		320000	120000	ug/Kg	20000	☼	8260D	Total/NA
Silver	22.5		8.0	4.5	mg/Kg	2	☼	6010D	Total/NA
Arsenic	28.5		12.0	2.5	mg/Kg	2	☼	6010D	Total/NA
Barium	1930		160	15.5	mg/Kg	2	☼	6010D	Total/NA
Cadmium	34.1		3.2	0.28	mg/Kg	2	☼	6010D	Total/NA
Chromium	98.9		8.0	5.7	mg/Kg	2	☼	6010D	Total/NA
Lead	594		8.0	1.3	mg/Kg	2	☼	6010D	Total/NA
Selenium	4.3	J	16.0	2.7	mg/Kg	2	☼	6010D	Total/NA
Mercury	5.9		0.26	0.060	mg/Kg	3	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: L1
Lab Sample ID: 460-238488-1
Date Collected: 07/08/21 12:00
Matrix: Water
Date Received: 07/09/21 17:30

Method: 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	50.0	U	50.0	28.9	ug/L		07/15/21 05:31	07/15/21 15:41	5
Arsenic	75.0	U	75.0	16.7	ug/L		07/15/21 05:31	07/15/21 15:41	5
Barium	**128**	**J**	1000	66.0	ug/L		07/15/21 05:31	07/15/21 15:41	5
Cadmium	20.0	U	20.0	1.6	ug/L		07/15/21 05:31	07/15/21 15:41	5
Chromium	50.0	U	50.0	24.9	ug/L		07/15/21 05:31	07/15/21 15:41	5
Lead	50.0	U	50.0	11.8	ug/L		07/15/21 05:31	07/15/21 15:41	5
Selenium	100	U	100	29.4	ug/L		07/15/21 05:31	07/15/21 15:41	5

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.13**	**J**	0.20	0.091	ug/L		07/21/21 14:02	07/21/21 15:50	1

Client Sample ID: SL1
Lab Sample ID: 460-238488-2
Date Collected: 07/08/21 12:06
Matrix: Solid
Date Received: 07/09/21 17:30
Percent Solids: 17.8

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	320000	U	320000	130000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Bromomethane	320000	U	320000	180000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Vinyl chloride	320000	U	320000	64000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Chloroethane	320000	U	320000	120000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Methylene Chloride	320000	U	320000	68000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Acetone	1600000	U	1600000	1400000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Carbon disulfide	320000	U	320000	220000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Trichlorofluoromethane	320000	U	320000	100000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
1,1-Dichloroethene	320000	U	320000	85000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
1,1-Dichloroethane	320000	U	320000	77000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
trans-1,2-Dichloroethene	320000	U	320000	58000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
cis-1,2-Dichloroethene	**1200000**		320000	84000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Chloroform	320000	U	320000	71000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
1,2-Dichloroethane	320000	U	320000	81000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
2-Butanone (MEK)	1600000	U	1600000	710000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
1,1,1-Trichloroethane	320000	U	320000	90000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Carbon tetrachloride	320000	U	320000	110000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Dichlorobromomethane	320000	U	320000	48000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
1,2-Dichloropropane	320000	U	320000	58000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
cis-1,3-Dichloropropene	320000	U	320000	71000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Trichloroethene	**2200000**		320000	71000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Chlorodibromomethane	320000	U	320000	71000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
1,1,2-Trichloroethane	320000	U	320000	66000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Benzene	320000	U	320000	65000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
trans-1,3-Dichloropropene	320000	U	320000	71000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Bromoform	320000	U	320000	58000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
4-Methyl-2-pentanone (MIBK)	1600000	U	1600000	420000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
2-Hexanone	1600000	U	1600000	370000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Tetrachloroethene	**54000000**		320000	120000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
1,1,2,2-Tetrachloroethane	320000	U	320000	64000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Toluene	320000	U	320000	81000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Chlorobenzene	320000	U	320000	77000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000

Client Sample ID: SL1
Date Collected: 07/08/21 12:06
Date Received: 07/09/21 17:30

Lab Sample ID: 460-238488-2
Matrix: Solid
Percent Solids: 17.8

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	320000	U	320000	97000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Styrene	320000	U	320000	55000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
m-Xylene & p-Xylene	320000	U	320000	90000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
o-Xylene	320000	U	320000	100000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
1,1,2-Trichloro-1,2,2-trifluoroethane	320000	U	320000	110000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Methyl tert-butyl ether	320000	U	320000	69000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Cyclohexane	320000	U	320000	84000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Ethylene Dibromide	320000	U	320000	61000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
1,3-Dichlorobenzene	320000	U	320000	110000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
1,4-Dichlorobenzene	320000	U	320000	110000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
1,2-Dichlorobenzene	320000	U	320000	71000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Dichlorodifluoromethane	320000	U	320000	100000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
1,2,4-Trichlorobenzene	320000	U	320000	87000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
1,4-Dioxane	16000000	U	16000000	9100000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
1,2,3-Trichlorobenzene	320000	U	320000	110000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
1,2-Dibromo-3-Chloropropane	320000	U	320000	68000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Chlorobromomethane	320000	U	320000	97000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Isopropylbenzene	320000	U	320000	100000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Methyl acetate	1600000	U	1600000	250000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000
Methylcyclohexane	320000	U	320000	230000	ug/Kg	☼	07/13/21 09:49	07/14/21 17:36	20000

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼			*07/13/21 09:49*	*07/14/21 17:36*	*20000*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*0*	*D*	*70 - 150*	*07/13/21 09:49*	*07/14/21 17:36*	*20000*
Toluene-d8 (Surr)	*0*	*D*	*68 - 148*	*07/13/21 09:49*	*07/14/21 17:36*	*20000*
4-Bromofluorobenzene	*0*	*D*	*62 - 150*	*07/13/21 09:49*	*07/14/21 17:36*	*20000*
Dibromofluoromethane (Surr)	*0*	*D*	*54 - 150*	*07/13/21 09:49*	*07/14/21 17:36*	*20000*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	**22.5**		8.0	4.5	mg/Kg	☼	07/17/21 20:20	07/18/21 17:58	2
Arsenic	**28.5**		12.0	2.5	mg/Kg	☼	07/17/21 20:20	07/18/21 17:58	2
Barium	**1930**		160	15.5	mg/Kg	☼	07/17/21 20:20	07/18/21 17:58	2
Cadmium	**34.1**		3.2	0.28	mg/Kg	☼	07/17/21 20:20	07/18/21 17:58	2
Chromium	**98.9**		8.0	5.7	mg/Kg	☼	07/17/21 20:20	07/18/21 17:58	2
Lead	**594**		8.0	1.3	mg/Kg	☼	07/17/21 20:20	07/18/21 17:58	2
Selenium	**4.3**	**J**	16.0	2.7	mg/Kg	☼	07/17/21 20:20	07/18/21 17:58	2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**5.9**		0.26	0.060	mg/Kg	☼	07/15/21 04:15	07/15/21 10:20	3

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**82.2**		1.0	1.0	%			07/14/21 08:19	1
Percent Solids	**17.8**		1.0	1.0	%			07/14/21 08:19	1

Surrogate Summary

Client: New York State D.E.C.
Job ID: 460-238488-1
Project/Site: Former Fresh & Clean Laundry Site:130111

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(70-150)	(68-148)	(62-150)	(54-150)
460-238488-2	SL1	0 D	0 D	0 D	0 D
LCS 460-790164/4	Lab Control Sample	101	101	96	103
LCSD 460-790164/5	Lab Control Sample Dup	101	101	97	100
MB 460-790164/9	Method Blank	107	100	97	103

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-790164/9
Matrix: Solid
Analysis Batch: 790164

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	50	U	50	20	ug/Kg			07/14/21 11:41	50
Bromomethane	50	U	50	28	ug/Kg			07/14/21 11:41	50
Vinyl chloride	50	U	50	10	ug/Kg			07/14/21 11:41	50
Chloroethane	50	U	50	19	ug/Kg			07/14/21 11:41	50
Methylene Chloride	50	U	50	11	ug/Kg			07/14/21 11:41	50
Acetone	250	U	250	220	ug/Kg			07/14/21 11:41	50
Carbon disulfide	50	U	50	34	ug/Kg			07/14/21 11:41	50
Trichlorofluoromethane	50	U	50	16	ug/Kg			07/14/21 11:41	50
1,1-Dichloroethene	50	U	50	13	ug/Kg			07/14/21 11:41	50
1,1-Dichloroethane	50	U	50	12	ug/Kg			07/14/21 11:41	50
trans-1,2-Dichloroethene	50	U	50	9.0	ug/Kg			07/14/21 11:41	50
cis-1,2-Dichloroethene	50	U	50	13	ug/Kg			07/14/21 11:41	50
Chloroform	50	U	50	11	ug/Kg			07/14/21 11:41	50
1,2-Dichloroethane	50	U	50	13	ug/Kg			07/14/21 11:41	50
2-Butanone (MEK)	250	U	250	110	ug/Kg			07/14/21 11:41	50
1,1,1-Trichloroethane	50	U	50	14	ug/Kg			07/14/21 11:41	50
Carbon tetrachloride	50	U	50	17	ug/Kg			07/14/21 11:41	50
Dichlorobromomethane	50	U	50	7.5	ug/Kg			07/14/21 11:41	50
1,2-Dichloropropane	50	U	50	9.0	ug/Kg			07/14/21 11:41	50
cis-1,3-Dichloropropene	50	U	50	11	ug/Kg			07/14/21 11:41	50
Trichloroethene	50	U	50	11	ug/Kg			07/14/21 11:41	50
Chlorodibromomethane	50	U	50	11	ug/Kg			07/14/21 11:41	50
1,1,2-Trichloroethane	50	U	50	10	ug/Kg			07/14/21 11:41	50
Benzene	50	U	50	10	ug/Kg			07/14/21 11:41	50
trans-1,3-Dichloropropene	50	U	50	11	ug/Kg			07/14/21 11:41	50
Bromoform	50	U	50	9.0	ug/Kg			07/14/21 11:41	50
4-Methyl-2-pentanone (MIBK)	250	U	250	65	ug/Kg			07/14/21 11:41	50
2-Hexanone	250	U	250	57	ug/Kg			07/14/21 11:41	50
Tetrachloroethene	50	U	50	18	ug/Kg			07/14/21 11:41	50
1,1,2,2-Tetrachloroethane	50	U	50	9.9	ug/Kg			07/14/21 11:41	50
Toluene	50	U	50	13	ug/Kg			07/14/21 11:41	50
Chlorobenzene	50	U	50	12	ug/Kg			07/14/21 11:41	50
Ethylbenzene	50	U	50	15	ug/Kg			07/14/21 11:41	50
Styrene	50	U	50	8.5	ug/Kg			07/14/21 11:41	50
m-Xylene & p-Xylene	50	U	50	14	ug/Kg			07/14/21 11:41	50
o-Xylene	50	U	50	16	ug/Kg			07/14/21 11:41	50
1,1,2-Trichloro-1,2,2-trifluoroethane	50	U	50	17	ug/Kg			07/14/21 11:41	50
Methyl tert-butyl ether	50	U	50	11	ug/Kg			07/14/21 11:41	50
Cyclohexane	50	U	50	13	ug/Kg			07/14/21 11:41	50
Ethylene Dibromide	50	U	50	9.5	ug/Kg			07/14/21 11:41	50
1,3-Dichlorobenzene	50	U	50	17	ug/Kg			07/14/21 11:41	50
1,4-Dichlorobenzene	50	U	50	17	ug/Kg			07/14/21 11:41	50
1,2-Dichlorobenzene	50	U	50	11	ug/Kg			07/14/21 11:41	50
Dichlorodifluoromethane	50	U	50	16	ug/Kg			07/14/21 11:41	50
1,2,4-Trichlorobenzene	50	U	50	14	ug/Kg			07/14/21 11:41	50
1,4-Dioxane	2500	U	2500	1400	ug/Kg			07/14/21 11:41	50
1,2,3-Trichlorobenzene	50	U	50	18	ug/Kg			07/14/21 11:41	50
1,2-Dibromo-3-Chloropropane	50	U	50	11	ug/Kg			07/14/21 11:41	50

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-790164/9
Matrix: Solid
Analysis Batch: 790164

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobromomethane	50	U	50	15	ug/Kg			07/14/21 11:41	50
Isopropylbenzene	50	U	50	16	ug/Kg			07/14/21 11:41	50
Methyl acetate	250	U	250	39	ug/Kg			07/14/21 11:41	50
Methylcyclohexane	50	U	50	36	ug/Kg			07/14/21 11:41	50

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*					*07/14/21 11:41*	*50*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 150*		*07/14/21 11:41*	*50*
Toluene-d8 (Surr)	*100*		*68 - 148*		*07/14/21 11:41*	*50*
4-Bromofluorobenzene	*97*		*62 - 150*		*07/14/21 11:41*	*50*
Dibromofluoromethane (Surr)	*103*		*54 - 150*		*07/14/21 11:41*	*50*

Lab Sample ID: LCS 460-790164/4
Matrix: Solid
Analysis Batch: 790164

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	1000	1070		ug/Kg		107	47 - 150
Bromomethane	1000	1090		ug/Kg		109	39 - 150
Vinyl chloride	1000	1110		ug/Kg		111	57 - 150
Chloroethane	1000	1090		ug/Kg		109	61 - 142
Methylene Chloride	1000	1040		ug/Kg		104	74 - 127
Acetone	5000	4910		ug/Kg		98	56 - 127
Carbon disulfide	1000	1100		ug/Kg		110	67 - 134
Trichlorofluoromethane	1000	1200		ug/Kg		120	66 - 133
1,1-Dichloroethene	1000	1080		ug/Kg		108	72 - 128
1,1-Dichloroethane	1000	1050		ug/Kg		105	79 - 124
trans-1,2-Dichloroethene	1000	1070		ug/Kg		107	77 - 127
cis-1,2-Dichloroethene	1000	1060		ug/Kg		106	80 - 120
Chloroform	1000	1050		ug/Kg		105	80 - 120
1,2-Dichloroethane	1000	998		ug/Kg		100	62 - 132
2-Butanone (MEK)	5000	5010		ug/Kg		100	65 - 131
1,1,1-Trichloroethane	1000	1060		ug/Kg		106	73 - 121
Carbon tetrachloride	1000	1010		ug/Kg		101	68 - 123
Dichlorobromomethane	1000	993		ug/Kg		99	77 - 120
1,2-Dichloropropane	1000	1040		ug/Kg		104	78 - 125
cis-1,3-Dichloropropene	1000	997		ug/Kg		100	71 - 132
Trichloroethene	1000	1030		ug/Kg		103	77 - 120
Chlorodibromomethane	1000	953		ug/Kg		95	74 - 120
1,1,2-Trichloroethane	1000	983		ug/Kg		98	79 - 120
Benzene	1000	1040		ug/Kg		104	80 - 120
trans-1,3-Dichloropropene	1000	974		ug/Kg		97	68 - 132
Bromoform	1000	901		ug/Kg		90	62 - 121
4-Methyl-2-pentanone (MIBK)	5000	5120		ug/Kg		102	80 - 120
2-Hexanone	5000	4990		ug/Kg		100	80 - 121
Tetrachloroethene	1000	993		ug/Kg		99	73 - 120

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-790164/4
Matrix: Solid
Analysis Batch: 790164

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1,2,2-Tetrachloroethane			1000	1080		ug/Kg		108	74 - 138		
Toluene			1000	1010		ug/Kg		101	80 - 120		
Chlorobenzene			1000	992		ug/Kg		99	80 - 120		
Ethylbenzene			1000	960		ug/Kg		96	72 - 121		
Styrene			1000	967		ug/Kg		97	74 - 124		
m-Xylene & p-Xylene			1000	958		ug/Kg		96	72 - 120		
o-Xylene			1000	949		ug/Kg		95	72 - 123		
1,1,2-Trichloro-1,2,2-trifluoroethane			1000	1280		ug/Kg		128	63 - 137		
Methyl tert-butyl ether			1000	1010		ug/Kg		101	77 - 125		
Cyclohexane			1000	1200		ug/Kg		120	76 - 125		
Ethylene Dibromide			1000	986		ug/Kg		99	80 - 120		
1,3-Dichlorobenzene			1000	1050		ug/Kg		105	80 - 120		
1,4-Dichlorobenzene			1000	1030		ug/Kg		103	80 - 120		
1,2-Dichlorobenzene			1000	1040		ug/Kg		104	80 - 120		
Dichlorodifluoromethane			1000	1300		ug/Kg		130	45 - 145		
1,2,4-Trichlorobenzene			1000	1080		ug/Kg		108	70 - 138		
1,4-Dioxane			20000	21000		ug/Kg		105	80 - 126		
1,2,3-Trichlorobenzene			1000	1090		ug/Kg		109	70 - 145		
1,2-Dibromo-3-Chloropropane			1000	959		ug/Kg		96	73 - 131		
Chlorobromomethane			1000	1040		ug/Kg		104	80 - 121		
Isopropylbenzene			1000	975		ug/Kg		98	67 - 125		
Methyl acetate			2000	1980		ug/Kg		99	41 - 150		
Methylcyclohexane			1000	1270		ug/Kg		127	61 - 136		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 150*
Toluene-d8 (Surr)	*101*		*68 - 148*
4-Bromofluorobenzene	*96*		*62 - 150*
Dibromofluoromethane (Surr)	*103*		*54 - 150*

Lab Sample ID: LCSD 460-790164/5
Matrix: Solid
Analysis Batch: 790164

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloromethane			1000	1040		ug/Kg		104	47 - 150	3	30
Bromomethane			1000	1050		ug/Kg		105	39 - 150	3	30
Vinyl chloride			1000	1080		ug/Kg		108	57 - 150	3	30
Chloroethane			1000	1060		ug/Kg		106	61 - 142	3	30
Methylene Chloride			1000	1040		ug/Kg		104	74 - 127	0	30
Acetone			5000	5000		ug/Kg		100	56 - 127	2	30
Carbon disulfide			1000	1050		ug/Kg		105	67 - 134	4	30
Trichlorofluoromethane			1000	1170		ug/Kg		117	66 - 133	3	30
1,1-Dichloroethene			1000	1050		ug/Kg		105	72 - 128	3	30
1,1-Dichloroethane			1000	1030		ug/Kg		103	79 - 124	2	30
trans-1,2-Dichloroethene			1000	1030		ug/Kg		103	77 - 127	4	30
cis-1,2-Dichloroethene			1000	1020		ug/Kg		102	80 - 120	5	30
Chloroform			1000	1030		ug/Kg		103	80 - 120	2	30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-790164/5
Matrix: Solid
Analysis Batch: 790164

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane			1000	997		ug/Kg		100	62 - 132	0	30
2-Butanone (MEK)			5000	4910		ug/Kg		98	65 - 131	2	30
1,1,1-Trichloroethane			1000	1030		ug/Kg		103	73 - 121	3	30
Carbon tetrachloride			1000	973		ug/Kg		97	68 - 123	3	30
Dichlorobromomethane			1000	978		ug/Kg		98	77 - 120	2	30
1,2-Dichloropropane			1000	995		ug/Kg		99	78 - 125	5	30
cis-1,3-Dichloropropene			1000	985		ug/Kg		99	71 - 132	1	30
Trichloroethene			1000	1000		ug/Kg		100	77 - 120	3	30
Chlorodibromomethane			1000	947		ug/Kg		95	74 - 120	1	30
1,1,2-Trichloroethane			1000	992		ug/Kg		99	79 - 120	1	30
Benzene			1000	1030		ug/Kg		103	80 - 120	1	30
trans-1,3-Dichloropropene			1000	980		ug/Kg		98	68 - 132	1	30
Bromoform			1000	874		ug/Kg		87	62 - 121	3	30
4-Methyl-2-pentanone (MIBK)			5000	5090		ug/Kg		102	80 - 120	1	30
2-Hexanone			5000	4930		ug/Kg		99	80 - 121	1	30
Tetrachloroethene			1000	963		ug/Kg		96	73 - 120	3	30
1,1,2,2-Tetrachloroethane			1000	1050		ug/Kg		105	74 - 138	3	30
Toluene			1000	1010		ug/Kg		101	80 - 120	0	30
Chlorobenzene			1000	989		ug/Kg		99	80 - 120	0	30
Ethylbenzene			1000	951		ug/Kg		95	72 - 121	1	30
Styrene			1000	958		ug/Kg		96	74 - 124	1	30
m-Xylene & p-Xylene			1000	962		ug/Kg		96	72 - 120	0	30
o-Xylene			1000	940		ug/Kg		94	72 - 123	1	30
1,1,2-Trichloro-1,2,2-trifluoroethane			1000	1220		ug/Kg		122	63 - 137	5	30
Methyl tert-butyl ether			1000	1000		ug/Kg		100	77 - 125	1	30
Cyclohexane			1000	1130		ug/Kg		113	76 - 125	6	30
Ethylene Dibromide			1000	1010		ug/Kg		101	80 - 120	2	30
1,3-Dichlorobenzene			1000	1030		ug/Kg		103	80 - 120	2	30
1,4-Dichlorobenzene			1000	1000		ug/Kg		100	80 - 120	3	30
1,2-Dichlorobenzene			1000	1020		ug/Kg		102	80 - 120	2	30
Dichlorodifluoromethane			1000	1300		ug/Kg		130	45 - 145	0	30
1,2,4-Trichlorobenzene			1000	1080		ug/Kg		108	70 - 138	0	30
1,4-Dioxane			20000	22500		ug/Kg		112	80 - 126	7	30
1,2,3-Trichlorobenzene			1000	1090		ug/Kg		109	70 - 145	0	30
1,2-Dibromo-3-Chloropropane			1000	930		ug/Kg		93	73 - 131	3	30
Chlorobromomethane			1000	1010		ug/Kg		101	80 - 121	3	30
Isopropylbenzene			1000	967		ug/Kg		97	67 - 125	1	30
Methyl acetate			2000	1980		ug/Kg		99	41 - 150	0	30
Methylcyclohexane			1000	1200		ug/Kg		120	61 - 136	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 150*
Toluene-d8 (Surr)	*101*		*68 - 148*
4-Bromofluorobenzene	*97*		*62 - 150*
Dibromofluoromethane (Surr)	*100*		*54 - 150*

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 460-790427/1-A
Matrix: Water
Analysis Batch: 790529

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 790427

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.0	U	10.0	5.8	ug/L		07/15/21 05:31	07/15/21 15:12	1
Arsenic	15.0	U	15.0	3.3	ug/L		07/15/21 05:31	07/15/21 15:12	1
Barium	200	U	200	13.2	ug/L		07/15/21 05:31	07/15/21 15:12	1
Cadmium	4.0	U	4.0	0.33	ug/L		07/15/21 05:31	07/15/21 15:12	1
Chromium	10.0	U	10.0	5.0	ug/L		07/15/21 05:31	07/15/21 15:12	1
Lead	10.0	U	10.0	2.4	ug/L		07/15/21 05:31	07/15/21 15:12	1
Selenium	20.0	U	20.0	5.9	ug/L		07/15/21 05:31	07/15/21 15:12	1

Lab Sample ID: LCS 460-790427/2-A ^2
Matrix: Water
Analysis Batch: 790529

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 790427

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	500	492.4		ug/L		98	80 - 120
Arsenic	5000	5018		ug/L		100	80 - 120
Barium	10000	10510		ug/L		105	80 - 120
Cadmium	1000	1090		ug/L		109	80 - 120
Chromium	5000	5260		ug/L		105	80 - 120
Lead	5000	5454		ug/L		109	80 - 120
Selenium	1000	1000		ug/L		100	80 - 120

Lab Sample ID: MB 460-791006/1-A ^2
Matrix: Solid
Analysis Batch: 791109

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 791006

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	2.0	U	2.0	1.1	mg/Kg		07/17/21 20:20	07/18/21 16:01	2
Arsenic	3.0	U	3.0	0.62	mg/Kg		07/17/21 20:20	07/18/21 16:01	2
Barium	40.0	U	40.0	3.9	mg/Kg		07/17/21 20:20	07/18/21 16:01	2
Cadmium	0.80	U	0.80	0.069	mg/Kg		07/17/21 20:20	07/18/21 16:01	2
Chromium	2.0	U	2.0	1.4	mg/Kg		07/17/21 20:20	07/18/21 16:01	2
Lead	2.0	U	2.0	0.32	mg/Kg		07/17/21 20:20	07/18/21 16:01	2
Selenium	4.0	U	4.0	0.68	mg/Kg		07/17/21 20:20	07/18/21 16:01	2

Lab Sample ID: LCSSRM 460-791006/2-A
Matrix: Solid
Analysis Batch: 791109

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 791006

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	33.6	19.43		mg/Kg		57.8	48.2 - 73.5
Arsenic	140	143.5		mg/Kg		102.5	82.9 - 117.9
Barium	202	213.9		mg/Kg		105.9	81.2 - 118.3
Cadmium	97.9	101.2		mg/Kg		103.3	80.0 - 119.5
Chromium	60.4	61.10		mg/Kg		101.2	80.3 - 119.7
Lead	56.7	63.29		mg/Kg		111.6	82.9 - 116.9

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 460-791006/2-A
Matrix: Solid
Analysis Batch: 791109

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 791006

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	35.5	36.65		mg/Kg		103.2	77.5 - 122.3

Lab Sample ID: LB 460-790055/1-E ^5
Matrix: Water
Analysis Batch: 790529

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 790427

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	50.0	U	50.0	28.9	ug/L		07/15/21 05:31	07/15/21 15:45	5
Arsenic	75.0	U	75.0	16.7	ug/L		07/15/21 05:31	07/15/21 15:45	5
Barium	1000	U	1000	66.0	ug/L		07/15/21 05:31	07/15/21 15:45	5
Cadmium	20.0	U	20.0	1.6	ug/L		07/15/21 05:31	07/15/21 15:45	5
Chromium	50.0	U	50.0	24.9	ug/L		07/15/21 05:31	07/15/21 15:45	5
Lead	50.0	U	50.0	11.8	ug/L		07/15/21 05:31	07/15/21 15:45	5
Selenium	100	U	100	29.4	ug/L		07/15/21 05:31	07/15/21 15:45	5

Lab Sample ID: LB 460-790296/1-B ^5
Matrix: Water
Analysis Batch: 790529

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 790427

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	50.0	U	50.0	28.9	ug/L		07/15/21 05:31	07/15/21 15:49	5
Arsenic	75.0	U	75.0	16.7	ug/L		07/15/21 05:31	07/15/21 15:49	5
Barium	1000	U	1000	66.0	ug/L		07/15/21 05:31	07/15/21 15:49	5
Cadmium	20.0	U	20.0	1.6	ug/L		07/15/21 05:31	07/15/21 15:49	5
Chromium	50.0	U	50.0	24.9	ug/L		07/15/21 05:31	07/15/21 15:49	5
Lead	50.0	U	50.0	11.8	ug/L		07/15/21 05:31	07/15/21 15:49	5
Selenium	100	U	100	29.4	ug/L		07/15/21 05:31	07/15/21 15:49	5

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 460-791686/1-A
Matrix: Water
Analysis Batch: 791747

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 791686

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.091	ug/L		07/21/21 14:02	07/21/21 15:32	1

Lab Sample ID: LCS 460-791686/2-A
Matrix: Water
Analysis Batch: 791747

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 791686

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	5.00	4.94		ug/L		99	80 - 120

Client: New York State D.E.C.
Job ID: 460-238488-1
Project/Site: Former Fresh & Clean Laundry Site:130111

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LB 460-790296/1-C
Matrix: Water
Analysis Batch: 791747

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 791686

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.091	ug/L		07/21/21 14:02	07/21/21 16:16	1

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 460-790422/1-A
Matrix: Solid
Analysis Batch: 790490

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 790422

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0040	mg/Kg		07/15/21 04:15	07/15/21 09:01	1

Lab Sample ID: LCSSRM 460-790422/2-A ^40
Matrix: Solid
Analysis Batch: 790490

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 790422

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			16.5	15.78		mg/Kg		95.6	74.5 - 124.8		

QC Association Summary

Client: New York State D.E.C.
Job ID: 460-238488-1
Project/Site: Former Fresh & Clean Laundry Site:130111

GC/MS VOA

Prep Batch: 789965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-238488-2	SL1	Total/NA	Solid	5035	

Analysis Batch: 790164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-238488-2	SL1	Total/NA	Solid	8260D	789965
MB 460-790164/9	Method Blank	Total/NA	Solid	8260D	
LCS 460-790164/4	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-790164/5	Lab Control Sample Dup	Total/NA	Solid	8260D	

Metals

Leach Batch: 790055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 460-790055/1-E ^5	Method Blank	TCLP	Water	1311	

Leach Batch: 790296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-238488-1	L1	TCLP	Water	1311	
LB 460-790296/1-B ^5	Method Blank	TCLP	Water	1311	
LB 460-790296/1-C	Method Blank	TCLP	Water	1311	

Prep Batch: 790422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-238488-2	SL1	Total/NA	Solid	7471B	
MB 460-790422/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-790422/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	

Prep Batch: 790427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-238488-1	L1	TCLP	Water	3010A	790296
LB 460-790055/1-E ^5	Method Blank	TCLP	Water	3010A	790055
LB 460-790296/1-B ^5	Method Blank	TCLP	Water	3010A	790296
MB 460-790427/1-A	Method Blank	Total/NA	Water	3010A	
LCS 460-790427/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	

Analysis Batch: 790490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-238488-2	SL1	Total/NA	Solid	7471B	790422
MB 460-790422/1-A	Method Blank	Total/NA	Solid	7471B	790422
LCSSRM 460-790422/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	790422

Analysis Batch: 790529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-238488-1	L1	TCLP	Water	6010D	790427
LB 460-790055/1-E ^5	Method Blank	TCLP	Water	6010D	790427
LB 460-790296/1-B ^5	Method Blank	TCLP	Water	6010D	790427
MB 460-790427/1-A	Method Blank	Total/NA	Water	6010D	790427
LCS 460-790427/2-A ^2	Lab Control Sample	Total/NA	Water	6010D	790427

QC Association Summary

Client: New York State D.E.C.
Job ID: 460-238488-1
Project/Site: Former Fresh & Clean Laundry Site:130111

Metals

Prep Batch: 791006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-238488-2	SL1	Total/NA	Solid	3050B	
MB 460-791006/1-A ^2	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-791006/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 791109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-238488-2	SL1	Total/NA	Solid	6010D	791006
MB 460-791006/1-A ^2	Method Blank	Total/NA	Solid	6010D	791006
LCSSRM 460-791006/2-A	Lab Control Sample	Total/NA	Solid	6010D	791006

Prep Batch: 791686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-238488-1	L1	TCLP	Water	7470A	790296
LB 460-790296/1-C	Method Blank	TCLP	Water	7470A	790296
MB 460-791686/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-791686/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 791747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-238488-1	L1	TCLP	Water	7470A	791686
LB 460-790296/1-C	Method Blank	TCLP	Water	7470A	791686
MB 460-791686/1-A	Method Blank	Total/NA	Water	7470A	791686
LCS 460-791686/2-A	Lab Control Sample	Total/NA	Water	7470A	791686

General Chemistry

Analysis Batch: 790169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-238488-2	SL1	Total/NA	Solid	Moisture	

Lab Chronicle

Client: New York State D.E.C.
Job ID: 460-238488-1
Project/Site: Former Fresh & Clean Laundry Site:130111

Client Sample ID: L1
Lab Sample ID: 460-238488-1
Date Collected: 07/08/21 12:00
Matrix: Water
Date Received: 07/09/21 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			790296	07/14/21 12:30	JDP	TAL EDI
TCLP	Prep	3010A			790427	07/15/21 05:31	GMC	TAL EDI
TCLP	Analysis	6010D		5	790529	07/15/21 15:41	CDC	TAL EDI
TCLP	Leach	1311			790296	07/14/21 12:30	JDP	TAL EDI
TCLP	Prep	7470A			791686	07/21/21 14:02	RBS	TAL EDI
TCLP	Analysis	7470A		1	791747	07/21/21 15:50	RBS	TAL EDI

Client Sample ID: SL1
Lab Sample ID: 460-238488-2
Date Collected: 07/08/21 12:06
Matrix: Solid
Date Received: 07/09/21 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	790169	07/14/21 08:19	NZP	TAL EDI

Client Sample ID: SL1
Lab Sample ID: 460-238488-2
Date Collected: 07/08/21 12:06
Matrix: Solid
Date Received: 07/09/21 17:30
Percent Solids: 17.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			789965	07/13/21 09:49	YXG	TAL EDI
Total/NA	Analysis	8260D		20000	790164	07/14/21 17:36	MZS	TAL EDI
Total/NA	Prep	3050B			791006	07/17/21 20:20	GAE	TAL EDI
Total/NA	Analysis	6010D		2	791109	07/18/21 17:58	CDC	TAL EDI
Total/NA	Prep	7471B			790422	07/15/21 04:15	TJS	TAL EDI
Total/NA	Analysis	7471B		3	790490	07/15/21 10:20	TJS	TAL EDI

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: New York State D.E.C. Job ID: 460-238488-1
Project/Site: Former Fresh & Clean Laundry Site:130111

Laboratory: Eurofins TestAmerica, Edison

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Connecticut	State	PH-0200	09-30-22
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	12-31-21
Georgia	State	12028 (NJ)	06-30-22
Massachusetts	State	M-NJ312	06-30-22
New Jersey	NELAP	12028	06-30-22
New York	NELAP	11452	04-01-22
Pennsylvania	NELAP	68-00522	02-28-22
Rhode Island	State	LAO00132	12-30-21
USDA	US Federal Programs	P330-20-00244	11-03-23

Method Summary

Client: New York State D.E.C.
Job ID: 460-238488-1
Project/Site: Former Fresh & Clean Laundry Site:130111

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
6010D	Metals (ICP)	SW846	TAL EDI
7470A	Mercury (CVAA)	SW846	TAL EDI
7471B	Mercury (CVAA)	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI
1311	TCLP Extraction	SW846	TAL EDI
3010A	Preparation, Total Metals	SW846	TAL EDI
3050B	Preparation, Metals	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI
7470A	Preparation, Mercury	SW846	TAL EDI
7471B	Preparation, Mercury	SW846	TAL EDI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: New York State D.E.C.
Job ID: 460-238488-1
Project/Site: Former Fresh & Clean Laundry Site:130111

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-238488-1	L1	Water	07/08/21 12:00	07/09/21 17:30
460-238488-2	SL1	Solid	07/08/21 12:06	07/09/21 17:30

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice) Ken Walsh	Samplers Name (Printed) Ken Walsh	Site/Project Identification Former Fresh & Clean Laundry
Company AB Environmental	P. O. # 139934/C160500	State (Location of site): NJ: ☐ NY: ☒ Other:
Address 1599 Ocean Ave	Analysis Turnaround Time: Standard ☒	Regulatory Program:
City Bohemia State NY	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	LAB USE ONLY Project No:
Phone 631-567-6545 Fax 631-567-9390		Job No: 238488

Sample Identification	Date	Time	Matrix	No. of Cont.	RCRA Metals 6010	Total Metals 6010									Sample Numbers
L1	7/8/21	1200	L	1	X										1
SL1	7/8/21	1206	SL	2	X	X									2

NYC 222

460-238488 Chain of Custody

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH
6 = Other _____, 7 = Other _____

Soil: X X
Water: X X

Special Instructions Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
1) Ken Walsh	AB Enviro	7/9 1702	1)	
Relinquished by 2)	Company	Date / Time 7/9 1530	Received by 2)	Company
Relinquished by 3)	Company	Date / Time 7/9/21 1730	Received by 3)	Company 7/9/21 1730
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).
Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0814)

29 24 RG

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Page ____ of ____

Job Number: 238488

Number of Coolers: 1 IR Gun # 9

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	29 °C	24 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

EDS-WI-038, Rev 4.1
10/22/2019

Initials: Kamal **Date:** 7 9 21

Login Sample Receipt Checklist

Client: New York State D.E.C. Job Number: 460-238488-1

Login Number: 238488 **List Source: Eurofins TestAmerica, Edison**
List Number: 1
Creator: Rivera, Kenneth

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 460-238488-1

Login Number: 238488
List Number: 2
Creator: Miller, Jill K

List Source: Eurofins TestAmerica, Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.		
The cooler's custody seal, if present, is intact.		
Sample custody seals, if present, are intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time (excluding tests with immediate HTs)		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		

APPENDIX E

DISPOSAL INFORMATION

3531413 4/8

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
N / A	1	(267) 406-0083	41711

GENERATOR

5. Generator's Name and Mailing Address
NYSDEC
625 Broadway
Albany NY 12233
Att: Joseph Jones
Generator's Phone: 518 402-3044

Generator's Site Address (if different than mailing address)
NYSDEC
Former Fresh and Clean Laundry Site:22-26 Railroad Ave.
Glen Head NY 11545

6. Transporter 1 Company Name: Innovative Recycling Technologies, Inc.
U.S. EPA ID Number: NYR000134940

7. Transporter 2 Company Name: Republic Environmental Systems (Trans Group)LLC
U.S. EPA ID Number: PAD982661381

8. Designated Facility Name and Site Address
Republic Environmental Systems (PA), LLC
2869 Sandstone Drive
Hatfield PA 19440
Facility's Phone: 215 822-8995
U.S. EPA ID Number: PAD085690592

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non Hazardous Water Non-DOT Regulated Material	3	DM	600	P	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
9.1) 113909
Doc# 164548-19

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Anthony Luciano agent for NYSDEC
Signature: [signature]
Month 3 Day 26 Year 19

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: FRANCIS MCSHANE
Signature: [signature]
Month 3 Day 26 Year 19

Transporter 2 Printed/Typed Name: Ed Bookhamer
Signature: [signature]
Month 4 Day 03 Year 19

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: MALVEY DMW
Signature: [signature]
Month 04 Day 08 Year 19

169-BLC-O 6 10498 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

10/13 4139301

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
N / A	1	(267) 406-0083	42669

GENERATOR

5. Generator's Name and Mailing Address
NYSDEC
625 Broadway
Albany NY 12233
Generator's Phone:

Generator's Site Address (if different than mailing address)
NYSDEC
Sixth Avenue & W. 9th Street
New York NY 10011

6. Transporter 1 Company Name: Innovative Recycling Technologies, Inc.
U.S. EPA ID Number: NYR000134940

7. Transporter 2 Company Name: Republic Environmental Systems (Trans Group) LLC
U.S. EPA ID Number: PAD982661381

8. Designated Facility Name and Site Address
Republic Environmental Systems (PA), LLC
2869 Sandstone Drive
Hatfield PA 19440
Facility's Phone: 215 822-8555
U.S. EPA ID Number: PAD085690592

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1	Non Hazardous Groundwater Non-DOT Regulated Material	1	DM	200	P	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Doc# 56H832 – 20

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: As agent of NYSDEC Carl Schmidlapp
Signature: Carl Schmidlapp
Month 9 Day 30 Year 20

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Willie Kennedy
Signature: Willie Kennedy
Month 09 Day 30 Year 20

Transporter 2 Printed/Typed Name: JESSICA PHUNG
Signature: Jessica Phung
Month 10 Day 12 Year 20

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: MARK VERDUIN
Signature:
Month 10 Day 13 Year 20

169-BLC-O 6 10498 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

12/14 4220561

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
NYR000248187	1	(267) 406-0083	42837

GENERATOR

5. Generator's Name and Mailing Address
NYSDEC
Att: Joseph Jones
625 Broadway
Albany NY 12233
Generator's Phone: 518 402-3044

Generator's Site Address (if different than mailing address)
NYSDEC
Former Fresh and Clean Laundry Site;22-26 Railroad Ave.
Glen Head NY 11545

6. Transporter 1 Company Name
Innovative Recycling Technologies, Inc.
U.S. EPA ID Number
NYR000134940

7. Transporter 2 Company Name
Republic Environmental Systems (Trans Group) LLC
U.S. EPA ID Number
PAD982661381

8. Designated Facility Name and Site Address
Republic Environmental Systems (PA), LLC
2869 Sandstone Drive
Hatfield PA 19440
Facility's Phone: 215 822-8995
U.S. EPA ID Number
PAD085690592

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non Hazardous Soil Non-DOT Regulated Material	04	DM	2800	P	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
9.11
Doc# 708689-20

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Keith Robins as agent for NYSDEC
Signature: Keith Robins
Month 12 Day 16 Year 20

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Willie Kennedy
Signature: Willie Kennedy
Month 12 Day 16 Year 20

Transporter 2 Printed/Typed Name:
Signature:
Month 12 Day 18 Year 2020

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: MARK EDMUNDS
Signature:
Month 12 Day 29 Year 20

169-BLC-O 6 10498 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

708088-20

4220561 12/14

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYR000248187	1	(287) 406-0083	020104527 JJK

GENERATOR

5. Generator's Name and Mailing Address
NYSDEC
625 Broadway
Albany NY 12233
Attn: Joseph Jones
Generator's Phone: 518 402-3044

Generator's Site Address (if different than mailing address)
NYSDEC
Former Fresh and Clean Laundry Site:22-26 Railroad Ave.
Glen Head NY 11545

6. Transporter 1 Company Name: Innovative Recycling Technologies, Inc.
U.S. EPA ID Number: NYR000134940

7. Transporter 2 Company Name: Republic Environmental Systems (Trans Group) LLC
U.S. EPA ID Number: PAD982661381

8. Designated Facility Name and Site Address
Republic Environmental Systems (PA), LLC
2869 Sandstone Drive
Hatfield PA 19440
Facility's Phone: 215 822-8995
U.S. EPA ID Number: PAD085690592

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. NA3077, Hazardous waste, solid, n.o.s. 9, PGIII, (D039,F009) (Tetrachloroethylene) ERG#171	20	DM	10,000	P	D039	F009	T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
9b. Trial Sediment-
Dock 708088-20

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Keith Robins as agent for NYSDEC
Signature: Keith Robins
Month 12 Day 16 Year 20

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Willie Kennedy
Signature: Willie Kennedy
Month 12 Day 16 Year 20

Transporter 2 Printed/Typed Name: Nathan Bell
Signature: NBell
Month 12 Day 18 Year 2020

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: MALVEY DUNN
Signature:
Month 12 Day 24 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

APPENDIX F

ANALYTICAL RESULTS

Table 1
Former Fresh and Clean Laundry
Glen Head, New York
Summary of Air Sample Analytical Results
Volatile Organic Compounds

Sample ID	IADB-1	IADB-1	IADB-1	IADB-2	IADB-2	IADB-2	NYSDOH Air Guideline Value ug/m3
Sampling Date	03/14/18	02/28/19	01/26/21	03/14/18	02/28/19	01/26/21	
Sample Type:	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	
Units	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	
1,1,1-Trichloroethane	U	0.25 J	0.42 J	U	0.24 J	0.23 J	--
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	--
1,1,2-Trichloro-1,2,2-Trifluoroethane	U	0.53 J	U	U	0.51 J	U	--
1,1,2-Trichloroethane	U	U	U	U	U	U	--
1,1-Dichloroethane	U	U	U	U	U	U	--
1,1-Dichloroethene	U	U	U	U	U	U	--
1,2,4-Trichlorobenzene	U	U	U	U	U	U	--
1,2,4-Trimethylbenzene	U	U	0.38 J	U	U	0.44 J	--
1,2-Dibromoethane (Ethylene Dibromide)	U	U	U	U	U	U	--
1,2-Dichlorobenzene	U	U	U	U	U	U	--
1,2-Dichloroethane	U	0.3 J	U	U	0.22 J	U	--
1,2-Dichloropropane	U	U	U	U	U	U	--
1,2-Dichlorotetrafluoroethane	U	U	U	U	U	U	--
1,3,5-Trimethylbenzene (Mesitylene)	U	U	U	U	U	U	--
1,3-Butadiene	U	U	U	U	U	U	--
1,3-Dichlorobenzene	U	U	U	U	U	U	--
1,4-Dichlorobenzene	U	U	U	U	U	U	--
1,4-Dioxane (P-Dioxane)	U	U	U	U	U	U	--
2,2,4-Trimethylpentane	U	0.32 J	U	U	0.28 J	U	--
2-Chlorotoluene	U	U	U	U	U	U	--
2-Hexanone	U	U	U	U	U	U	--
4-Ethyltoluene	U	U	U	U	U	U	--
Acetone	U	15 J	18	18 J	23 J	28	--
Allyl Chloride (3-Chloropropene)	U	U	U	U	U	U	--
Benzene	0.75 J	0.77	0.53 J	0.76 J	0.67	1.5 J	--
Benzyl Chloride	U	U	U	U	U	U	--
Bromodichloromethane	U	U	U	U	U	U	--
Bromoethene	U	U	U	U	U	U	--
Bromoform	U	U	U	U	U	U	--
Bromomethane	U	U	U	U	U	U	--
Butane	7.8	4.5	5.7	10	5	18 J	--
Carbon Disulfide	U	0.13 J	U	4.8 J	0.15 J	U	--
Carbon Tetrachloride	U	0.28 J	0.4	0.43 J	0.43 J	0.5	--
Chlorobenzene	U	U	U	U	U	U	--
Chlorodifluoromethane	U	1	1.2 J	U	1.1	1.8	--
Chloroethane	U	U	U	U	U	U	--
Chloroform	U	U	U	U	U	U	--
Chloromethane	U	1.6 J	1.6	1.3 J	1.2 J	1.6	--
Cis-1,2-Dichloroethylene	59	12	8.6	59	10	4.6	--
Cis-1,3-Dichloropropene	U	U	U	U	U	U	--
Cyclohexane	U	0.2 J	U	U	0.15 J	0.72	--
Cymene	U	U	U	U	U	U	--
Dibromochloromethane	U	U	U	U	U	U	--
Dichlorodifluoromethane	2.3 J	2.6	2.8	3.0 J	2.5	2.8	--
Ethylbenzene	U	0.31 J	UB	U	0.33 J	UB	--
Hexachlorobutadiene	U	U	U	U	U	U	--

See next page for qualifiers and notes.

Table 1
Former Fresh and Clean Laundry
Glen Head, New York
Summary of Air Sample Analytical Results
Volatile Organic Compounds

Sample ID	IADB-1	IADB-1	IADB-1	IADB-2	IADB-2	IADB-2	NYSDOH Air Guideline Value ug/m3
Sampling Date	03/14/18	02/28/19	01/26/21	03/14/18	02/28/19	01/26/21	
Sample Type:	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	
Units	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	
Isopropyl alcohol	1.4 J	4.1	8.3 J	3.5 J	3.7	30 J	--
Isopropylbenzene (Cumene)	U	U	U	U	U	U	--
M,P-Xylenes	U	0.91	2 J	U	1.1	2.6	--
Methyl Ethyl Ketone (2-Butanone)	U	1.3 J	1.3 J	1.7 J	2.1 J	1.7	--
Methyl Isobutyl Ketone (4-Methyl-2-Pentar	U	U	0.39 J	U	U	U	--
Methyl Methacrylate	U	U	U	U	U	U	--
Methylene Chloride	1.2 J	1.7 J	U	1.3 J	1.5 J	1.2 J	60
Naphthalene	U	U	U	U	U	U	--
N-Butylbenzene	U	U	U	U	U	U	--
N-Heptane	U	0.31 J	0.51 J	U	0.32 J	U	--
N-Hexane	U	0.56 J	U	U	0.56 J	U	--
N-Propylbenzene	U	U	U	U	U	U	--
O-Xylene (1,2-Dimethylbenzene)	U	0.31 J	UB	U	0.35 J	UB	--
Sec-Butylbenzene	U	U	U	U	U	U	--
Styrene	U	U	U	U	U	U	--
T-Butylbenzene	U	U	U	U	U	U	--
Tert-Butyl Alcohol	U	0.17 J	U	U	0.28 J	0.51 J	--
Tert-Butyl Methyl Ether	U	U	U	U	U	U	--
Tetrachloroethylene (PCE)	**600**	**140**	**280**	**640**	**130**	**110 J**	30
Tetrahydrofuran	U	U	U	U	0.2 J	U	--
Toluene	1.5 J	2 J	1.6	1.7 J	2.3 J	4 J	--
Trans-1,2-Dichloroethene	2.6 J	0.33 J	0.78 J	3.0 J	0.3 J	U	--
Trans-1,3-Dichloropropene	U	U	U	U	U	U	--
Trichloroethylene (TCE)	**50**	**7.5**	**17**	**61**	**7**	**7.4**	2
Trichlorofluoromethane	1.1 J	1.2	1.5	1.5 J	1.2	1.8	--
Vinyl Chloride	0.56	U	U	0.75	U	U	--
Xylenes, Total	U	1.2 J	2 J	U	1.5 J	2.6	--

Qualifiers:
U: Analyzed but not detected
J: Estimated value
UB: Not detected based on assoicated blank results
D: Reported from secondary dilution

Notes:
ug/m3: Micrograms per cubic meter
-- : No guideline value
Exceeded NYSDOH Air Guideline Value

Table 1
Former Fresh and Clean Laundry
Glen Head, New York
Summary of Air Sample Analytical Results
Volatile Organic Compounds

Sample ID	IADB-3	IADB-3	IADB-4	IADB-4	NYSDOH Air Guideline Value
Sampling Date	02/28/19	01/26/21	02/28/19	01/26/21	
Sample Type:	Indoor	Indoor	Indoor	Indoor	
Units	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
1,1,1-Trichloroethane	0.18 J	0.2 J	U	U	--
1,1,2,2-Tetrachloroethane	U	U	U	U	--
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.51 J	U	0.58 J	U	--
1,1,2-Trichloroethane	U	U	U	U	--
1,1-Dichloroethane	U	U	U	U	--
1,1-Dichloroethene	U	U	U	U	--
1,2,4-Trichlorobenzene	U	U	U	U	--
1,2,4-Trimethylbenzene	U	0.24 J	U	0.22 J	--
1,2-Dibromoethane (Ethylene Dibromide)	U	U	U	U	--
1,2-Dichlorobenzene	U	U	U	U	--
1,2-Dichloroethane	U	U	U	U	--
1,2-Dichloropropane	U	U	U	U	--
1,2-Dichlorotetrafluoroethane	U	U	U	U	--
1,3,5-Trimethylbenzene (Mesitylene)	U	U	U	U	--
1,3-Butadiene	U	U	U	U	--
1,3-Dichlorobenzene	U	U	U	U	--
1,4-Dichlorobenzene	8.9	U	3.2	U	--
1,4-Dioxane (P-Dioxane)	U	U	U	U	--
2,2,4-Trimethylpentane	0.27 J	U	0.28 J	U	--
2-Chlorotoluene	U	U	U	U	--
2-Hexanone	0.47 J	U	U	U	--
4-Ethyltoluene	U	U	U	U	--
Acetone	30 J	17	24	17	--
Allyl Chloride (3-Chloropropene)	U	U	U	U	--
Benzene	0.68	0.69	0.68	0.53 J	--
Benzyl Chloride	U	U	U	U	--
Bromodichloromethane	U	U	U	U	--
Bromoethene	U	U	U	U	--
Bromoform	U	U	U	U	--
Bromomethane	U	U	U	U	--
Butane	3.2	3.9	3	3.1	--
Carbon Disulfide	0.36 J	U	0.61 J	0.36 J	--
Carbon Tetrachloride	0.44 J	0.35	0.44 J	0.37	--
Chlorobenzene	U	U	U	U	--
Chlorodifluoromethane	U	1.2 J	45	1.5 J	--
Chloroethane	U	U	U	U	--
Chloroform	U	U	U	U	--
Chloromethane	1.3 J	1.5	1.5 J	1.5	--
Cis-1,2-Dichloroethylene	5.2	2.6	4.5	2.2	--
Cis-1,3-Dichloropropene	U	U	U	U	--
Cyclohexane	0.19 J	U	0.2 J	U	--
Cymene	U	U	U	U	--
Dibromochloromethane	U	U	U	U	--
Dichlorodifluoromethane	2.4	2.9	2.5	2.8	--
Ethylbenzene	U	UB	U	UB	--
Hexachlorobutadiene	U	U	U	U	--

See next page for qualifiers and notes.

Table 1
Former Fresh and Clean Laundry
Glen Head, New York
Summary of Air Sample Analytical Results
Volatile Organic Compounds

Sample ID	IADB-3	IADB-3	IADB-4	IADB-4	NYSDOH Air Guideline Value
Sampling Date	02/28/19	01/26/21	02/28/19	01/26/21	
Sample Type:	Indoor	Indoor	Indoor	Indoor	
Units	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Isopropyl alcohol	4	5.2 J	5.1	3 J	--
Isopropylbenzene (Cumene)	U	U	U	U	--
M,P-Xylenes	0.84 J	1.5 J	0.63 J	1 J	--
Methyl Ethyl Ketone (2-Butanone)	3.2	1.3 J	1.7 J	0.98 J	--
Methyl Isobutyl Ketone (4-Methyl-2-Pentar	U	U	U	U	--
Methyl Methacrylate	U	U	U	U	--
Methylene Chloride	1.4 J	U	1.9 J	U	60
Naphthalene	U	U	U	U	--
N-Butylbenzene	U	U	U	U	--
N-Heptane	0.39 J	0.35 J	0.35 J	0.26 J	--
N-Hexane	0.48 J	U	0.64 J	U	--
N-Propylbenzene	U	U	U	U	--
O-Xylene (1,2-Dimethylbenzene)	0.34 J	UB	U	UB	--
Sec-Butylbenzene	U	U	U	U	--
Styrene	U	U	U	U	--
T-Butylbenzene	U	U	U	U	--
Tert-Butyl Alcohol	1.1 J	0.35 J	0.29 J	0.57 J	--
Tert-Butyl Methyl Ether	U	U	U	U	--
Tetrachloroethylene (PCE)	**63**	**62**	**50**	**44**	30
Tetrahydrofuran	U	U	U	U	--
Toluene	1.5 J	1.7	1.3 J	1.1	--
Trans-1,2-Dichloroethene	U	U	U	U	--
Trans-1,3-Dichloropropene	U	U	U	U	--
Trichloroethylene (TCE)	**3.7**	**3.7**	**2.9**	**2.7**	2
Trichlorofluoromethane	1.2	1.4	1.2	1.5	--
Vinyl Chloride	U	U	U	U	--
Xylenes, Total	1.2 J	1.5 J	0.63 J	1 J	--

Qualifiers:
U: Analyzed but not detected
J: Estimated value
UB: Not detected based on assoicated blank
D: Reported from secondary dilution

Notes:
ug/m3: Micrograms per cubic meter
-- : No guideline value
Exceeded NYSDOH Air Guideline Value

Table 1
Former Fresh and Clean Laundry
Glen Head, New York
Summary of Air Sample Analytical Results
Volatile Organic Compounds

Sample ID	OADB-1	OADB-1	OADB-1	NYSDOH Air Guideline Value ug/m3
Sampling Date	03/14/18	02/28/19	01/26/21	
Sample Type:	Outdoor	Outdoor	Outdoor	
Units	ug/m3	ug/m3	ug/m3	
1,1,1-Trichloroethane	U	U	U	--
1,1,2,2-Tetrachloroethane	U	U	U	--
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.53 J	0.5 J	0.63 J	--
1,1,2-Trichloroethane	U	U	U	--
1,1-Dichloroethane	U	U	U	--
1,1-Dichloroethene	U	U	U	--
1,2,4-Trichlorobenzene	U	U	U	--
1,2,4-Trimethylbenzene	U	U	U	--
1,2-Dibromoethane (Ethylene Dibromide)	U	U	U	--
1,2-Dichlorobenzene	U	U	U	--
1,2-Dichloroethane	U	U	U	--
1,2-Dichloropropane	U	U	U	--
1,2-Dichlorotetrafluoroethane	U	U	U	--
1,3,5-Trimethylbenzene (Mesitylene)	U	U	U	--
1,3-Butadiene	U	U	U	--
1,3-Dichlorobenzene	U	U	U	--
1,4-Dichlorobenzene	U	U	U	--
1,4-Dioxane (P-Dioxane)	U	U	U	--
2,2,4-Trimethylpentane	0.41 J	0.21 J	U	--
2-Chlorotoluene	U	U	U	--
2-Hexanone	U	U	U	--
4-Ethyltoluene	U	U	U	--
Acetone	5.5 J	5.3 J	4 J	--
Allyl Chloride (3-Chloropropene)	U	U	U	--
Benzene	0.87	0.54 J	0.48 J	--
Benzyl Chloride	U	U	U	--
Bromodichloromethane	U	U	U	--
Bromoethene	U	U	U	--
Bromoform	U	U	U	--
Bromomethane	U	U	U	--
Butane	7.9	1.9 J	1.8	--
Carbon Disulfide	U	0.11 J	U	--
Carbon Tetrachloride	0.45	0.38 J	0.39	--
Chlorobenzene	U	U	U	--
Chlorodifluoromethane	0.91 J	1	1 J	--
Chloroethane	U	U	U	--
Chloroform	U	U	U	--
Chloromethane	1.0 J	1.4 J	1.2	--
Cis-1,2-Dichloroethylene	U	U	U	--
Cis-1,3-Dichloropropene	U	U	U	--
Cyclohexane	0.25 J	U	U	--
Cymene	U	U	0.38 J	--
Dibromochloromethane	U	U	U	--
Dichlorodifluoromethane	2.1 J	2.5	2.4 J	--
Ethylbenzene	0.29 J	U	0.34 J	--
Hexachlorobutadiene	U	U	U	--

See next page for qualifiers and notes.

Table 1
Former Fresh and Clean Laundry
Glen Head, New York
Summary of Air Sample Analytical Results
Volatile Organic Compounds

Sample ID	OADB-1	OADB-1	OADB-1	NYSDOH Air Guideline Value ug/m3
Sampling Date	03/14/18	02/28/19	01/26/21	
Sample Type:	Outdoor	Outdoor	Outdoor	
Units	ug/m3	ug/m3	ug/m3	
Isopropyl alcohol	UB	2.3 J	U	--
Isopropylbenzene (Cumene)	U	U	U	--
M,P-Xylenes	0.89 J	U	U	--
Methyl Ethyl Ketone (2-Butanone)	0.60 J	0.79 J	U	--
Methyl Isobutyl Ketone (4-Methyl-2-Pentar	U	U	U	--
Methyl Methacrylate	U	U	U	--
Methylene Chloride	0.63 J	1.3 J	U	60
Naphthalene	U	U	1.5 J	--
N-Butylbenzene	U	U	U	--
N-Heptane	0.36 J	0.19 J	U	--
N-Hexane	0.74	0.38 J	U	--
N-Propylbenzene	U	U	U	--
O-Xylene (1,2-Dimethylbenzene)	0.28 J	U	0.61 J	--
Sec-Butylbenzene	U	U	U	--
Styrene	U	U	U	--
T-Butylbenzene	U	U	U	--
Tert-Butyl Alcohol	U	U	U	--
Tert-Butyl Methyl Ether	U	U	U	--
Tetrachloroethylene (PCE)	1.2 J	1.1 J	U	30
Tetrahydrofuran	U	U	U	--
Toluene	1.8	0.58 J	1.1	--
Trans-1,2-Dichloroethene	U	U	U	--
Trans-1,3-Dichloropropene	U	U	U	--
Trichloroethylene (TCE)	U	U	U	2
Trichlorofluoromethane	1.2	1.2	1.1	--
Vinyl Chloride	U	U	U	--
Xylenes, Total	1.2 J	U	0.61 J	--

Qualifiers:
U: Analyzed but not detected
J: Estimated value
UB: Not detected based on assoicated blank
D: Reported from secondary dilution

Notes:
ug/m3: Micrograms per cubic meter
-- : No guideline value
Exceeded NYSDOH Air Guideline Value

Table 1
Former Fresh and Clean Laundry
Glen Head, New York
Summary of Air Sample Analytical Results
Volatile Organic Compounds

Sample ID	SSDB-1	SSDB-1	SSDB-1	SSDB-2	SSDB-2	SSDB-2	NYSDOH Air Guideline Value ug/m3
Sampling Date	03/14/18	02/28/19	01/26/21	03/14/18	02/28/19	01/26/21	
Sample Type:	Sub slab	Sub slab	Sub slab	Sub slab	Sub slab	Sub slab	
Units	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	
1,1,1-Trichloroethane	U	U	U	U	U	U	--
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	--
1,1,2-Trichloro-1,2,2-Trifluoroethane	U	U	U	U	U	U	--
1,1,2-Trichloroethane	U	U	U	U	U	U	--
1,1-Dichloroethane	U	U	U	U	U	U	--
1,1-Dichloroethene	U	U	U	U	U	U	--
1,2,4-Trichlorobenzene	U	U	U	U	U	U	--
1,2,4-Trimethylbenzene	U	U	U	U	U	U	--
1,2-Dibromoethane (Ethylene Dibromide)	U	U	U	U	U	U	--
1,2-Dichlorobenzene	U	U	U	U	U	U	--
1,2-Dichloroethane	U	U	U	U	U	U	--
1,2-Dichloropropane	U	U	U	U	U	U	--
1,2-Dichlorotetrafluoroethane	U	U	U	U	U	U	--
1,3,5-Trimethylbenzene (Mesitylene)	U	U	U	U	U	U	--
1,3-Butadiene	U	U	U	U	U	U	--
1,3-Dichlorobenzene	U	U	U	U	U	U	--
1,4-Dichlorobenzene	U	U	U	U	U	U	--
1,4-Dioxane (P-Dioxane)	U	U	U	U	U	U	--
2,2,4-Trimethylpentane	U	U	U	U	U	U	--
2-Chlorotoluene	U	U	U	U	U	U	--
2-Hexanone	U	U	U	U	U	U	--
4-Ethyltoluene	U	U	U	U	U	U	--
Acetone	U	U	390	U	U	U	--
Allyl Chloride (3-Chloropropene)	U	U	U	U	U	U	--
Benzene	U	U	8.3 J	U	U	U	--
Benzyl Chloride	U	U	U	U	U	U	--
Bromodichloromethane	U	U	U	U	U	U	--
Bromoethene	U	U	U	U	U	U	--
Bromoform	U	U	U	U	U	U	--
Bromomethane	U	U	U	U	U	U	--
Butane	U	U	7.6 J	U	U	U	--
Carbon Disulfide	U	U	5.7 J	U	U	U	--
Carbon Tetrachloride	U	U	U	U	U	U	--
Chlorobenzene	U	U	U	U	U	U	--
Chlorodifluoromethane	U	U	U	U	U	U	--
Chloroethane	U	U	U	U	U	U	--
Chloroform	U	U	5.7 J	U	U	U	--
Chloromethane	U	U	U	U	U	U	--
Cis-1,2-Dichloroethylene	540	630	640	2900	650	1500	--
Cis-1,3-Dichloropropene	U	U	U	U	U	U	--
Cyclohexane	U	U	U	U	U	U	--
Cymene	U	U	U	U	U	U	--
Dibromochloromethane	U	U	U	U	U	U	--
Dichlorodifluoromethane	U	U	U	U	U	U	--
Ethylbenzene	U	U	6.6 J	U	U	U	--
Hexachlorobutadiene	U	U	U	U	U	U	--

See next page for qualifiers and notes.

Table 1
Former Fresh and Clean Laundry
Glen Head, New York
Summary of Air Sample Analytical Results
Volatile Organic Compounds

Sample ID	SSDB-1	SSDB-1	SSDB-1	SSDB-2	SSDB-2	SSDB-2	NYSDOH Air Guideline Value ug/m3
Sampling Date	03/14/18	02/28/19	01/26/21	03/14/18	02/28/19	01/26/21	
Sample Type:	Sub slab	Sub slab	Sub slab	Sub slab	Sub slab	Sub slab	
Units	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	
Isopropyl alcohol	U	U	43 J	U	U	U	--
Isopropylbenzene (Cumene)	U	U	U	U	U	U	--
M,P-Xylenes	U	U	U	U	U	U	--
Methyl Ethyl Ketone (2-Butanone)	U	U	100	U	U	U	--
Methyl Isobutyl Ketone (4-Methyl-2-Pentar	U	U	U	U	U	U	--
Methyl Methacrylate	U	U	U	U	U	U	--
Methylene Chloride	U	U	U	U	U	U	60
Naphthalene	U	U	U	U	U	U	--
N-Butylbenzene	U	U	U	U	U	U	--
N-Heptane	U	U	U	U	U	U	--
N-Hexane	U	U	U	U	U	U	--
N-Propylbenzene	U	U	U	U	U	U	--
O-Xylene (1,2-Dimethylbenzene)	U	U	U	U	U	U	--
Sec-Butylbenzene	U	U	U	U	U	U	--
Styrene	U	58 J	7.5 J	U	U	U	--
T-Butylbenzene	U	U	U	U	U	U	--
Tert-Butyl Alcohol	U	U	U	U	U	U	--
Tert-Butyl Methyl Ether	U	U	U	U	U	U	--
Tetrachloroethylene (PCE)	**15000**	**20000**	**26000 D**	**74000**	**18000**	**49000 D**	30
Tetrahydrofuran	U	U	U	U	U	U	--
Toluene	U	U	U	U	U	U	--
Trans-1,2-Dichloroethene	35 J	U	36	240 J	30 J	160	--
Trans-1,3-Dichloropropene	U	U	U	U	U	U	--
Trichloroethylene (TCE)	**740**	**930**	**1100**	**5400**	**970**	**3600**	2
Trichlorofluoromethane	U	U	U	U	U	U	--
Vinyl Chloride	U	U	U	U	U	U	--
Xylenes, Total	U	U	U	U	U	U	--

Qualifiers:
U: Analyzed but not detected
J: Estimated value
UB: Not detected based on assoicated blank
D: Reported from secondary dilution

Notes:
ug/m3: Micrograms per cubic meter
-- : No guideline value
Exceeded NYSDOH Air Guideline Value

Table 1
Former Fresh and Clean Laundry
Glen Head, New York
Summary of Air Sample Analytical Results
Volatile Organic Compounds

Sample ID	FCSV-01	FCSV-02	FCSV-03	FCSV-04	NYSDOH Air Guideline Value
Sampling Date	05/07/18	05/07/18	05/08/18	05/08/18	
Sample Type:	Soil Vapor	Soil Vapor	Soil Vapor	Soil Vapor	
Units	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³
1,1,1-Trichloroethane	U	U	U	U	--
1,1,2,2-Tetrachloroethane	U	U	U	U	--
1,1,2-Trichloro-1,2,2-Trifluoroethane	U	U	U	U	--
1,1,2-Trichloroethane	U	U	U	U	--
1,1-Dichloroethane	U	U	U	U	--
1,1-Dichloroethene	U	U	1.7	U	--
1,2,4-Trichlorobenzene	U	U	U	U	--
1,2,4-Trimethylbenzene	70	18 J	U	U	--
1,2-Dibromoethane (Ethylene Dibromide)	U	U	U	U	--
1,2-Dichlorobenzene	U	U	U	U	--
1,2-Dichloroethane	U	U	U	U	--
1,2-Dichloropropane	U	U	U	U	--
1,2-Dichlorotetrafluoroethane	U	U	U	U	--
1,3,5-Trimethylbenzene (Mesitylene)	20 J	U	U	U	--
1,3-Butadiene	U	4.3 J	15	30 J	--
1,3-Dichlorobenzene	U	U	U	U	--
1,4-Dichlorobenzene	U	U	U	U	--
1,4-Dioxane (P-Dioxane)	U	U	U	U	--
2,2,4-Trimethylpentane	59	U	U	U	--
2-Chlorotoluene	U	U	U	U	--
2-Hexanone	U	U	U	U	--
4-Ethyltoluene	26 J	U	U	U	--
Acetone	U	U	U	U	--
Allyl Chloride (3-Chloropropene)	U	U	U	U	--
Benzene	22 J	U	4.0 J	U	--
Benzyl Chloride	U	U	U	U	--
Bromodichloromethane	U	U	U	U	--
Bromoethene	U	U	U	U	--
Bromoform	U	U	U	U	--
Bromomethane	U	U	U	U	--
Butane	180	21 J	71	160	--
Carbon Disulfide	U	U	U	U	--
Carbon Tetrachloride	U	U	U	U	--
Chlorobenzene	U	U	U	U	--
Chlorodifluoromethane	U	U	U	U	--
Chloroethane	U	U	U	U	--
Chloroform	U	U	U	U	--
Chloromethane	U	U	U	U	--
Cis-1,2-Dichloroethylene	500	430	690	100	--
Cis-1,3-Dichloropropene	U	U	U	U	--
Cyclohexane	U	U	U	U	--
Cymene	45	U	U	U	--
Dibromochloromethane	U	U	U	U	--
Dichlorodifluoromethane	U	U	U	U	--
Ethylbenzene	110	12 J	U	U	--
Hexachlorobutadiene	U	U	U	U	--

See next page for qualifiers and notes.

Table 1
Former Fresh and Clean Laundry
Glen Head, New York
Summary of Air Sample Analytical Results
Volatile Organic Compounds

Sample ID	FCSV-01	FCSV-02	FCSV-03	FCSV-04	NYSDOH Air Guideline Value
Sampling Date	05/07/18	05/07/18	05/08/18	05/08/18	
Sample Type:	Soil Vapor	Soil Vapor	Soil Vapor	Soil Vapor	
Units	ug/m^3	ug/m^3	ug/m^3	ug/m^3	ug/m^3
Isopropyl alcohol	U	U	U	U	--
Isopropylbenzene (Cumene)	U	U	U	U	--
M,P-Xylenes	380	41 J	U	63 J	--
Methyl Ethyl Ketone (2-Butanone)	U	U	U	U	--
Methyl Isobutyl Ketone (4-Methyl-2-Pentar	U	U	U	U	--
Methyl Methacrylate	U	U	U	U	--
Methylene Chloride	U	U	U	U	60
Naphthalene	U	U	U	U	--
N-Butylbenzene	U	U	U	U	--
N-Heptane	80	U	U	U	--
N-Hexane	110	U	9.2	U	--
N-Propylbenzene	17 J	U	U	U	--
O-Xylene (1,2-Dimethylbenzene)	120	14 J	U	U	--
Sec-Butylbenzene	U	U	U	U	--
Styrene	U	U	U	U	--
T-Butylbenzene	U	U	U	U	--
Tert-Butyl Alcohol	U	U	U	U	--
Tert-Butyl Methyl Ether	U	U	U	U	--
Tetrachloroethylene (PCE)	**5,500**	**2,400**	**790**	**12,000**	30
Tetrahydrofuran	U	U	U	U	--
Toluene	190	25	2.5 J	24 J	--
Trans-1,2-Dichloroethene	17 J	18	19	U	--
Trans-1,3-Dichloropropene	U	U	U	U	--
Trichloroethylene (TCE)	**420**	**330**	**97**	**500**	2
Trichlorofluoromethane	U	U	U	U	--
Vinyl Chloride	U	U	9.0	U	--
Xylenes, Total	500	55 J	U	65 J	--

Qualifiers:
U: Analyzed but not detected
J: Estimated value
UB: Not detected based on assoicated blank
D: Reported from secondary dilution

Notes:
ug/m3: Micrograms per cubic meter
-- : No guideline value
Exceeded NYSDOH Air Guideline Value

Table 2
Former Fresh and Clean Laundry
Glen Head, New York
Summary of Soil Sample Analytical Results
Volatile Organic Compounds

Sample ID	SS-01	SS-02	SS-05	SS-06	SS-07	NYCRR 6 Part 375
Sampling Date	5/7/2018	5/7/2018	5/7/2018	5/7/2018	5/8/2018	Unrestricted
Start Depth (in Feet)	0	0	0	0	0	Use Soil
End Depth (in Feet)	0.5	0.5	0.5	0.5	0.5	Cleanup
Sample Type:	Soil/Sediment	Soil/Sediment	Soil/Sediment	Soil/Sediment	Soil/Sediment	Objectives (SCO)
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1,1-Trichloroethane	U	U	U	U	U	0.68
1,1,2,2-Tetrachloroethane	U	UJ	U	U	U	--
1,1,2-Trichloro-1,2,2-trifluoroethane	U	U	U	U	U	--
1,1,2-Trichloroethane	U	U	U	U	U	--
1,1-Dichloroethane	U	U	U	U	U	0.27
1,1-Dichloroethene	U	U	U	U	U	0.33
1,2,4-Trichlorobenzene	U	U	U	U	U	--
1,2-Dibromo-3-chloropropane	UJ	UJ	U	U	U	--
1,2-Dibromoethane	U	U	U	U	U	--
1,2-Dichlorobenzene	UJ	UJ	U	U	U	1.10
1,2-Dichloroethane	U	U	U	U	U	0.02
1,2-Dichloropropane	U	U	U	U	U	--
1,3-Dichlorobenzene	U	UJ	U	U	U	2.40
1,4-Dichlorobenzene	UJ	UJ	U	U	U	1.80
2-Butanone (MEK)	UJ	1 J	UJ	UJ	UJ	0.12
2-Hexanone	U	0.051 J	U	U	U	--
4-Methyl-2-Pentanone (MIBK)	U	0.034 J	U	U	U	--
Acetone	UJ	3.7 J	UBJ	UBJ	UJ	0.05
Benzene	U	U	U	U	U	0.06
Bromodichloromethane	U	U	U	U	U	--
Bromoform	U	UJ	U	U	U	--
Bromomethane	U	U	U	U	U	--
Carbon disulfide	U	0.028 JH	U	U	U	--
Carbon tetrachloride	U	U	U	U	U	0.76
Chlorobenzene	U	U	U	U	U	1.10
Chloroethane	U	U	U	U	U	--
Chloroform	U	U	U	U	U	0.37
Chloromethane	U	U	U	U	U	--
cis-1,2-Dichloroethene	U	U	0.0087	U	U	0.25
cis-1,3-Dichloropropene	U	U	U	U	U	--
Cyclohexane	U	U	U	U	U	--
Dibromochloromethane	U	U	U	U	U	--
Dichlorodifluoromethane	U	U	U	U	U	--
Ethylbenzene	U	0.0033 JH	U	U	U	1.00
Isopropylbenzene	U	UJ	U	U	U	--
Methyl Acetate	U	0.089 J	U	U	U	--
Methyl-tert-butyl-ether	U	U	U	U	U	0.93
Methylcyclohexane	U	U	U	U	U	
Methylene Chloride	U	U	U	U	U	0.05
Styrene	U	UJ	U	U	U	--
Tetrachloroethene	0.0045 J	0.039	3.7 D	U	0.015	1.30
Toluene	U	0.025 J	U	0.00066 J	0.00045 J	0.70
trans-1,2-Dichloroethene	U	U	U	U	U	0.19
trans-1,3-Dichloropropene	U	U	U	U	U	--
Trichloroethene	U	U	0.011	U	U	0.47
Trichlorofluoromethane	U	U	0.089	U	U	--
Vinyl chloride	U	U	U	U	U	0.02
Xylenes, Total	U	UJ	U	U	U	0.26

Footnotes/Qualifiers:

ug/kg: Micrograms per kilogram

--: No standard

U: Analyzed for but not detected

J: Estimated value or limit

D: Reported from secondary dilution

B: Non-detected based on blank results

H: Bias high result

Exceeded Unrestricted Use SCO

Table 2
Former Fresh and Clean Laundry
Glen Head, New York
Summary of Soil Sample Analytical Results
Volatile Organic Compounds

Sample ID	SS-08	SS-09	SS-10	SS-11	SS-12	NYCRR 6 Part 375
Sampling Date	5/9/2018	5/9/2018	5/9/2018	5/9/2018	5/9/2018	Unrestricted
Start Depth (in Feet)	0	0	0	0	0	Use Soil
End Depth (in Feet)	0.5	0.5	0.5	0.5	0.5	Cleanup
Sample Type:	Soil/Sediment	Soil/Sediment	Soil/Sediment	Soil/Sediment	Soil/Sediment	Objectives (SCO)
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1,1-Trichloroethane	UJ	UJ	UJ	UJ	UJ	0.68
1,1,2,2-Tetrachloroethane	UJ	UJ	UJ	UJ	UJ	--
1,1,2-Trichloro-1,2,2-trifluoroethane	UJ	UJ	UJ	UJ	UJ	--
1,1,2-Trichloroethane	UJ	UJ	UJ	UJ	UJ	--
1,1-Dichloroethane	UJ	UJ	UJ	UJ	UJ	0.27
1,1-Dichloroethene	UJ	UJ	UJ	UJ	UJ	0.33
1,2,4-Trichlorobenzene	UJ	UJ	UJ	UJ	UJ	--
1,2-Dibromo-3-chloropropane	UJ	UJ	UJ	UJ	UJ	--
1,2-Dibromoethane	UJ	UJ	UJ	UJ	UJ	--
1,2-Dichlorobenzene	UJ	UJ	UJ	UJ	UJ	1.10
1,2-Dichloroethane	UJ	UJ	UJ	UJ	UJ	0.02
1,2-Dichloropropane	UJ	UJ	UJ	UJ	UJ	--
1,3-Dichlorobenzene	UJ	UJ	UJ	UJ	UJ	2.40
1,4-Dichlorobenzene	UJ	UJ	UJ	UJ	UJ	1.80
2-Butanone (MEK)	UJ	0.049 J	UJ	UJ	UJ	0.12
2-Hexanone	UJ	UJ	UJ	UJ	UJ	--
4-Methyl-2-Pentanone (MIBK)	UJ	UJ	UJ	UJ	UJ	--
Acetone	UB	**0.18 J**	UJ	UJ	UB	0.05
Benzene	UJ	UJ	UJ	UJ	UJ	0.06
Bromodichloromethane	UJ	UJ	UJ	UJ	UJ	--
Bromoform	UJ	UJ	UJ	UJ	UJ	--
Bromomethane	UJ	UJ	UJ	UJ	UJ	--
Carbon disulfide	UJ	UJ	UJ	UJ	UJ	--
Carbon tetrachloride	UJ	UJ	UJ	UJ	UJ	0.76
Chlorobenzene	UJ	UJ	UJ	UJ	UJ	1.10
Chloroethane	UJ	UJ	UJ	UJ	UJ	--
Chloroform	UJ	UJ	UJ	UJ	UJ	0.37
Chloromethane	UJ	UJ	UJ	UJ	UJ	--
cis-1,2-Dichloroethene	0.00091 J	UJ	UJ	UJ	UJ	0.25
cis-1,3-Dichloropropene	UJ	UJ	UJ	UJ	UJ	--
Cyclohexane	UJ	UJ	UJ	UJ	UJ	--
Dibromochloromethane	UJ	UJ	UJ	UJ	UJ	--
Dichlorodifluoromethane	UJ	UJ	UJ	UJ	UJ	--
Ethylbenzene	UJ	UJ	UJ	UJ	UJ	1.00
Isopropylbenzene	UJ	UJ	UJ	UJ	UJ	--
Methyl Acetate	UJ	UJ	UJ	UJ	UJ	--
Methyl-tert-butyl-ether	UJ	UJ	UJ	UJ	UJ	0.93
Methylcyclohexane	UJ	UJ	UJ	UJ	UJ	
Methylene Chloride	UJ	UJ	UJ	UJ	UJ	0.05
Styrene	UJ	UJ	UJ	UJ	UJ	--
Tetrachloroethene	0.031 J	UJ	0.00095 J	0.0007 J	UJ	1.30
Toluene	UJ	UJ	UJ	UJ	UJ	0.70
trans-1,2-Dichloroethene	UJ	UJ	UJ	UJ	UJ	0.19
trans-1,3-Dichloropropene	UJ	UJ	UJ	UJ	UJ	--
Trichloroethene	0.0013 J	UJ	UJ	UJ	UJ	0.47
Trichlorofluoromethane	UJ	UJ	UJ	UJ	UJ	--
Vinyl chloride	UJ	UJ	UJ	UJ	UJ	0.02
Xylenes, Total	UJ	UJ	UJ	UJ	UJ	0.26

Footnotes/Qualifiers:
ug/kg: Micrograms per kilogram
--: No standard
U: Analyzed for but not detected
J: Estimated value or limit
D: Reported from secondary dilution
B: Non-detected based on blank results
H: Bias high result
Exceeded Unrestricted Use SCO

Table 2
Former Fresh and Clean Laundry
Glen Head, New York
Summary of Soil Sample Analytical Results
Volatile Organic Compounds

Sample ID	SS-13	SS-14	SS-15	NYCRR 6 Part 375
Sampling Date	8/3/2020	1/24/2020	2/28/2020	Unrestricted
Start Depth (in Feet)	0	0	0	Use Soil
End Depth (in Feet)	1.33	2	0.25	Cleanup
Sample Type:	Soil/Sediment	Soil/Sediment	Soil/Sediment	Objectives (SCO)
Units	mg/kg	mg/kg	mg/kg	mg/kg
1,1,1-Trichloroethane	U	U	UJ	0.68
1,1,2,2-Tetrachloroethane	U	U	UJ	--
1,1,2-Trichloro-1,2,2-trifluoroethane	U	U	UJ	--
1,1,2-Trichloroethane	U	U	UJ	--
1,1-Dichloroethane	U	U	U	0.27
1,1-Dichloroethene	U	U	U	0.33
1,2,4-Trichlorobenzene	U	U	UJ	--
1,2-Dibromo-3-chloropropane	U	U	UJ	--
1,2-Dibromoethane	U	U	UJ	--
1,2-Dichlorobenzene	U	U	UJ	1.10
1,2-Dichloroethane	U	U	UJ	0.02
1,2-Dichloropropane	U	U	UJ	--
1,3-Dichlorobenzene	U	U	UJ	2.40
1,4-Dichlorobenzene	U	U	UJ	1.80
2-Butanone (MEK)	U	U	UJ	0.12
2-Hexanone	U	U	UJ	--
4-Methyl-2-Pentanone (MIBK)	U	U	UJ	--
Acetone	U	U	UJ	0.05
Benzene	U	U	UJ	0.06
Bromodichloromethane	U	U	UJ	--
Bromoform	U	U	UJ	--
Bromomethane	U	U	U	--
Carbon disulfide	U	U	U	--
Carbon tetrachloride	U	U	UJ	0.76
Chlorobenzene	U	U	UJ	1.10
Chloroethane	U	U	UJ	--
Chloroform	U	U	UJ	0.37
Chloromethane	U	U	UJ	--
cis-1,2-Dichloroethene	***69*** ***J***	0.0075	UJ	0.25
cis-1,3-Dichloropropene	U	U	UJ	--
Cyclohexane	U	U	UJ	--
Dibromochloromethane	U	U	UJ	--
Dichlorodifluoromethane	U	U	UJ	--
Ethylbenzene	U	U	UJ	1.00
Isopropylbenzene	U	U	UJ	--
Methyl Acetate	U	U	U	--
Methyl-tert-butyl-ether	U	U	U	0.93
Methylcyclohexane	U	U	UJ	
Methylene Chloride	U	U	U	0.05
Styrene	U	U	UJ	--
Tetrachloroethene	***7,500***	0.1	**3.7**	1.30
Toluene	U	U	UJ	0.70
trans-1,2-Dichloroethene	U	U	UJ	0.19
trans-1,3-Dichloropropene	U	U	UJ	--
Trichloroethene	U	0.0096	UJ	0.47
Trichlorofluoromethane	U	U	UJ	--
Vinyl chloride	U	U	UJ	0.02
Xylenes, Total	U	U	UJ	0.26

Footnotes/Qualifiers:
ug/kg: Micrograms per kilogram
--: No standard
U: Analyzed for but not detected
J: Estimated value or limit
D: Reported from secondary dilution
B: Non-detected based on blank results
H: Bias high result
Exceeded Unrestricted Use SCO

Table 2
Former Fresh and Clean Laundry
Glen Head, New York
Summary of Soil Sample Analytical Results
Volatile Organic Compounds

Sample ID	SB-06	SB-06	SB-07	SB-07	SB-08	NYCRR 6 Part 375
Sampling Date	5/7/2018	5/7/2018	5/8/2018	5/8/2018	5/9/2018	Unrestricted
Start Depth (in Feet)	12	22	6	9	1	Use Soil
End Depth (in Feet)	14	24	8	11	3	Cleanup
Sample Type:	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Objectives (SCO)
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1,1-Trichloroethane	U	U	U	U	UJ	0.68
1,1,2,2-Tetrachloroethane	U	U	U	U	UJ	--
1,1,2-Trichloro-1,2,2-trifluoroethane	U	U	U	U	UJ	--
1,1,2-Trichloroethane	U	U	U	U	UJ	--
1,1-Dichloroethane	U	U	U	U	UJ	0.27
1,1-Dichloroethene	U	U	U	U	UJ	0.33
1,2,4-Trichlorobenzene	U	U	U	U	UJ	--
1,2-Dibromo-3-chloropropane	U	U	U	U	UJ	--
1,2-Dibromoethane	U	U	U	U	UJ	--
1,2-Dichlorobenzene	U	U	U	U	UJ	1.10
1,2-Dichloroethane	U	U	U	U	UJ	0.02
1,2-Dichloropropane	U	U	U	U	UJ	--
1,3-Dichlorobenzene	U	U	U	U	UJ	2.40
1,4-Dichlorobenzene	U	U	U	U	UJ	1.80
2-Butanone (MEK)	UJ	UJ	UJ	UJ	UJ	0.12
2-Hexanone	U	U	U	U	UJ	--
4-Methyl-2-Pentanone (MIBK)	U	U	U	U	UJ	--
Acetone	UBJ	UBJ	UBJ	UBJ	UB	0.05
Benzene	U	U	U	U	UJ	0.06
Bromodichloromethane	U	U	U	U	UJ	--
Bromoform	U	U	U	U	UJ	--
Bromomethane	U	U	U	U	UJ	--
Carbon disulfide	U	U	U	U	UJ	--
Carbon tetrachloride	U	U	U	U	UJ	0.76
Chlorobenzene	U	U	U	U	UJ	1.10
Chloroethane	U	U	U	U	UJ	--
Chloroform	U	U	U	U	UJ	0.37
Chloromethane	U	U	U	U	UJ	--
cis-1,2-Dichloroethene	U	U	U	U	UJ	0.25
cis-1,3-Dichloropropene	U	U	U	U	UJ	--
Cyclohexane	U	U	U	U	UJ	--
Dibromochloromethane	U	U	U	U	UJ	--
Dichlorodifluoromethane	U	U	U	U	UJ	--
Ethylbenzene	U	U	U	U	UJ	1.00
Isopropylbenzene	U	U	U	U	UJ	--
Methyl Acetate	U	0.0043 J	U	U	UJ	--
Methyl-tert-butyl-ether	U	U	U	U	UJ	0.93
Methylcyclohexane	U	U	U	U	UJ	
Methylene Chloride	U	U	U	U	UJ	0.05
Styrene	U	U	U	U	UJ	--
Tetrachloroethene	0.0091	0.0033 J	0.0044 J	0.00073 J	UJ	1.30
Toluene	U	0.00046 J	U	U	UJ	0.70
trans-1,2-Dichloroethene	U	U	U	U	UJ	0.19
trans-1,3-Dichloropropene	U	U	U	U	UJ	--
Trichloroethene	U	U	U	U	UJ	0.47
Trichlorofluoromethane	U	U	U	U	UJ	--
Vinyl chloride	U	U	U	U	UJ	0.02
Xylenes, Total	U	U	U	U	UJ	0.26

Footnotes/Qualifiers:
ug/kg: Micrograms per kilogram
No standard
Analyzed for but not detected
Estimated value or limit
D: Reported from secondary dilution
B: Non-detected based on blank results
H: Bias high result
Exceeded Unrestricted Use SCO

Table 2
Former Fresh and Clean Laundry
Glen Head, New York
Summary of Soil Sample Analytical Results
Volatile Organic Compounds

Sample ID	SB-08	SB-10	SB-10	SB-11	SB-12	NYCRR 6 Part 375
Sampling Date	5/9/2018	5/9/2018	5/9/2018	5/9/2018	5/9/2018	Unrestricted
Start Depth (in Feet)	10	5	10	10	10	Use Soil
End Depth (in Feet)	12	7	12	12	12	Cleanup
Sample Type:	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Objectives (SCO)
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1,1-Trichloroethane	UJ	UJ	UJ	UJ	U	0.68
1,1,2,2-Tetrachloroethane	UJ	UJ	UJ	UJ	U	--
1,1,2-Trichloro-1,2,2-trifluoroethane	UJ	UJ	UJ	UJ	U	--
1,1,2-Trichloroethane	UJ	UJ	UJ	UJ	U	--
1,1-Dichloroethane	UJ	UJ	UJ	UJ	U	0.27
1,1-Dichloroethene	UJ	UJ	UJ	UJ	U	0.33
1,2,4-Trichlorobenzene	UJ	UJ	UJ	0.0026 J	U	--
1,2-Dibromo-3-chloropropane	UJ	UJ	UJ	UJ	U	--
1,2-Dibromoethane	UJ	UJ	UJ	UJ	U	--
1,2-Dichlorobenzene	UJ	UJ	UJ	UJ	U	1.10
1,2-Dichloroethane	UJ	UJ	UJ	UJ	U	0.02
1,2-Dichloropropane	UJ	UJ	UJ	UJ	U	--
1,3-Dichlorobenzene	UJ	UJ	UJ	UJ	U	2.40
1,4-Dichlorobenzene	UJ	UJ	UJ	UJ	U	1.80
2-Butanone (MEK)	UJ	UJ	UJ	UJ	U	0.12
2-Hexanone	UJ	UJ	UJ	UJ	U	--
4-Methyl-2-Pentanone (MIBK)	UJ	UJ	UJ	UJ	U	--
Acetone	UB	UB	UJ	UB	UB	0.05
Benzene	UJ	UJ	UJ	UJ	U	0.06
Bromodichloromethane	UJ	UJ	UJ	UJ	U	--
Bromoform	UJ	UJ	UJ	UJ	U	--
Bromomethane	UJ	UJ	UJ	UJ	U	--
Carbon disulfide	UJ	UJ	UJ	UJ	U	--
Carbon tetrachloride	UJ	UJ	UJ	UJ	U	0.76
Chlorobenzene	UJ	UJ	UJ	UJ	U	1.10
Chloroethane	UJ	UJ	UJ	UJ	U	--
Chloroform	UJ	UJ	UJ	UJ	U	0.37
Chloromethane	UJ	UJ	UJ	UJ	U	--
cis-1,2-Dichloroethene	0.001 J	UJ	UJ	UJ	U	0.25
cis-1,3-Dichloropropene	UJ	UJ	UJ	UJ	U	--
Cyclohexane	UJ	UJ	UJ	UJ	U	--
Dibromochloromethane	UJ	UJ	UJ	UJ	U	--
Dichlorodifluoromethane	UJ	UJ	UJ	UJ	U	--
Ethylbenzene	UJ	UJ	UJ	UJ	U	1.00
Isopropylbenzene	UJ	UJ	UJ	UJ	U	--
Methyl Acetate	UJ	UJ	UJ	UJ	U	--
Methyl-tert-butyl-ether	UJ	UJ	UJ	UJ	U	0.93
Methylcyclohexane	UJ	UJ	UJ	UJ	U	
Methylene Chloride	UJ	UJ	UJ	UJ	U	0.05
Styrene	UJ	UJ	UJ	UJ	U	--
Tetrachloroethene	0.13 J	UJ	0.0026 J	0.0059 J	U	1.30
Toluene	UJ	UJ	UJ	UJ	U	0.70
trans-1,2-Dichloroethene	UJ	UJ	UJ	UJ	U	0.19
trans-1,3-Dichloropropene	UJ	UJ	UJ	UJ	U	--
Trichloroethene	0.003 J	UJ	UJ	UJ	U	0.47
Trichlorofluoromethane	UJ	UJ	UJ	UJ	U	--
Vinyl chloride	UJ	UJ	UJ	UJ	U	0.02
Xylenes, Total	UJ	UJ	UJ	UJ	U	0.26

Footnotes/Qualifiers:
ug/kg: Micrograms per kilogram

--: No standard
U: Analyzed for but not detected
J: Estimated value or limit
D: Reported from secondary dilution

B: Non-detected based on blank results
H: Bias high result
Exceeded Unrestricted Use SCO

Table 2
Former Fresh and Clean Laundry
Glen Head, New York
Summary of Soil Sample Analytical Results
Volatile Organic Compounds

Sample ID	SB-17	SB-18	SB-18	SB-19	SB-19	NYCRR 6 Part 375
Sampling Date	7/27/2020	7/29/2020	7/30/2020	8/3/2020	8/5/2020	Unrestricted
Start Depth (in Feet)	105	11	106	7	110	Use Soil
End Depth (in Feet)	107	13	108	8	112	Cleanup
Sample Type:	Soil	Soil	Soil	Soil	Soil	Objectives (SCO)
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1,1-Trichloroethane	UJ	UJ	U	UJ	UJ	0.68
1,1,2,2-Tetrachloroethane	UJ	UJ	U	UJ	UJ	--
1,1,2-Trichloro-1,2,2-trifluoroethane	UJ	UJ	U	UJ	UJ	--
1,1,2-Trichloroethane	UJ	UJ	U	UJ	UJ	--
1,1-Dichloroethane	UJ	UJ	U	UJ	UJ	0.27
1,1-Dichloroethene	UJ	UJ	U	UJ	UJ	0.33
1,2,4-Trichlorobenzene	UJ	UJ	U	UJ	UJ	--
1,2-Dibromo-3-chloropropane	UJ	UJ	U	UJ	UJ	--
1,2-Dibromoethane	UJ	UJ	U	UJ	UJ	--
1,2-Dichlorobenzene	UJ	UJ	U	UJ	UJ	1.10
1,2-Dichloroethane	UJ	UJ	U	UJ	UJ	0.02
1,2-Dichloropropane	UJ	UJ	U	UJ	UJ	--
1,3-Dichlorobenzene	UJ	UJ	U	UJ	UJ	2.40
1,4-Dichlorobenzene	UJ	UJ	U	UJ	UJ	1.80
2-Butanone (MEK)	UJ	UJ	U	UJ	UJ	0.12
2-Hexanone	UJ	UJ	U	UJ	UJ	--
4-Methyl-2-Pentanone (MIBK)	UJ	UJ	U	UJ	UJ	--
Acetone	0.0057 J	0.011 J	U	UJ	UJ	0.05
Benzene	UJ	UJ	U	UJ	UJ	0.06
Bromodichloromethane	UJ	UJ	U	UJ	UJ	--
Bromoform	UJ	UJ	U	UJ	UJ	--
Bromomethane	UJ	UJ	U	UJ	UJ	--
Carbon disulfide	UJ	UJ	U	UJ	UJ	--
Carbon tetrachloride	UJ	UJ	U	UJ	UJ	0.76
Chlorobenzene	UJ	UJ	U	UJ	UJ	1.10
Chloroethane	UJ	UJ	U	UJ	UJ	--
Chloroform	UJ	UJ	U	UJ	UJ	0.37
Chloromethane	UJ	UJ	U	UJ	UJ	--
cis-1,2-Dichloroethene	UJ	UJ	U	UJ	UJ	0.25
cis-1,3-Dichloropropene	UJ	UJ	U	UJ	UJ	--
Cyclohexane	UJ	UJ	U	UJ	UJ	--
Dibromochloromethane	UJ	UJ	U	UJ	UJ	--
Dichlorodifluoromethane	UJ	UJ	U	UJ	UJ	--
Ethylbenzene	UJ	UJ	U	UJ	UJ	1.00
Isopropylbenzene	UJ	UJ	U	UJ	UJ	--
Methyl Acetate	UJ	UJ	U	UJ	UJ	--
Methyl-tert-butyl-ether	UJ	UJ	U	UJ	UJ	0.93
Methylcyclohexane	UJ	UJ	U	UJ	UJ	
Methylene Chloride	UJ	UJ	U	UJ	UJ	0.05
Styrene	UJ	UJ	U	UJ	UJ	--
Tetrachloroethene	UJ	0.0015 J	U	0.0046 J	UJ	1.30
Toluene	UJ	UJ	U	UJ	UJ	0.70
trans-1,2-Dichloroethene	UJ	UJ	U	UJ	UJ	0.19
trans-1,3-Dichloropropene	UJ	UJ	U	UJ	UJ	--
Trichloroethene	UJ	UJ	U	UJ	UJ	0.47
Trichlorofluoromethane	UJ	UJ	U	UJ	UJ	--
Vinyl chloride	UJ	UJ	U	UJ	UJ	0.02
Xylenes, Total	UJ	UJ	U	UJ	UJ	0.26

Footnotes/Qualifiers:
ug/kg: Micrograms per kilogram

--: No standard
U: Analyzed for but not detected
J: Estimated value or limit
D: Reported from secondary dilution

B: Non-detected based on blank results
H: Bias high result
Exceeded Unrestricted Use SCO

Table 3
Former Fresh and Clean Laundry
Glen Head, New York
Summary of Monitoring Well Groundwater Sample Analytical Results
Volatile Organic Compounds and 1,4-Dioxane

Sample ID	FCMW-1	FCMW-2	FCMW-3	MW-1	MW-3	MW-5	MW-6	NYSDEC Class GA Standard or Guidance Value
Sample date	10/05/18	10/02/18	10/05/18	10/03/18	10/03/18	10/05/18	10/02/18	
Units	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
1,1,1-Trichloroethane	U	U	U	U	U	U	U	5
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	5
1,1,2-Trichloro-1,2,2-Trifluoroethane	U	U	U	U	U	U	U	5
1,1,2-Trichloroethane	U	U	U	U	U	U	U	1
1,1-Dichloroethane	U	U	U	U	U	U	U	5
1,1-Dichloroethene	U	U	U	U	U	U	U	5
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	5
1,2-Dibromo-3-Chloropropane	U	U	U	U	U	U	U	0.04
1,2-Dibromoethane (Ethylene Dibromide)	U	U	U	U	U	U	U	0.0006
1,2-Dichlorobenzene	U	U	U	U	U	U	U	3 ++
1,2-Dichloroethane	U	U	U	U	U	U	U	0.6
1,2-Dichloropropane	U	U	U	U	U	U	U	1
1,3-Dichlorobenzene	U	U	U	U	U	U	U	3 ++
1,4-Dichlorobenzene	U	U	U	U	U	U	U	3 ++
2-Hexanone	U	U	U	U	U	U	U	50
Acetone	U	U	3.2 J	U	U	U	U	50
Benzene	U	U	U	U	U	U	U	1
Bromodichloromethane	U	U	U	U	U	U	U	50
Bromoform	U	U	U	U	U	U	U	50
Bromomethane	U	U	U	U	U	U	U	5
Carbon Disulfide	U	U	U	U	U	U	U	60
Carbon Tetrachloride	U	U	U	U	U	U	U	5
Chlorobenzene	U	U	U	U	U	U	U	5
Chloroethane	U	U	U	U	U	U	U	5
Chloroform	U	U	U	U	U	U	U	7
Chloromethane	U	U	U	U	U	U	U	5
Cis-1,2-Dichloroethylene	U	U	0.98 J	3.6	U	U	U	5
Cis-1,3-Dichloropropene	U	U	U	U	U	U	U	0.4
Cyclohexane	U	U	U	U	U	U	U	--
Dibromochloromethane	U	U	U	U	U	U	U	50
Dichlorodifluoromethane	U	U	U	U	U	U	U	5
Ethylbenzene	U	U	U	U	U	U	U	5
Isopropylbenzene (Cumene)	U	U	U	U	U	U	U	5
Methyl Acetate	U	U	U	U	U	U	U	--
Methyl Ethyl Ketone (2-Butanone)	U	U	U	U	U	U	U	50
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	U	U	U	U	U	U	U	--
Methylcyclohexane	U	U	U	U	U	U	U	--
Methylene Chloride	U	U	U	U	U	U	U	5
Styrene	U	U	U	U	U	U	U	5
Tert-Butyl Methyl Ether	U	U	U	U	U	U	U	10
Tetrachloroethylene(PCE)	***12***	***7.4***	***30***	***85***	***28***	***55***	3.6	5
Toluene	U	U	U	U	U	U	U	5
Trans-1,2-Dichloroethene	U	U	U	U	U	U	U	5
Trans-1,3-Dichloropropene	U	U	U	U	U	U	U	0.4
Trichloroethylene (TCE)	U	U	0.89 J	3.7	0.56 J	U	U	5
Trichlorofluoromethane	U	U	U	U	U	U	U	5
Vinyl Chloride	U	U	U	U	U	U	U	2
Xylenes, Total	U	U	U	U	U	U	U	5 +
1,4-Dioxane (P-Dioxane)	0.88	1.2 J	0.11 J	0.2 J	0.38	0.55	0.17 J	

Footnotes/Qualifiers:

ug/l Micrograms per liter
U Compound was analyzed for but not detected
J Estimated detection limit or value
\+ Applies to each isomer individually
++ Applies to sum of isomer
Exceeds Class GA Standard/Guidance value

D&B ENGINEERS AND ARCHITECTS

Table 3 (continued)
Former Fresh and Clean Laundry
Glen Head, New York
Summary of Monitoring Well Groundwater Sample Analytical Results
Volatile Organic Compounds

Sample ID	N-9800	GW-01	GW-02	GW-03	NYSDEC Class GA
Sample date	11/26/19	07/28/20	07/30/20	08/05/20	Standard or Guidance Value
Units	ug/l	ug/l	ug/l	ug/l	ug/l
1,1,1-Trichloroethane	U	U	U	U	5
1,1,2,2-Tetrachloroethane	U	U	U	U	5
1,1,2-Trichloro-1,2,2-Trifluoroethane	U	U	U	U	5
1,1,2-Trichloroethane	U	U	U	U	1
1,1-Dichloroethane	U	U	U	U	5
1,1-Dichloroethene	U	U	U	U	5
1,2,4-Trichlorobenzene	U	U	P	U	5
1,2-Dibromo-3-Chloropropane	U	U	U	U	0.04
1,2-Dibromoethane (Ethylene Dibromide)	U	U	U	U	0.0006
1,2-Dichlorobenzene	U	U	U	U	3 ++
1,2-Dichloroethane	U	U	U	U	0.6
1,2-Dichloropropane	U	U	U	U	1
1,3-Dichlorobenzene	U	U	U	U	3 ++
1,4-Dichlorobenzene	U	U	U	U	3 ++
2-Hexanone	U	U	U	U	50
Acetone	U	6 J	21 J	UB	50
Benzene	U	U	U	U	1
Bromodichloromethane	U	U	U	U	50
Bromoform	U	U	U	U	50
Bromomethane	U	U	U	U	5
Carbon Disulfide	U	U	U	U	60
Carbon Tetrachloride	U	U	U	U	5
Chlorobenzene	U	U	U	U	5
Chloroethane	U	U	U	U	5
Chloroform	U	4.8	U	2 J	7
Chloromethane	U	U	U	U	5
Cis-1,2-Dichloroethylene	U	U	4.4	U	5
Cis-1,3-Dichloropropene	U	U	U	U	0.4
Cyclohexane	U	U	U	U	--
Dibromochloromethane	U	U	U	U	50
Dichlorodifluoromethane	U	U	U	U	5
Ethylbenzene	U	U	U	U	5
Isopropylbenzene (Cumene)	U	U	U	U	5
Methyl Acetate	U	U	U	U	--
Methyl Ethyl Ketone (2-Butanone)	U	U	U	11 J	50
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	U	U	U	U	--
Methylcyclohexane	U	U	U	U	--
Methylene Chloride	U	U	U	2.8 J	5
Styrene	U	U	U	U	5
Tert-Butyl Methyl Ether	U	U	U	U	10
Tetrachloroethylene(PCE)	U	***20 J***	***85***	***8.2***	5
Toluene	U	U	U	U	5
Trans-1,2-Dichloroethene	U	U	U	U	5
Trans-1,3-Dichloropropene	U	U	U	U	0.4
Trichloroethylene (TCE)	U	1.1	***5.2***	U	5
Trichlorofluoromethane	U	U	U	U	5
Vinyl Chloride	U	U	U	U	2
Xylenes, Total	U	U	U	U	5 +

Footnotes/Qualifiers:

ug/l Micrograms per liter
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Non detect based on blank results
\+ Applies to each isomer individually
++ Applies to sum of isomer
Exceeds Class GA Standard/Guidance value

D&B ENGINEERS AND ARCHITECTS

APPENDIX G

DATA VALIDATION CHECKLISTS

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION CHECKLIST

Project Name:	NYSDEC -Fresh and Clean Laundry
Project Number:	3150-37
Sample Date(s):	October 22, 2018
Sample Team:	PB
Matrix/Number of Samples:	Water/ 2 Field Duplicate/1 Trip Blank/ 0 Field Blank/ 1
Analyzing Laboratory:	TestAmerica, Laboratories, Sacramento, CA
Analyses:	Per-and Polyfluoroalkyl Substances (PFAS): by EPA 537 (modified)
Laboratory Report No:	320-44490 Date:11/12/18

ANALYTICAL DATA PACKAGE DOCUMENTATION
GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

The data packages have been reviewed in accordance with the NYSDEC 6/05 ASP Quality Assurance/ Quality Control (QA/QC) requirements. A validation was conducted on the data package and any applicable qualification of the data was determined using the USEPA National Functional Guidelines of Organic Data Review, January 2017, method performance criteria and D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

D&B ENGINEERS AND ARCHITECTS, P.C.

Custody Numbers:320-44490
SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Parent Sample	Analysis			
				VOC	1,4-Dioxane	PFAS	MISC
FCMW-3	320-44490-1	10/22/2018				X	
BLIND DUPLICATE	320-44490-2	10/22/2018	FCMW-1			X	
FIELD BLANK	320-44490-3	10/22/2018				X	
FCMW-1	320-44490-4	10/22/2018				X	

ORGANIC ANALYSES
PFAS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X	X	X	
2. Blanks					
A. Method blanks		X	X		
B. Field blanks		X	X		
3. Matrix spike (MS) %R		X		X	
4. Matrix spike duplicate (MSD) %R		X		X	
5. MS/MSD precision (RPD)		X		X	
6. Laboratory control sample (LCS)		X		X	
7. Surrogate spike recoveries		X		X	
8. Internal standard retention times and areas		X		X	
9. Initial calibration RRF's and %RSD's		X		X	
10. Continuing calibration RRF's and %D's		X		X	
11. Field duplicates RPD		X		X	

VOCs - volatile organic compounds
%D - percent difference
RRF - relative response factor
%R - percent recovery
%RSD - percent relative standard deviation
RPD - relative percent difference

Comments:

Performance was acceptable, with the following exception:

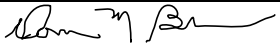
1. Perfluorooctanesulfonic acid (PFOS) was detected in the method blank and was reanalyzed outside of holding time for all water samples. The reanalysis for perfluorooctanesulfonic acid (PFOS) was reported for all water samples and was qualified as estimated (J).

2. Perfluorohexanesulfonic acid (PFHxS) was detected in the field blank and method blank. The concentration of perfluorohexanesulfonic acid (PFHxS) in the groundwater samples were over ten times higher than the concentration found in the blank therefore the B qualifier was removed, and the water samples were qualified as estimated (J).

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION AND QUALIFICATION SUMMARY **Laboratory Numbers: 320-44490**

Sample ID	Analyte(s)	Qualifier	Reason(s)
PFA			
All water samples	Perfluorooctanesulfonic acid (PFOS)	J	method blank and was reanalyzed outside of holding and reanalysis reported
All water samples.	Perfluorohexanesulfonic acid (PFHxS)	J	Results over ten times higher than the concentration found in the blank, B removed

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 11/19/18
VALIDATION PERFORMED BY SIGNATURE:	

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION CHECKLIST

Project Name:	NYSDEC -Fresh and Clean Laundry
Project Number:	3150-37
Sample Date(s):	October 2, 2018
Sample Team:	PB
Matrix/Number of Samples:	Water/ 4 Trip Blank/ 1 Field Blank/ 1
Analyzing Laboratory:	TestAmerica Laboratories, Buffalo, NY
Analyses:	Volatile Organic Compounds (VOCs): USEPA SW-846 Method 8260C 1,4-Dioxane: USEPA SW-846 Method 8270D SIM
Laboratory Report No:	480-142938 Date:10/19/18

ANALYTICAL DATA PACKAGE DOCUMENTATION
GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

The data packages have been reviewed in accordance with the NYSDEC 6/05 ASP Quality Assurance/ Quality Control (QA/QC) requirements. A validation was conducted on the data package and any applicable qualification of the data was determined using the USEPA National Functional Guidelines of Organic Data Review, January 2017, method performance criteria and D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

D&B ENGINEERS AND ARCHITECTS, P.C.

Custody Numbers:480-142938
SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Parent Sample	Analysis			
				VOC	1,4-Dioxane	MET	MISC
TRIP BLANK	480-142938-1	10/2/2018		X			
MW-6	480-142938-2	10/2/2018		X	X		
FCMW-2	480-142938-3	10/2/2018		X	X		
MW-1	480-142938-4	10/3/2018		X	X		
MW-3	480-142938-6	10/3/2018		X	X		
FIELD BLANK	480-142938-9	10/3/2018		X	X		

ORGANIC ANALYSES
VOCS & 1,4-Dioxane

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Method blanks		X	X		
B. Trip blanks		X		X	
C. Field blanks		X	X		
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					X
6. Laboratory control sample (LCS)		X		X	
7. Surrogate spike recoveries		X		X	
8. Instrument performance check		X		X	
9. Internal standard retention times and areas		X		X	
10. Initial calibration RRF's and %RSD's		X		X	
11. Continuing calibration RRF's and %D's		X		X	
12. Transcriptions – quant report vs. Form I		X		X	
13. Field duplicates RPD					X

VOCs - volatile organic compounds
%R - percent recovery
%D - percent difference
%RSD - percent relative standard deviation
RRF - relative response factor
RPD - relative percent difference

Comments:

Performance was acceptable, with the following exception:

2C. Acetone was detected in the field blank and carbon disulfide was detected in the method blank. They were not detected in the samples therefore qualification of the data was not necessary.

12. 1,4-Dioxane in sample FCMW-2 was qualified by the laboratory with an "E" for a bias corrected concentration based on the recovery of the 1,4-Dioxane-d8 isotope. Based upon review of the data 1.4-dioxane was qualified as estimated (J) in sample FCMW-2.

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION AND QUALIFICATION SUMMARY **Laboratory Numbers: 480-142938**

Sample ID	Analyte(s)	Qualifier	Reason(s)
VOCs &1,4-Dioxone			
FCMW-2	1,4-Dioxane	J	Bias corrected concentration based on the recovery of the 1,4-Dioxane-d8 isotope

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 11/1/18
VALIDATION PERFORMED BY SIGNATURE:	

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION CHECKLIST

Project Name:	NYSDEC -Fresh and Clean Laundry
Project Number:	3150-37
Sample Date(s):	October 5, 2018
Sample Team:	PB
Matrix/Number of Samples:	Water/ 3 Field Duplicate/ 0 Trip Blank/ 1 Field Blank/ 0
Analyzing Laboratory:	TestAmerica Laboratories, Buffalo, NY
Analyses:	Volatile Organic Compounds (VOCs): USEPA SW-846 Method 8260C 1,4-Dioxane: USEPA SW-846 Method 8270D SIM
Laboratory Report No:	480-143017 Date:10/26/18

ANALYTICAL DATA PACKAGE DOCUMENTATION
GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

The data packages have been reviewed in accordance with the NYSDEC 6/05 ASP Quality Assurance/ Quality Control (QA/QC) requirements. A validation was conducted on the data package and any applicable qualification of the data was determined using the USEPA National Functional Guidelines of Organic Data Review, January 2017, method performance criteria and D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

D&B ENGINEERS AND ARCHITECTS, P.C.

Custody Numbers:480-143017
SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Parent Sample	Analysis			
				VOC	1,4-Dioxane	PFAS	MISC
FCMW-1	480-143017-1	10/5/2018		X	X		
FCMW-3	480-143017-2	10/5/2018		X	X		
TRIP BLANK	480-143017-3	10/5/2018		X	X		
MW-5	480-143017-4	10/5/2018		X	X		

ORGANIC ANALYSES
VOCS & 1,4-Dioxane

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Method blanks		X	X		
B. Trip blanks		X		X	
C. Field blanks					X
3. Matrix spike (MS) %R		X		X	
4. Matrix spike duplicate (MSD) %R		X		X	
5. MS/MSD precision (RPD)		X		X	
6. Laboratory control sample (LCS)		X		X	
7. Surrogate spike recoveries		X		X	
8. Instrument performance check		X		X	
9. Internal standard retention times and areas		X		X	
10. Initial calibration RRF's and %RSD's		X		X	
11. Continuing calibration RRF's and %D's		X		X	
12. Transcriptions – quant report vs. Form I		X		X	
13. Field duplicates RPD					X

VOCs - volatile organic compounds
%R - percent recovery
%D - percent difference
%RSD - percent relative standard deviation
RRF - relative response factor
RPD - relative percent difference

Comments:

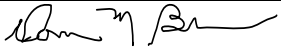
Performance was acceptable, with the following exception:

2C. Acetone was detected in the TRIP BLANK and carbon disulfide was detected in the method blank. Acetone was qualified as non-detect (UB) in sample FCMW-3.

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION AND QUALIFICATION SUMMARY **Laboratory Numbers: 480-143017**

Sample ID	Analyte(s)	Qualifier	Reason(s)
VOCs &1,4-Dioxone			
FCMW-2	1,4-Dioxane	J	Bias corrected concentration based on the recovery of the 1,4-Dioxane-d8 isotope

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 11/1/18
VALIDATION PERFORMED BY SIGNATURE:	

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION CHECKLIST

Project Name:	NYSDEC -Fresh and Clean Laundry
Project Number:	3150-37
Sample Date(s):	November 26, 2019
Sample Team:	KR
Matrix/Number of Samples:	Water/ 1 Field Duplicate/ 0 Trip Blank/ 1 Field Blank/ 0
Analyzing Laboratory:	TestAmerica Laboratories, Buffalo, NY
Analyses:	Volatile Organic Compounds (VOCs): USEPA SW-846 Method 8260C
Laboratory Report No:	480-163422 Date:1/08/2020

ANALYTICAL DATA PACKAGE DOCUMENTATION
GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

The data packages have been reviewed in accordance with the NYSDEC 6/05 ASP Quality Assurance/ Quality Control (QA/QC) requirements. A validation was conducted on the data package and any applicable qualification of the data was determined using the USEPA National Functional Guidelines of Organic Data Review, January 2017, method performance criteria and D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

D&B ENGINEERS AND ARCHITECTS, P.C.

Custody Numbers:480-163422
SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Parent Sample	Analysis			
				VOC	1,4-Dioxane	PFAS	MISC
TRIP BLANK	480-163422-1	11/26/2019		X			
N-9800	480-163422-2	11/26/2019		X			

ORGANIC ANALYSES
VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Method blanks		X		X	
B. Trip blanks		X		X	
C. Field blanks					X
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					X
6. Laboratory control sample (LCS)		X		X	
7. Surrogate spike recoveries		X		X	
8. Instrument performance check		X		X	
9. Internal standard retention times and areas		X		X	
10. Initial calibration RRF's and %RSD's		X		X	
11. Continuing calibration RRF's and %D's		X		X	
12. Transcriptions – quant report vs. Form I		X		X	
13. Field duplicates RPD					X

VOCs - volatile organic compounds
%R - percent recovery
%D - percent difference
%RSD - percent relative standard deviation
RRF - relative response factor
RPD - relative percent difference

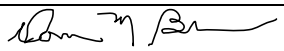
Comments:
Performance was acceptable.

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION AND QUALIFICATION SUMMARY

Laboratory Numbers: 480-163422

Sample ID	Analyte(s)	Qualifier	Reason(s)
VOCs			
No qualification of the data was necessary.			

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 4/16/2020
VALIDATION PERFORMED BY SIGNATURE:	

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION CHECKLIST

Project Name:	NYSDEC -Fresh and Clean Laundry
Project Number:	3150-37
Sample Date(s):	July 28, 2020
Sample Team:	KK
Matrix/Number of Samples:	Water/ 1 (GW-1) Field Duplicate/ 0 Trip Blank/ 0 Field Blank/ 1
Analyzing Laboratory:	TestAmerica Laboratories, Buffalo, NY
Analyses:	Volatile Organic Compounds (VOCs): USEPA SW-846 Method 8260C
Laboratory Report No:	480-173124 Date:8/05/2020

ANALYTICAL DATA PACKAGE DOCUMENTATION
GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

The data packages have been reviewed in accordance with the NYSDEC 6/05 ASP Quality Assurance/ Quality Control (QA/QC) requirements. A validation was conducted on the data package and any applicable qualification of the data was determined using the USEPA National Functional Guidelines of Organic Data Review, January 2017, method performance criteria and D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

ORGANIC ANALYSES
VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Method blanks		X		X	
B. Trip blanks					
C. Field blanks		X	X		
3. Matrix spike (MS) %R		X	X		
4. Matrix spike duplicate (MSD) %R		X	X		
5. MS/MSD precision (RPD)		X		X	
6. Laboratory control sample (LCS)		X		X	
7. Surrogate spike recoveries		X		X	
8. Instrument performance check		X		X	
9. Internal standard retention times and areas		X		X	
10. Initial calibration RRF's and %RSD's		X		X	
11. Continuing calibration RRF's and %D's		X		X	
12. Transcriptions – quant report vs. Form I		X		X	
13. Field duplicates RPD					X

VOCs - volatile organic compounds
%R - percent recovery
%D - percent difference
%RSD - percent relative standard deviation
RRF - relative response factor
RPD - relative percent difference

Comments:

Performance was acceptable, with the following exceptions:

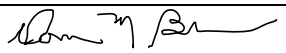
2C. Methylene chloride was detected in the field blank. No qualification of the data was necessary.

3&4. The %Rs were above the QC limits for 1,2-dichloropropane, 2-hexanone, 4-methyl-2-pentanone, and tetrachloroethene in the MS and MSD associated with the samples. Tetrachloroethane was qualified as estimated (J) in sample GW-1.

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION AND QUALIFICATION SUMMARY **Laboratory Numbers: 480-173124**

Sample ID	Analyte(s)	Qualifier	Reason(s)
VOCs			
GW-1	Tetrachloroethane	J	%R was above the QC limit in the MS and MSD

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 8/19/2020
VALIDATION PERFORMED BY SIGNATURE:	

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION CHECKLIST

Project Name:	NYSDEC -Fresh and Clean Laundry
Project Number:	3150-37
Sample Date(s):	July 30, 2020
Sample Team:	KR
Matrix/Number of Samples:	Water/ 1 (GW-2) Field Duplicate/ 0 Trip Blank/ 0 Field Blank/ 0
Analyzing Laboratory:	TestAmerica Laboratories, Buffalo, NY
Analyses:	Volatile Organic Compounds (VOCs): USEPA SW-846 Method 8260C
Laboratory Report No:	480-173191 Date:8/13/2020

ANALYTICAL DATA PACKAGE DOCUMENTATION
GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

The data packages have been reviewed in accordance with the NYSDEC 6/05 ASP Quality Assurance/ Quality Control (QA/QC) requirements. A validation was conducted on the data package and any applicable qualification of the data was determined using the USEPA National Functional Guidelines of Organic Data Review, January 2017, method performance criteria and D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

ORGANIC ANALYSES
VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Method blanks		X		X	
B. Trip blanks					X
C. Field blanks					X
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					X
6. Laboratory control sample (LCS) %R		X	X		
7. Surrogate spike recoveries		X		X	
8. Instrument performance check		X		X	
9. Internal standard retention times and areas		X		X	
10. Initial calibration RRF's and %RSD's		X		X	
11. Continuing calibration RRF's and %D's		X		X	
12. Transcriptions – quant report vs. Form I		X		X	
13. Field duplicates RPD					X

VOCs - volatile organic compounds
%R - percent recovery
%D - percent difference
%RSD - percent relative standard deviation
RRF - relative response factor
RPD - relative percent difference

Comments:

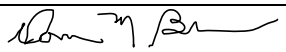
Performance was acceptable, with the following exceptions:

6. The %R was above the QC limit for 2-butanone in the LCS duplicate associated with the sample. It was not detected in the sample therefore qualification of the data was not necessary.

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION AND QUALIFICATION SUMMARY **Laboratory Numbers: 480-173191**

Sample ID	Analyte(s)	Qualifier	Reason(s)
VOCs			
No qualification of the data was necessary.			

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 8/18/2020
VALIDATION PERFORMED BY SIGNATURE:	

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION CHECKLIST

Project Name:	NYSDEC -Fresh and Clean Laundry
Project Number:	3150-37
Sample Date(s):	May 9, 2018
Sample Team:	PB
Matrix/Number of Samples:	Soil/ 9 Field Blank/ 1
Analyzing Laboratory:	TestAmerica Laboratories, Buffalo, NY
Analyses:	Volatile Organic Compounds (VOCs): USEPA SW-846 Method 8260C
Laboratory Report No:	480-135583 Date:5/22/18

ANALYTICAL DATA PACKAGE DOCUMENTATION
GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

The data packages have been reviewed in accordance with the NYSDEC 6/05 ASP Quality Assurance/ Quality Control (QA/QC) requirements. A validation was conducted on the data package and any applicable qualification of the data was determined using the USEPA National Functional Guidelines of Organic Data Review, January 2017, method performance criteria and D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

D&B ENGINEERS AND ARCHITECTS, P.C.

Custody Numbers:480-135583
SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Parent Sample	Analysis				
				VOC	SVOC	PCB	MET	MISC
SS-01(0-6")	480-135583-1	5/7/2018		X				
SS-02(0-6")	480-135583-2	5/7/2018		X				
SS-05(0-6")	480-135583-3	5/7/2018		X				
SS-06(0-6")	480-135583-4	5/7/2018		X				
SB-06(12-14')	480-135583-5	5/7/2018		X				
SB-06(22-24')	480-135583-6	5/7/2018		X				
FIELD BLANK	480-135583-7	5/8/2018		X				
SS-07(0-6")	480-135583-8	5/8/2018		X				
SB-07(9-11')	480-135583-9	5/8/2018		X				
SB-07(6-8')	480-135583-10	5/8/2018		X				

ORGANIC ANALYSES
VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Method blanks		X		X	
B. Trip blanks					X
C. Field blanks		X	X		
3. Matrix spike (MS) %R		X	X		
4. Matrix spike duplicate (MSD) %R		X	X		
5. MS/MSD precision (RPD)		X		X	
6. Laboratory control sample (LCS)		X	X		
7. Surrogate spike recoveries		X		X	
8. Instrument performance check		X		X	
9. Internal standard retention times and areas		X	X		
10. Initial calibration RRF's and %RSD's		X		X	
11. Continuing calibration RRF's and %D's		X		X	
12. Transcriptions – quant report vs. Form I		X		X	
13. Field duplicates RPD					X

VOCs - volatile organic compounds
%R - percent recovery
%D - percent difference
%RSD - percent relative standard deviation
RRF - relative response factor
RPD - relative percent difference

Comments:

Performance was acceptable, with the following exception:

2C. Acetone was detected in the field blank. Acetone was qualified as non-detect (UB) in samples SS-05(0-6"), SS-06(0-6"), SS-06(12-14"), SS-06(22-24"), SS-07(9-11") and SS-07(6-8").

3. The %R was above QC limits for 1,1,2,2-tetrachloroethane in the MS and MSD associated with all samples. It was not detected, and qualification of the data was not necessary.

4. The %Rs were below the QC limit for 2-butanone and acetone in the MS and MSD associated with all samples and were qualified as estimated (J/UJ).

6. The %R was above the QC limit for isopropylbenzene in the LCS. It was not detected, and qualification of the data was not necessary.

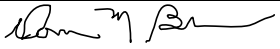
9. The area was above the QC limit for the internal standard 1,4-dichlorobenzene-d4 in samples SS-01(0-6") and SS-02(0-6"); and chlorobenzene-d5 in sample SS-02(0-6"). The following compounds were qualified as estimated bias high (JH) or an estimated detection limit (UJ): 1,2-dibromo-3-chloropropane, 1,4-dichlorobenzene, 1,2-dichlorobenzene in samples SS-01(0-6") and SS-02(0-6"); and 1,1,2,2-tetrachloroethane, ,1,3-dichlorobenzene, bromoform, chlorobenzene, ethylbenzene, isopropylbenzene, styrene and total xylene in sample SS-02(0-6").

12. Tetrachloroethene exceeded the calibration range in original analysis for sample SS-05(0-6"). It was reanalyzed and reported from the secondary dilution (D).

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION AND QUALIFICATION SUMMARY **Laboratory Numbers: 480-135583**

Sample ID	Analyte(s)	Qualifier	Reason(s)
VOCs			
SS-05(0-6”), SS-06(0-6”), SS-06(12-14”), SS-06(22-24”), SS-07(9-11”) and SS-07(6-8”)	Acetone	UB	Detected in the field blank
All samples	2-Butanone and acetone	J/UJ	The %Rs were below the QC limit in the MS and MSD
SS-01(0-6") and SS-02(0-6")	1,2-Dibromo-3-chloropropane, 1,4-dichlorobenzene, 1,2-dichlorobenzene	JH/UJ	The area was above the QC limit for the internal standard
SS-02(0-6")	1,1,2,2-Tetrachloroethane, 1,3-dichlorobenzene, bromoform, chlorobenzene, ethylbenzene, isopropylbenzene, styrene and total xylene		
SS-05(0-6”)	Tetrachloroethene	D	Exceeded the calibration range, reanalyzed and reported from the secondary dilution

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 6/4/18
VALIDATION PERFORMED BY SIGNATURE:	

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION CHECKLIST

Project Name:	NYSDEC -Fresh and Clean Laundry
Project Number:	3150-37
Sample Date(s):	May 9, 2018
Sample Team:	PB
Matrix/Number of Samples:	Soil/ 11 Field Duplicate/ 0
Analyzing Laboratory:	TestAmerica Laboratories, Buffalo, NY
Analyses:	Volatile Organic Compounds (VOCs): USEPA SW-846 Method 8260C
Laboratory Report No:	480-135770 Date:5/22/18

ANALYTICAL DATA PACKAGE DOCUMENTATION
GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

The data packages have been reviewed in accordance with the NYSDEC 6/05 ASP Quality Assurance/ Quality Control (QA/QC) requirements. A validation was conducted on the data package and any applicable qualification of the data was determined using the USEPA National Functional Guidelines of Organic Data Review, January 2017, the USEPA National Functional Guidelines of Inorganic Data Review, January 2017, method performance criteria, and D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

D&B ENGINEERS AND ARCHITECTS, P.C.

Custody Numbers:480-135770
SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Parent Sample	Analysis				
				VOC	SVOC	PCB	MET	MISC
SS-09 (0-6")	480-135770-1	5/9/2018		X				
SS-08 (0-6")	480-135770-2	5/9/2018		X				
SB-08 (1-3')	480-135770-3	5/9/2018		X				
SB-08 (10-12')	480-135770-4	5/9/2018		X				
SS-10 (0-6")	480-135770-5	5/9/2018		X				
SB-10 (10-12')	480-135770-6	5/9/2018		X				
SS-11 (0-6")	480-135770-7	5/9/2018		X				
SB-11 (10-12')	480-135770-8	5/9/2018		X				
SB-10 (5-7')	480-135770-9	5/9/2018		X				
SS-12 (0-6")	480-135770-10	5/9/2018		X				
SB-12 (10-12')	480-135770-11	5/9/2018		X				

ORGANIC ANALYSES
VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X	X		
2. Blanks					
A. Method blanks		X		X	
B. Trip blanks					X
C. Field blanks		X	X		
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					X
6. Laboratory control sample (LCS)		X		X	
7. Surrogate spike recoveries		X		X	
8. Instrument performance check		X		X	
9. Internal standard retention times and areas		X		X	
10. Initial calibration RRF's and %RSD's		X		X	
11. Continuing calibration RRF's and %D's		X		X	
12. Transcriptions – quant report vs. Form I		X		X	
13. Field duplicates RPD					X

VOCs - volatile organic compounds
%R - percent recovery
%D - percent difference
%RSD - percent relative standard deviation
RRF - relative response factor
RPD - relative percent difference

Comments:
Performance was acceptable, with the following exception:

1. All samples were prepared outside of holding time and all results except SS-12(0-6") were qualified as estimated (J/UJ).

2C. Acetone was detected in the field blank collected in data package 135583 associated with this sampling event. Acetone was qualified as non-detect (UB) in samples SS-08 (0-6"), SB-08 (1-3'), SB-08 (10-12'), SS-10 (0-6"), SB-11 (10-12'), SB-10 (5-7'), SS-12 (0-6") and SB-12 (10-12').

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION AND QUALIFICATION SUMMARY

Laboratory Numbers: 480-135770

Sample ID	Analyte(s)	Qualifier	Reason(s)
VOCs			
All samples except SS-12(0-6”)	All VOCs	J/UJ	Prepared outside of holding time
SS-08 (0-6"), SB-08 (1-3'), SB-08 (10-12'), SB-11 (10-12'), SB-10 (5-7'), SS-12 (0-6") and SB-12 (10-12')	Acetone	UB	Detected in the field blank collected in data package 135583 associated with this sampling event

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 6/4/18
VALIDATION PERFORMED BY SIGNATURE:	

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION CHECKLIST

Project Name:	NYSDEC -Fresh and Clean Laundry
Project Number:	3150-37
Sample Date(s):	January 24, 2020
Sample Team:	KR
Matrix/Number of Samples:	Soil/ 1 Field Duplicate/ 0 Trip Blank/ 0 Field Blank/ 0
Analyzing Laboratory:	TestAmerica Laboratories, Buffalo, NY
Analyses:	Volatile Organic Compounds (VOCs): USEPA SW-846 Method 8260C 1,4-Dioxane: USEPA SW-846 Method 8270D SIM
Laboratory Report No:	480-165592 Date:2/06/20

ANALYTICAL DATA PACKAGE DOCUMENTATION
GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

The data packages have been reviewed in accordance with the NYSDEC 6/05 ASP Quality Assurance/ Quality Control (QA/QC) requirements. A validation was conducted on the data package and any applicable qualification of the data was determined using the USEPA National Functional Guidelines of Organic Data Review, January 2017, method performance criteria and D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

D&B ENGINEERS AND ARCHITECTS, P.C.

Custody Numbers:480-165592
SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Parent Sample	Analysis			
				VOC	1,4-Dioxane	PFAS	MISC
SS-14 (0-2ft)	480-165592-1	1/24/2020		X			

ORGANIC ANALYSES
VOCS & 1,4-Dioxane

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Method blanks		X	X		
B. Trip blanks					X
C. Field blanks					X
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					X
6. Laboratory control sample (LCS)		X		X	
7. Surrogate spike recoveries		X		X	
8. Instrument performance check		X		X	
9. Internal standard retention times and areas		X		X	
10. Initial calibration RRF's and %RSD's		X		X	
11. Continuing calibration RRF's and %D's		X		X	
12. Transcriptions – quant report vs. Form I		X		X	
13. Field duplicates RPD					X

VOCs - volatile organic compounds
%R - percent recovery
%D - percent difference
%RSD - percent relative standard deviation
RRF - relative response factor
RPD - relative percent difference

Comments:

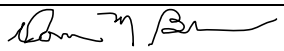
Performance was acceptable, with the following exception:

2B. Chloroform was detected in the method blank. No qualification of the data was necessary.

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION AND QUALIFICATION SUMMARY **Laboratory Numbers: 480-165592**

Sample ID	Analyte(s)	Qualifier	Reason(s)
VOCs			
No qualification of the data was necessary.			

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 4/16/20
VALIDATION PERFORMED BY SIGNATURE:	

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION CHECKLIST

Project Name:	NYSDEC -Fresh and Clean Laundry
Project Number:	3150-37
Sample Date(s):	February 28, 2020
Sample Team:	KR
Matrix/Number of Samples:	Soil/ 2 [SS-15(0-3) & SB-16(0-1)] Field Duplicate/ 0 Trip Blank/ 1 Field Blank/ 1
Analyzing Laboratory:	TestAmerica Laboratories, Buffalo, NY
Analyses:	Volatile Organic Compounds (VOCs): USEPA SW-846 Method 8260C
Laboratory Report No:	480-166872 Date:3/10/2020

ANALYTICAL DATA PACKAGE DOCUMENTATION
GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

The data packages have been reviewed in accordance with the NYSDEC 6/05 ASP Quality Assurance/ Quality Control (QA/QC) requirements. A validation was conducted on the data package and any applicable qualification of the data was determined using the USEPA National Functional Guidelines of Organic Data Review, January 2017, method performance criteria and D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

ORGANIC ANALYSES
VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Method blanks		X		X	
B. Trip blanks		X		X	
C. Field blanks		X		X	
3. Matrix spike (MS) %R		X	X		
4. Matrix spike duplicate (MSD) %R		X	X		
5. MS/MSD precision (RPD)		X	X		
6. Laboratory control sample (LCS)		X	X		
7. Surrogate spike recoveries		X		X	
8. Instrument performance check		X		X	
9. Internal standard retention times and areas		X		X	
10. Initial calibration RRF's and %RSD's		X		X	
11. Continuing calibration RRF's and %D's		X		X	
12. Transcriptions – quant report vs. Form I		X		X	
13. Field duplicates RPD					X

VOCs - volatile organic compounds
%R - percent recovery
%D - percent difference
%RSD - percent relative standard deviation
RRF - relative response factor
RPD - relative percent difference

Comments:

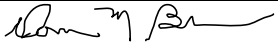
Performance was acceptable, with the following exception:

3-6. The %Rs were below the QC limits in the MS and/or MSD for all compounds except 1,1-dichloroethane, 1,1-dichloroethene, bromomethane, carbon disulfide, methyl acetate, methyl tert-butyl ether, methylene chloride and tetrachloroethene. The RPDs were above the QC limits for several compounds in the MS/MSD. The %R was below the QC limit for chloroethane in the LCS associated sample SB-16(0-1). All compounds were qualified as estimated (J/UJ) except 1,1-dichloroethane, 1,1-dichloroethene, bromomethane and carbon disulfide, methyl acetate, methyl tert-butyl ether, methylene chloride and tetrachloroethene in all samples.

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION AND QUALIFICATION SUMMARY **Laboratory Numbers: 480-166872**

Sample ID	Analyte(s)	Qualifier	Reason(s)
VOCs			
All samples	All compounds except 1,1-dichloroethane, 1,1-dichloroethene, bromomethane, carbon disulfide, methyl acetate, methyl tert-butyl ether, methylene chloride and tetrachloroethene	J/UJ	The %Rs were below the QC limits in the MS and/or MSD

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 4/21/20
VALIDATION PERFORMED BY SIGNATURE:	

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION CHECKLIST

Project Name:	NYSDEC -Fresh and Clean Laundry
Project Number:	3150-37
Sample Date(s):	July 27 & 28, 2020
Sample Team:	KK
Matrix/Number of Samples:	Soil/ 2 Field Duplicate/ 0 Trip Blank/ 0 Field Blank/ 1
Analyzing Laboratory:	TestAmerica Laboratories, Buffalo, NY
Analyses:	Volatile Organic Compounds (VOCs): USEPA SW-846 Method 8260C
Laboratory Report No:	480-173121 Date:8/13/20

ANALYTICAL DATA PACKAGE DOCUMENTATION
GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

The data packages have been reviewed in accordance with the NYSDEC 6/05 ASP Quality Assurance/ Quality Control (QA/QC) requirements. A validation was conducted on the data package and any applicable qualification of the data was determined using the USEPA National Functional Guidelines of Organic Data Review, January 2017, method performance criteria and D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

D&B ENGINEERS AND ARCHITECTS, P.C.

Custody Numbers:480-173121
SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Parent Sample	Analysis			
				VOC	1,4-Dioxane	PFAS	MISC
SB-17 (23-25)	480-173121-1	7/27/2020		X			
SB-17 (105-107)	480-173121-2	7/28/2020		X			
Field Blank	480-173121-5	7/28/2020		X			

D&B ENGINEERS AND ARCHITECTS, P.C.

ORGANIC ANALYSES
VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Method blanks		X		X	
B. Trip blanks					X
C. Field blanks		X	X		
3. Matrix spike (MS) %R		X	X		
4. Matrix spike duplicate (MSD) %R		X	X		
5. MS/MSD precision (RPD)		X		X	
6. Laboratory control sample (LCS)		X		X	
7. Surrogate spike recoveries		X		X	
8. Instrument performance check		X		X	
9. Internal standard retention times and areas		X		X	
10. Initial calibration RRF's and %RSD's		X		X	
11. Continuing calibration RRF's and %D's		X		X	
12. Transcriptions – quant report vs. Form I		X			
13. Field duplicates RPD					X

VOCs - volatile organic compounds
%R - percent recovery
%D - percent difference
%RSD - percent relative standard deviation
RRF - relative response factor
RPD - relative percent difference

Comments:

Performance was acceptable, with the following exception:

1. Samples SB-17 (23-25) and SB-17 (105-107) was preserved outside the holding time and all VOCs were qualified as estimated (J/UJ).

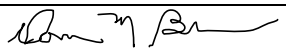
2B. Methylene chloride was detected in the field blank. No qualification of the data was necessary.

3&4. The %Rs were below the QC limits for 1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, 1,2,4-trichlorobenzene, 1,2-dibromoethane, 1,2-dichlorobenzene, 2-butanone, cis-1,3-dichloropropene, ethylbenzene and styrene in the MS and/or MSD. They were qualified as an estimated detection limit (UJ) in samples SB-17 (23-25) and SB-17 (105-107).

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION AND QUALIFICATION SUMMARY **Laboratory Numbers: 480-173121**

Sample ID	Analyte(s)	Qualifier	Reason(s)
VOCs			
SB-17 (23-25) and SB-17 (105-107)	All VOCs	J/UJ	Preserved outside the holding time
SB-17 (23-25) and SB-17 (105-107)	1,1,2,2-Tetrachloroethane, 1,1,2-trichloroethane, 1,2,4-trichlorobenzene, 1,2-dibromoethane, 1,2-dichlorobenzene, 2-butanone, cis-1,3-dichloropropene, ethylbenzene and styrene	UJ	The %Rs were below the QC limits in the MS and/or MSD

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 8/19/2020
VALIDATION PERFORMED BY SIGNATURE:	

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION CHECKLIST

Project Name:	NYSDEC -Fresh and Clean Laundry
Project Number:	3150-37
Sample Date(s):	July 29, 2020
Sample Team:	KK
Matrix/Number of Samples:	Soil/ 2 Field Duplicate/ 0 Trip Blank/ 1 Field Blank/ 0
Analyzing Laboratory:	TestAmerica Laboratories, Buffalo, NY
Analyses:	Volatile Organic Compounds (VOCs): USEPA SW-846 Method 8260C
Laboratory Report No:	480-173185 Date:8/13/20

ANALYTICAL DATA PACKAGE DOCUMENTATION
GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

The data packages have been reviewed in accordance with the NYSDEC 6/05 ASP Quality Assurance/ Quality Control (QA/QC) requirements. A validation was conducted on the data package and any applicable qualification of the data was determined using the USEPA National Functional Guidelines of Organic Data Review, January 2017, method performance criteria and D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

D&B ENGINEERS AND ARCHITECTS, P.C.

Custody Numbers:480-173185
SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Parent Sample	Analysis			
				VOC	1,4-Dioxane	PFAS	MISC
SS-18 (Trip Blank)	480-173185-1	7/29/2020		X			
SS-18 (11-13)	480-173185-2	7/29/2020		X			
SS-18 (106-108)	480-173185-3	7/29/2020		X			

ORGANIC ANALYSES
VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X	X		
2. Blanks					
A. Method blanks		X		X	
B. Trip blanks		X	X		
C. Field blanks					X
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					X
6. Laboratory control sample (LCS) & LCS duplicate %R and RPD		X	X		
7. Surrogate spike recoveries		X		X	
8. Instrument performance check		X		X	
9. Internal standard retention times and areas		X		X	
10. Initial calibration RRF's and %RSD's		X		X	
11. Continuing calibration RRF's and %D's		X		X	
12. Transcriptions – quant report vs. Form I		X		X	
13. Field duplicates RPD					X

VOCs - volatile organic compounds
%R - percent recovery
%D - percent difference
%RSD - percent relative standard deviation
RRF - relative response factor
RPD - relative percent difference

Comments:

Performance was acceptable, with the following exceptions:

1. Sample SB-18(11-13) was preserved outside the holding time and all VOCs were qualified as estimated (J/UJ).

2B. Methylene chloride was detected in the trip blank. No qualification of the data was necessary.

6. The %R was above the QC limit for 2-butanone in the LCS and LCS duplicate associated with the soil samples. It was not detected in the samples therefore qualification of the data was not necessary.

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION AND QUALIFICATION SUMMARY **Laboratory Numbers: 480-173185**

Sample ID	Analyte(s)	Qualifier	Reason(s)
VOCs			
SB-18(11-13)	All VOCs	J/UJ	Preserved outside the holding time

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 8/18/2020
VALIDATION PERFORMED BY SIGNATURE:	

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION CHECKLIST

Project Name:	NYSDEC -Fresh and Clean Laundry
Project Number:	3150-37
Sample Date(s):	August 3, 2020
Sample Team:	CS
Matrix/Number of Samples:	Soil/ 2 Field Duplicate/ 0 Trip Blank/ 0 Field Blank/ 0
Analyzing Laboratory:	TestAmerica Laboratories, Buffalo, NY
Analyses:	Volatile Organic Compounds (VOCs): USEPA SW-846 Method 8260C
Laboratory Report No:	480-173359 Date:8/13/20

ANALYTICAL DATA PACKAGE DOCUMENTATION
GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

The data packages have been reviewed in accordance with the NYSDEC 6/05 ASP Quality Assurance/ Quality Control (QA/QC) requirements. A validation was conducted on the data package and any applicable qualification of the data was determined using the USEPA National Functional Guidelines of Organic Data Review, January 2017, method performance criteria and D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

D&B ENGINEERS AND ARCHITECTS, P.C.

Custody Numbers:480-173359
SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Parent Sample	Analysis			
				VOC	1,4-Dioxane	PFAS	MISC
SS-13 (0-16”)	480-173359-1	8/03/2020		X			
SS-19 (7-8)	480-173359-2	8/03/2020		X			

ORGANIC ANALYSES
VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X	X		
2. Blanks					
A. Method blanks		X		X	
B. Trip blanks					X
C. Field blanks					X
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					X
6. Laboratory control sample (LCS)		X		X	
7. Surrogate spike recoveries		X		X	
8. Instrument performance check		X		X	
9. Internal standard retention times and areas		X		X	
10. Initial calibration RRF's and %RSD's		X		X	
11. Continuing calibration RRF's and %D's		X		X	
12. Transcriptions – quant report vs. Form I		X		X	
13. Field duplicates RPD					X

VOCs - volatile organic compounds
%R - percent recovery
%D - percent difference
%RSD - percent relative standard deviation
RRF - relative response factor
RPD - relative percent difference

Comments:

Performance was acceptable, with the following exception:

1. Sample SB-19 (7-8) was preserved outside the holding time and all VOCs were qualified as estimated (J/UJ).

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION AND QUALIFICATION SUMMARY

Laboratory Numbers: 480-173359

Sample ID	Analyte(s)	Qualifier	Reason(s)
VOCs			
SB-19 (7-8)	All VOCs	J/UJ	Preserved outside the holding time

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 8/19/2020
VALIDATION PERFORMED BY SIGNATURE:	

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION CHECKLIST

Project Name:	NYSDEC -Fresh and Clean Laundry
Project Number:	3150-37
Sample Date(s):	August 5, 2020
Sample Team:	CS
Matrix/Number of Samples:	Soil/ 1 [SB-19 (110-112)] Water/ 1 [GW-19 (113-118)] Trip Blank/ 1 Field Blank/ 0
Analyzing Laboratory:	TestAmerica Laboratories, Buffalo, NY
Analyses:	Volatile Organic Compounds (VOCs): USEPA SW-846 Method 8260C
Laboratory Report No:	480-173515 Date:8/19/20

ANALYTICAL DATA PACKAGE DOCUMENTATION
GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

The data packages have been reviewed in accordance with the NYSDEC 6/05 ASP Quality Assurance/ Quality Control (QA/QC) requirements. A validation was conducted on the data package and any applicable qualification of the data was determined using the USEPA National Functional Guidelines of Organic Data Review, January 2017, method performance criteria and D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

ORGANIC ANALYSES
VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X	X		
2. Blanks					
A. Method blanks		X		X	
B. Trip blanks		X	X		
C. Field blanks					X
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					X
6. Laboratory control sample (LCS) & LCS duplicate %R and RPD		X	X		
7. Surrogate spike recoveries		X		X	
8. Instrument performance check		X		X	
9. Internal standard retention times and areas		X		X	
10. Initial calibration RRF's and %RSD's		X		X	
11. Continuing calibration RRF's and %D's		X		X	
12. Transcriptions – quant report vs. Form I		X		X	
13. Field duplicates RPD					X

VOCs - volatile organic compounds
%R - percent recovery
%D - percent difference
%RSD - percent relative standard deviation
RRF - relative response factor
RPD - relative percent difference

Comments:

Performance was acceptable, with the following exception:

1. Samples SB-19 (110-112) was preserved outside the holding time and all VOCs were qualified as estimated (J/UJ).

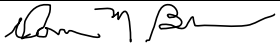
2B. Acetone was detected in the trip blank. Acetone was qualified as non-detect (UB) in sample GW-19(113-118).

6. The %R was above the QC limit for 2-butanone (MEK) in the LCS associated with samples GW-3 (113-118)] and Trip Blank. It was not detected above the reporting limit.

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION AND QUALIFICATION SUMMARY **Laboratory Numbers: 480-173515**

Sample ID	Analyte(s)	Qualifier	Reason(s)
VOCs			
SB-19 (110-112)	All VOCs	J/UJ	Preserved outside the holding time
GW-3(113-118)	Acetone	UB	Detected in the trip blank

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 8/20/2020
VALIDATION PERFORMED BY SIGNATURE:	

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION CHECKLIST

Project Name:	NYSDEC -Fresh and Clean Laundry	
Project Number:	3150-37	
Sample Date(s):	March 14, 2018	
Matrix/Number of Samples:	Air/ 5	
Analyzing Laboratory:	TestAmerica, South Burlington, VT	
Analyses:	VOC by EPA TO-15	
Laboratory Report No:	200-42649	Date: 3/22/2018

ANALYTICAL DATA PACKAGE DOCUMENTATION GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

A validation was conducted on the data package and any applicable qualification of the data was determined using the USEPA Hazardous Waste Support Branch Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method T0-15, July 2014, method performance criteria, and D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

D&B ENGINEERS AND ARCHITECTS, P.C.

Custody Numbers:200-42649
SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Parent Sample	Analysis			
				VOC	1,4-Dioxane	PFAS	MISC
OADB-1	200-42649-1	03/14/2018		X			
IADB-1	200-42649-2	03/14/2018		X			
IADB-2	200-42649-3	03/14/2018		X			
SSDB-1	200-42649-4	03/14/2018		X			
SSDB-2	200-42649-5	03/14/2018		X			

D&B ENGINEERS AND ARCHITECTS, P.C.

ORGANIC ANALYSES
VOC

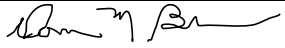
	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Method blanks		X	X		
3. Surrogate %R					X
3. Laboratory Control Sample (LCS) spike %R		X		X	
4. Instrument performance check		X		X	
5. Internal standard retention times and areas		X		X	
6. Initial calibration RRF's and %RSD's		X		X	
7. Continuing calibration RRF's and %D's		X		X	
8. Transcriptions – quant report vs. Form I		X		X	

VOCs - volatile organic compounds
%R - percent recovery
%D - percent difference
%RSD - percent relative standard deviation
RRF - relative response factor
RPD - relative percent difference

Comments:

Performance was acceptable, except the following:

2. Trichloroethene was detected in the method blank, the laboratory "B" qualifier was removed from samples IADB-1, IADB-2, and SSDB-1 based on sample concentrations. Isopropyl alcohol was detected in the method blank and qualified as non-detect (UB) in sample OADB-1.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 3/12/2019
VALIDATION PERFORMED BY SIGNATURE:	

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION CHECKLIST

Project Name:	NYSDEC -Fresh and Clean Laundry
Project Number:	3150-37
Sample Date(s):	May 7 & 8, 2018
Matrix/Number of Samples:	Air/ 4 (FCSV-01 to -04)
Analyzing Laboratory:	TestAmerica, South Burlington, VT
Analyses:	VOC by EPA TO-15
Laboratory Report No:	200-43364 Date: 5/18/2018

ANALYTICAL DATA PACKAGE DOCUMENTATION GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

A validation was conducted on the data package and any applicable qualification of the data was determined using the USEPA Hazardous Waste Support Branch Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method T0-15, July 2014, method performance criteria, and D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

D&B ENGINEERS AND ARCHITECTS, P.C.

ORGANIC ANALYSES
VOC

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Method blanks		X		X	
3. Laboratory Control Sample (LCS) spike %R		X		X	
4. Instrument performance check		X		X	
5. Internal standard retention times and areas		X		X	
6. Initial calibration RRF's and %RSD's		X		X	
7. Continuing calibration RRF's and %D's		X		X	
8. Transcriptions – quant report vs. Form I		X		X	

VOCs - volatile organic compounds %D - percent difference RRF - relative response factor
%R - percent recovery %RSD - percent relative standard deviation RPD - relative percent difference

Comments:
Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 5/31/2018
VALIDATION PERFORMED BY SIGNATURE:	

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION CHECKLIST

Project Name:	NYSDEC -Fresh and Clean Laundry	
Project Number:	3150-37	
Sample Date(s):	February 28, 2019	
Matrix/Number of Samples:	Air/ 7	
Analyzing Laboratory:	TestAmerica, Knoxville, TN	
Analyses:	VOC by EPA TO-15	
Laboratory Report No:	140-14470	Date: 3/14/2019

ANALYTICAL DATA PACKAGE DOCUMENTATION GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

A validation was conducted on the data package and any applicable qualification of the data was determined using the USEPA Hazardous Waste Support Branch Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method T0-15, July 2014, method performance criteria, and D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

D&B ENGINEERS AND ARCHITECTS, P.C.

Custody Numbers:140-14470
SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Parent Sample	Analysis			
				VOC	1,4-Dioxane	PFAS	MISC
SSDB-1	140-14470-1	03/14/2018		X			
SSDB-2	140-14470-2	03/14/2018		X			
OADB-1	140-14470-3	03/14/2018		X			
IADB-1	140-14470-4	03/14/2018		X			
IADB-2	140-14470-5	03/14/2018		X			
IADB-3	140-14470-6	03/14/2018		X			
IADB-4	140-14470-7	03/14/2018		X			

ORGANIC ANALYSES
VOC

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Method blanks		X		X	
3. Surrogate %R					X
3. Laboratory Control Sample (LCS) spike %R		X		X	
4. Instrument performance check		X		X	
5. Internal standard retention times and areas		X		X	
6. Initial calibration RRF's and %RSD's		X		X	
7. Continuing calibration RRF's and %D's		X		X	
8. Transcriptions – quant report vs. Form I		X		X	

VOCs - volatile organic compounds
%D - percent difference
RRF - relative response factor
%R - percent recovery
%RSD - percent relative standard deviation
RPD - relative percent difference

Comments:
Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 6/28/2021
VALIDATION PERFORMED BY SIGNATURE:	

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION CHECKLIST

Project Name:	NYSDEC -Fresh and Clean Laundry
Project Number:	3150-37
Sample Date(s):	January 26, 2021
Matrix/Number of Samples:	Air/ 7 Blind duplicate/ 1
Analyzing Laboratory:	TestAmerica, South Burlington, VT
Analyses:	VOC by EPA TO-15
Laboratory Report No:	200-57029 Date: 2/5/2021

ANALYTICAL DATA PACKAGE DOCUMENTATION GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

A validation was conducted on the data package and any applicable qualification of the data was determined using the USEPA Hazardous Waste Support Branch Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method T0-15, July 2014, method performance criteria, and D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

D&B ENGINEERS AND ARCHITECTS, P.C.

Custody Numbers:200-57029
SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Parent Sample	Analysis			
				VOC	1,4-Dioxane	PFAS	MISC
OADB-1	200-57029-1	01/26/2021		X			
SSDB-1	200-57029-2	01/26/2021		X			
SSDB-2	200-57029-3	01/26/2021		X			
IADB-1	200-57029-4	01/26/2021		X			
IADB-2	200-57029-5	01/26/2021		X			
IADB-3	200-57029-6	01/26/2021		X			
IADB-4	200-57029-7	01/26/2021		X			
BLIND DUPLICATE_1/26/21	200-57029-8	01/26/2021	IADB-2	X			

ORGANIC ANALYSES
VOC

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Method blanks		X	X		
3. Laboratory Control Sample (LCS) spike %R		X		X	
4. Instrument performance check		X		X	
5. Internal standard retention times and areas		X		X	
6. Initial calibration RRF's and %RSD's		X		X	
7. Continuing calibration RRF's and %D's		X		X	
8. Transcriptions – quant report vs. Form I		X		X	

VOCs - volatile organic compounds %D - percent difference RRF - relative response factor
%R - percent recovery %RSD - percent relative standard deviation RPD - relative percent difference

Comments:
Performance was acceptable, except the following:

Tetrachloroethene exceeded the calibration range in samples SSDB-1 and SSDB-2 and were reanalyzed at a secondary dilution. Tetrachloroethene was reported from the secondary dilution (D) for samples SSDB-1 and SSDB-2.

Sample IADB-2 was field duplicated and labeled BLIND DUPLICATE_1/26/21. The following compounds were qualified as estimated (J) in samples IADB-2 and BLIND DUPLICATE_1/26/21: benzene, butane, isopropanol, tetrachloroethylene (PCE), and toluene.

2. N-butylbenzene, ethylbenzene, and o-xylene were detected in the method blanks. Ethylbenzene and o-xylene were qualified as non-detect (UB) based on method blank results in samples IADB-1, IADB-2, IADB-3, IADB-4, Blind Duplicate.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 2/24/2021
VALIDATION PERFORMED BY SIGNATURE: